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Prehistoric and Medieval Activity at Grantown Road, Forres, Morayshire

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TABLE OF CONTENTS

1. ABSTRACT

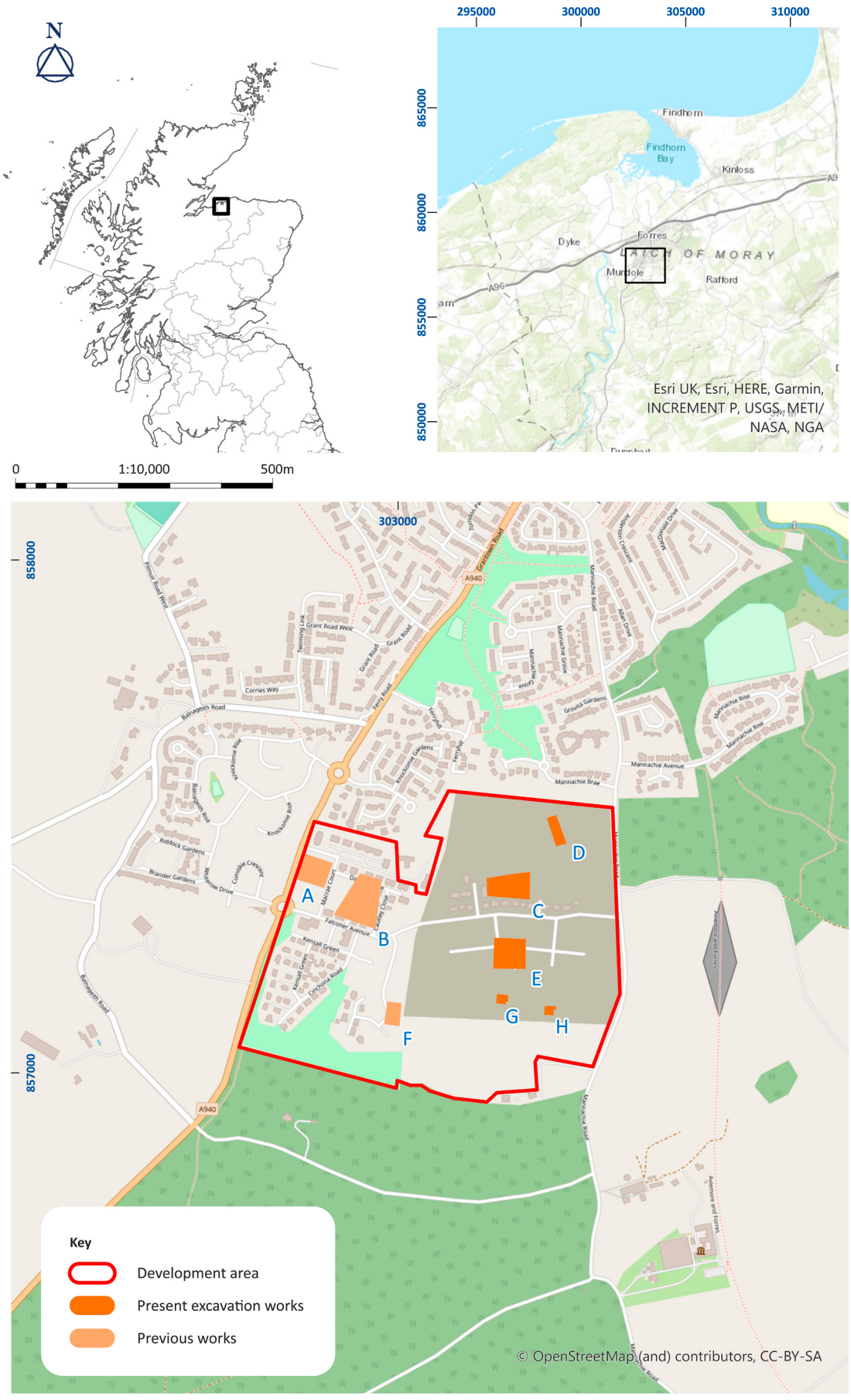
Archaeological excavations conducted in 2017 at Grantown Road, Forres form the final phase of works on a residential development that began in 2002. The earlier works examined an area of more than 70ha and confirmed the presence of an extensive Iron Age settlement represented by ring-ditch, ring-groove, and post-ring structures, in association with four-post structures, a souterrain, and metalworking furnaces. The 2017 works (Canmore ID 320363), reported here, have expanded the record of prehistoric and medieval settlement in the area and revealed that a previously recorded cropmark site represented an Iron Age enclosure with a single post-ring roundhouse. Also identified in the present works were an Early Neolithic post-ring structure and a series of pits dating from the Neolithic to the medieval periods with artefact assemblages of pottery, lithics, and stone tools, including a rare fragment of a locally made mortar dated to the 13th century AD.

2. INTRODUCTION

The entire Grantown Road site covers an area of more than 70ha on the south side of Forres, Morayshire and has been subject to a series of archaeological evaluations, excavations, and watching briefs since development started on this greenfield site in 2002. Most of the archaeological findings were covered by a report published in 2016 by Martin Cook (Cook 2016), which includes Areas A, B, and F; however, the last phase of site works was not undertaken until March and April 2017 (Dunbar 2017). An evaluation in 2010 (Cook 2010) had identified five areas, C, D, E, G, and H, which required an archaeological mitigation programme of 'strip, map, and record' (centred on NGR NJ 0325 5730; Illus 1) that is reported here. This evaluation also confirmed the survival of an enclosure along with clusters of likely prehistoric pit activity that was a continuation of the Iron Age and prehistoric settlement identified in earlier phases of excavation completed between 2002 and 2013.

The previous works suggested a landscape occupied episodically from the Neolithic through the Late Bronze Age and Iron Age to the early medieval period, comprising both domestic and funerary activity, with a particular concentration of activity during the last two centuries cal BC and the first two centuries cal AD, in the form of an extensive Iron Age settlement including a souterrain, four-posters, ring-ditches, and post-ring structures with accompanying assemblages of pottery, coarse stone, and metalworking residues (Cook 2016).

In 2017, the five areas subject to stripping and excavation measured approximately 8,650m^2. They lay within an area of undulating farmland to the south of Forres, bounded to the east by Mannachie Road and to the west by recently completed residential properties. These works lay to the immediate east of the archaeological features discovered during the earlier phases of works with the main focus of the Iron Age activity discussed by Cook (2016) lying *c* 500m due west and *c* 10m to 15m lower in altitude.



Illus 1 Site location plan showing excavation areas

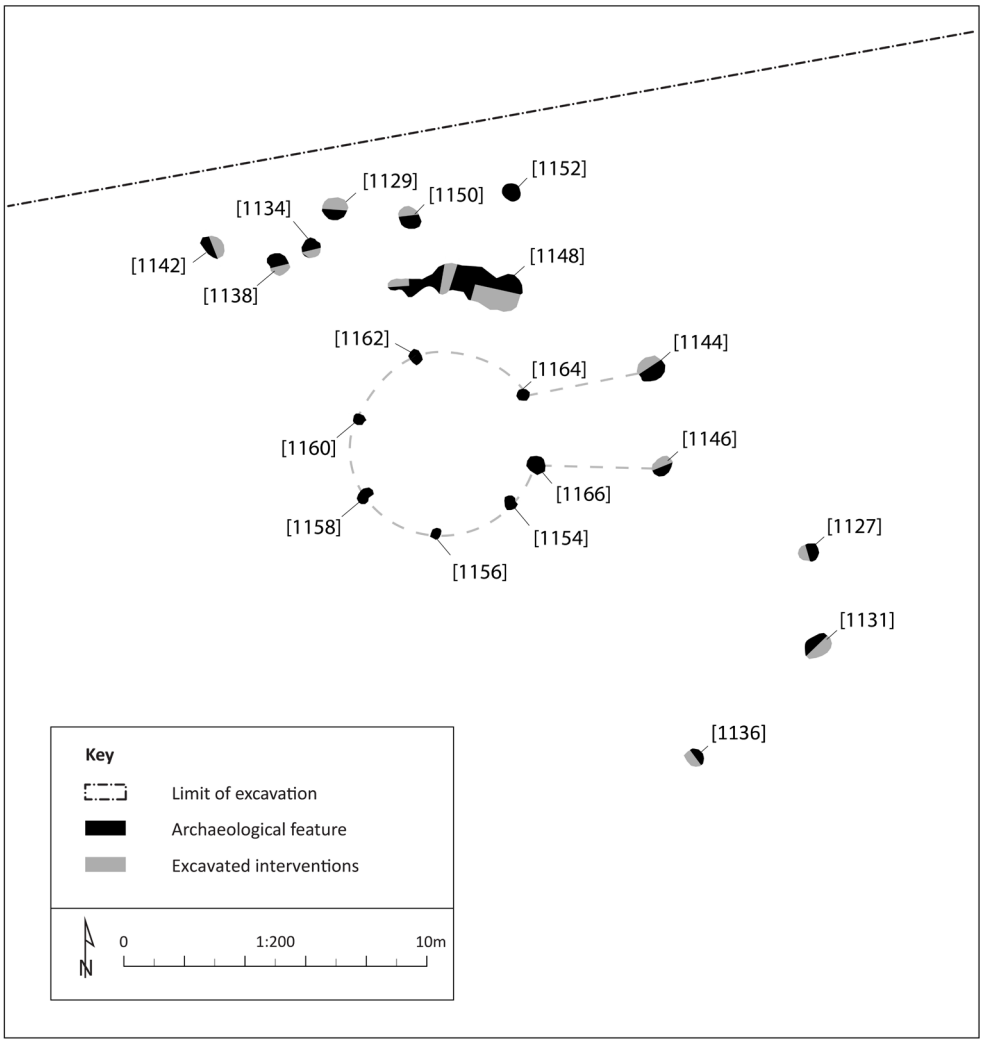
3. EXCAVATED FEATURES

The five excavation areas, Areas C, D, E, G, and H, lay within two rough pasture fields, which comprised rolling ground with a substantial degree of variation in topography (Illus 1). The topsoil across the site varied in depth from 0.25m to 0.85m and had been affected by ploughing. Plough scarring was visible where the topsoil was shallow on the higher ground with topsoil accumulating on downslopes and within hollows. The dark brown organic-rich sandy topsoil lay over a mixed subsoil comprised of mixed sands and gravels.

3.1 Area C

Area C was the largest area to be machine stripped and measured 3,750m^2. The western and southern sides of Area C sloped downwards with archaeological features concentrated on the higher flat central area (Illus 2). In total, 12 pits and seven postholes were uncovered in a group.

The seven postholes, [1154], [1156], [1158], [1160], [1162], [1164], and [1166], were similarly sized, measuring between 0.55m and 0.38m in diameter. These features were straight-sided, with depths between 0.12m and 0.26m with occasional packing stones. These postholes appear to form a post-ring roundhouse, *c* 6.2m in diameter, with a possible entrance to the east, defined by Pits [1144] and [1146] (Illus 3). A scatter of pits lies to the east and north. Also in the area of the post-ring, a curvilinear feature, Context [1148], may represent two amalgamated features, but it was not possible to discern the exact relationship between these features



Illus 2 Area C plan

and the post-ring during excavation. A radiocarbon date (Table 1) from hazelnut shell (SUERC-94900) from Fill (1159) of Posthole [1158] returned an Early Neolithic date range of between 3640 and 3533 cal BC at 2-sigma, which suggests an Early Neolithic date for the roundhouse. The charcoal from this feature was characterised as redeposited food and fuel waste associated with occupation of the structure but there is a possibility that the material is residual. It is possible that the charcoal, rather than deriving from the active use of the roundhouse, may have derived from earlier activity on the site, possibly from the nearby pit features, and as such the post-ring roundhouse could be later in date.

To the north of the roundhouse there was a cluster of well-defined pits, [1129], [1134], [1138], [1142], [1150], and [1152], which were all similar in size and profile with fire-cracked stones, charcoal, and burnt bone flecks common to all. In Pits [1129], [1134], [1150], and [1152], prehistoric pot sherds were recovered (Table 2). Pit [1129] contained three sherds from two vessels; Pit [1134] was found to have 11 sherds from two vessels and Pit [1150] held eight sherds from two vessels. Lastly, Pit [1152] contained seven sherds from at least two separate vessels, one of which was lugged. All eight vessels from these features are classed as Early Neolithic round-based bowls. Radiocarbon dates (Table 1) were sought for two of these pits, with hazelnut shell dated from Pits [1129] and [1134]. The sample (SUERC-94898) from Pit [1129] returned an Early Neolithic date range between 3513 and 3360 cal BC at 2-sigma while the sample (SUERC-94899) from Pit [1134] produced an Early Neolithic date range between 3640 and 3522 cal BC at 2-sigma. From Pit [1129] a Late Mesolithic microlith was recovered, which was likely intrusive.

More than half of all the hazelnut shell fragments identified from the Neolithic period were recovered from just three features in Area C, Pits [1129], [1134], and [1150]. Hazelnuts would have been an

Illus 3 Post-ring roundhouse Area C

important part of the diet during this early phase of occupation on site and would have been gathered from the local environment. Evidence for cultivated crops in Area C was relatively scarce but included small amounts of hulled barley and barley, crops typical of similarly dated sites. The absence of any chaff fragments suggests that cereal processing did not occur in the immediate vicinity.

To the south-east of the roundhouse was a scatter of three pits, [1127], [1131], and [1136]. Pit [1127] was a heavily plough truncated feature but contained some decorated pottery sherds and a retouched flint artefact (SF 33; Illus 20). The flint artefact was a chisel arrowhead, considered to be Middle Neolithic in date (Ballin 2017: 23). The pottery comprised eighty sherds from a single vessel, potentially a Late Neolithic Grooved Ware pot. An assessment of organic residue demonstrates that the vessel was used to process dairy products, such as milk, butter, and cheese. A radiocarbon date (Table 1) from a hazelnut shell (SUERC-94886) dated the pit fill to between 3091 and 2922 cal BC at 2-sigma, a Late Neolithic date that broadly corresponds to both the pottery and lithic evidence. The dates and artefact assemblage from the excavated features within Area C suggest two phases of activity, an Early Neolithic post-ring roundhouse with associated pits and a small cluster of Late Neolithic pits.

3.2 Area D

Area D measured 1,250m^2 and was the northernmost area excavated, with a topography that was even and flat and topsoil that was relatively shallow. Ten features were uncovered within Area D with no discernible focus of activity and no finds recovered (Illus 4).

Features [1106], [1115], [1117], [1121], and [1123] were all small pits, measuring less than 0.50m in diameter. Pits [1104], [1108], and [1113] were larger subcircular pits around 1.0m in size. Pit [1119] was an elongated feature, 1.9m long. All of these pits contained charcoal flecking and some had fire-cracked stones and burnt bone fragments.

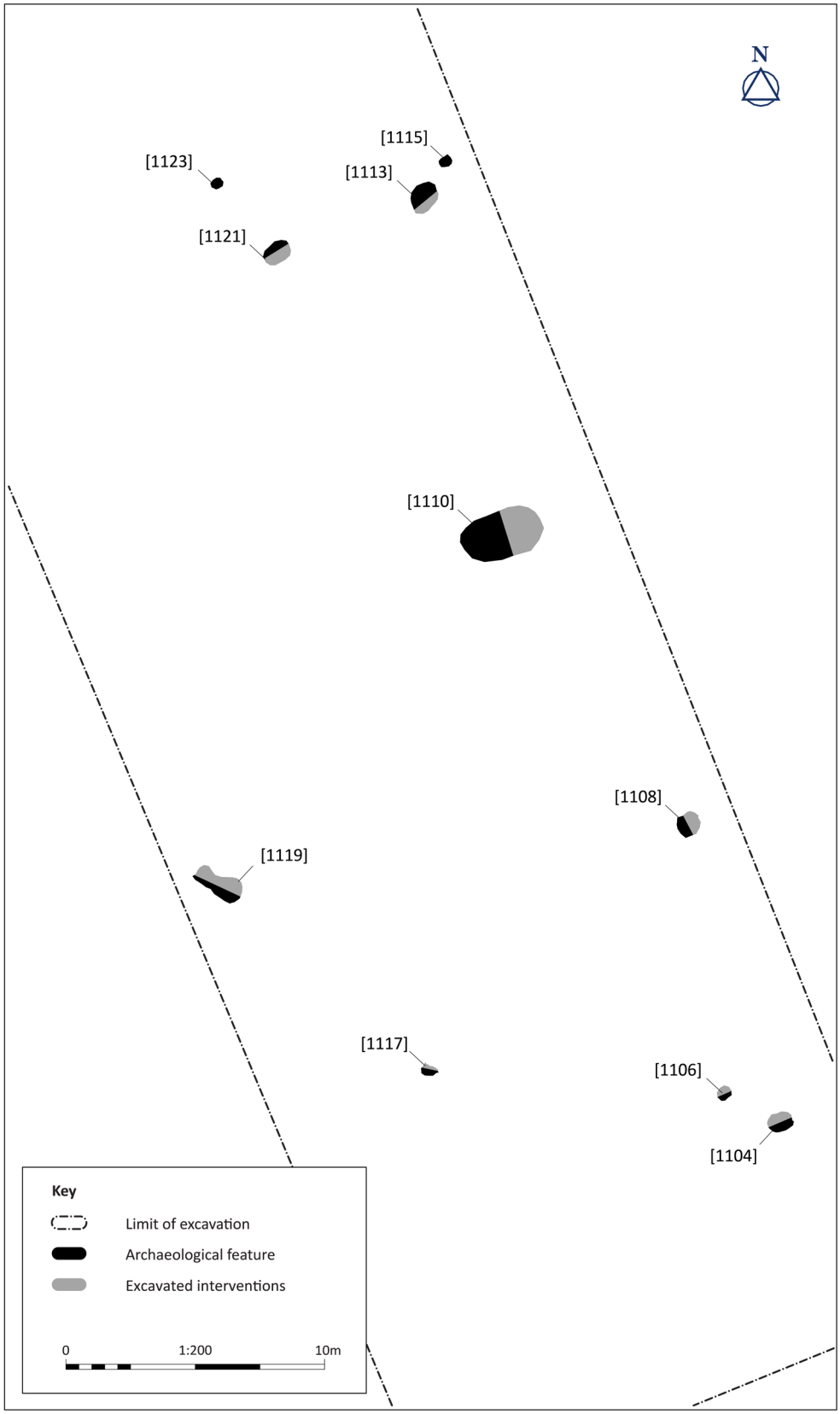
Pit [1110] was the largest feature in Area D and more distinctive in character. It was oval in plan, measuring 3.25m east to west by 1.95m north to south. It was 0.65m deep and its upper fill, Context (1111), contained numerous large stones with charcoal flecking over a lower fill, Context (1112), which comprised lenses of burnt material. An early medieval date was returned from a sample of hulled barley cereal (SUERC-94904) from (1112), with a range between cal AD 670 and 857 at 2-sigma (Table 1). In Pit [1110], there were 455 cereal caryopses identified as oats (42%), hulled barley (27.4%), barley (15.2%), naked barley (0.2%), and cereal (15.2%), interpreted as domestic food refuse. Similarly, three fragments of hazelnut in Pit [1110] are viewed as domestic food refuse.

3.3 Area E

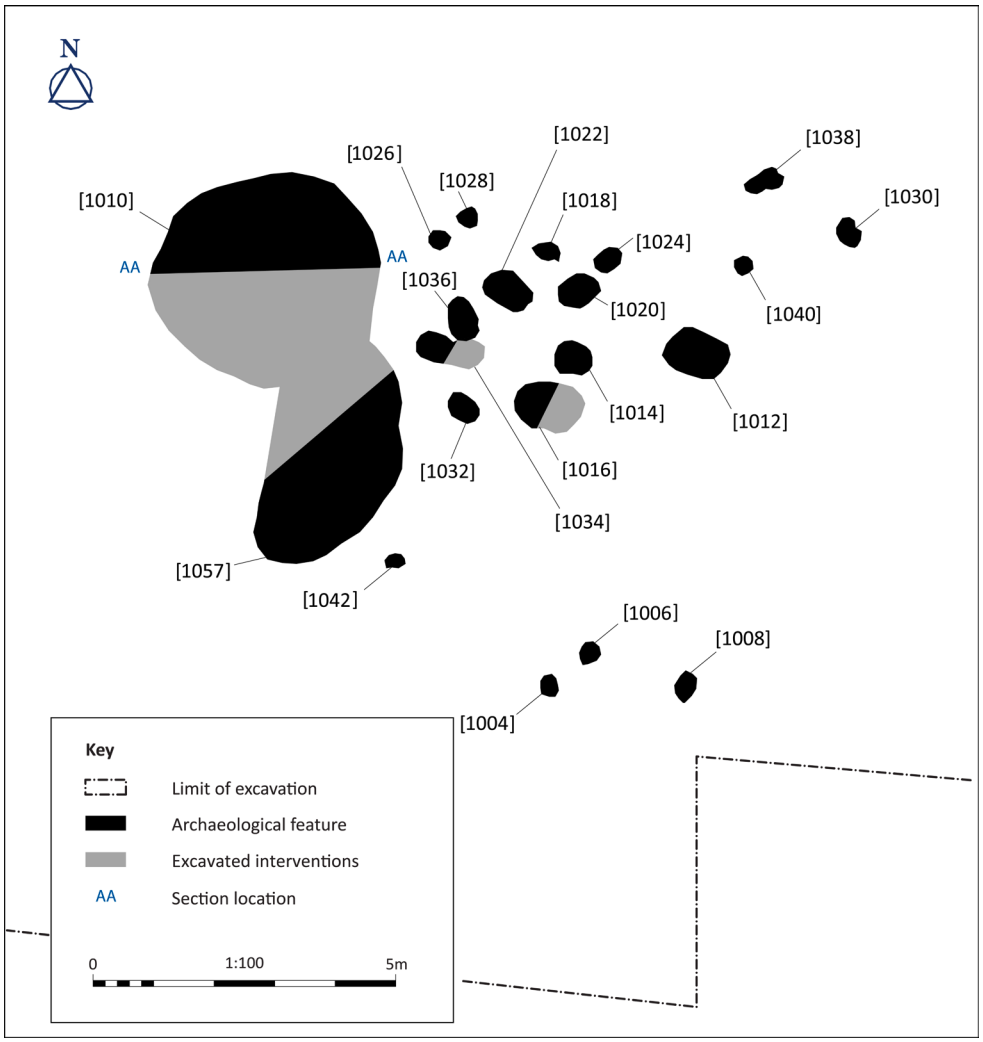
Area E covered 480m^2 and contained two phases of activity with 21 features uncovered (Illus 5). The earliest features are prehistoric pits, of which there are 19 in total. There is a distinct central cluster of nine pits, [1012], [1014], [1016], [1018], [1020], [1022], [1032], [1034], and [1036], with three postholes, [1024], [1026], and [1028], around the northern edge of this group and with further features, Contexts [1038], [1030], and [1040] a little to the east. Lastly, there are four features further to the south, [1004], [1006], [1042], and [1008]. The pits were very well-defined, deep, and oval or subcircular in plan with maximum dimensions of 1.2m by 0.9m. Charcoal flecking and fire-cracked stones were common to most pits. The smaller posthole features often had packing stones present. Whilst there is a dense array of features there is no obvious pattern or structure that could be discerned. Outlying features included two pits, [1030] and [1038], and a posthole, [1040], lying to the east, and four postholes, [1004], [1006], [1008], and [1042], to the south. However, no finds were recovered from these features.

Pottery was recovered from four features within the central grouping, Pits [1018], [1020], [1022], and [1034] (Table 2). In total 38 sherds representing six different vessels were identified with all attributed to the Early Neolithic round-based bowl tradition. From Pit [1020] was recovered a broken saddle quern stone which appears to have been worn through from use (Illus 6) and also showed signs of use to sharpen axes. Its form and patterns of wear suggest a Neolithic date.

A small amount of hazelnut shell came from several features in Area E, while two blackthorn



Illus 4 Area D plan



Illus 5 Area E plan

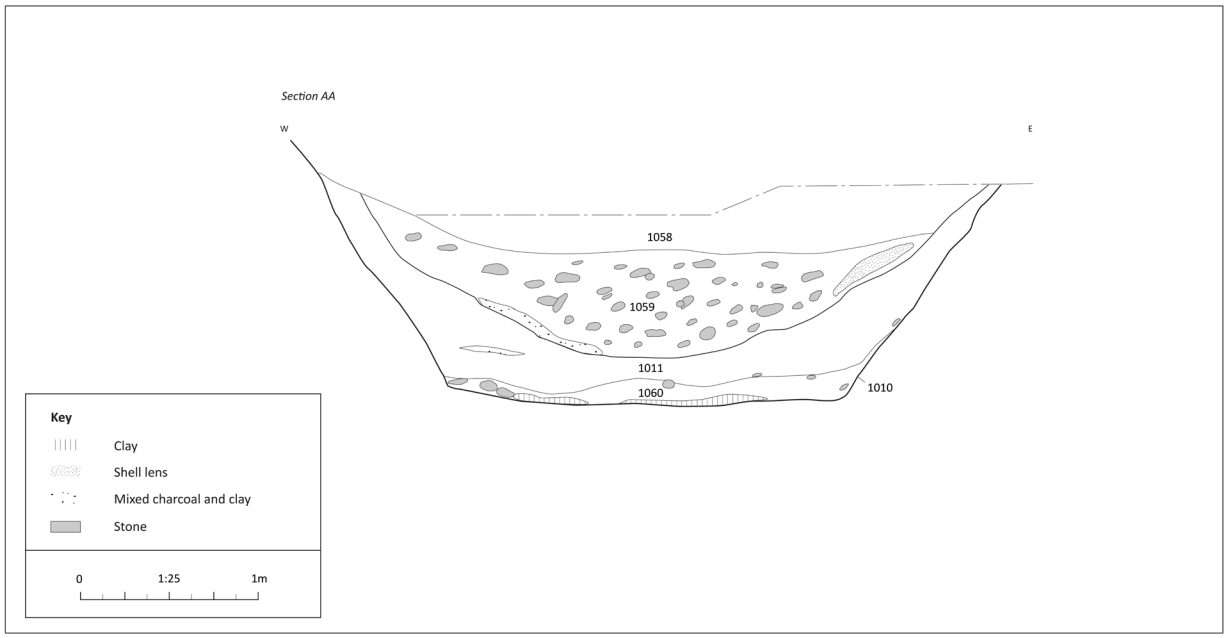
Illus 6 Pit [1020] with quern stone in situ

stones were recovered from Postholes [1004] and [1028], and a small amount of cultivated crops was evidenced, including barley and hulled barley from Pits [1018], [1020], and [1036], with a single example of oats from Pit [1038]. Hazelnut shell was radiocarbon dated from Pits [1018], [1020], and [1022]. The sample (SUERC-94887) from Pit [1018] returned a range between 3696 and 3538 cal BC at 2-sigma with the sample (SUERC-94888) from Pit [1020] producing a very similar range between 3651 and 3532 cal BC at 2-sigma. Finally, hazelnut shell from (SUERC-94897) Pit [1022] provided a slightly earlier range of between 3761 and 3645 cal BC at 2-sigma. These dates (Table 1) suggest that this activity relates to the Early Neolithic period, somewhere around 3750 to 3550 cal BC.

The last two features within Area E were the largest pits excavated during these works. These two pits, [1010] and [1057], were intercutting with Pit [1010] cutting through the earlier Pit [1057] (Illus 7). Feature [1057] was aligned north to south and was oval in plan, measuring 4.0m by 2.4m with its northern edge truncated by Pit [1010]. Pit [1057] was relatively steep sided and had a depth of 1.55m. Its basal fill, Context (1061) comprised banded sands and silts suggesting a gradual infilling of the pit. This deposit was recut with a steep sided cut, Context (1062), which was filled by a greyish brown sandy silt with patches of clay, Context (1063). The upper fill, Context (1064), was a sandy silt which contained medieval pottery sherds, animal bone, and animal teeth. The pottery comprised two rim sherds from the same vessel, V3, a locally made cooking pot belonging in the Scottish medieval Redware tradition which could date from the late 12th, but more likely the 13th century. Alder charcoal (SUERC-94896) from (1064) produced a date range of cal AD 1224 to 1283 at 2-sigma (Table 1), which corresponds well with the pottery.

The later pit, [1010], was circular in plan with a diameter of *c* 4.2m and had a depth of 1.55m (Illus 8). The basal fill, Context (1060), comprised

Illus 7 Medieval Pits [1010] and [1057]

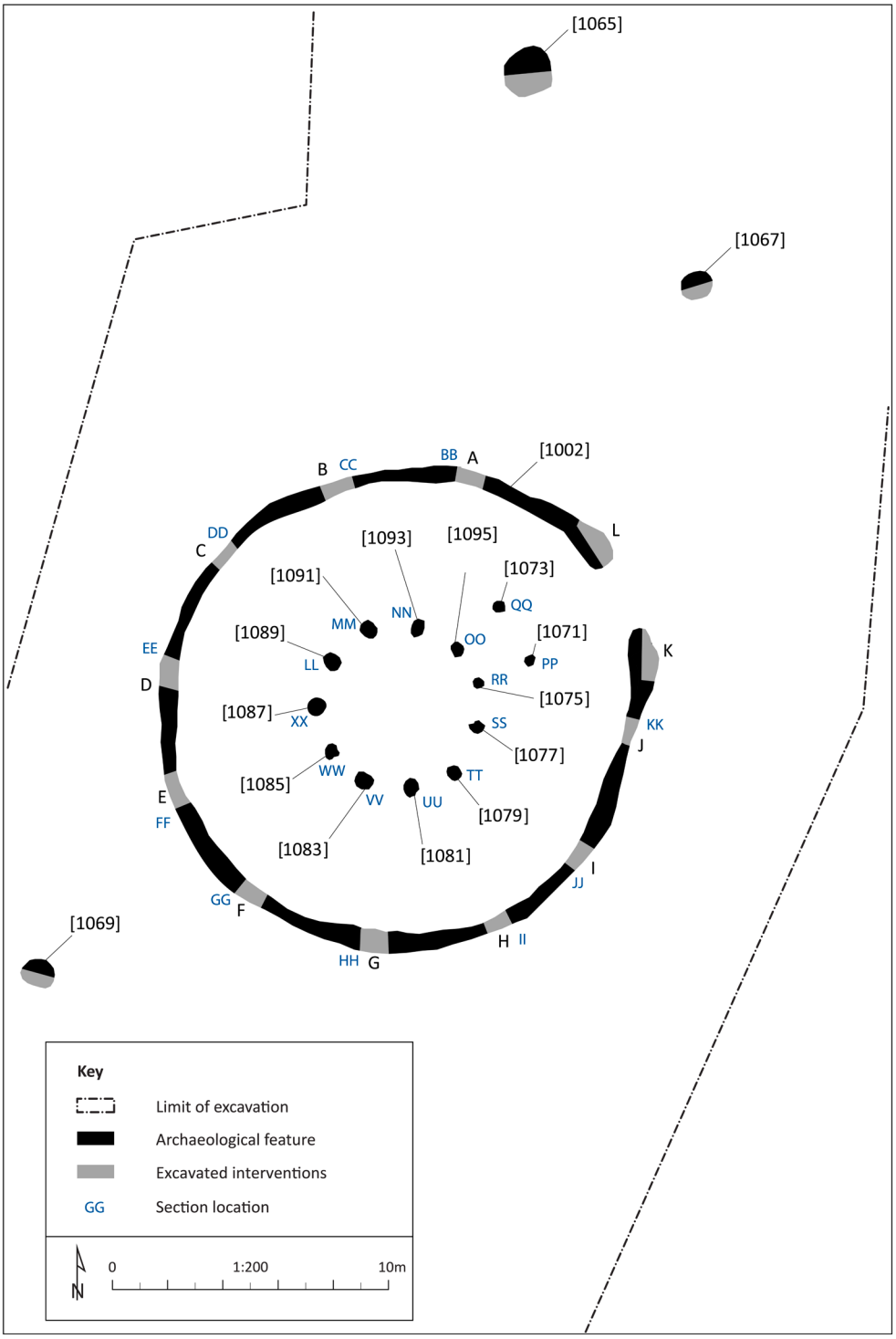


Illus 8 Section of Pit [1010]

Illus 9 South facing section of medieval Pit [1010]

banded silty sand no more than 0.18m deep and was overlain by a deposit of green boulder clay, Context (1011), which was up to 0.42m thick (Illus 9). A group of medieval pottery sherds was recovered from this clay deposit, which was covered by a thick deposit of sandy silt with stone, Context (1059), with a few lenses of charcoal and a small deposit of clam and mussel shell. From this deposit was recovered a fragment of a stone mortar (SF 21). The upper fill, Context (1058) was topsoil-like material that covered the whole pit.

The pottery from this pit was part of the Scottish medieval Redware tradition with nine conjoining sherds from a Redware jug, V1 and a single sherd



Illus 10 Area G plan

from a globular jug, V2. The mortar fragment recovered from Context (1059) is part of a rare class of coarse stone objects and appears to be made from locally derived stone rather than being imported to the site. These artefacts are typically seen as being from the 12th century at the earliest but more commonly 13th to 14th century in date.

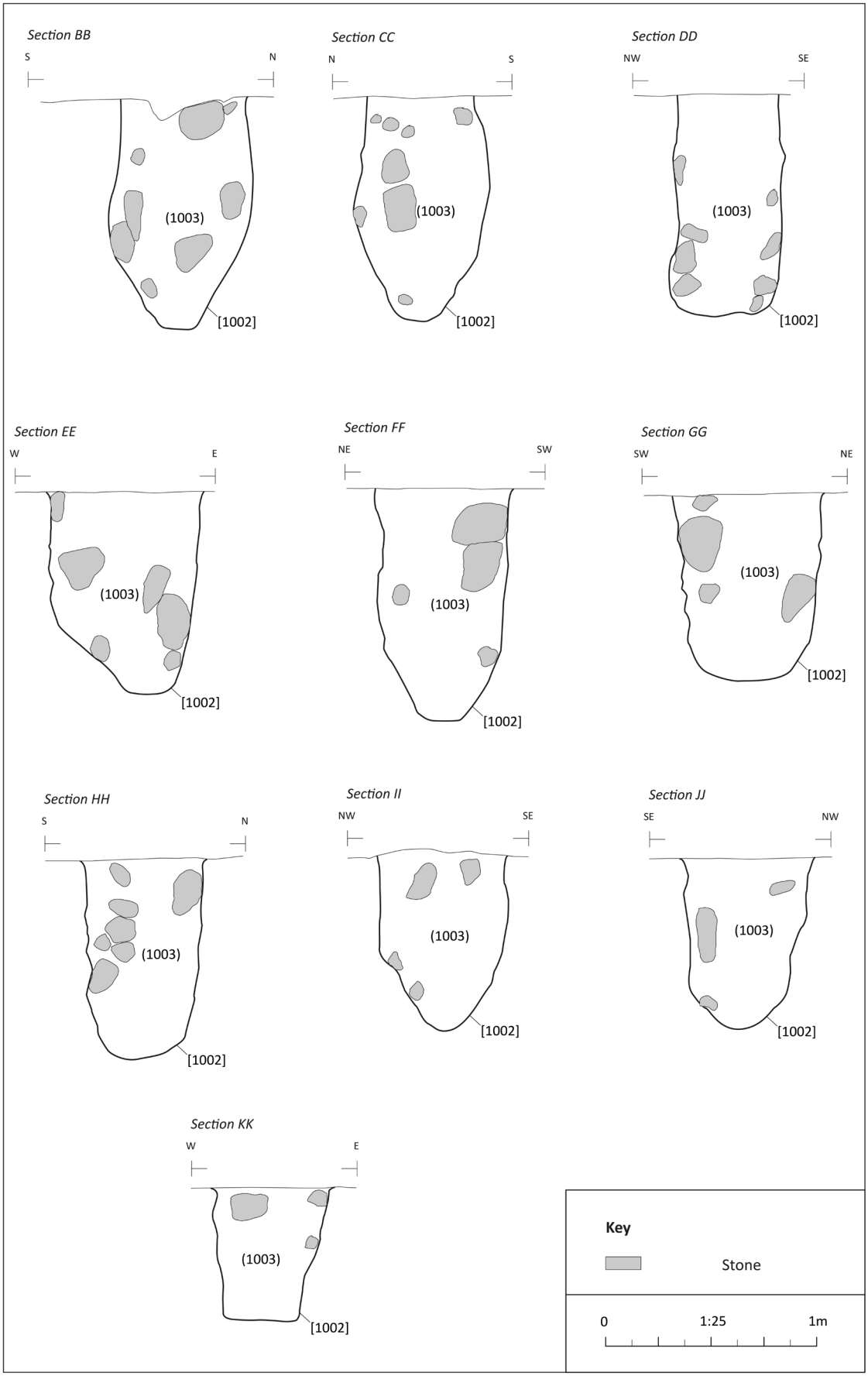
Charred cultivated oat charcoal (SUERC-94895) from Fill (1060) produced a date range between cal AD 1269 and 1298 at 2-sigma (Table 1). This agrees well with the proposed pottery and mortar dates as well as being slightly later than the date returned for Pit [1057]. A few fragments of hazelnut shell were recorded in Pit [1010] and one raspberry seed in Pit [1057] along with a wide variety of common agricultural weeds and natural wild plants across both pits. The two pits contained a total of 730 cereal caryopses dominated by oats with lesser amounts of rye, hulled barley, barley, wheat/rye, cultivated oats, naked barley, bread/club wheat, and emmer. The cereal is domestic food debris and given the presence of a culm node and weeds, may represent processing waste from threshing and winnowing.

The fills of the two intercutting pits examined here bear testimony to a range of site formation processes. Soil micromorphology provides little or no indication of the function of either pit (Roy 2020). The lack of anthropic indicators suggest that the pits were not used for waste disposal and similarly would indicate that had the pits been used for food storage or industrial processes, they must have been thoroughly cleaned out prior to infilling. The infilling deposit, Context (1063), of Pit [1057] was likely a deliberate act of backfilling whereas Pit [1010] appears to have mostly infilled naturally over a longer period of time with multiple events as indicated by finely stratified horizons of sediments.

3.4 Area G

This area was focused over a known cropmark enclosure site. In total 2,800m^2 was stripped

Illus 11 South-west facing view of Enclosure [1002] and post-ring roundhouse



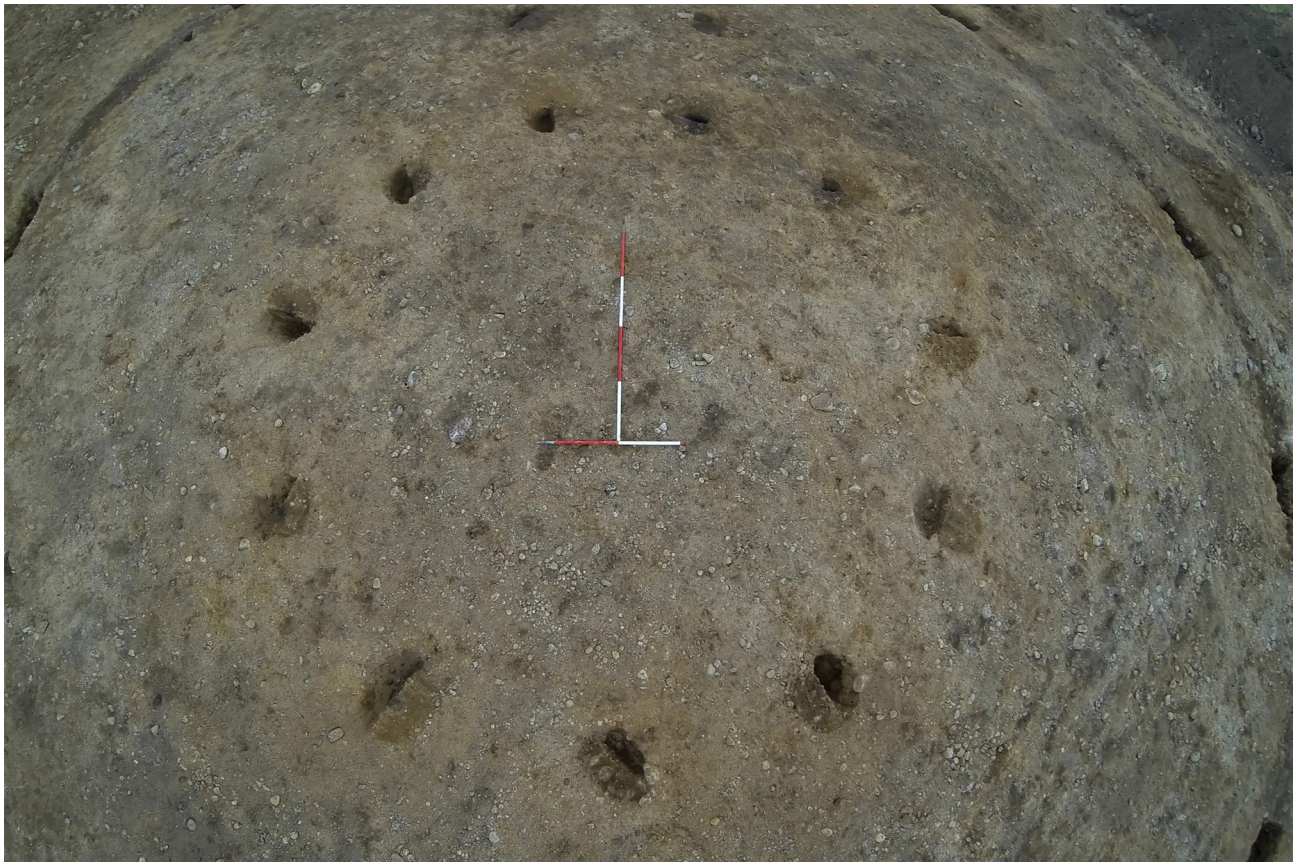
Illus 12 Sections of Palisade [1002], Slots A to K

Illus 13 North-west facing section of Slot F through Palisade [1002]

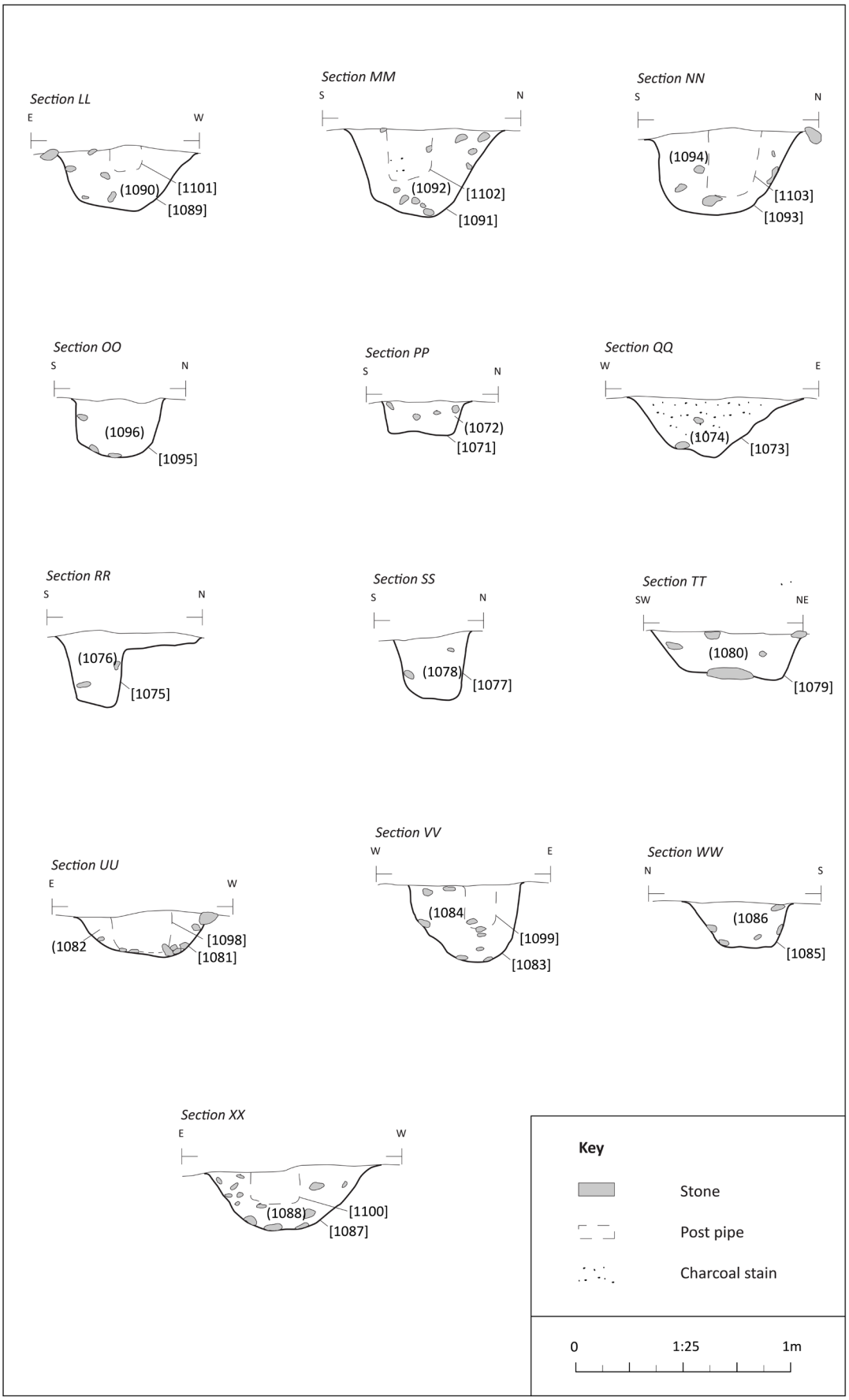
uncovering the full enclosure, [1002] along with an internal post-ring roundhouse and three external pits: [1065], [1067], and [1069] (Illus 10 & 11).

The palisade enclosure was very clearly defined and was circular in plan with an internal diameter of *c* 17.5m. The enclosure, [1002], had a north-east facing entrance, 2.6m in width, with enlarged rounded terminals. A series of slots, recorded as Slots A to Slot L, were excavated throughout the enclosure. Typically, the enclosure was formed by a vertically sided cut onto a flat base, suggesting a wooden palisade (Illus 12 & 13). The palisade was between 1.10m and 0.65m deep with an average depth of around 1.0m. Its width varied from 0.47m to a maximum of 0.70m.

The central roundhouse was very well preserved with its plan (Illus 10) comprising 11 postholes with an axial symmetry through the entrance posts, [1075] and [1095] (Illus 14). Another two external posts, [1071] and [1073], signify the existence of a porch a little over 2.0m from the post-ring. The entrance of the roundhouse was aligned on the entrance of the enclosure to the north-east. The



Illus 14 North-east facing view of post-ring roundhouse within Enclosure [1002]

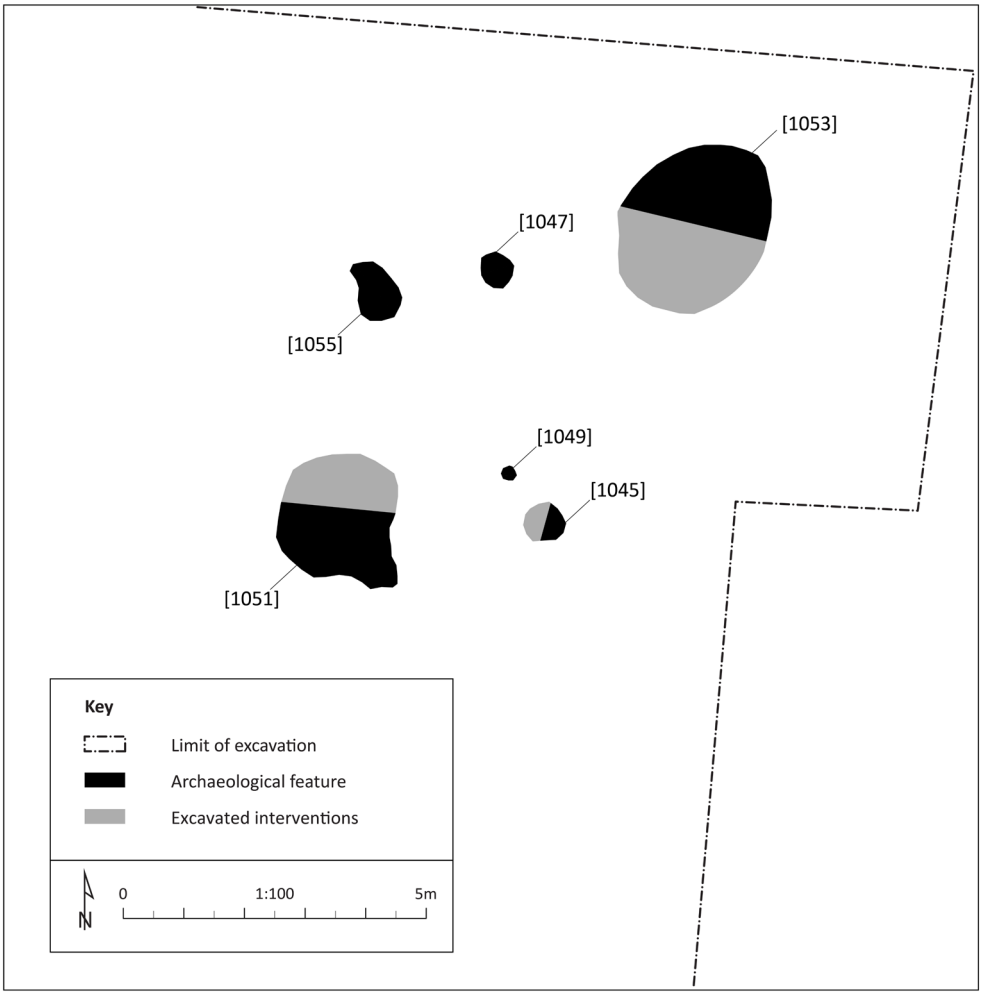


Illus 15 Sections of postholes of roundhouse

structural post-ring measured 6.25m in diameter, with postholes between 0.32m and 0.56m in diameter (Illus 15). Six of the postholes, [1081], [1083], [1087], [1089], [1091], and [1093], contained charcoal-rich postpipes, which were suggestive of in situ burning of structural timbers, though subsequent charcoal identifications suggest this was fuel waste.

No internal features were identified within the roundhouse or elsewhere within the enclosure though it is likely that the site has seen a degree of erosion through ploughing and as such any originally shallow features could have been lost to truncation. No artefacts or finds were recovered from the enclosure or the associated roundhouse.

Three large well-defined pits were recorded outside the palisaded enclosure, Pits [1065], [1067], and [1069]. The largest pit, [1065], lay *c* 13.0m to the north and comprised a near circular pit with a diameter of 1.77m and a depth of 0.32m. The single fill contained many stones near the base, some of which showed signs of burning and heat cracking. The other two pits were similarly sized, oval in plan and were no more than 0.20m deep. As with Pit [1065] there was evidence of burning with charcoal and fire-cracked stones, perhaps representing dumped refuse deposits. Pit [1067], located south-east of [1065] was marked by a relatively large assemblage of charcoal; although only hazel was identified to species, this was the largest concentration of charcoal (206.3g) recovered from any feature, and charcoal analysis suggested this might represent burning of a structural component. However,



Illus 16 Area H plan

during excavation the presence of in situ burning was not perceived.

The small assemblage of cereals identified from features in Area G comprised hulled barley (54%), barley (16%), oats (5%), emmer (1%), wheat (1%), and cereal (23%). The majority of these were concentrated in external Pit [1069] and the mix of cereal caryopses and culm nodes represent possible evidence for the disposal of crop processing waste.

Four radiocarbon dates were sought for Area G (Table 1), two for the palisade enclosure and two for the post-ring roundhouse. Hazelnut shell (SUERC-94890) from Slot A of the palisade was dated to between cal AD 90 and 236 at 2-sigma, with alder charcoal from Slot B (SUERC-94894) returning a broadly similar date range of cal AD 81 to 222 at 2-sigma. The two dates for the post-ring were also very similar, with hazel charcoal (SUERC-94095) from Posthole [1083] dated to around cal AD 91 to 239. A second date from non-structural birch charcoal (SUERC-94906) recovered from the fill of Posthole [1093] ranged between cal AD 85 and 230. All four dates suggest a single phase of use of the site most likely during the second century AD.

3.5 Area H

This small area on the southern side of the development area to the east of Area E encompassed 450m^2 (Illus 16). In Area H there were five pit features, two relatively large in size, [1051] and [1053], and three smaller, [1045], [1047], and [1055], and a single posthole, [1049]. The three smaller pit features ranged from the nearly 1.0m in diameter Pit [1055] to Pit [1045], with a diameter of 0.62m. The single posthole, [1049], was 0.30m in diameter with packing stones placed within a cut 0.16m deep. A single sherd of a Neolithic round-based bowl was recovered from Pit [1045].

The two large pits were different from the other features in Area H in terms of scale. Pit [1051] was subcircular and measured 2.30m east to west by 2.12m north to south. Pit [1053] was larger but also subcircular at *c* 3.0m north to south by 2.80m east to west with steep sides leading to a deep base, 1.1m down.

A single date (Table 1) was retrieved for a sample of charred pine (SUERC-94889) from Pit [1045], which gave a 2-sigma date range between 2570 and 2356 cal BC.

4. RADIOCARBON DATING

Mike Roy

4.1 Introduction

A total of 15 sub-samples (Table 1) were submitted for radiocarbon dating from the archaeological excavations of Areas C, D, E, G, and H at Grantown Road, Forres, Moray. The samples comprised macrofossil inclusions of predominantly charcoal and hazelnut shell, including two samples of cereal caryopses. The material derives from: the fill, Context (1159), of a posthole of a roundhouse and fills of nearby pits in Area C; fills of a potentially late prehistoric palisade enclosure ditch ([1003A] and [1003B]) and postholes of an associated internal roundhouse feature in Area G; fills from a cluster of pits and postholes in Area E: fills of large likely medieval pits in Area E and fills of single large pits in Areas D and H. The radiocarbon results were incorporated into a Bayesian model to provide an informed dated sequence and estimates for the duration of activity on-site. It was anticipated that the radiocarbon dates from the present works could be compared to the dates of occupation from the multi-period site excavated at Grantown Road by Cook (2016). The radiocarbon results are conventional radiocarbon ages (Stuiver & Polach 1977). They have been calibrated using the internationally agreed terrestrial (IntCal20) calibration curve of Reimer et al (2020) and the OxCal v4.4 computer program (Bronk Ramsey 2009).

4.2 Methodology

The radiocarbon dates were analysed using a Bayesian approach, a form of Markov Chain Monte Carlo sampling, applied using the online program OxCal v4.4. Details of the algorithms employed by this program are available in Bronk Ramsey (1995; 1998; 2001; 2009). The model has been created with multiple sequences and phases reflecting the different archaeological time periods. The goal of this analysis is to provide a realistic estimate of the dates which define the phases of activity on-site.

4.3 Results

The dating model (Illus 17) represents multiple phases of activity at Grantown Road, spanning from the Early Neolithic to the medieval period. The model has excellent agreement (Amodel=110.2) between the radiocarbon dates and no outlying dates were identified within the model. The model is divided into each archaeological period and a date range is estimated for activity where three or more dates were produced (the Early Neolithic and Late Prehistoric periods). In the division of periods, the 'Early Neolithic' includes one date from hazelnut shell (SUERC-94898) from a fill of Pit [1129], which is actually of Early to Middle Neolithic date – an earlier, more clearly Early Neolithic date was recovered from a sample of hazelnut shell (SUERC-94898) from Pit [1134] in the same pit cluster in Area C. A date from a sample of pine charcoal (SUERC-94889) from Pit [1045] is for simplicity defined as Late Neolithic, but its date ranges from the Late Neolithic to the Chalcolithic. In addition, a date from a hulled barley cereal caryopsis (SUERC-94904) from a fill of Pit [1110] in Area D is described as early medieval here but corresponds with features described as 'Early Historic' by Cook (2016: 5).

The Early Neolithic phase included the largest concentration of dates (n=6), leading to a model of this phase providing an estimate for this period to commence between 3820 cal BC and 3640 cal BC with 95% probability, and to cease between 3515 cal BC and 3280 cal BC with 95% probability. The duration of activity was between 150 and 475 years with 95% probability. Activity in this phase was identified in both Areas C and E, and included a date from hazelnut shell (SUERC-94900) from a fill of Posthole [1158] of a roundhouse feature identified in Area C.

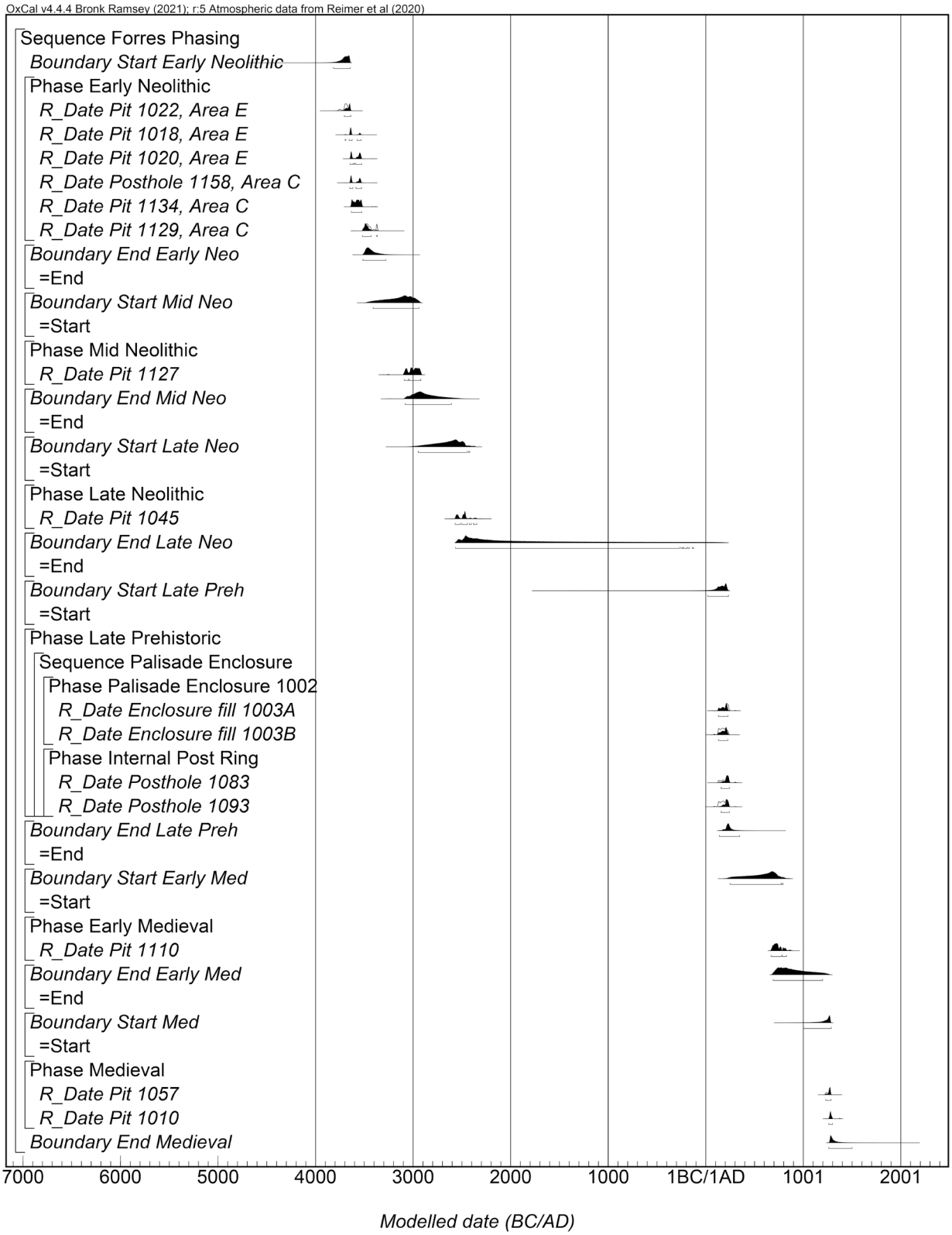
A single hazelnut shell sample (SUERC-94886) appears to provide a clearly Middle to Late Neolithic date, from Pit [1127] to the east of the Early Neolithic roundhouse in Area C. The sample from Pit [1127] gave a range between 3090 and 2920 cal BC at 95% probability. During excavation it was postulated that ceramics from this feature comprised Late Neolithic Grooved Ware, though the pottery analysis by MacSween does not confirm this. A single Late Neolithic to Chalcolithic date came from a pine charcoal sample (SUERC-94889) from Pit [1045] in Area H. This had a range of between 2570 and 2350 cal BC at 95% probability. Four dates were related to Later Prehistoric (Iron Age)

Table 1 Radiocarbon dates

Lab Code	Context No.	Feature No.	Description	Uncal (BP)	Calibrated 1-sigma (68.2%)	Calibrated 2-sigma (95.4%)
SUERC-94886	(1128)	Fill of Pit [1127], Area C	Nut Shell: Hazel	4394±23	3082–3068 cal BC; 3027–3006 cal BC; 2989–2931 cal BC	3091–2922 cal BC
SUERC-94898	(1130)	Fill of Pit [1129], Area C	Nut Shell: Hazel	4639±25	3498–3453 cal BC; 3378–3367 cal BC	3513–3424 cal BC; 3384–3360 cal BC
SUERC-94899	(1135)	Fill of Pit [1134], Area C	Nut Shell: Hazel	4778±22	3634–3629 cal BC; 3585–3531 cal BC	3640–3621 cal BC; 3606–3522 cal BC
SUERC-94900	(1159)	Fill of Posthole [1158], Area C	Nut Shell: Hazel	4829±24	3650–3633 cal BC; 3554–3540 cal BC	3656–3628 cal BC; 3582–3533 cal BC
SUERC-94904	(1112)	Fill of Structural Pit [1110], Area D	Cereal Caryopses: Hulled Barley	1260±24	690–750 cal AD; 761–770 cal AD	670–778 cal AD; 792–803 cal AD; 843–857 cal AD
SUERC-94887	(1019)	Fill of Pit [1018], Area E	Nut Shell: Hazel	4851±24	3657–3636 cal BC	3696–3632 cal BC; 3556–3538 cal BC
SUERC-94888	(1021)	Fill of Pit [1020], Area E	Nut Shell: Hazel	4819±23	3646–3632 cal BC; 3558–3538 cal BC	3651–3628 cal BC; 3583–3532 cal BC
SUERC-94895	(1060)	Fill of Pit [1010], Area E	Cereal Caryopses: Cultivated Oat	723±24	1269–1285 cal AD	1256–1298 cal AD
SUERC-94896	(1064)	Fill of possible recut [1062] of Pit [1057], Area E	Charcoal: Alder	757±24	1251–1280 cal AD	1224–1283 cal AD

Table 1 *contd.*

Lab Code	Context No.	Feature No.	Description	Uncal (BP)	Calibrated 1-sigma (68.2%)	Calibrated 2-sigma (95.4%)
SUERC-94897	(1023)	Fill of pit [1022], Area E	Nut Shell: Hazel	4915±25	3701–3660 cal BC	3761–3742 cal BC; 3731–3726 cal BC; 3715–3645 cal BC
SUERC-94890	(1003A)	Fill of Palisade Enclosure [1002], Area G	Nut Shell: Hazel	1845±21	131–214 cal AD	90–100 cal AD; 123–236 cal AD
SUERC-94894	(1003B)	Fill of Palisade Enclosure [1002], Area G	Charcoal: Alder	1864±22	87–105 cal AD; 121–175 cal AD; 192–212 cal AD	81–222 cal AD
SUERC-94905	([1099)	Fill of Posthole [1083], Area G	Charcoal: Hazel	1840±22	134–214 cal AD	91–100 cal AD; 124–239 cal AD
SUERC-94906	(1103)	Fill of Posthole [1093], Area G	Charcoal: Birch	1855±25	127–214 cal AD	85–230 cal AD
SUERC-94889	(1046)	Fill of Pit [1045], Area H	Charcoal: Pine	3964±23	2559–2536 cal BC; 2491–2464 cal BC	2570–2514 cal BC; 2502–2454 cal BC; 2418–2408 cal BC; 2362–2356 cal BC



Illus 17 Modelled radiocarbon dates plot

activity in Area G (Illus 11). Here fills of the ditch of a palisade enclosure, [1002], and from postholes of an internal post-ring roundhouse, provided material for dating. The model for this period indicates that this period of activity commenced between cal AD 20 and 230, and ceased between cal AD 140 and 350 (95% probability) with an estimated duration of up to 230 years with 95% probability. A sample of hulled barley cereal (SUERC-94904) from Pit [1110] in Area D, which was of unknown date during excavation, provided a range between cal AD 670 and 830 at 95% probability, indicating an early medieval date. Dates in the medieval period were recovered from samples of oat caryopsis (SUERC-94895) and alder charcoal (SUERC-94896) from fills of Pits [1010] and [1057]/[1062] respectively in Area E, with dates of cal AD 1260–1300 and cal AD 1230–1290 at 95% probability.

The variety of dates apparent at Grantown Road, Forres indicates that this area saw use at many times between the 4th millennium BC and the medieval period. Areas C, D, E, G, and H lie to the east of areas previously excavated on and reported by Cook (2016: 6), though in relatively close proximity to those areas evaluated in 2010. Cook notes that, 'The evidence recorded from the four excavations completed at Grantown Road, Forres, indicates a landscape occupied episodically from the Neolithic through the Late Bronze Age and Iron Age to the Early Historic period, comprising both domestic and funerary activity' (Cook 2016: 70). The radiocarbon dates suggest that at the present site there was a similarly extensive multi-period occupation, though with some indication here for medieval occupation, specifically around the 13th century AD, evidenced by Pits [1010] and [1057]/[1062] in Area E.

At the present site there is a range of Neolithic occupation, with a broadly Early Neolithic concentration of activity, including a roundhouse in Area C, and pits and postholes across Areas C and E which are of 4th millennium date (and likely largely from the first half of that millennium). In addition, two features were dated to the boundaries of the Middle to Late Neolithic and Late Neolithic to Chalcolithic periods (Pit [1127] in Area C and Pit [1045] in Area H respectively), suggesting that activity continued on the present site well into the 3rd millennium BC. This broad chronological range is in accord with the earlier excavations, where 'Neolithic activity on site is restricted to three possible structures and a series of pits ranging in date from the Early to Late Neolithic' (Cook 2016: 63). However, there is an absence of Bronze Age activity on the present site, unlike the earlier excavated areas, where 'spatially separate…dated features…lie within the Later Bronze Age' (Cook 2016: 64).

As with the earlier site to the west, where Cook noted 'the floruit of activity occurred during the last two centuries BC and the first two centuries AD, in the form of an extensive Iron Age settlement' (Cook 2016: 70), the present site contains evidence for late prehistoric occupation, around the 1st to 3rd centuries AD, in the form of a palisade enclosure, [1002], and associated post-ring roundhouse. This appears to correspond chronologically with Iron Age Phase 3 of Cook's excavations, which 'comprises the construction and excavation of the ring-ditch and souterrain between the end of the 1st century BC and the 3rd century AD' (Cook 2016: 68).

Also, in accord with the earlier works, only one feature of likely early medieval date was recognised – large Pit [1110], which dates to the second half of the 1st millennium AD. At the earlier site, 'only two structures and some isolated pits and areas of burning' were recognised as being of a similar date (Cook 2016: 69).

5. ECOFACTS

Jackaline Robertson

5.1 Background

A total of 104 bulk samples were submitted for environmental analyses from the excavation undertaken at Grantown Road, Forres, Moray. The samples were collected from Areas C, D, E, G, and H from a series of Neolithic to Iron Age features, including pits, a palisade and post-ring structures, an early medieval pit, and two medieval pits. The environmental finds were composed of carbonised macroplants and charcoal. The full report is included within the site archive.

5.2 Methodology

The bulk samples were processed in their entirety in laboratory conditions using a flotation method designed to retrieve both ecofacts and artefacts (cf Kenward et al 1980).

5.3 Results

5.3.1 The macroplant

A total of 3,080 carbonised macroplant remains were analysed from 59 contexts from Areas C, D, E, G, and H. The assemblage was formed of crops, wild food, and weed taxa. The cereal numbered 1,743 of which there were 1,693 caryopses, one spikelet, one rachis, and 48 culm nodes. The species were cultivated oats (*Avena sativa* L), oats (Avena sp), hulled barley (*Hordeum vulgare* L), naked barley (*Hordeum* var *nudum* L), barley (*Hordeum* sp), rye (*Secale* sp), emmer (*Triticum dicoccum* L), bread/club wheat (cf *Triticum aestivum/compactum* L), wheat (*Triticum* sp), and wheat/rye (*Triticum/Secale* sp). The cereal remains were localised in the early medieval Pit [1110] in Area D and medieval Pits [1010] and [1057] in Area E. The rest of the assemblage was scattered throughout the site in small numbers with no evidence of selective or deliberate disposal.

Other evidence for the cultivation of crops was 11 flax (*Linum usitatissimum* L) seeds which were present in three undated pits, all located within Area D.

The wild food sources were hazelnut (*Corylus avellana* L), blackthorn (*Prunus spinosa* L), and raspberry (*Rubus idaeus* L). A minimum of 710 hazelnut shell fragments were counted from 33 contexts. These finds were concentrated within three pits, [1129], [1134], and [1150], all in Area C associated with Neolithic activity.

The weed assemblage totalled 613 and was present in 24 contexts. The weed species were concentrated within Pit [1119], which had 373, followed by medieval Pits [1010] with 141 and [1057] with 40. The remainder of the assemblage was scattered throughout the site with no evidence of selective or deliberate disposal.

5.3.2 The charcoal assemblage

The charcoal assemblage (539.3g) was recovered from 89 contexts and 656 fragments were identified to species. The species were alder (*Alnus glutinosa* L), birch (*Betula* sp), hazel (*Corylus avellana* L), apple/rowan (*Maloideae/Sorbus* sp), cherry (*Prunus* sp), oak (*Quercus* sp), and pine (*Pinus* sp). Preservation of the charcoal ranged from poor to good. The full results are available in the site archive report.

5.4 Discussion by period

5.4.1 Neolithic

Twenty cereal caryopses were recovered from 12 pits and postholes dated to the Neolithic in Areas C and E. There were four hulled barley, three barley, one oat, and 12 poorly preserved indeterminate cereal caryopses. The absence of any chaff fragments suggests that cereal processing did not occur in this location or that the crop waste was disposed of elsewhere. The cereal is domestic food debris but given the small number recovered it is possible this resource had a more minor role within the economy of this site.

A total of 574 hazelnut fragments were collected from ten features in Area C and eight in Area E. The hazelnut was concentrated in three cluster Pits [1129], [1134], and [1150], from which 300 fragments were semi-quantified. Two blackthorn stones were recorded in Neolithic Postholes [1004] and [1028] in Area E. These plants were collected from the wild and used as a food source. Hazelnuts in particular were an important part of the diet during this early phase of occupation.

Eight weeds were recovered from Posthole [1162] and Pit [1146] in Area C and Pits [1020] and

[1038] in Area E. The species were two marshworts, one fat hen, three goosefoot, one pale periscaria, and one dock. These species probably grew in the surrounding landscape and were charred accidently.

The wood species were oak (58%), alder (11%), hazel (9%), pine (9%), birch (7%), apple/rowan (5%), and cherry (1%). These species were all utilised for fuel, but oak was selected for construction.

5.4.2 Iron Age

There were 173 cereal caryopses, one spikelet, and 44 culm nodes scattered among five slots in the palisade, in two external pits, and four deposits in the structure all located in Area G. The species were hulled barley (54%), barley (16%), oats (5%), emmer (1%), wheat (1%), and cereal (23%). These finds were concentrated in external Pit [1069] which had 152 caryopses and 43 culm nodes. The mix of cereal caryopses and culm nodes in this pit is possible evidence for the disposal of some crop processing waste. Twenty fragments of hazelnut shell were scattered among two slots, (1003A) and (1003C), in Palisade [1002], Pits [1065] and [1069], and Postholes [1071] and [1077]. The hazelnut has accrued through the reworking of food residue into these features. Weed species, numbering 15, were recovered from one slot, [1003D], located in Palisade [1002], as well as Pit [1069] and Postpipe [1083]. The species were one fat hen, seven black bindweed, one hemp-nettle, two nipplewort, two buttercup, one wild radish, and one corn spurrey. The weeds were likely plants that grew alongside the crops and were accidently introduced to the site. The charcoal species were oak (38%), hazel (34%), alder (18%), birch (8%), heather (1%), and pine (1%). Single external Pit [1067] had the largest concentration of charcoal present on site, composed entirely of hazel which may have formed part of a structural element. The rest of the charcoal from this period was formed of fuel debris.

5.4.3 Early medieval

In Pit [1110], there were 455 cereal caryopses identified as oats (42%), hulled barley (27.4%), barley (15.2%), naked barley (0.2%), and cereal (15.2%). There was no evidence that crop processing took place in this location. Instead, these finds are domestic food refuse. There were three fragments of hazelnut in Pit [1110], which are domestic food refuse. The weeds numbered eleven and the species were one fat hen, three black bindweed, one hemp-nettle, two nipplewort, and four wild radish. These finds are probably accidental inclusions within the crops. The wood species present in this phase were oak (70%), hazel (20%), birch (5%), and cherry (5%). These remains are fuel debris.

5.4.4 Medieval

A total of 730 cereal caryopses and one culm node were recovered from the two medieval pits located in Area E. The species were oats (49.4%), rye (12%), hulled barley (10.2%), barley (4.5%), wheat/rye (2.7%), cultivated oats (1.5%), naked barley (0.3%), bread/club wheat (0.3%), emmer (0.1%), and cereal (19%). The cereal is domestic food debris and perhaps, given the presence of a culm node and weed processing waste, from threshing and winnowing. Three fragments of hazelnut shell were recorded in Pit [1010] and one raspberry seed in Pit [1057]. These finds represent the collection and discard of wild resources collected for food. The weed assemblage was focused within Pit [1010], which had 131 and Pit [1057] with 40. The species were nipplewort (33%), hemp-nettle (18%), corn spurrey (10%), cabbage/mustard (7%), lady's mantles (5%), wild radish (5%), knapweeds (4%), fat hen (4%), pale persicaria (4%), knotgrass (3%), sedge (2%), black bindweed (2%), thistle (1%), grass (1%), and dock (1%). The weeds are agricultural contaminates of the crops and from plants growing in the surrounding landscape. The wood species were dominated by oak (66%) followed by alder (16%), hazel (10%), birch (4%), apple/rowan (2%), and pine (2%). These fragments were mostly fuel debris but there was evidence of an oak post.

5.5 Summary of crops

Cereal remains were recovered from all phases of occupation, but these were concentrated within the early medieval and medieval pits. While the assemblage from the earlier Neolithic and Iron Age periods was small it was still possible to identify evidence of agricultural changes within the economy of this site. Hulled barley was recovered from all

periods of occupation, which is not unsurprising as this species has traditionally been among the more important cultivated crops in Scotland since the Neolithic (Bishop et al 2010: 77; Dickson & Dickson 2000: 231). This is because barley is more tolerant of poor soil conditions which other species struggle to successfully adapt to (Dickson & Dickson 2000: 233; Renfrew 1973: 81). Hulled barley appears to have been more important in the early stages of occupation but by the early medieval and medieval periods oats had emerged as an important crop. It therefore appears that at Grantown Road hulled barley was replaced by oats as the site developed. This pattern of crop exploitation has been noted at other Scottish archaeological sites. Hulled barley was an important crop at prehistoric sites throughout Scotland including East Beechwood Farm, Inverness (Robertson forthcoming a), Bertha Park, Perth (Robertson 2020), West Link Road, Inverness (Robertson forthcoming b), Lewiston, Drumnadrochit (Robertson forthcoming c), and at Kintore in Aberdeenshire (Holden 2002). Hulled barley and oats were the main crops at medieval sites in Perth High Street and at Bon Accord, Aberdeen (Fraser & Smith 2011: 75; Robertson 2021).

Small numbers of naked barley and emmer were recovered from the early medieval and medieval phases. These two species have been identified as important crops during the Scottish Neolithic (Bishop et al 2010: 77). However, given their absence in the earlier stages of occupation and the small numbers present in the later phases, these are probably a weed of the main oat and hulled barley crops. Bread/club wheat is a common find among medieval sites especially from those classified as high-status. This species was noted in small numbers at Grantown Road in the medieval phase of occupation (Dickson & Dickson 2000: 237). To successfully cultivate bread/club wheat on a large scale requires very specific soil and climate conditions (Renfrew 1973: 65). It is unlikely the growing conditions needed to cultivate substantial yields of bread/club wheat existed at this site. It is more likely that bread/club wheat was cultivated on a small scale or was imported as a luxury food item. There was no significant evidence of crop processing in any of the occupation phases. This suggests that processing of cereals either occurred in a separate location outwith the excavated area or that the chaff fragments were inadvertently removed from the macroplant assemblage.

A small number of flax seeds were recovered from three undated pits in Area D. Flax has been cultivated in Scotland as early as the prehistoric period and has multiple economic uses. It has been used to produce linseed oil, food, and linen (Dickson & Dickson 2000: 68, 253–4). What role the flax had at this site is unclear but at some stage during its occupation the inhabitants had access to this resource.

5.6 The wild food remains

5.6.1 Hazelnuts

The presence of hazelnut in all phases demonstrates that this resource was continually accessible but was particularly important during the Neolithic period. Hazelnuts are a common find at many Scottish archaeological sites due to the density of the shell and their ability to survive in most environmental conditions. The shells are often deliberately exposed to heat during roasting and are sometimes recycled as a kindling material or disposed of in fires during cleaning (Bishop et al 2010). Hazelnuts are seasonally available, nutritious, and easy to store long term which made them a popular food source throughout the Scottish prehistoric and medieval period.

The hazelnuts from Grantown Road were all composed of small concentrations of fragmented shells suggesting they have derived primarily from discarded domestic food debris. There was no surviving evidence that any of these finds had accumulated from large scale food processing such as storing or roasting large caches (Bishop 2019).

5.6.2 Fruits

Unlike hazelnuts, soft fruits such as blackthorn and raspberry are usually not deliberately exposed to heat so are therefore underrepresented within the archaeobotanical record. Therefore, the economic importance of fruits within the diet of the inhabitants at Grantown Road is difficult to fully interpret. What is apparent is that fruits alongside nuts were gathered when the season allowed.

5.6.3 The weed taxa

Even through the weed species were concentrated within the medieval phase, the species recovered from throughout the site tended to be similar. The weed species generally favoured agricultural fields, waste ground, and sandy acidic soils. Species such as sedge and buttercup which are usually found in damper soils were a minor component within this assemblage. This indicates that the surrounding landscape was dominated by acidic soils which experienced little environmental change from the prehistoric to the medieval period. Some of these weed species, such as cabbage/mustard, fat hen, pale persicaria, hemp-nettle, corn spurrey, and common chickweed, do have some economic and dietary value. These species have been deliberately collected from the prehistoric onwards for food, especially in times of famine (Renfrew 1973; Smith 1999: 331). Many of these plants also have a high nutritional value and could have been used to add flavour to cereal pottage made from the cultivated cereal crops (Renfrew 1993: 24). There is, however, no conclusive evidence that any of these species were deliberately collected for use in any of these capacities. Instead, most of these are agricultural contaminants or derived from plants that grew locally and were accidentally charred. Species such as sedge and grass have also been used as flooring, building material, or for fuel, as occurred at Oakbank Crannog, Cults Loch, and Black Loch where they were interpreted as forming floor layers (Miller 2002: 41; Robertson 2018: 85; Robertson & Roy 2019: 11–12). What construction role, if any, these plants had at Grantown Road is unclear given the small size of the carbonised assemblage.

5.7 Summary of the wood

The wood species found at Grantown Road are all native and would have grown locally in the surrounding landscape. Alder and birch normally favour more damp habitats, hazel and cherry tend to grow in hedgerows, scrub, and woodland while oak tends to grow wherever the soil and climate permits. Apple/rowan is found in rocky habitats and pine is typically found in more acidic soils (Linford 2009; Stace 2010; Martynoga 2012). The charcoal assemblage is dominated by fuel debris but there is some evidence for the burning of discrete structural elements such as posts and stakes. All the wood species were used as a fuel source, whereas oak and hazel were favoured for construction. The main wood species such as alder, birch, hazel, and oak were consistently exploited whereas heather, apple/rowan, cherry, and pine had a much more marginal role within this economy. As the heather, cherry, apple/rowan, and pine were concentrated within the earlier prehistoric phases it is possible that during the medieval period these trees were no longer as easily accessible or that they were no longer preferred as cultural attitudes to exploitation of wild resources changed.

5.8 Conclusion

The macroplant and charcoal assemblages from Grantown Road are composed of domestic food, fuel debris and some small structural elements. While the ecofacts assemblages were not overly large it was still possible to identify changes in how plants were exploited at this site. It appears that in the early stage of occupation the favoured crop was hulled barley and this began to change in the later stages where oats gained in popularity and had an important role within this economy. Access to woodland resources was relatively consistent in that the main wood species remained accessible for fuel and construction. However, wood species such as heather, cherry, and apple/rowan became underrepresented within the later assemblage, suggesting that the woodland surrounding the site was less diverse. Regardless, it is clear that the population living at this multi-phase site had access to a range of plant resources used for food, fuel, and construction.

6. PREHISTORIC POTTERY ASSEMBLAGE

Ann MacSween

6.1 Description and discussion

About 150 sherds and fragments and multiple smaller fragments and crumbs of pottery were recovered from the excavations at Grantown Road. Sixteen vessels were identified, and more will be represented by the tiny fragments which were too small to be attributed to individual vessels (Illus 18). The pottery was recovered from ten pits and two postholes with one or two vessels being represented in each. In general, the sherds recovered represented a small proportion of the original vessel (See Table 2). Twelve of the vessels have between 10% and 40% rock fragments and the remaining four are made of sandy clay. Four of the vessels have a smoothed exterior and three have burnishing on the exterior. None of the vessels has sufficient sherds remaining to determine the profile of the vessel, but from the character of the rims and decorated sherds, and radiocarbon dates in the first half of the 4th millennium BC, the pottery from Area E and most of the pottery from Area C is likely to be Early Neolithic round-based pottery. Later dates for Pit [1127] in Area C (final century of the 4th millennium/1st century of the 3rd millennium BC) and from Pit [1045] in Area H (mid-3rd millennium BC), indicate that use of the area went on throughout the Neolithic. There is too little of the pottery remaining to securely ascribe it to a tradition. One of the vessels, (SF 32/38 from Pit [1128]), is decorated with incised lines forming a criss-cross, lozenge-based design, and two rows of small dots (1mm diameter). It also has a perforation just above what may be a carination (Illus 18G).

6.1.1 Early Neolithic round-based bowls

Several of the diagnostic sherds were identified as Early Neolithic round-based bowls –

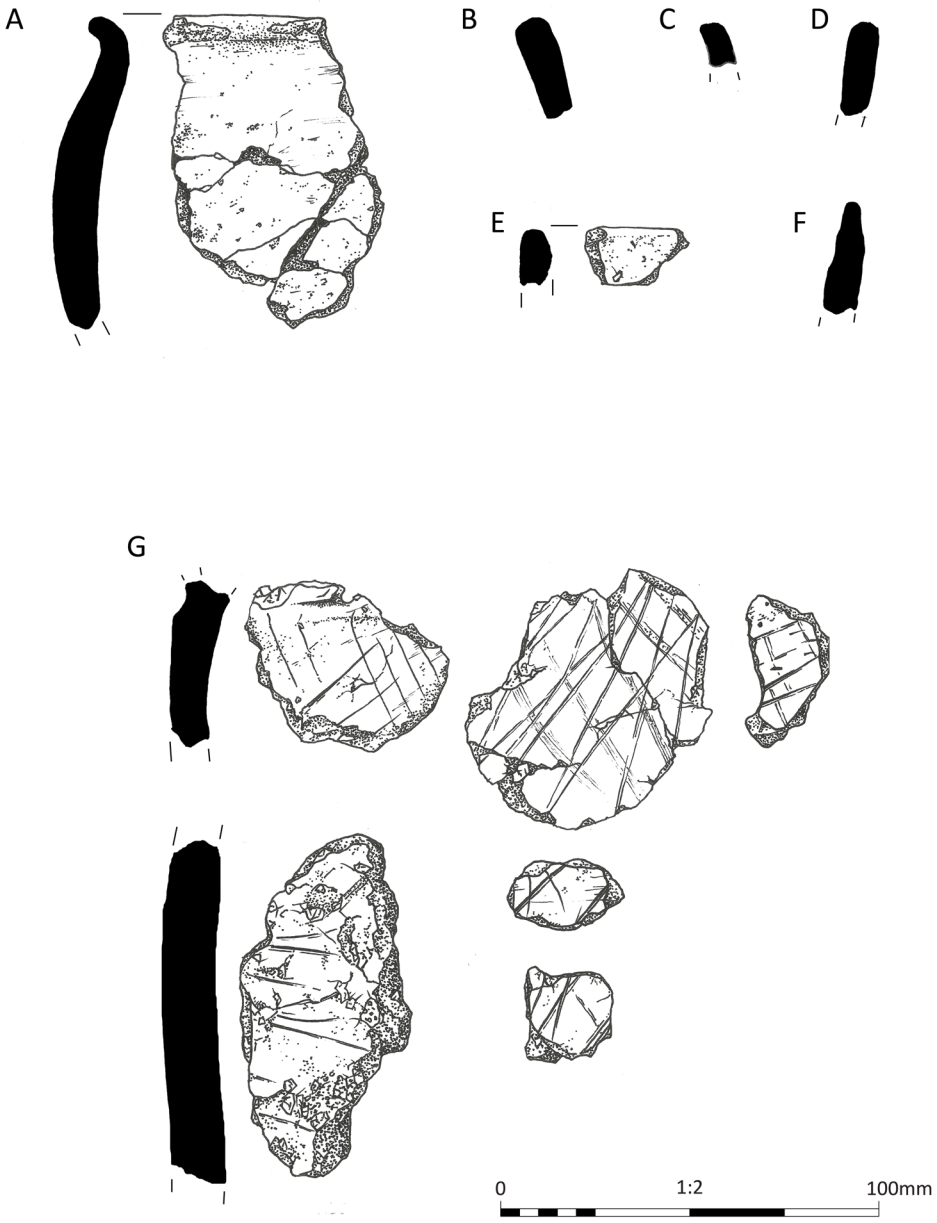
- SF 20 (Context (1019) – fill of Pit [1018]) has a slightly flattened rim with an out-turned lip and a slight shoulder or carination. The profile suggests a round-based bowl. Mid-37th century cal BC date (Illus 18A).

Table 2 Prehistoric pottery

Area	Context	Feature	No. of Sherds	No. of Vessels	Comments
C	(1128)	Pit [1127]	80	1	Possible carination, decorated
C	(1130)	Pit [1129]	3	2	
C	(1135)	Pit [1134]	11	2	
C	(1139)	Pit [1138]	1	1	
C	(1143)	Pit [1142]	1	1	Plain rim, flattened
C	(1151)	Pit [1150]	8	2	Flattened rim
C	(1153)	Roundhouse Posthole [1152]	7	2	Plain rim, possible lug
E	(1019)	Posthole [1018]	1	1	Flattened rim
E	(1021)	Stone-lined pit [1020]	12	1	
E	(1023)	Pit [1022]	12	2	Out-turned rim
E	(1035)	Pit [1034]	13	2	
H	(1046)	Pit [1045]	1	1	Flattened rim

- A rim from sampling of Context (1151) (fill of Pit [1150]) is probably from a simple round-based bowl with an open profile (Illus 18B).
- A small rim from SF 24, Context (1023) (fill of Posthole [1022]) is out-turned. Late 38th to mid-37th century cal BC date (Illus 18C).
- Two small rim sherds, Context (1143) (fill of Pit [1142]) and SF 28, Context (1046) (fill of Pit [1045]) are from vessels with a plain rim with a slightly flattened lip (Illus 18D and 18E).
- A plain rim from SF 37a, Context (1153) (fill of Posthole [1152]) is probably, from its context, from a round-based bowl with an open profile and has slight traces of a possible lug (Illus 18F).

Round-based pottery was used widely across Great Britain and Ireland during the Early Neolithic (Sheridan 1998: 219–20). A date span for the use of



Illus 18 Prehistoric pottery: (A) possible round-based bowl (SF 20), Context (1019); (B) round-based bowl from Context (1151) retents; (C) out-turned rim (SF 24), Context (1023); (D) plain rim, Context (1143) retents; (E) plain rim SF 28, Context (1046); (F) plain rim (SF 37a), Context (1153); (G) incised vessel (SF 32, 32b, and 38c), Context (1128)

carinated bowl pottery was suggested by Sheridan (2007: 451–8, fig. 6) as 3950/3900 to 3600 BC. The dates for carinated bowl pottery from the excavations at Forest Road, Kintore (Cook & Dunbar 2008: 167–70) indicated that round-based pottery was in use throughout the 4th millennium in the North-East, and this was confirmed by dates from the 2000–2013 excavations at Grantown Road, Forres (Cook 2016; McLaren 2016: 30).

Round-based assemblages from the north and east of Scotland include those from the excavations at Garthdee, Aberdeenshire (Murray & Murray 2015; Sheridan 2015) from a small ovoid building; from contexts associated with occupation from the excavation of pits at Dubton Farm, Angus (Cameron 2002; MacSween 2002); from the ceremonial site of Balfarg, Fife (Barclay & Russell-White 1994; Henshall 1994); and from the large timber building at Warren Field, Crathes (Murray et al. 2009; Sheridan 2009). The emerging picture across the North-East is complex, with a great deal of variation between sites, which makes collection and dissemination of as much data as possible important for building more accurate regional pictures.

7. MEDIEVAL POTTERY ASSEMBLAGE

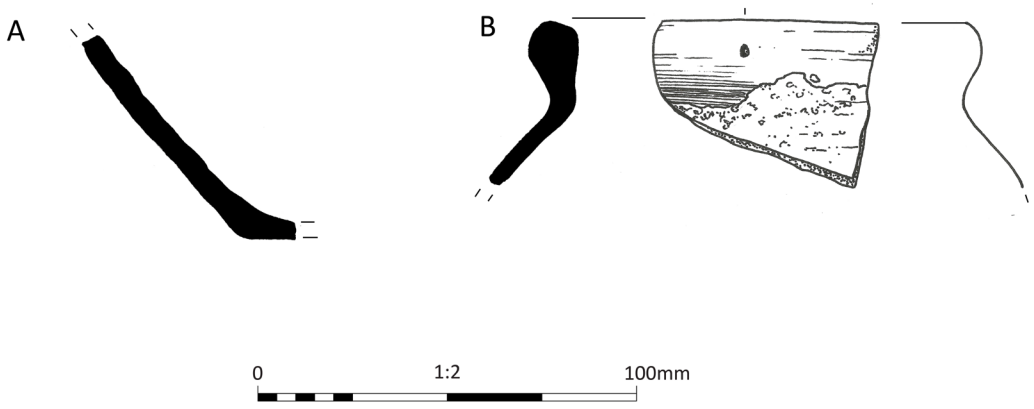
George Haggarty

7.1 Description and discussion

The few sherds from the Grantown Road, Forres excavation (Illus 19) belong in the Scottish medieval Redware tradition and could date from the late 12th century but more likely the 13th century. It is now thought that most Scottish East Coast burghs north of the River Tay may have been producing medieval pottery using red firing clays and these early kiln sites may originally have been associated with monastic houses (Haggarty et al. 2011: 8, fig. 8). Recent archaeological research suggests that the Scottish indigenous Redware industry began production in the second quarter of the 13th century and that there were many fabric versions within the industry, although it was a fairly homogenous product. To date, the only archaeological evidence for medieval Redware production in the north-east of Scotland comes from the deserted medieval burgh of Rattray where archaeological excavations recovered a number of kilns, and wasters, and a range of forms in a reddish gritty fabric (Murray 1993). Two probable medieval kiln props in Peterhead Arbuthnot Museum originated from a pottery on the Auchleuchries estate in 1670, just a few miles north of Ellon. Interestingly, just to the north of Auchleuchries and on an adjoining estate is a 'Claypots Croft' which is on the 1st Edition Ordnance Survey map sheets.

As it is almost impossible to tell the kiln groups apart using low power magnification, substantial amounts of red firing pottery from the Scottish North-East have now been the subject of a very successful ICP chemical sourcing project. Much of this work has been published and it includes data from Caithness, Dornoch, Tarbet, Spynie, Elgin, Rattray, and Aberdeen (Haggarty et al. 2011), while there is recent published data from Portmahomack (Hall 2016). Work on a number of new assemblages using ICP has been undertaken and these results are forthcoming. This includes sampling by both Derek Hall and the author, in association with Mike Hughes on pottery from various sites including Aberdeen, Cromarty, and Inverness. It is also now known that the pottery from the large Burgh of Aberdeen had a wider distribution, especially inland to sites such as the Bishop's Palace at Fetternear.

It is possible that Forres was also served by locally produced pottery, but presently we have no ICP data from the area and the few sherds from AOC's Grantown Road excavation suggest good quality wares were being produced on or near an area of Old Red Sandstone. The soils around Forres are principally derived from sandy glacial sediments laid down by glaciers flowing from the Great Glen and surrounding uplands. Interaction between these glaciers has left behind a complex and often thick sequence of highly permeable sediments, which obscure much of the underlying Devonian sandstone bedrock which stretches between Elgin and Inverness. There are also Devonian age outcrops of Upper, Middle, and Lower Old Red Sandstone around the Dornoch, Cromarty, and Beauly Firths so without chemical sourcing to fall back on, there is no way of identifying a source.



Illus 19 Medieval pottery: (A) V1 basal fragment (SF 22), Context (1011); (B) V3 (SF 25), Context (1064)

7.2 Catalogue

▸ Context (1011) Basal fill of Pit [1010]; SF 22.

V1 Nine base and body sherds all conjoin to form a large basal angle fragment from a Scottish Redware jug. Patches and traces of a splashed lead glaze on the upper portion of its exterior and runs on its base along with a circle showing that it was fired upside down. The well mixed brick red sandy fabric contains abundant very fine quartz grits and small red sandstone rock fragments along with copious mica flakes and specks (Illus 19A).

V2 One large Redware body sherd from the shoulder and lower neck of what looks like a globular jug. Presumably, the soil conditions were acidic as the exterior lead glaze has been badly pitted. The well mixed brick red sandy fabric contains abundant very fine quartz grits and small red sandstone rock fragments along with copious mica flakes and specks (not illustrated).

▸ Context (1064); upper fill of Pit [1057]; SF 25.

V3 Two cooking pot rim sherds almost certainly from the same vessel. Splashed glazed on its exterior and traces of sooting below its folded and rounded rim. The well mixed brick red sandy fabric contains abundant very fine quartz grits and small red sandstone rock fragments along with copious gold and silver coloured mica flakes and specks. This fabric is just a little grittier than the jugs from Context (1011) (Illus 19B).

8. LITHIC ASSEMBLAGE

Rob Engl

8.1 Introduction and methodology

A total of 16 pieces of chipped stone were recovered during the works undertaken at Grantown Road. The entire collection was macroscopically examined, and a general characterisation of the material was undertaken. A complete catalogue of the material is given in the associated record. A selection of artefacts is illustrated (Illus 20).

8.2 The assemblage

The assemblage consists of six pieces of flint and ten pieces of quartz (see Table 3). All are of local derivation. The flint ranges in colour from pale grey to red and is typical of material found along the eastern Scottish seaboard. The assemblage is relatively fresh in appearance with little in the way of patination or heat damage. Where present, the cortex has a rolled and water-worn appearance suggesting that it was obtained from the nearby shoreline or from a river. Two modified artefacts were recovered in the form of a chisel arrowhead (SF 33) and a notch and snap microburin (SF RT 7).

The chisel arrowhead (SF 33) from Pit [1127] was fashioned on a large blade or flake blank. The arrowhead had a denticulated cutting edge along its distal end. Semi-invasive, bifacial retouch was applied along the right lateral edge, with semi-abrupt regular retouch being present along the ventral left lateral edge. The retouch was applied to aid hafting as was the partial thinning of the proximal end, which removed the bulb of percussion. The denticulation applied to the cutting edge of the piece is rare on Scottish arrowheads of this type. It is possible that the artefact was re-purposed as another tool such as a sickle blade. Chisel arrowheads are part of a group often referred to as *petit tranchet* derivative points (Clark 1934). Types such as (SF 33) are considered to be Middle Neolithic in date (Ballin 2017: 23), which agrees with the radiocarbon date from hazelnut shell (SUERC-94886) returned for this feature of between 3091 and 2922 cal BC at 2-sigma.

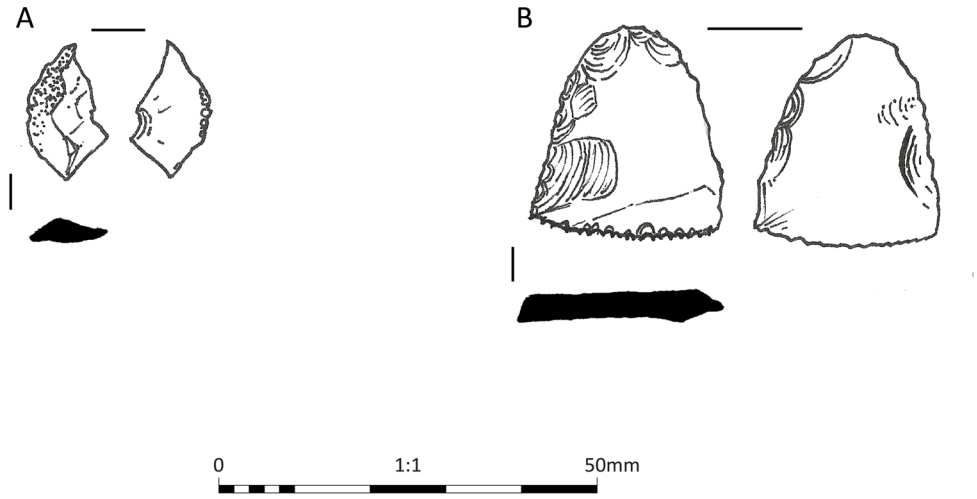
The notch and snap artefact from Pit [1129] is of Late Mesolithic date. Such artefacts are considered waste products from the production of geometric narrow blade microliths. The pit from which the microlith was recovered was radiocarbon dated to the Early Neolithic and the microlith may be redeposited.

8.3 Distribution and discussion

A similar small lithic assemblage was recovered from earlier works at Grantown Road undertaken between 2002 and 2013 (Engl 2016). This produced locally derived lithic material of Late Neolithic/ Early Bronze Age date from a series of stratified pit deposits. The current works have produced earlier lithic material dating to the Later Mesolithic and Middle Neolithic which corresponds broadly with the earliest features on site, though the solitary Later Mesolithic artefact is likely to represent redeposited material.

Table 3 Lithic assemblage

Type	Flint	Quartz	Total
Flake	2	0	2
Blade	1	0	1
Chip	1	0	1
Shatter	0	10	10
Microburin (notch & snap)	1	0	1
Chisel arrowhead	1	0	1
Total	6	10	16



Illus 20 Lithics: (A) notch and snap microburin (SF RT 7), Context (1130); (B) chisel arrowhead (SF 33), Context (1128)

9. COARSE STONE ASSEMBLAGE

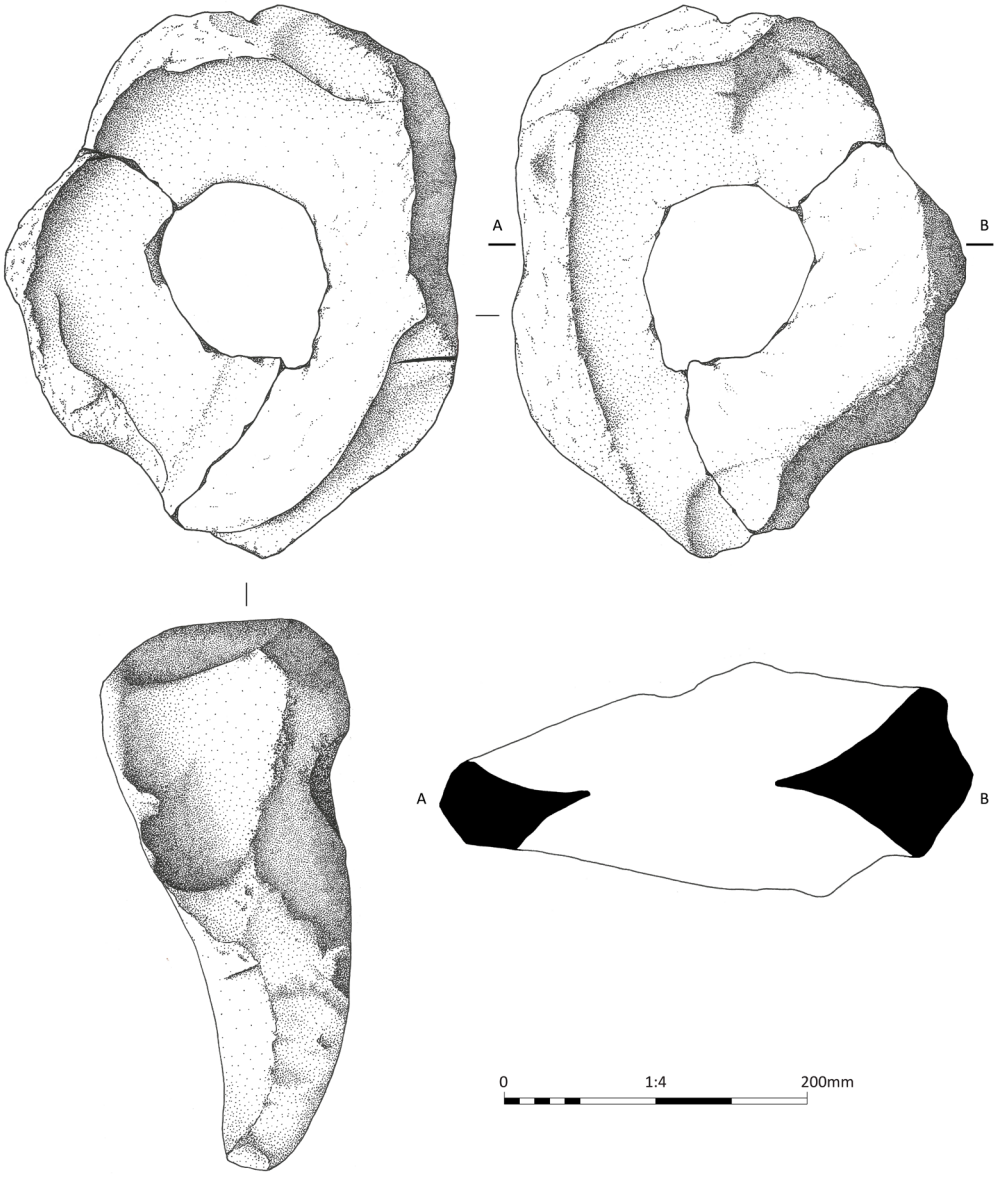
Dawn McLaren & Andrew Morrison

9.1 Introduction

A sandstone saddle quern (SF 23) was recovered from this phase of works; it is a well-worn example, now surviving in two large joining fragments and two smaller flakes. Recovered from the charcoal-rich Fill (1021) of stone-filled Pit [1020], the quern is made from a light reddish-brown even-grained sandstone and has been shaped from a moderately sized ovoid to sub-rectangular cobble (Illus 21). The stone would have been used in conjunction with a rubbing stone to grind grain into flour, but could have been used to grind other foodstuffs as well as a variety of other materials.

9.2 Description and discussion

The quern is heavily worn on both faces with sloping, dished working surfaces and lipped edges in areas and a short funnel-shaped facet at one end of each grinding face to aid in the removal of the flour. There is a large hole in the centre of the dished faces created by the extensive and prolonged grinding of the working surfaces. The wear present along the edges of this hole suggests that it was the result of extensive use over time rather than as an intentional or accidental fracture. Significantly, there



Illus 21 Saddle quern (SF 23)

are multiple discrete and in some cases overlapping narrow grinding facets along the long edges and sides of the quern that were likely caused by the sharpening or re-sharpening of stone axeheads against the sandstone. The breakage of the quern into multiple fragments appears to be unintentional and may have occurred either during deposition or post-depositionally.

The overall form of the quern is difficult to classify due to the pronounced wear in evidence but it is generally consistent with Close-Brooks' (1984) Early Neolithic querns in that it lacks evidence of shaping prior to use and wear is confined to the centre of the faces, leaving a narrow unmodified area around the periphery of the dished grinding facet (ibid: 288), which in this example was later used to abrade the blades of axes. Despite the depth of the grinding facets, the lack of a deliberate and well-defined rim around the edges argues against this example being classified as a trough quern as the shape is a product of wear rather than design. The presence of axe-sharpening facets, and their number, is very unusual but their presence on the tool edges and ends bolsters the interpretation of the quern as being Neolithic in date.

Saddle querns are known widely across the region, such as the large assemblage from Forest Road, Kintore, Moray (Engl 2008). A total of 32 intact and 25 fragmentary saddle querns were recovered at Kintore, associated with both early and later prehistoric contexts and were classified into three broad groups: slug, saucer, and stationary querns (ibid: 213, 215). The Grantown Road example most closely resembles that of Engl's saucer quern form, being largely undressed; three examples were recognised amongst the Kintore assemblage (ibid: 215). Only one intact and one fragmentary saddle quern were recovered during the previous excavations at Grantown Road. The closest parallel to the example under discussion here comes from the earlier area of investigation at Grantown Road (Engl & McLaren 2016) where a thick sub-rectangular sandstone slab (ibid: 37–8, illus 18, SF 03) saw use on one face as a saddle quern but had a bevelled abrasion facet flanking the surviving surface adjacent to both damaged ends of the stone. It was recovered from the fill of a pit associated with Structure 5. Also from this earlier phase of investigation was a grinding slab (SF 11) with two parallel and elongated concave facets on one face (ibid: 40, illus 19). Although it was suggested that this tool could have been used as a large stationary whetstone for fashioning metal or stone artefacts (ibid: 40), the similarity in the depth, width, and curvature of the facets suggests they could have been formed by abrading the blades of stone or metal axeheads. Further tools identified as possible axe-sharpeners are known from Stoneykirk, Wigtownshire (Anon 1892: 51; NMS: X.AL 38 & 39) and an example which also saw use as a working surface or knapping anvil was recognised amongst the stone assemblage from Ness-side, Inverness, excavated as part of the Inverness West Link Road (McLaren forthcoming). The texture of stone used here is ideal for abrasion and it is easy to see why a specimen such as this would have been chosen but the combination of use for both food processing and axe-sharpening tasks, and the extent of wear resulting from both is not readily paralleled.

The heavy wear displayed on the dished saddle quern is the result of extensive use over a prolonged period to the point of exhaustion of the grinding surfaces as indicated by the worn-through hole at its centre. Daily use would have denuded the stone surfaces over time due to the action of the grain and rubbing stone regularly rubbing against and wearing down sandstone. The length of time required to accumulate this type of dished wear through regular use is unclear in the absence of experimental work to test the attritional affects of wear on various lithologies over time. Saddle querns, like their later rotary forms, were key household implements both in a practical and symbolic sense as they represent tools that are closely associated with the agricultural cycle (Williams 2003). The fact that this example remained in use as an axe-sharpening tool implies that it was a prized object kept in circulation for an extended period of time, as argued for quern stones found elsewhere (Heslop 2008).

The quern was recovered from the charcoal-rich fill, Context (1021), of stone-filled Pit [1020] that formed part of a cluster of well-defined pits and postholes within Area E. The form of the quern is consistent with a Neolithic date and the radiocarbon dating of the charcoal-rich fill from which the quern was retrieved confirms this, producing a date of 4819 ± 23 BP (SUERC-94888), placing it within the Early to Middle Neolithic period. It is difficult

to argue with certainty whether this particular quern was purposefully deposited but its unusual use-wear biography suggests that it may have been carefully placed within Pit [1020] after its long use had come to an end. The purposeful deposition of quern stones and other stone tools has long been attested in Iron Age Scotland (Hingley 1993) and recognised amongst the quern fragments from a variety of sites in the region, including examples from previous excavations at Grantown Road (Engl & McLaren 2016: 41–2), Forest Road, Kintore (Engl 2008: 223–4) and Birnie, Moray (Hunter forthcoming). Although the depositional practices of quern stones in Neolithic Scotland are less well understood than in the Iron Age, the practice of structured deposition involving key household implements and tools associated with the stages of agricultural production or processing undoubtedly enjoyed a long currency (Brophy & Noble 2012), stretching back into early prehistory as examples from Beckton Farm, Dumfriesshire (Pollard 1998) amongst others attest. The Grantown Road quern provides a further possible example to the growing corpus of household artefacts seeing re-use and possible purposeful depositon in the Neolithic in Moray.

9.3 Catalogue

▸ SF 23

Largely complete but fractured dished saddle quern in a light reddish-brown even-grained sandstone. Sub-rectangular to slightly ovoid in shape, with a roughly triangular profile. Both faces are heavily worn creating deeply dished faces (maximum D: 67.5mm) with a lipped edge in places as well as a funnel or smoothed channel (W: 59.2mm) for removing the processed grain. A large hole (maximum D: 113.3mm) in the centre of the dished faces has been created by extensive wear from opposing sides. The concave grinding surface of the first face is characterised by a sharp slope on one end, which then evens out to a more shallow-dished face before tapering down to a narrow funnel, fairly smooth and even in wear, with a few shallow raised ridges present to suggest use at varying angles. There are small areas of wear along the top of the ridge from use as a resting point while the opposite face was in use. The opposite working surface has a vertical edge with a slight overhang along the long edge (L: 200mm, H: 70.4mm), and slopes downwards at a shallower angle than the opposite face, creating a more evenly dished profile. The pronounced ridge on the long edge slopes downwards and smoothes out meeting the dished face to create a pronounced funnel that breaks in slope and tapers down along the side of the quern (W: 107.5mm, L: 71.1mm). Two long sides of the quern display multiple facets of secondary wear, likely created by the sharpening of axeheads along the sandstone: the largest facet is located adjacent to the first face along the top half of the widest edge of the quern. This facet is linear with a semi-circular profile with a slightly dished base (L: 166.1mm, W: 74.1mm, H: 16.1mm). A similar linear facet adjoins the facet just described, though is much shallower and sweeping in shape following the line of the stone and terminating at the funnel edge (L: 179.3mm, W: 43.1mm, H: 3.4mm). Three small U-shaped grooves from sharpening are also present along this face (L: 24.5mm, W: 6.1mm, H: 1.6mm; L: 36.7mm, W: 4.7mm, H: 1.8mm; L: 25.1mm, W: 4.2mm, H: 1.1mm). A series of similar abrasion facets additional to those already noted, is also observed on the opposite face. L: 355mm, W: 287mm, H: 143mm, M: 6443.15g. Context: (1021) fill of Pit [1020].

10. STONE MORTAR

George Haggarty & Simon Howard

Excavations carried out at Forres recovered from a clay-lined pit, Fill (1059) of Pit [1057], part of a sophisticated and fairly shallow concavo-convex sandstone mortar (SF 21) with black staining and scoring on its interior (Illus 22). The rim, body, and ornate carved lug, for which the authors can find no parallel, is in a well-lithified fine to medium-grained mature sandstone with consistent grain size and some interstitial ferruginous components. The cement seems to be predominantly siliceous although some secondary calcite is probably present. The area around Forres is made up predominantly of Devonian sandstones, siltstones, and breccia conglomerates with Middle Devonian making up the majority of the lithostratigraphy. Although there is no comparative material from the Forres sandstone group in the collection of the National Museums Scotland, examples from around that area are all Devonian with similar constituent minerals but different ratios and grain sizes, so the possibility of the piece being locally derived is certainly extremely possible.

To date there has been no general survey of medieval and later mortars in Scotland with published evidence suggesting that their use may have been rare. Excavated examples in print are confined to Aberdeen and Perth, with the majority of these being marble and almost certainly imports. The only other sandstone and probable Scottish-made example is from an excavation carried out at Bon Accord in Aberdeen (context 10758, SF 2394, Phase 3 or 4). This is in coarse-grained light-grey subrounded quartz-rich sandstone classed as a subarkose quartz arenite, which has been well lithified, possibly due to slight metamorphism. With an abundance of this material in the north-east of Scotland, a local provenance would seem a reasonable hypothesis. The Bon Accord example has an internal diameter, probably just below its rim, of 220mm and an exterior diameter, not including lugs, of 330mm (Haggarty 2021).

In the main, mortars share several features, including a broad rim band and four exterior lugs above four vertical projections. These provided strength and enabled the mortar to be set into a wooden base. Surviving examples from the 18th century suggest this may have been a waist high upright section of a tree trunk; this would have allowed the use of both hands in the grinding process. Mortars were used with a pestle for grinding

Illus 22 Stone mortar

various materials, including foodstuffs, and appear to have superseded, at least in parts of England, rotary querns for grinding during the 13th century.

Archaeological evidence from a number of English burghs suggests that mortars are known from the 12th century, but only entered more general use during the 13th and 14th centuries. For example, Winchester produced no mortars earlier than the mid-12th to mid-13th centuries, while recent work on the Southampton evidence shows that all the mortars were recovered from high medieval or later contexts. This and the high number of sherds being discarded in the same phases and their absence from later phases suggests that querns were being replaced by mortars (Shaffrey 2011).

The mortar was recovered from a fill of Pit [1057]. A sample from alder charcoal (SUERC-94896) from a fill of the possible recut, Context (1062), of this feature provided a radiocarbon date of cal AD 1224–1283 at 2-sigma (Table 1). The date is in keeping with the two sherds of a glazed Redware cooking pot and ten sherds from two splash glazed pottery jugs of probable 13th century date, also recovered.

11. ORGANIC RESIDUE ANALYSIS

Julie Dunne, Richard Evershed & Toby Gillard

11.1 Introduction and methodology

Lipids, the organic solvent soluble components of living organisms, ie the fats, waxes, and resins of the natural world, are the most frequently recovered compounds from archaeological contexts. They are resistant to decay and are likely to endure at their site of deposition, often for thousands of years, because of their inherent hydrophobicity, making them excellent candidates for use as biomarkers in archaeological research (Evershed 1993).

Pottery has become one of the most extensively studied materials for organic residue analysis (Mukherjee et al 2005) as ceramics, once made, are virtually indestructible and thus are one of the most common artefacts recovered from archaeological sites from the Neolithic period onwards (Tite 2008). Survival of these residues occurs in three ways: rarely, actual contents are preserved in situ (eg Charrié-Duhaut et al 2007) or, more commonly, as surface residues (Evershed 2008). The last, most frequent, occurrence is that of absorbed residues preserved within the vessel wall; these have been found to survive in >80% of domestic cooking pottery assemblages worldwide (Evershed 2008).

Lipid analysis and interpretations were performed using established protocols described in detail in earlier publications (Correa-Ascencio & Evershed 2014). The full report is presented within the site archive.

11.2 Conclusions

The objective of this investigation was to determine whether absorbed organic residues were preserved in two body sherds from a decorated Neolithic vessel excavated from Grantown Road, Forres (Context (1128) from Pit [1127]). The results, determined from GC, GC-MS, and GC-C-IRMS analyses, demonstrate that the vessel was used to process dairy products, such as milk, butter, and cheese. The vessel does not appear to have seen sustained use, which could be a feature of the burial environment. It may have seen little use before deposition or was made specifically for the purpose of being left in the burial filled with dairy products.

It is difficult to make interpretations based on one vessel alone but the exploitation of dairy products was an important part of the Early Neolithic 'package' in Britain and Ireland (cf Copley et al 2005; Cramp et al 2014; Smyth & Evershed 2015) and an overwhelming predominance of dairy products (80%) was associated with Neolithic pottery throughout the north-east archipelago of the British Isles (Cramp et al 2014) and from the island of Ireland (89%; Smyth & Evershed 2015).

12. DISCUSSION

The final phase of excavations at Grantown Road, Forres have uncovered a chronologically diverse range of features and artefacts, ranging from a Late Mesolithic microlith to medieval pits with pottery and an unusual mortar fragment. The earliest features comprise two scatters of Early Neolithic pits and a post-ring structure, followed by a substantial enclosed Late Iron Age post-ring roundhouse. The findings from the earlier phases of work, published by Cook in 2016, complement those from the present excavation with areas of overlap in terms of artefacts, radiocarbon dating, and feature types, though there are notable differences. Those earlier works identified features and artefacts from the Neolithic, Bronze Age, and early medieval periods but with a focus on Iron Age settlement as 'represented by a variety of building types including ring-ditch, ring-groove and post-ring structures, in association with four-post structures, a souterrain and metalworking furnaces' (Cook 2016: 61).

12.1 Mesolithic activity

Earlier excavations had returned two 7th millennium BC radiocarbon dates but these were interpreted as representing ancient bog pine (Cook 2016: 3). A single redeposited microlith was the only evidence recovered during the present phase of works for Mesolithic activity on site. The site is located in a landscape with potential for a range of resources to be available, lying as it does on gravel terraces a little over a kilometre from the River Findhorn.

12.2 Early and Late Neolithic activity

The Neolithic activity was the most geographically widespread on site, located in three distinct areas, Area C, E, and H. In total eight radiocarbon dates were returned from sampled deposits, predominantly Early Neolithic. As is common to many sites with a Neolithic presence the most common features were pits with evidence of burning in the form of charcoal and fire-cracked stones along with pottery, lithics, and small amounts of charred cereal grains and hazelnut (Thomas 1999: 64; Barclay et al 2002; Cook & Dunbar 2008). A single well-defined post-ring structure was present in Area C. This structure would appear to be a coherent post-built roundhouse typical of the Bronze Age or later sites; however, hazelnut shell (SUERC-94900) from Fill (1159) of Posthole [1158] of this structure returned an Early Neolithic date of *c* 3650–3550 cal BC at 2-sigma. There is a possibility that this date may be anomalous, representing residual material associated with nearby Early Neolithic pits. As the charcoal used in dating this posthole feature was not clearly from a post burnt in situ, there is a risk that the charcoal might be residual. This risk is greater in a multiperiod site or area of activity as present here, with known features of different dates. In choosing samples for dating, consideration was made of the taphonomy of the material available to be dated, and it is recognised that material that could be strongly associated with the post-ring structure, such as hearth deposits or burnt post material, was not available. Although unabraded charcoal was selected, suggesting it had not been present for centuries prior to inclusion within the posthole fill, there remains potential that this represents residual charcoal from activity earlier than the structure. The following discussion favours a Neolithic date, given possible similar structures found elsewhere at Forres; however, it is accepted that the roundhouse may be a Bronze Age or Iron Age structure, similar to many examples dated to those periods.

The earlier excavations (Cook 2016: 3–9) had recorded concentrations of pits and postholes believed to represent Neolithic structures (Structures 1, 10a, 12a, and 12b) though without any obvious structural post-rings. The rationale behind such interpretations has been covered extensively at many other sites, such as Kinbeachie (Barclay et al 2002), Kintore (Cook & Dunbar 2008), Deers Den (Alexander 2002), Beechwood (McLaren & Engl forthcoming), Laigh Newton, (Toolis 2011), Milton of Leys (Connolly & MacSween 2004), and Beckton Farm (Pollard 1998). In comparison with examples from the sites noted above and structures recorded from the earlier Grantown Road excavations, the scatter of pits in Area E could similarly be interpreted as remains of a Neolithic domestic structure. The features in Area E contained a saddle quern and round-based bowl pottery suggestive of a domestic setting; similar finds were present in Structure 12a/12b at the earlier site (ibid: 9).

However, in contrast to the more ephemeral structures identified in the earlier Grantown Road

works, the post-ring structure in Area C is unusually coherent in form, and in the absence of radiocarbon dates might have been interpreted as Bronze Age or later prehistoric in date. It would appear to represent a roundhouse structure with a post-ring diameter of 6.2m and a footprint of perhaps 9m to 10m diameter. Although no internal features survive, such as a hearth or central post, there are further pits and postholes outside the post-ring, commonly deeper than many of the postholes of the post-ring. The coherence of the post-ring is perhaps testament to a relatively low level of plough truncation.

A recently excavated site at Lochinver Quarry, to the west of Elgin, contains evidence for an Early Neolithic roundhouse/post-built building, and is similar to Grantown Road in also containing evidence for later prehistoric settlement. A sample of charred barley (SUERC-87239) from a pit within the Neolithic structure at Lochinver provided a date range between 3764 and 3653 cal BC at 2-sigma, very similar to the dated Early Neolithic activity at Grantown Road, and provides a possible parallel for the Area C structure (Cockcroft et al 2019: 14, 72–4).

The earlier excavations at Grantown Road produced five radiocarbon dates between around 3650 cal BC to 3400 cal BC with 95% confidence, from Structures 12a and 10a (Cook 2016: 4). These Early Neolithic dates are broadly contemporary with the dates for the post-ring roundhouse and pits in Area C and the pits in Area E. It is possible that some of these features and structures could have been contemporary and at the very least this indicates extensive areas of activity during this period. The presence of Early Neolithic round-based bowls from Area C and Area E matches the small assemblage from the earlier excavations with various carinated and uncarinated bowls present (McLaren 2016: 26–30), again suggesting a cohesive integrated settlement across both sites.

Two Later Neolithic features on the present site include a pit, [1127], containing pottery of an uncertain tradition, possibly Grooved Ware, in Area C and Pit [1045] in Area H. In the earlier excavations there was a similar pattern of concentrated Early Neolithic activity with isolated Late Neolithic features. Close to both Structures 10a and 12a were isolated pits with mid to late 3rd millennium BC Late Neolithic dates, Pits [655] and [731] (Cook 2016: 4). This points to the continued use of the wider landscape around the Grantown Road site from the 4th millennium through to the mid-3rd millennium BC.

A wide range of food products was utilised in the Neolithic period. The macroplant remains include limited quantities of typical Neolithic cereals, barley and oats, while there is evidence for crop processing on or near the site as a heavily worn saddle quern, likely reused for axe sharpening, was recovered. Large amounts of carbonised hazelnut shells recovered from Neolithic contexts indicate their use as a food source while lipid analysis of organic residues on a sherd of possible Grooved Ware shows that dairy products possibly milk, butter, or cheese were consumed.

12.3 Late Iron Age activity

Unlike the earlier works at Grantown Road (Cook 2016), there was an absence of evidence for Bronze Age and Middle Iron Age activity on the present site.

Late Iron Age activity was represented, however, as a cropmark was identified through excavation as a palisaded enclosure and post-ring roundhouse in Area G. This was a comprehensible series of features comprising a large enclosure cut which would have held a post-built palisade, likely with larger entrance posts representing a gate of some form across a 2.6m wide opening. The enclosure had an internal diameter of 17.5m and an internal area of 240m^2. The enclosing ditch was on average 1.0m deep and the palisade posts would have been between 0.30m and 0.40m in diameter, which suggests a height of perhaps around 2.0m above ground.

The earlier excavations at Grantown Road revealed the presence of a number of Iron Age features, 'forming a discrete settlement on the higher ground overlooking the Findhorn. The settlement comprised a huge substantial ring-ditch roundhouse, a smaller ring-ditch, two post-ring structures, a small ring groove, two palisade enclosures, two metalworking furnaces and a souterrain. Two smaller ring-ditches were identified to the immediate north-west of this main settlement' (Cook 2016). The two palisades were not fully exposed during these earlier works but it was clear that Palisade 2 cut across Palisade 1. The earlier palisade had a postulated internal diameter of

21.5m, while Palisade 2 was slightly larger with an estimated internal diameter of 23m. The palisades were dated to *c* 1st century AD for Palisade 1 and to the late 1st to 2nd century AD for Palisade 2. Structure 6, a large ring-ditch roundhouse cut by the earlier Palisade 1 was dated to between the 2nd century BC and the 2nd century AD (Cook 2016: 5, 21–2). These dates are extremely similar to the four dates returned for the palisade and post-ring roundhouse in Area G, which are of likely late 1st century AD to early 3rd century AD date, suggesting they represent part of the same later prehistoric occupation. The radiocarbon dates suggest that these structures may have been in contemporary use or in a relatively continuous sequence. The souterrain from the earlier works also returned a 1st to 2nd century AD date for its backfilling (ibid: 5, 15–6).

The three palisades therefore share very similar dates but they are also directly comparable in terms of scale, plan and form. The primary difference is that the palisade in Area G of the present works is complete and contains a post-ring roundhouse. This centrally placed roundhouse, whose entrance porch is aligned with the entrance to the enclosure is undoubtedly contemporary with the enclosure. Cook (2016: 61) suggests that the enclosures encountered previously were likely to have been used for stock control and animal protection rather than enclosing settlement. Unfortunately, as less than half of each of Palisade 1 and Palisade 2 were revealed, it is unclear whether either palisade recorded by Cook contained an associated structure, as identified in the Area G palisade, or not. Had these two previously recorded palisades been fully excavated, perhaps the various pits and postholes present within the excavated areas would have indicated the truncated structural remains of a building.

Across Scotland the last few decades have seen a number of enclosed Iron Age sites subject to excavation, from multivallate enclosures such as Braehead, Glasgow, which utilised ditches and wooden palisades (Ellis 2008) to Dryburn Ridge, East Lothian (Dunwell 2007) where there was an extended Iron Age settlement with both enclosed and unenclosed phases and numerous post-ring roundhouses. These sites and many of the other known enclosed Iron Age settlements were established by the mid-1st millennium BC (Dunwell 2007: 112) but the three palisades at Forres appear to date to several centuries later, the 1st and 2nd century AD. There were, however, also unenclosed settlement remains from the mid-1st millennium BC, such as post-ring Structure 3 (Cook 2016: 19) or metalworking furnace [157] (ibid: 14). At Dryburn Ridge, the first phase of settlement within the palisade suggests the presence of three roundhouses with entrances aligned on breaks in the palisade and facing due east, in similar fashion to the Area G example (Dunwell 2007). The recent excavation at Lochinver Quarry, to the west of Elgin, as well as containing a post-built Early Neolithic roundhouse (noted above), also provides nearby evidence for Iron Age settlement, though here there was an unusual rectangular building, lacking evidence for enclosure, and apparently of somewhat earlier date. A barley grain sample (SUERC-87244) from one of its pits had a date range between 350 and 59 cal BC at 2-sigma (Cockcroft et al 2019: 14, 73, 76–7).

At Strathallan, Perthshire, three palisaded enclosures were excavated on a gravel ridge, one of which contained a post-ring roundhouse with a further two ring-ditch roundhouses and two ring-groove roundhouses also present (Dunbar 2015). The post-ring roundhouse lay within a 30m diameter palisade with its entrance to the east. Though unpublished, the pottery assemblage and form of the roundhouses at Strathallan suggest an Iron Age date for the settlement.

The post-ring roundhouse at Forres is typical of this form of structure, which has parallels from the Bronze Age onwards across Scotland and Britain. The size and form of the roundhouse at Forres is entirely typical and comparable with known examples. Local parallels with very similar post-ring structures with porches include Culduthel (Murray 2008a; 2008b) and Beechwood, both Inverness (McLaren & Engl forthcoming), Kintore, Aberdeenshire (Cook & Dunbar 2008), or further afield, Braehead, Glasgow (Ellis 2008), and Dryburn Ridge, East Lothian (Dunwell 2007).

Further recent archaeological work in Forres includes a watching brief at Waterford Road, close to the River Findhorn. Several postholes and pits were uncovered and excavated, including a series of pits relating to the smelting and smithing of iron ore, and the disposal of waste materials which are interpreted as Iron Age in date (Gaunt 2017). There is therefore evidence for widespread Iron Age activity

focused along the terraces above the River Findhorn and this river clearly played an important role as a resource and routeway across the later prehistoric landscape. Further evidence for Iron Age smelting activity was recently encountered further east at Lochinver Quarry, in the form of three possible iron smelting furnaces/hearths with associated tap slag, though these are suspected to be of Early Iron Age date (Cockcroft et al 2019: 76; McDonnell 2019).

12.4 Medieval activity

The medieval activity on site was limited, with three pits assigned to this period. A solitary pit, [1110], in Area C was likely dated to between the 7th and 9th centuries AD (SUERC-94904), which accords with a number of 8th to 10th century AD features and structures recorded during the earlier excavations (Cook 2016). Of more interest, however, were two large intercutting pits located in Area E which were radiocarbon dated to the mid-to-late 13th century AD. Pit [1057] and later Pit [1010] which truncated it are amongst the largest cut features on site. Pit [1010] had a deliberate clay lining presumably imported from somewhere off-site as no natural clay deposits were encountered during the excavations. However, the plant macroplant finds from these pits did not suggest any clear crop processing or storage function. The macroplant evidence was dominated by oats, rye, and hulled barley though the presence of bread/club wheat is unusual given its difficulty to cultivate. Where present on medieval sites, it is often viewed as an imported luxury food item or at the least an indicator of a high status site. The radiocarbon dates and the locally made Scottish Redware pottery recovered suggest a mid-to-late 13th century AD date, which would also match the date proposed for the mortar fragment recovered from Pit [1010]. This is a rare example of an apparently locally made medieval sandstone mortar in Scotland, with only one other known, from an excavation carried out at Bon Accord in Aberdeen (Haggarty 2021). The presence of such a rare item would suggest the presence of a high status site in proximity to the present site, though with the exception of remains of bread/club wheat, no further evidence in support of this was identified. However, the presence of a high status site, nearby in medieval Forres or the surrounding area, cannot be discounted.

The settlement of medieval Forres was likely one of up to 19 settlements in Scotland granted 'burgh' status by the end of King David I's reign in 1153 (Dennison 2018: 11–12) though the original charter is lost. Excavations within the medieval core of the town in 1994 uncovered a series of pits, a boundary ditch, and postholes with pottery including imported wares but also locally made Redwares, which were deemed to be 13th century in date (Cachart & Hall 1994), while the medieval castle in Forres is mentioned in 1264, when William Wiseman, the Sheriff of Forres, paid for a new tower to be built (Douglas 1934: 523). In addition:

> 'in 1297, Forres Castle was said to have been in English hands, and in that year it was attacked and taken by the patriotic party under the command of Sir Andrew Murray. After Bruce's victory at Bannockburn in 1314 it was transferred to the custody of the Earls of Moray' [Simpson & Stevenson 1982].

While the present site would have been very peripheral to the core of the medieval settlement of Forres, it is possible that the mortar derives from the turbulent later years of the 13th century when medieval Forres saw much disruption. It is also possible that it derives from a possible high status settlement perhaps ecclesiastical in nature near the present site. According to Easson (1957: 103), while the presence of a Dominican friary in Forres has been suggested by a reference to its possible foundation in a manuscript in the National Library of Scotland, this is unlikely to be correct.

13. CONCLUSIONS

The recent archaeological works at Grantown Road, Forres add to the picture of multiperiod settlement in the area revealed by the earlier works published by Cook in 2016. The 2016 publication noted Mesolithic, Early Neolithic, Bronze Age, Late Iron Age, and early medieval archaeological remains and concluded that the site was most significantly settled and utilised during the Late Iron Age period (Cook 2016). The palisaded enclosure and roundhouse remains uncovered during the present works date to this period, confirming that the Late Iron Age was indeed a significant point in terms of variety of settlement and likely in the intensity of site occupation and activities. However, the latest works have also uncovered a series of Early Neolithic pits and a possible Early Neolithic post-built roundhouse structure, which may be comparable in date with a range of features found in the earlier works. There is, however, potential that the radiocarbon date suggesting an Early Neolithic date for the roundhouse structure may derive from residual material, which would allow this structure to potentially be Bronze Age or Iron Age in date. However, taken together, these new features appear to complement the earlier recorded remains and may suggest that the Early Neolithic activity at Grantown Road was the most geographically widespread across the landscape, in comparison with the more plentiful Late Iron Age features, which were more densely clustered. Although some early medieval features had been encountered previously, the presence of later, 13th century, activity at Grantown Road contrasts with the absence of evidence from the first half of the 2nd millennium AD in the earlier works. The presence of a rare, locally produced sandstone mortar is tentative evidence for a relatively high status 12th to 13th century settlement or other activity hitherto unrecorded in the local vicinity – though as only a single small fragment of mortar was recovered, the medieval core of Forres, a few kilometres to the north, is the most obvious source.

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