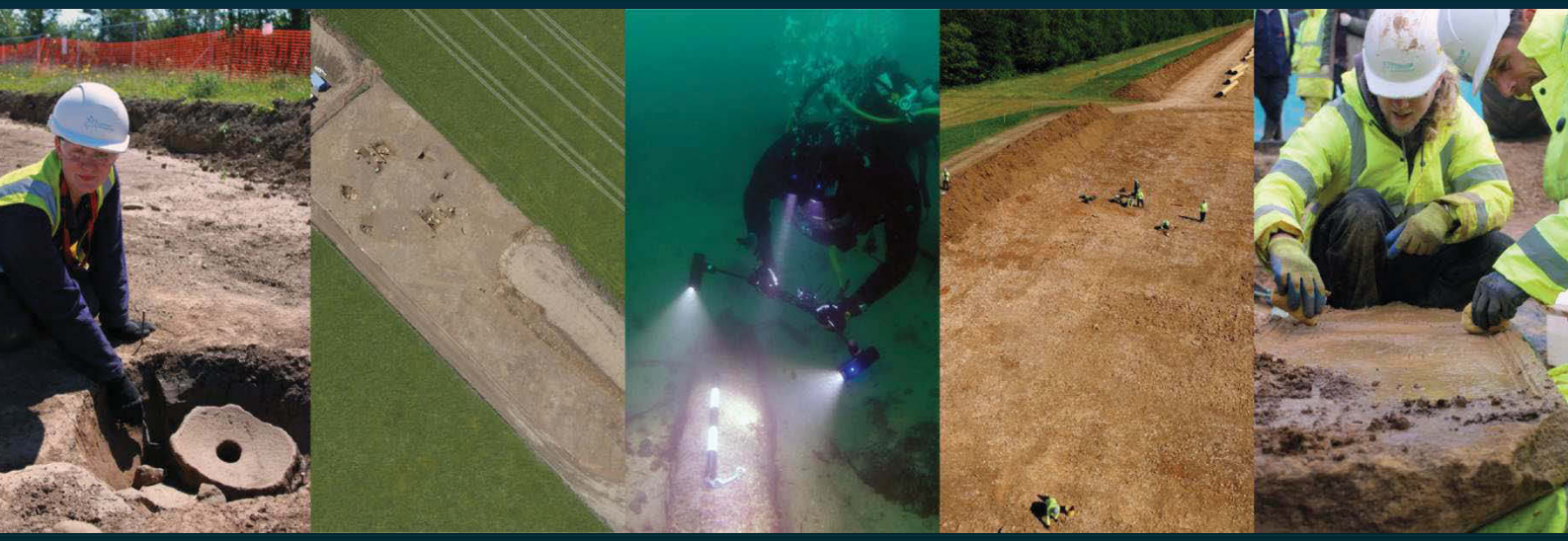
Cotswold Archaeology

Cloakham Lawns, Axminster
Devon

Archaeology Assessment Report and Updated Project Design



for

Bovis Homes Limited

South West Region

CA Project: 9174

CA Report: 15767

February 2016

Andover Cirencester Exeter Milton Keynes

Cloakham Lawns
Axminster
Devon

Post-Excavation Assessment and Updated Project Design

CA Project: 9174
CA Report: 15767

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SUMMARY

Site Name:	Cloakham Lawns, Axminster
Location:	Devon
NGR:	SY 3037 9921
Type:	Excavation
Date:	January – February 2014
Location of archive:	Royal Albert Memorial Museum, Exeter (deposition date TBC)
Accession Number:	RAMM 14/02
Site Code:	CLAD14

Archaeological excavation was undertaken by Cotswold Archaeology in January and February 2014 at the request of Bovis Homes Ltd at Cloakham Lawns, Axminster, Devon. In compliance with an approved WSI (CA 2013) and in the light of the results of a preceding field evaluation (CA 2010) a targeted area was excavated within the overall development site.

The earliest features identified comprised a small group of pit-like features containing fragments of pottery, flintwork and charred hazelnut shells. Radiocarbon dates on recovered hazelnut shells show that the features were of Early Neolithic date. It is possible that they related to transient occupation, with some of the larger features representing tree-throws while the smaller examples appear to be postholes. The latter include alignments that suggest the presence of a structure, but there is no overall pattern that can be interpreted as a building.

Subsequent occupation towards the centre of the stripped area consisted of Iron Age to early Roman occupation beginning in the later Iron Age (from *c.* 300 BC), while pottery dating to the 1st century AD indicates that occupation was continuous until around the time of the Roman conquest, but perhaps did not outlast the 1st century. The identified features from these periods comprise, in the main, curving gullies, pits and postholes. In general, postholes lacked distinguishing characteristics such as post-voids and packing, and it was not possible to determine whether the curving gullies were structural or drainage features. Overall, the identified Iron Age/early Roman settlement appears to be of relatively low status and represents a typical small farmstead. Later features included a pattern of post-medieval field boundaries and more recent field drains and pits.

This report presents an assessment of the results of the excavation and proposals for summary publication in the county archaeological journal.

INTRODUCTION

1.1 During January and February 2014 Cotswold Archaeology (CA) carried out an archaeological excavation at Cloakham Lawns, Axminster, Devon (centred on NGR: SY 3037 9921; Fig. 1) on behalf of Bovis Homes Ltd. Planning permission for a residential development with associated car parking and landscaping was granted by East Devon District Council (EDDC; planning reference: 10/0816/MOUT). Condition 22 required the completion of a programme of archaeological works as recommended by Stephen Reed, Archaeological Officer, Devon County Council Historic Environment Team (DCCHET), archaeological advisor to the EDDC. The excavation was undertaken in accordance with a subsequent detailed *Written Scheme of Investigation* (WSI) produced by CA (2013) and approved by the LPA acting on the advice of Mr Reed. The fieldwork also followed the *Standard and Guidance for Archaeological Excavation* issued by the Chartered Institute for Archaeologists (2014) and the *Management of Archaeological Projects 2* (EH 1991). It was monitored by Stephen Reed, including site visits on 21 January and 18 February 2014.

Location, topography and geology

1.2 The excavation area was approximately 0.6ha within the larger development site, and at the time of fieldwork comprised parkland bounded to the east by the A358 and to the north by an access road for a sports club (Fig. 1). Further parkland lies to the west and south. The site lies at approximately 50m AOD on land that falls gently towards the River Axe to the West.

1.3 The underlying bedrock geology of the area is mapped as Blue Lias Formation (limestone and mudstone) of the Jurassic and Triassic periods overlain by superficial deposits of Quaternary River Terrace Sand and Gravel. Areas of Penarth Group Limestone of the Triassic Period are recorded to the west of site (BGS 2013).

Archaeological background

1.4 A desk-based assessment of the site undertaken by Cotswold Archaeology in 2009 describes the cultural heritage of the site fully (CA 2009). A summary of that information is provided below.

1.5 The assessment suggested that valley gravels, such as those present in the eastern parts of the site, were a possible location for prehistoric settlement. It also

highlighted the potential for Roman roadside settlement associated with the Fosse Way Roman road, which ran broadly along the line of the A358 (on the eastern edge of the development site). Medieval activity appears to have been focused to the north and south of the site, at Weycroft and Axminster, with the site itself most probably lying within an open-field landscape. The earliest known cartographic source, the 1778 Map of the Manor of Axminster, indicates that the site was in agricultural use in the late 18th century. Subsequently, it became part of a park for Cloakham House, at which time it became known as Cloakham Lawns (CA 2009, 10-12).

1.6 During the Second World War the site was on the Taunton Stop Line. This was a defensive feature extending for over 50 miles from Seaton on the Devon coast to Highbridge on the Bristol Channel, whose purpose was to stop a potential German landing on the south-west peninsula (CA 2009). Remains associated with the Stop Line are present within the site. These include an anti-tank cube as well as possible below-ground remains of an anti-tank ditch and pillbox, both shown on 1940s aerial photographs (ibid.).

1.7 A geophysical survey of the site carried out in 2010 revealed a number of anomalies (PCG 2010). The majority of the recorded anomalies reflected modern/recent activity, such as former field boundaries, buried services and miscellaneous ferrous debris. However, within the south-eastern part of the site, two possible ditches were recorded running at a different alignment to the historic and modern field boundaries (ibid). Further recorded anomalies included the location of the Second World War pillbox and a relatively strong magnetic anomaly at the southern extent of the site thought to represent a natural phenomenon or a scatter of brick and tile fragments (ibid.).

1.8 An archaeological evaluation was carried out by Cotswold Archaeology in 2010 over much of the development site. Most of the features were furrows and field boundaries with post-medieval dating evidence (although possibly earlier origin), although some ditches on a different alignment contained Roman pottery. There were also modern features relating to a pumping station, field boundaries and tenement occupation (CA 2010).

1.9 A number of ditches were recorded in three trenches on the land on the eastern side of the site, lying on the higher land of the gravel terrace. One contained Roman

pottery and it was considered likely that the other ditches were also part of a Roman field system. Iron slag was also present. Accordingly, provision was given for excavation focused on this area, excluding a strip along the road frontage, which was reserved for planting. The area stripped of topsoil ultimately included the area of the ditches and an extensive zone around them, amounting to *c*. 0.6ha.

2 AIMS AND OBJECTIVES

2.1 The aims and objectives of the excavation were laid out in the *Written Scheme of Investigation* (CA 2013). They comprised the following:

- Record any evidence of past settlement or other land use
- Recover artefacts to date any evidence of past settlement
- Sample and analyse environmental remains to create a better understanding of past land use and economy

2.2 The WSI also outlined the proposals for reporting, including this assessment report and an expectation of publication (CA 2013, Section 3).

3 METHODOLOGY

3.1 Fieldwork commenced with the removal of topsoil and subsoil from the excavation area by mechanical excavator with a toothless grading bucket, under archaeological supervision.

3.2 The archaeological features thus exposed were hand-excavated to the bottom of archaeological stratigraphy. Examination of features concentrated on recovering plans and structural sequences in order to understand the phasing and dating of the site. The percentage sample excavation was determined by the degree of confidence in dating and interpretation of the discovered remains. The following sample sizes were employed as a minimum, unless a variation was agreed with the Archaeological Adviser to the EDDC:

- small discrete features, fully excavated
- larger discrete features, half-sectioned (50% excavated)

- long linear features, sample excavated along their length - with investigative excavations to a maximum of 10%, and to investigate terminals, junctions and relationships with other features
- All funerary/ritual activity and domestic/industrial deposits,100% excavated
- Bulk horizontal deposits, 10% excavated by area hand, with provision for subsequent machine-excavation, as agreed with the Archaeological Adviser.

Excavation samples were increased where potential structures of archaeological significance were discovered so as to allow their form, function and date to be examined more closely.

3.3 All features were planned and recorded in accordance with CA Technical Manual 1: *Excavation Recording Manual* (CA 1996). Deposits were assessed for their environmental potential and sampled appropriately in accordance with CA Technical Manual 2: *The taking of samples for paleoenvironmental and palaeoeconomic analysis from archaeological sites* (CA 2003). All artefacts recovered from the excavation were retained in accordance with CA Technical Manual 3: *Treatment of finds immediately after excavation* (CA 1995).

4 RESULTS

Fieldwork summary

4.1 Archaeological features were identified in the area of excavation, concentrated in the centre of the area, with a scatter of pits in the southern part of the area. There was little of significance in the northern part of the site (Fig. 2). The features comprised ditches, pits and postholes relating to a settlement of the later Iron Age, with dating running through into the 1st century AD. There were also pits and tree-holes in the southern part of the site containing pottery of Early Neolithic date. The extent and density of these occupations were not predicted by the preceding geophysical survey and evaluation.

4.2 Features have been assigned to five periods based on artefact dating, radiocarbon, morphology, soil characteristics and spatial patterning.

1. Early Neolithic (*c.* 3700 – 3500 BC)

2. Later Iron Age (*c.* 400 BC – AD 50)

3. Late Iron Age/early Roman (*c.* AD 10 – AD 100)

4. Post-medieval (*c.* 1500 – 1900)

5. Modern (from *c*. 1900)

Additionally there were a number of features that remained undated (assigned Period 6 for data-handling purposes).

4.3 All radiocarbon determinations cited in this report are quoted at the 95.4% probability range unless stated otherwise.

Period 1: Early Neolithic (c. 3700 – 3500 BC)

4.4 A small cluster of pits was identified in the south-western part of the stripped area (Fig. 3a). Pits 10222, 10246, 10250, 10252 and 10318 were similar in nature and measured between 1.9m and 4.7m in length and 0.28m and 0.79m in depth (Fig. 4, sections AA, BB, GG; Fig. 5). All contained single, homogenous grey-brown clay sand fills. Quantities of worked flint and chert, comprising flakes, cores and blades of prehistoric date, were recovered from the fills of each of these pits (Appendix 2). Twenty sherds of possible Early Neolithic pottery (Appendix 3) were recovered from deposit 10319 (the single fill of pit 10318), associated with *Prunus* charcoal that yielded a radiocarbon date of 3766 – 3647 BC (SUERC-62306) (Appendix 9). Pit 10318 cut pit/posthole 10320, which is therefore earlier and also assigned an Early Neolithic date (Fig. 4, section GG). It is possible that some of these features (e.g. pit 10250) were tree-throw pits due to their irregular shape in both plan and profile, but although these contained pottery and/or worked flint, there was no cultural material on the bases of these features, and therefore no indication that they had been utilised as working hollows. On this basis, the pottery sherds and worked flint would seem to be incidental inclusions.

4.5 Four small pits/postholes, 10311, 10320, 10332 and 10333, were also identified in the south-western corner of the stripped area and have been assigned to Period 1 (Fig. 4, sections EE, JJ). These were between 0.47m and 0.76m in length and 0.12m and 0.22m in depth. All contained homogenous dark grey-brown clay sand fills and had shallow 'U'-shaped profiles. A single sherd of Early Neolithic pottery, an early prehistoric flint blade and a flint flake were recovered from the fill (10331) of pit/posthole 10332. A single sherd of Early Neolithic pottery, 11 worked flint/chert flakes, a flint blade and a flint core were recovered from the 1st fill (10312) of

pit/posthole 10311, which also yielded a radiocarbon date of 3649 – 3522 BC (SUERC-62301) on hazelnut shell. Posthole 10333 remained undated although it is likely to be broadly contemporary with the Early Neolithic features identified in this area, despite a small crumb of post-medeival Creamware pottery from fill 10334, which is considered likely to have been intrusive. Due to their isolated nature, the function of these features remains unclear although they may represent a continuation of prehistoric activity located in this area.

4.6 A group of ten small features, 10283, 10285, 10300, 10301, 10303, 10305, 10316, 10324, 10326 and 10328, probably representing the truncated bases of small pits or postholes, were identified in the south-eastern corner of the stripped area (Fig. 4, sections CC, DD, FF, HH; Fig. 5). These were between 0.2m and 0.6m in length and 0.1m and 0.36m in depth and all contained one, or occasionally two, homogenous silt clay fills. It is possible that these pits/postholes formed a curving, broadly north-east/south-west orientated alignment and represent the partial remains of a post-built structure. However, due to the shallow nature of these features and the likelihood that later truncation may have removed further similar features, this suggestion remains somewhat tenuous. Two sherds of Early Neolithic pottery and a worked flint flake were recovered from the fill of pit/posthole 10316 and this dating is supported by a radiocarbon date of 3695 – 3529 BC (SUERC-62302) on short-lived wood charcoal, so the feature is assigned to Period 1. Pit/posthole 10300 contained two sherds of probable Middle to Late Iron Age pottery. However, due its form, its fill characteristics and its location within a postulated wider pit/posthole alignment, the Iron Age pottery is considered possibly intrusive and the feature is tentatively assigned to Period 1. The remaining pits/postholes in this group (10283, 10285, 10301, 10303, 10305, 10324, 10326 and 10328) produced no artefactual material, although charcoal came from the fill of pit/posthole 10283 (Fig. 5). It would appear likely that some if not all of the remaining undated features in this group are broadly contemporary with pit/posthole 10316 due to the similarity of their morphologies and fills. They are therefore also tentatively assigned to Period 1, although it is possible that the Earlier Neolithic material in pit/posthole 10316 was residual in a later feature and they all may relate to a later phase of activity.

Period 2: Later Iron Age (c. 400 BC – AD 50)

Roundhouse 1 (Gullies F and G)

4.7 Two curving gullies, F and G, lay towards the centre of the stripped area and are assigned to Period 2, the Later Iron Age (Fig. 3b). Gully F appeared to form the

foundation trench or drip gully (it is not clear which) for a circular or semi-circular structure with an internal diameter of *c.*12m. It was between 0.34m and 0.8m in width and between 0.10m and 0.17m in depth. It contained a single clay-silt fill and had moderately sloping sides and a concave base (Fig. 6, sections KK, LL). A total of 23 sherds of Middle to Late Iron Age pottery and a single sherd of Roman pottery were recovered from the fill of this feature. The surviving terminal end of Gully F appeared to be real (i.e. it did not appear to have been caused by later truncation) and therefore suggests a south-east facing entrance. Gully F was cut by Period 2 Gully G.

4.8 Gully G was *c.*26m in length, had a maximum width of 0.47m and a maximum depth 0.16m with a diameter of *c.* 10m. It contained a single clay silt fill and had moderately sloping sides and a concave base (Fig. 6, sections MM, NN). A single sherd of Later Iron Age pottery, a quantity of fired clay and a single sherd of post-medieval pottery were recovered from the fill of this feature. Due to the form of this feature, its relationship with ditch/gully F, and the fact that it was cut by post-medieval ditches the post-medieval pottery is considered intrusive. It would appear likely that ditch/gully G represents a remodelling or rebuilding of part of the circular or part-circular structure represented by ditch/gully F.

4.9 Pit 10104 cut the western terminal of Gully G. It was sub-oval in plan, had moderately sloping sides and a concave base (Fig. 6, section TT). It contained two distinct fills, 10106 and 10105, both of which contained moderate quantities of charcoal. Five sherds of Late Iron Age to 1st-century AD pottery and four worked chert flakes were recovered from the secondary fill of this feature, 10105.

4.10 Fifteen sherds of Later Iron Age pottery and 39 sherds of Late Iron Age to 1st-century AD pottery were recovered from the fill of pit/posthole 10054 positioned at the terminal of Gully G (Fig. 6, section OO).

4.11 Within and around the structure formed by Gullies F and G, seven shallow, sub-circular, features 10052, 10056, 10058, 10060, 10066, 10068 and 10072 were identified (Fig. 6, sections OO – SS). These features measured between 0.39m and 2.1m in width and 0.11m and 0.28m in depth and contained single homogenous fills. Due to their shallow nature, seemingly resulting from later truncation, it is currently impossible to determine whether these features represent pits or postholes with any degree of certainty. It is possible that features 10066 and 10058/10060 are the

remains of postholes, based on the presence of possible stone packing material within their respective fills, and as such, they may represent entrance posts to the circular structure formed by Gullies F and G.

4.12 A single (residual) prehistoric worked flint flake was recovered from the fill of pit/posthole 10058. No further dating evidence was recovered from these features, but they are assigned to Period 2 based on spatial relationships and the nature of their fills.

Roundhouse 2 (Ditches H and K) and nearby pits and postholes

4.13 Towards the central eastern part of the stripped area two curving ditches H and K, were identified (Fig. 3c). No artefactual material was recovered from these features despite 100% excavation. However, it would appear likely that they relate to Period 2 activity based on their morphology and the fact that Ditch K was cut by securely dated Period 3 Ditch J. They appeared to define another roundhouse. These ditches appear to form drainage ditches partly defining a circular structure with an internal diameter of between 8m and 11m. Ditch H was between 0.41m and 0.64m in width and between 0.06m and 0.23m in depth, with moderately sloping sides and a concave base (Fig. 7, sections aa, bb). Ditch K measured between 0.42m and 0.96m in width and between 0.16m and 0.28m in depth, with moderately sloping sides and a concave base (Fig. 7, section VV). The terminal ends of both ditches H and K appear to be real suggesting entrances to the south-east and north-west. Ditch K cut ditch/gully 10135 and this may represent a rebuilding or remodelling of the postulated circular structure by extending the eaves drainage feature to the north-west. If structural, ditches H and K may have held timbers forming a 'wind break' rather than a roofed building, but the profiles of these ditches do not suggest a palisade or a beam-slot.

4.14 Within the structure formed by ditches H and K, six internal pits or postholes, 10021, 10023, 10029, 10031, 10033 and 10037 were identified but in no recognisable pattern. These were between 0.4m and 0.84m in width and 0.09m and 0.19m in depth and contained single homogenous fills. A single fragment of mid-17th to 18th-century glass was recovered from the surface of posthole 10021, but this is considered to be unassociated and they are therefore assigned to Period 2 based on their spatial association with ditches H and K. No further dating evidence was recovered from the fills of these pits.

4.15 Towards the south-eastern side between ditch H and ditch K a group of nine pits and two partially exposed ditch/gully segments were identified. Pits 10133, 10141, 10143, 10145, 10147, 10149, 10151, 10153 and 10171 shared similar characteristics in their morphologies and their fills appeared to be backfill deposits with cultural material almost entirely absent. They were all between 0.71m and 1.37m in width and between 0.2m and 0.4m in depth. Pit 10141 was cut by pit 10145, which was in turn cut by pit 10147. Pit 10147 also cut pit 10143 located to the north. Pits 10151 and 10149 were cut by pit 10153 (Fig. 7, section YY). Pit 10151 was also cut by Period 3 Ditch J. Pit 10133 was cut by ditches/gullies 10131 and 10135/10137. All of the pits remained artefactually undated. However, these features are assigned to Period 2 based on their spatial association with ditches H and K and the stratigraphic relationship between pit 10151 and Period 3 Ditch J. They may well, however, relate to a different phase of this occupation in view of their location within the possible roundhouse.

4.16 Also within the central eastern part of the stripped area, external to the circular structure defined by ditches H and K, were postholes 10027 and 10039, pits 10049 and 10025 and ditch/gully 10259, re-cut by ditch/gully 10261 (Fig. 7, sections XX, ZZ). Postholes 10027 and 10039 measured 0.53m and 0.45m in length respectively and contained single, undated silt clay fills. Posthole 10027 was cut by pit 10025. Pits 10049 and 10025 were similar in their morphology and had similar fills to the pits identified to the east (i.e. pits 10134, 10141, 10143, 10145, 10147, 10150, 10151, 10153 and 10171) and they are therefore tentatively assigned to Period 2.

Period 3: Late Iron Age/Early Roman (c. AD 10 -100)

Ditches C and E

4.17 North-west/south-east aligned Ditch C crossed the centre of the stripped area. It measured 38m in length, had a maximum width of 0.97m and a maximum depth of 0.15m (Fig. 3b; Fig. 8, sections gg, hh). It contained a single clay silt fill which appeared to have formed as part of a process of gradual silting. Two sherds of Roman pottery and a worked flint were recovered from section 10121 (fill 10122) through this feature. Ditch C was cut by post-medieval ditches D and 10018.

4.18 Immediately to the south-east of Ditch C, north-west/south-east aligned Ditch E was identified (Fig. 3d). It measured 25.5m in length, had a maximum width of 0.75m and a maximum depth of 0.13m. Fragments of fired clay and a single prehistoric worked flint flake were recovered were recovered from the single fill of this feature. It was

cut by post-medieval ditch 10173. Ditch E clearly followed the alignment of Ditch C after a gap of 2m and was of similar dimensions. The gap seems to have formed an entranceway as the ditch terminals were distinct and did not appear to be the result of later truncation.

Ditch J and pit/posthole 10035

4.19 Ditch J was identified *c*.36m to the north-east of Ditch E and was similarly aligned north-west/south-east (Fig. 3c). It measured 12.7m in length, had a maximum width of *c*.1m and a maximum depth of 0.34m. It contained a single clay silt fill from which 112 sherds of early Roman pottery, fragments of iron slag, fragments of fired clay tuyères, a single prehistoric worked flint flake and four sherds of Late Iron Age pottery were recovered. Ditch J appears to be the same as Ditch 614 of the evaluation (CA 2010), which yielded Roman pottery of the 1st to 2nd centuries AD, along with fired clay, fragments of slag, and a residual chert flake (Fig. 8, section nn). It is possible that Ditch J continued further to the north-west. However, due to its shallow nature, it may have been subsequently truncated in this area by later ploughing. Ditch J cut Period 2 Ditch K (Fig. 7, sections UU, WW) and Gully 10135, and it was cut by post-medieval ditch 10016.

4.20 Pit/posthole 10035 was located to the north-east of the postulated circular structure. Three fragments of fired clay, including a fragment of late prehistoric loomweight, were recovered from the single fill of this feature, 10036 (Fig. 14). The finds are similar to some of those from Ditch J and it is considered possible that the features were contemporaneous.

Ditch B

4.21 North-east/south-west orientated Ditch B lay towards the centre of the stripped area (Fig. 3b). It was 23.4m in length, had a maximum width of 0.98m and had a maximum depth of 0.18m (Fig. 8, sections ee, ff). It contained a single clay silt fill which contained occasional charcoal flecks. Ditch B is assigned to Period 3 based largely on its course at right-angles between ditches J and C, the former with more secure 1st-century AD dating. It was perhaps intended to demarcate the area of occupation to the south-east. A single sherd of Late Iron Age pottery was recovered from ditch slot 10117 at its south-western end where it was cut by Ditch D. Ditch B was cut at its north-eastern end by post-medieval ditches A and N.

Ditch L and nearby postholes

4.22 Slightly curving Ditch L lay just north-east of ditches C and E (Figs 3b, 3d). It measured 12.7m in length, had a maximum width of 0.7m and a maximum depth of 0.2m (Fig. 8, sections kk, ll) A total of six sherds of early Roman pottery and a prehistoric worked flint flake were recovered from the single clay silt fill of this feature and it is therefore assigned to Period 3. It is possible that Ditch L formed an open-sided structure or wind break associated with the structure(s) to the front of Roundhouse 1.

4.23 A number of pits/postholes (e.g. 10205, 10208, 10209, 10211, 10213, 10215, 10180, 10194, 10196, 10256, 10219 etc.) were located immediately to the east of Ditch L and it is possible that these represent features internal features to the wind break structure formed by Ditch L (Fig. 3d; Fig. 9, sections oo – rr). However, due to the paucity of datable material from the features in this group (two sherds of late prehistoric pottery from the primary fill of pit/posthole 10219, the remaining pits/postholes without datable material) the possibility remains that they were associated with the Period 2 circular structure (gullies F and G) immediately to the north-west, or perhaps represent more than one phase, common to both periods.

Hearth 10263

4.24 Circular feature 10263 measured 0.9m in diameter and had a maximum depth of 0.26m (Fig. 3d). It had a bowl-shaped profile and exhibited evidence of *in situ* heating/burning, in the form of scorched natural substrate, to its base and sides. The exact function of this feature remains unclear due, in part, to its isolated nature. However, its shape and form, along with its fill characteristics suggest that it may have functioned as a smithing hearth, perhaps the source of the iron-smithing debris found in Ditch J. It contained two distinct fills, 10264 and 10330, both of which contained moderate quantities of charcoal and occasional fragments of fired clay. Its primary fill, 10264, contained a late prehistoric loomweight fragment (Fig. 15), but there was no other dating evidence.

4.25 *Ditch 616 (Evaluation Trench T6)*

Ditch 616, recorded in evaluation trench T6 (CA 2010) contained Black-Burnished Ware pottery similar to that from Ditch J. One sherd was embedded in iron slag. It appears that this ditch may have been related to the Fosse Way, to which it runs approximately parallel (Fig. 2).

Period 4: Post-medieval

Field ditches

4.26 A total of eight, broadly parallel and evenly-spaced, north-west/south-east aligned ditches, N, P, A, D, O, M and I, were identified running across the stripped area (Fig. 8, sections cc, dd, ii, jj, mm). All demonstrably cut the subsoil and contained dark silt fills similar to the overlying topsoil.

4.27 Ditches P, N, D, A, O, M and I are assigned to Period 4 based on the recovery of quantities of post-medieval pottery from their respective fills. Ditch I is assigned to Period 4 based on its similar alignment and morphology to the artefactually dated ditches. Ditch O appears to represent a continuation of a linear feature, 510, identified during the evaluation and interpreted at that time as a furrow. Probable bank material 10292, associated with Ditch I was identified at the southern extent of the stripped area where it was cut by post-medieval posthole 10294 (Fig. 8, section mm). Similar bank material, deposits 10269, 10270, 10271, 10272, 10272, 10273, 10274 and 10275, also associated with Ditch I, were identified in the baulk section at the eastern edge of the stripped area. The latest of these deposits, 10269, contained six sherds of post-medieval pottery. Based on the dating evidence recovered, the regularity of spacing and the consistent orientation of these ditches it is likely that they formed part of a wider strip field system, as shown by their relationship to early mapped features (Fig. 11).

Period 5: Modern

4.28 Towards the northern edge of the stripped area a small, curving ditch/gully, 10314, was identified. An iron support post, used for securing barbed wire, was recovered from the fill of this feature. A modern, north-east/south-west aligned, water service trench was also identified running across the stripped area.

Period 6: Undated

4.29 A small number of features contained no dateable material and could not be dated based on their stratigraphic, spatial or morphological characteristics. A pit, 10310, and two pits/postholes, 10248 and 10178, lay towards the south-eastern edge of the stripped area. It is possible that these features represent a continuation of the Phase 1 activity identified *c.*12m to the west. However, it was noted during excavation that their fills were darker and sandier in nature than the fills of these Period 1 features.

4.30 In the northern third of the stripped area pits/postholes 10003 and 10045, elongated pit 1008/10010/10012 and probable quarry pit 10005 remained undated. Due to their isolated nature, it is not currently possible to assign these features to a definitive phase of activity.

5 FACTUAL DATA AND STATEMENTS OF POTENTIAL

Stratigraphic Record: factual data

5.1 Following the completion of the fieldwork an ordered, indexed, and internally consistent site archive was compiled in accordance with specifications presented in the *Management of Archaeological Projects* (EH 1991). A database of all contextual and artefactual evidence and a site matrix was also compiled and cross-referenced to spot-dating. The fieldwork comprises the following records:

Context sheets	338
Plans (1:10, 1:20, 1:100)	1
Sections (1:10, 1:20)	120
Sample sheets	54
Monochrome Films	N/A
Digital photographs	30
Matrices	N/A

5.2 The site had been heavily plough-truncated and finds were relatively sparse, making the dating and interpretation of features uncertain in some cases. The nature and distribution of earlier prehistoric features in particular remains problematic. Where features have not been dated by Earlier Neolithic pottery or radiocarbon, assumptions have been made that similar features in the same part of the site (the southern area) are likely to be of the same date. Flintwork is not reliable for dating purposes.

5.3 For the Iron Age through to the early Roman period there are typical features such as curving gullies and nearby postholes and pits, which are considered highly likely to be of these phases even when strictly undated by finds. Stratigraphy and site layout are far more helpful than they are for the earlier prehistoric period.

5.4 The functions of features have not been easy to determine in most cases. Postholes lack distinguishing characteristics such as post-voids and packing, and it was not possible to determine whether the curving gullies were structural or drainage features. The relatively unconsolidated nature of the gravel geology did

not hold the forms of features well, and vertical truncation has compounded this imprecision of interpretation.

Stratigraphic record: statement of potential

5.5 The site stratigraphy has been analysed as far as the evidence allows, and features have been dated and interpreted where possible. Patterns of features have been examined and there is no firm evidence of the nature of structures or building techniques. It seems that there is little potential for insights into the patterning of activities or vernacular architecture without a large degree of speculation.

Artefactual record: factual data

5.6 All finds collected during the excavation have been cleaned, marked, quantified and catalogued by context. All metalwork has been x-rayed and stabilised where appropriate.

Type	Category	Count	Weight (g)
Pottery (incl. soil samples)	Early Neolithic	116	207
	Iron Age	284	1168
	Late Iron Age/Roman	152	1289
	Medieval	8	34
	Post-medieval/modern	30	481
	Total	**590**	**3179**
Flint & chert (incl. soil samples)	Worked	372	1034
	Burnt	216	293
Fired Clay	Tuyère frags	26	1297
	Loomweight frags	26	2000
	Other	59	1207
Metals	Iron	2	-
	Residues		1120

5.7 The finds are significant although limited in quantity and range. The pottery in particular is important in providing the framework for the periods represented. Of interest in the late Iron Age/early Roman phase of occupation are the indications of blacksmithing using tuyères, and an association with clay loomweights.

Worked flint (Appendix 2)

5.8 There was a relatively large collection of worked flint, 82% coming from bulk soil samples and comprising a high proportion of chips. The number of flints stratified in Early Neolithic pits is significant, although the material comprises for the most part knapping debris, with some cores. There were few retouched tools.

Pottery (Appendix 3)

5.9 The pottery assemblage is moderately small. There is an Early Neolithic component with dating supported by three consistent radiocarbon dates on associated carbonised plant remains. The sherds are too small to provide information on vessel form. The fabrics have been characterised as far as possible. The larger late prehistoric group is all likely to be later Iron Age (probably until AD 50). It comprises mainly plain jars and the fabrics have been characterised. There are late Iron Age/early Roman 1st-century AD types from later features, confirming that occupation continued up until around the time of the conquest, although the pottery dating is not precise enough to differentiate pre- from post-conquest occupation.

Fired clay (Appendix 4)

5.10 Objects of fired clay included identifiable fragments of three loomweights of triangular Iron Age form. The most complete example came from posthole 10035, and smaller fragments came from hearth 10263 and ditch J, both also of Period 3. Other amorphous fragments may have been from weights or tuyères (see below), or from burnt daub.

Metallurgical residues and fired clay (Appendix 5)

5.11 The presence of clay tuyère fragments associated with iron-smithing debris in 1st-century AD contexts is important evidence for this technology used in secondary blacksmithing in Devon. There were also two triangular loomweights from this phase, showing the presence of Iron Age rather than Roman technology here.

Metals (Appendix 6)

5.12 There was a single iron needle of archaeological interest.

Artefactual record: statements of potential

Worked flint

5.13 The flintwork is significant, particularly the stratified Early Neolithic material. However, the limited range of flintwork and its association with meagre groups of pottery and environmental remains means that the potential for the advancement of understanding about occupation in this period is low. No further work is recommended.

Pottery

5.14 The fabrics and forms of the Earlier Neolithic, Iron Age and Roman pottery have been analysed and described as far as possible. Further analysis, such as thin-sectioning to explore the mineralogy of the ceramics, is not considered worthwhile in this instance.

Metallurgical residues, metals and fired clay

5.15 The metallurgical and fired clay artefacts and remains have been analysed and described in detail in this report. The findings are particularly significant as evidence of craft activity here around the time of the Roman Conquest, adjacent to Fosse Way and not far from the Roman fort at Woodbury Farm.

Biological record: factual data

5.16 All ecofacts recovered from the excavation have been cleaned, marked, quantified and catalogued by context. A total of 51 bulk samples were taken for the recovery of environmental remains.

Type	Category	Count
Animal bone	Fragments	37
Samples	Environmental	51

Animal bone (Appendix 7)

5.17 There were very few animal bones and all but one (from a post-medieval ditch) were unidentifiable to species. The poor survival of bones is due to the acidic nature of the ground.

Plant macrofossil and charcoal (Appendix 8)

5.18 A large number of bulk soil samples (51) were taken from across the chronological range. All were processed and analysed. Charred hazelnut shells were especially characteristic of the earlier Neolithic period (Period 1), although large quantities (57) came only from pit 10311. There were a few indeterminate cereal grains from Early Neolithic features and varied amounts of charcoal, mostly oak but with a range of other species also present.

5.19 Material from later Iron Age and subsequent phases was notably sparse giving no real indication of crops processed or consumed. The range of wood species used as

fuel was generally wide and unremarkable as an indication of a varied local environment.

Radiocarbon dating (Appendix 9)

5.20 Samples of charred material from three pits containing pottery thought to be of earlier prehistoric date returned dates between *c.* 3700 and 3500 cal. BC, in the Early Neolithic. The results are mutually supporting and strongly confirm the date of these features.

Biological record: statements of potential

Animal bone

5.21 There is no potential for any analysis of the bone

Plant macrofossil and charcoal

5.22 With limited exceptions, the quantity and range of environmental indicators is sparse for any period. All the material has been identified and there is no potential for further analysis.

Radiocarbon dating

5.23 The Early Neolithic radiocarbon dates are consistent and are considered to be reliable. There is the potential for further dates on charred hazelnut shell from pits 10246 and 10320, although this would not add significantly to an understanding of the occupation here, which is not associated with material assemblages of great distinction.

6 SUMMARY STATEMENT OF POTENTIAL

6.1 There are significant archaeological results from the excavation on this site where initial geophysical survey and trial trenching were not able to characterise the remains present, nor predict its potential. The results relate to new discoveries of the Early Neolithic and the immediate pre-Roman Iron Age.

6.2 The earliest features were a variety of undistinguished pits containing fragments of pottery, together with some flintwork and charred hazelnut shells, which radiocarbon dates show to be of Early Neolithic date. The remains are presumed to relate to transient occupation, but this is not possible to characterise this from the

features or material within them. Some of the larger pits are probably tree-throws, while other smaller ones appear to be postholes. The latter include alignments that suggest the presence of a structure, but there is no overall pattern that can be interpreted as a building. The material remains are small collections of what appears to be random lithic waste, well-broken pottery and hearth debris.

6.3 The potential for further analysis of the Early Neolithic remains is limited. In view of the rarity of sites of this date regionally and nationally a presentation of the results for publication in summary form is considered appropriate.

6.4 The subsequent occupation discovered dates from the later prehistoric period. Although pottery diagnostic of date is limited, there is no indication that the occupation began before the later Iron Age (from *c.* 300 BC). Pottery dating to the 1st century AD indicates that occupation was continuous from then until around the time of the Roman Conquest, but perhaps did not outlast the 1st century AD. Pottery was sparse across the site and other finds virtually non-existent until the latest phase of Late Iron Age/Early Roman occupation when blacksmithing seems to have become important.

6.5 There is little information with which to characterise this settlement, either from the excavated features or the material within them. In many ways this may be seen as a typical small farmstead of low status. The pottery is mostly undiagnostic of precise date or function, while the charred plant remains, recovered from extensive soil sampling, were sparse and unremarkable. Bone was non-existent due to the mildly acidic soil conditions.

6.6 The coincidence of the demise of the settlement with the Roman military advance in the region is of interest in the context of the native response to Roman presence here. Therefore, while the quality of the remains discovered is not high, a summary of the later prehistoric occupation, with comment on the material culture and economic and environmental indicators, are worth publishing.

7 STORAGE AND CURATION

7.1 The archive is currently held at CA offices, Cirencester, while post-excavation work proceeds. Upon completion of the project the site archive, and with the agreement of the legal landowners, the artefacts, will be deposited with the Royal Albert

memorial Museum, Exeter (accession number: RAMM 14/02), which has agreed in principle to accept the archive upon completion of the project.

8 PUBLICATION

8.1 The results from the investigations at Cloakham Lawns, Axminster, are of regional significance and merit publication. Despite the relatively low quality of the archaeological remains, the results are significant in providing information on previously unsuspected occupation in a part of the country that sees relatively little archaeological investigation. This occupation relates to the earliest farmers in the country, and the more established communities in the centuries leading up to the Roman Conquest, both periods of wide and seminal cultural significance.

8.2 It is proposed that a summary report is published in the county journal, Devon Archaeological Society Proceedings, subject to agreement with the editor.

Synopsis of Proposed Report

Early Neolithic pits and a later Iron Age settlement at Cloakham Lawns, Axminster

by Steve Sheldon and Andrew Mudd

		Words
Summary		200
Introduction		500
Excavation Results		
	Early Neolithic pits	600
	Flint and chert by Jack Sommerville	500
	Early Neolithic pottery by E.R. McSloy	500
	Later Iron Age settlement	900
	Pottery by E.R. McSloy	500
	Iron residues and tuyères by Tim Young	800
	Loomweights and daub by Tim Young and E.R. McSloy	200
	Plant macrofossil and charcoal by Sarah Cobain	400
	Radiocarbon dating by Sarah Cobain	200
Conclusions		
	Early Neolithic occupation	600
	The later Iron Age and Roman settlement	600
Acknowledgements		200
Bibliography		1000
	Total words	***7700***
	Approximate pages @ 700 words/page	11
		Pages
Tables		
	Early Neolithic charred botanical remains	0.5
	Radiocarbon dates	0.5
Illustrations		
	Location of site	1
	Site plan with phasing	1
	Early Neolithic features	0.5
	Sections of Early Neolithic pits	0.5
	Distribution of lithics	0.5
	Later Iron Age and Roman features	1
	Later Iron Age and Roman sections	0.5
	Pottery	0.5
	Tuyères and needle	0.5
	Historic landscape	1
Total publication estimate		**19 pages**

9 PROJECT TEAM

9.1 The analysis and publication programme will be quality assured by **Martin Watts FSA MCIfA** (Head of Publications: HoP) and managed by**; Andrew Mudd FSA MCIfA;** (Post-excavation Manager: PXM), who will contribute to the discussion as senior author and co-ordinate the work of the following personnel:

Steve Sheldon ACIfA (Project Officer: PO):
Post-excavation phasing, draft report preparation, research and archive

Ed McSloy MIfA (Senior Finds Consultant: SFC):
Specialist report preparation and liaison, post-excavation phasing.

Jack Sommerville (Finds Assistant):
Specialist report preparation lithics

Sarah Cobain ACIfA (Environmental Manager: EM)
Specialist report preparation plant macrofossil and charcoal and scientific liaison

Lucy Martin (Senior Illustrator: ILL):
Production of all site plans, sections and artefact drawings (exc. pottery)

9.2 Contributions by the following external consultants will be managed by the Senior Finds Consultant:

- **Dr Tim Young FSA FGS** (GeoArch): Archaeometallurgical residues

9.3 The final publication report will be edited and refereed internally by CA senior project management, and externally refereed by the editor of *Devon Archaeological Society Proceedings* and delegated experts.

TIMETABLE

9.4 For a publication project of regional significance of this scale, CA would normally aim to have completed a publication draft within one year of approval of the publication proposals. This is subject to securing the agreement of the journal editor. A programme can be produced if required.

10 REFERENCES

BGS (British Geological Survey) 2013 http://mapapps.bgs.ac.uk/geologyofbritain/home.html Accessed 26 November 2013

CA (Cotswold Archaeology) 2009 Cloakham Lawns, Axminster, Devon: Archaeological Desk-Based Assessment, CA Report No. 08205

CA (Cotswold Archaeology) 2010 Cloakham Lawns, Axminster, Devon: Archaeological Evaluation, CA Report No. 10109

CA (Cotswold Archaeology) 2013 Cloakhams Lawns, Axminster, Devon: Written Scheme of Investigation for an Archaeological Excavation

Pre-Construct Geophysics (PCG) 2010 Land at Cloakham Lawns, Axminster, Devon: Geophysical Survey

Cartographic sources

1778 map of the Manor of Axminster, DRO **123M/E75**

APPENDIX 1: STRATIGRAPHIC ASSESSEMENT BY STEVEN SHELDON

Quantification

A total of 341 contexts were recorded during the excavation phase of fieldwork, as detailed below:

Fieldwork phase	No. of contexts
Excavation	341
Total	341

A number of contexts were not used or were assigned to natural deposits. The remaining contexts were assigned to periods as detailed below:

Period	No. of contexts
Period 1: Early Neolithic (*c*. 3700–3500 BC)	41
Period 2: Later Iron Age (*c*. 400 BC–AD 50)	116
Period 3: Late Iron Age/early Roman (*c*. AD 10- AD 50)	90
Period 4: Post-medieval (*c*. 1500–1900)	55
Period 5: Modern (from *c*. 1900)	3
Period 6: Undated	22
Total	327

Potential for further analysis

The site stratigraphy has been analysed as far as the evidence allows, and features have been dated and interpreted where possible. Patterns of features have been examined and there is no firm evidence of the nature of structures or building techniques. It seems that there is little potential for insights into the patterning of activities or vernacular architecture without a large degree of speculation.

APPENDIX 2: LITHICS BY JACKY SOMMERVILLE

Introduction and methodology

A total of 372 worked lithics (1.034kg) and 216 pieces of burnt, unworked flint or chert (293g) was recorded in 53 separate deposits. The majority of these, by count, were recovered from bulk soil sampling of 34 deposits: 305 (145g) worked lithics; and 214 (181g) burnt, unworked lithics.

The artefacts were recorded according to broad artefact/débitage type and catalogued directly onto a Microsoft Access database. Attributes recorded include dimensions, weight, colour, cortex description, degree of edge damage (micro-flaking), rolling (abrasion) and recortication (a white or blueish surface discoloration resulting from burial environment [Shepherd 1972, 109]), breakage and burning. Débitage comprises flakes, blades, bladelets, chips and shatter which do not feature secondary working: much of it probably represents knapping waste but a proportion is likely to have been used as tools in their unmodified state. Only the colour of chips was recorded, as it is their presence which is considered to be significant as providing evidence of stratified/*in situ* knapping activity.

Raw material

The raw material is mostly flint but also includes 59 Greensand chert items (17%). Where cortex remains it is abraded or 'chattered' (ie. pitted from battering) on 29 items (45%), chalky on 25 (38%) and consists of previously worked and recorticated surfaces on eight (12%). This demonstrates a mixture of raw material sources: primary (e.g. chalk flint), secondary (e.g. river gravels, which may be very local) and recycled. The latter raw material procurement policy is most typical of the Bronze Age period (Edmonds 1995, 175–6) and none of the lithics from Period 1 (Early Neolithic) features had been acquired in this way. The chert most likely derives from the Upper Greensand of the nearby Blackdown Hills. Newberry (2002) identified several inland flint sources in Devon which are relatively close to Axminster. The closest is Furley/Membury, which is a source of good quality flint, *c*. 8km away from the site (*ibid*., 8).

Condition and provenance

Of the struck items, 32 have also been burnt (9%) and 64 have been broken (17%). Little or no edge damage was recorded on 58% of items and minimal rolling on 72%, suggesting a mixture of residual and stratified items. Evidence of utilisation was noted on nine items of débitage, all but one of which were retrieved from the Period 1 pits and postholes. The unburnt chert is all grey or honey-coloured; most of the flint is grey: 5% has been corticated white and 26% displays honey-coloured staining.

Almost half of the worked lithics (45%) were retrieved from Phase 1 pits and postholes (Table 2), and a similar proportion (45%) was recovered from Phase 2 (Late Iron Age) and Phase 3 (Late Iron Age/Early Roman) deposits. Only 9% derived from undated features or were recovered as unstratified finds. The condition of lithics from Period 1 features is very good and strongly suggests that they are stratified, with minimal edge damage recorded on 81% of items and minimal rolling on 90%. A higher

degree of damage was noted on the lithics from Late Iron Age deposits, with only 34% minimally edge damaged and 49% minimally rolled.

Range and variety

Primary technology

The breakdown of the assemblage is displayed in Table 1. A particularly high proportion of chips (débitage measuring <10mm) was recorded, all of which were recovered via bulk soil sampling. Blades are defined as débitage items which are at least twice as long as they are wide and were produced using deliberate blade technology, as evidenced by the dorsal scar pattern. Bladelets are blades measuring <12mm wide.

Three cores (all multi-platform types) were retrieved, all from Period 1 features. That from fill 10319 of pit 10318 was used to produce flakes, blades and possibly bladelets. The two examples, in flint and Greensand chert, from fill 10312 of pit 10311 had been used for the manufacture of flakes: the flint example displayed indications of platform preparation, which presents as characteristic flake scars immediately below the platform surface. This feature was commonly employed during the Mesolithic and Early Neolithic periods.

Secondary technology

Seven retouched items were retrieved which, at 2%, is a very low figure. A figure of *c*.6% is more typical of assemblages in southern Britain and closer to 10% in areas where flint resources are not readily available (Anderson-Whymark, pers. comm.). Only two were recovered from Period 1 features. Most are simple flake tools: retouched, notched or spurred pieces. Two scrapers are also included: an end scraper made on Greensand chert from fill 10006 of undated pit 10005; and a flint side scraper from fill 10302 of Period 1 pit/posthole 10301. The end scraper was made on a flake with a little fine, semi-abrupt, quite regular retouch along the dorsal distal edge. The side scraper has been made on a proximal flake fragment and features fine, regular, semi-abrupt retouch along what there is of the left dorsal edge. All of the retouched tools are made on flake blanks: none are closely dateable types.

Stratified lithics

The fills of pits 10311 (10312) [4799 ± 30 yr BP; SUERC 62301], 10316 (10317) [4835 ± 30 yr BP; SUERC 62302], and 10318 (10319) [4920 ± 30 yr BP; SUERC 62306] all returned Early Neolithic radiocarbon dates and contained Early Neolithic pottery. A further 14 features in the vicinity, eight of which contained lithics, were assigned to Phase 1. Tiny amounts of animal bone were also recovered from pits 10316 and 10318 in addition to: some hazelnut shell from pits 10311 and 10316; and a few indeterminate cereal grains from pit 10311 and one from pit 10318. This suite of materials is often seen in structured deposits in Neolithic pits. However, the lithics in that type of deposit often include a very high proportion of retouched tools (Thomas 2012, 2) and in this case there are only two. The floral and faunal remains in these pits are also quite limited and it is concluded that the Period 1 pit fills are unlikely to represent ritual deposition.

The breakdown of lithics from Period 1 features is detailed in Table 3. As mentioned above, their very good condition suggests that they are stratified. Particularly consistent with dating in the Early Neolithic is the presence of: blades; a blade/bladelet core; evidence of soft hammer percussion (on 11 flakes and blades); and of preparation/abrasion of the striking platform (on 17 items of débitage). Nine bladelets were also recorded from these features, which are generally typical of Mesolithic flintworking. Most examples display very good edge condition, which suggests they may be stratified, although all but one are broken. A proportion may have been produced unintentionally, although several appear to have been produced deliberately, with parallel sides and a strong arris (the ridge between two flake/blade scars) on the dorsal face.

Table 2.1: Breakdown of the lithics assemblage

(Burnt unworked)	216
Primary technology	
Blade	17
Bladelet	12
Chip	192
Core	3
Flake	139
Shatter	2
Secondary technology	
Notched flake	1
Retouched flake	2
Scraper	2
Spurred piece	2
Total	**588**

Table 2.2: Provenance of the lithics assemblage

	Worked lithics	**Burnt unworked lithics**
Period 1	168	78
Period 2	72	27
Period 3	95	105
Period 4	2	6
Undated/unstratified	35	0
Total	**372**	**216**

Table 2.3: Worked lithics from Period 1 pits

Feature & fills	Bu	Bl	Blt	Ch	Co	Fl	Sh	Nfl	Ss	Total
Pit 10222 (10223)	1	1				15		1		18
Pit 10246 (10247)		2	2			4	1			9
Pit 10250 (10251) (10253)		4				2				6
Pit/posthole 10301 (10302)									1	1
Pit 10311 (10312)	38	4	6	55	2	34	1			140
Pit/posthole 10316 (10317)		1				3				4
Pit/posthole 10318 (10319)	37	1	1	14	1	7				61
Pit/posthole 10320 (10321)	2									2
Pit/posthole 10326 (10327)		1								1
Pit 10332 (10331)						2				2
Posthole 10333 (10335)						2				2
Total	**78**	**14**	**9**	**69**	**3**	**69**	**2**	**1**	**1**	**246**

Key: **Bu** burnt unworked; **Bl** blade; **Blt** bladelet; **Ch** chip; **Co** Core; **Fl** flake; **Sh** shatter; **Nfl** notched flake; **Ss** side scraper

References

Anderson-Whymark, H. and Thomas, J. (eds.) 2012 *Regional Perspectives on Neolithic Pit Deposition: Beyond the Mundane.* Neolithic Studies Group Seminar Papers **12**. Oxford. Oxbow Books.

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Newberry, J. 2002 'Inland Flint in Prehistoric Devon: Sources, Tool-making Quality and Use'. *Proc. Devon Archaeol. Soc.* **60**, 1–36.

Shepherd, W. 1972 *Flint: Its Origin, Properties & Uses*. London. Faber and Faber.

Thomas, J. 2012 'Introduction: beyond the mundane?' in Anderson-Whymark, H. and Thomas, J. (eds.) 1–12.

APPENDIX 3: POTTERY BY E.R. MCSLOY

A pottery assemblage of moderate size, 457 sherds weighing 2860g, was recorded, this total including 6 sherds (33g) of Late Iron Age/Roman pottery recovered from the evaluation. The assemblage includes some 133 sherds (319g) were retrieved from bulk soil sample residues. The majority among the latter group was very highly fragmented and commonly abraded as the result of the sampling processes.

Pottery of earlier Neolithic date was recorded from pit groups clustered in the southern portion of the site. Most of the remainder dates to the later Iron Age and includes quantities of southwest decorated ware (formerly 'Glastonbury ware'). Pottery fabrics for the prehistoric material are described; with type codes used for the prehistoric material are based on the primary inclusion and its coarseness.

Early Prehistoric

Neolithic pottery was recorded from four deposits (fills of pits/postholes) and amounted to 70 sherds (169g). A significant proportion of this group was recorded from bulk soil samples, this group mainly comprising small flakes/fragments. The earlier Neolithic dating is supported by evidence from associated lithics and by radiocarbon determinations returned from features (pits) 13011, 13016 and 10318 (see Cobain, Appendix 9)

Pottery fabrics for the group are described below, the descriptions integrating comment from Dr Rob Ixer. Most common is a coarsely-gritted poylithic type which was utilised for illustrated vessel P1. All types are probably local; the chert and sandstone (containing glauconite) inclusions probably derived from the Blackdown Hills Greensand. Although small the group is noteworthy in not containing any of the gabbroic fabrics which were relatively common at the Hembury causwayed enclosure (Peacock 1969a) and Honeyditches, Seaton (Darvill 1981, 57–58).

Fabrics

POLc

Coarse polylithic fabric. Soft with moderately well-smoothed surfaces, though with protrusion of inclusions resulting in a rough feel. Can be dark grey brown throughout or with patchy red brown/dark grey surfaces. Irregular fracture containing abundant, angular/sub-rectangular crushed rock (0.5mm–4mm) which includes polycrystalline quartz; weathered feldspathic rock and litharanite (coarse-grained sandstone) . 65 sherds; 146*g; 0.04 EVEs.

CHc

Coarse chert-tempered. Soft with rough feel where inclusions protrude. Patchy dark grey/brown grey brown. Irregular fracture containing abundant, poorly-sorted angular (calcined) chert (0.5mm–3mm). 3 sherds; 18g;

SS

Sparse sandstone inclusions. Soft with moderately well-smoothed surfaces, Dark grey brown throughout. Irregular fracture. Contains sparse, sub-angular medium-grained glauconitic sandstone (up to 4mm). 2 sherd; 5g.

Forms

A single rim sherd was recorded (P1), this from the largest context group from Pit 10318 (Fig. 12, P1). Vessel P1 appears to be a bowl with curving walls and undifferentiated rounded rim. It is undecorated and belongs within the Early Neolithic Plain bowl tradition and to forms Cleal (2004) has described as simple with open profile. The occurrence of similar forms from the Causewayed enclosures at Raddon Hill, Stockleigh Pomeroy, Devon (Quinnell 1999) and Maiden Castle, Dorset (Brown 1991), indicates dating 3700–3500 BC.

Late Prehistoric

This represented the largest group recovered at 284 sherds (1168g). Most material was derived from gully fills and pits/postholes, with the largest groups from roundhouse Gully F (100 sherds) and pit 10054 (32 sherds). The assemblage is moderately fragmented; this reflected in a mean sherd weight (for the hand-recovered material) of 4.3g. Surface preservation tends to be good, however burial conditions have resulted in the chemical leaching of assumed calcareous inclusions in some instances (fabric VES).

Fabrics

Pottery fabrics for Iron Age group, all of which are handmade, are described below. The group is similar in its composition to that described from Honeyditches, Seaton (Bidwell and Sylvester 198, 61–3) with rounded quartz and vesicular types being most abundant The rounded/'polished' quartz grains and chert inclusions seen with QZc and QZcCH, support a local origin from the Greensand of the Blackdown Hills. The vesicular fabric has almost certainly resulted from leaching of calcareous inclusions, most likely limestone/fossil shell. A possible source for this would be the Jurassic outcrops of Dorset to the east. A more local source from in the Blackdown Hills however remains a possibility; there being evidence for fabrics with calcareous inclusions from later periods, for example medieval Membury wares (Allan and Langman 2002). Rock-tempered fabric (RT), which is represented by a single 'south western decorated' vessel (below) must come from a source to the west, most likely the Permian geology of the Exe valley.

Peacock's (1969b) study of 'Glastonbury wares' placed material within six groups (and an 'unclassified' grouping). Those vessels among the Cloakham Lawn group attributable to this style fall within Peacock's Group 4/'Shell' (fabric VES) and Group 6/'Volcanic' (fabric RT). The majority of decorated vessels however occur in local rounded quartz bearing fabrics which would fall within Peacock's 'Unclassified' grouping.

QZc

(Handmade) *Coarser quartz with sparse flint/chert*. Hard with sandy feel and irregular/hackly fracture. Dark grey or grey brown throughout. Contains common and moderately-sorted rounded/polished quartz, 0.5–0.8mm which is typically clear or brown-stained; sparse, moderately sorted chert or flint 0.5–1mm and sparse red-brown iron oxide 0.5mm. 49 sherds; 420g; 0.50 EVEs.

QZcCH

Coarse 'polished' quartz and flint/chert. Soft with smooth feel and irregular fracture. Dark grey throughout. Contains common moderately-sorted polished quartz, 0.5– 1.5mm and poorly-sorted, angular chert or flint 0.5–3.5mm. 3 sherds; 16g.

QZf

Fine quartz. Hard with smooth feel and finely irregular fracture. Red brown core and margins with patchy grey/brown surfaces. Contains abundant, well-sorted sub-angular quartz (up to 0.3mm) and sparse rounded/polished quartz (*c.* 0.5mm). 17 sherds; 105g; 0.10 EVEs.

VES

Vesicular fabric. Soft with smooth feel and irregular fracture. Grey brown throughout or with lighter brown surfaces. Open 'corky' appearance with common sub-rounded voids *c.* 0.5-1.5mm. 108 sherds; 194g; 0.12 EVEs.

RT

'*Rock'-tempered fabric*. Soft with slightly sandy feel and dense, finely irregular fracture. Dark grey throughout. Contains common and well-sorted dark-coloured sub-angular ?igneous/metamorphic rock, 0.5–1.2mm; sparse sub-angular quartz (c. 0.5mm) and sparse red-brown iron oxide 0.5mm. 32 sherds (1 vessel); 168g.

Forms and decoration

The assemblage includes rim sherds from only nine vessels, although the degree of fragmentation makes identification of form difficult. The majority (seven vessels) are likely to be of jar/deep bowl proportion, neckless and with bead--like rims (P5–6). Most among the probably jars are undecorated; the exception vessel P6 with a scored geometric zone below the rim. Some evidence for the use of these vessels for cooking comes from internal carbonaceous residues recorded in three examples.

Fineware bowls are present in the assemblage as vessel P2, with further vessels represented by decorated sherds including P3–4. P2 is of necked form without-curved, thickened rim, rounded shoulder and narrow cordon at the base of its neck. Six vessels (41 sherds) exhibit decoration comprising scored/incised and impressed motifs including zoned geometric and curvilinear designs (Fig. 12; nos. 2–4).

Stylistic affinities and dating

The fineware bowl component from this small group compare with the 'South-Western Decorated Ware style' which is a feature of later Iron Age assemblages in the southwest (Peacock 1969; Cunliffe 2005, 108). Although the roots of the style may be earlier Cunliffe saw its floruit as the 3rd to 1st centuries BC, with some evidence for a continuation up to the Roman period in some areas (*ibid.* 108). Most characteristic of the style are necked bowls making use of scored geometric or curvilinear commonly with crosshatched or impressed infill. In East Devon comparable material occurs from the

hillforts at Hembury (*ibid*.) and Blackbury Castle (Young and Richardson 1953, 54–65), and at Seaton, the latter group also including undecorated beaded-rim vessels (*ibid.* 64, fig. 11, no. 89).
The plain jar forms with ovoid or barrel-shaped profiles are a feature of later Iron Age assemblages from southern and southwestern Britain. At Maiden Castle they are well-represented among Phases 6F–6G considered to span the late 2nd century BC and early to middle 1st century BC (Brown 1991), deposits also containing 'Glastonbury ware'. More locally, at Seaton, East Devon, bead-rim jars occurred from among the Late Pre-Roman pottery, here described as Durotrigian (Bidwell and Silvester 1981)

Late Iron Age/Early Roman (1st century AD)
Pottery attributable to this period amounted to 145 sherds (1278g). The large majority (124 sh) and including 6 sherds from evaluation deposit 615was associated with northwest–southeast aligned Ditch J, with small quantities coming from Gully L. The condition of this group is moderately good, with sherd surfaces well-preserved and one vessel (P7) from Ditch J approximately 50% complete and reconstructable to its full profile.

Almost all of the pottery of this period corresponds to a single fabric: southeast Dorset Black-burnished ware (hereafter BB1), originating from the Poole harbour area. The only other fabric, ?wheelthrown type LOC BS recorded from Ditch J deposit 10048, is represented by a single base sherd from an open vessel form with deep footring. Pre-Roman origins for BB1 are well established (Brailsford 1958), although the continuance of some 'Durotrigian' forms beyond the conquest can make attribution before or after AD 43 difficult. Pre-Roman dating has been claimed for some pottery of this type from East Devon (Holbrook and Bidwell 1991, 90; Bidwell and Sylvester 1981, 66).

Identifiable vessel forms among the Black-burnished ware were all from Ditch J and comprised a jar (cooking pot) with everted rim and a zone of close-set burnished lattice, and high-shouldered/pedestalled jar P7, the full profile of which was preserved. The latter vessel corresponds to Brailsford's 'Durotrigian' Type 2 bowls (Brailsford 1958, 116), forms which probably beginning before the conquest period but certainly continuing into the early decades of the Roman period (Holbrook and Bidwell 1991, 100–101). Pre-Roman date might also be claimed for the jar from this deposit (not illustrated), based on a small number of Durtrigian occurrences (*ibid.* 95).

As a small group largely from a single feature, wider interpretation is limited. Although clearly very different from and later than the later Iron Age assemblage described above, there need not be a lengthy hiatus in activity represented by Periods 2/3. A date in the late pre-Roman Iron Age or the in the early decades of the Roman period would seem most likely based on the vessel forms described above from Ditch J. Contemporaneity with the Neronian to earlier Flavian (*c*. 50s–70s AD) military occupation, evidenced at Woodbury Farm, Axminster and approximately 2km to the south (Holbrook 1991, 2), is a possibility. Indications that the group may pre-date this establishment, however come

from differences in composition, most notably the absence of the tablewares/specialist wares which were a feature of the Woodbury Farm site.

Fabrics

DURO/DOR BB1

Southeast Dorset Black-burnished ware (Tomber and Dore 1998). 138 sherds; 1211g; 0.96 EVEs.

LOC BS

?Local wheelthrown black-firing sandy ware. 1 sherd; 34g.

Illustration Catalogue (Fig. 12)

Neolithic

P1 Fabric POLc. Plain bowl with curving walls and simple rim. Pit 10318 (posthole 10319).

Middle to Late Iron Age (Period 2)

P2 Fabric QZf. Necked bowl crosshatch and geometric zone decoration (Southwest decorated ware style). Fill of Period 2 Gully F (10103).

P3 Fabric QZcCH. Sherd with scored curvilinear and impressed border (Southwest decorated ware style). Fill of Period 2 Gully F (10103).

P4 Fabric VES. Bead rim from ?bowl. Scored decoration to neck; impressed chevron to rim (Southwest decorated ware style). Fill of Period 2 Ditch D (10112).

P5 Fabric QZc. Jar with bead rim and thickened internally. Fill of Period 2 Gully F (10170).

P6 Fabric VES. Bead rim from ?jar. Scored geometric zone at neck (Southwest decorated ware style). Fill of Period 2 10054 (10055).

Late Iron Age/Early Roman (Period 3)

P7 Fabric DOR BB1. High-shouldered jar/deep bowl with bead rim Burnished line decoration below shoulder. (Brailsford 1958 Type 2; Seager Smith and Davies 1991, Type 16). Fill of Period 3 Ditch J (10048).

Table 3.1: Pottery summary quantification (quantities from soil samples in parenthesis)

Period	Ct.	Wt.(g)
Early prehistoric	70 (46)	169 (38)
Late prehistoric	209 (75)	903 (265)

Late Iron Age/Roman	139 (7)	1245 (11)
Medieval	6 (2)	32 (2)
Post-medieval	27 (3)	478 (3)
Total	318 (133)	2508 (319)

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APPENDIX 4: FIRED CLAY BY E. R. MCSLOY AND DR T.P. YOUNG

Fired clay which was positively identified as relating to metallurgical processes (comprising tuyère fragments from Ditch J) are described separately. The remainder, which is made up of fragmented objects and miscellaneous material amounted to 88 fragments (4030g).

Objects (clay weights)

A substantially complete clay weight of corner-perforated triangular form was recorded from Period 3 posthole 10035 (Fig.14). This example weighs 613g and measures 125mm along its complete face, is 55mm thick and its perforations 8–10mm in diam. Its fabric contains common fine quartz sand and sparse angular flint inclusions 5–8mm.

Further, less complete triangular clay weight fragments were recorded from Period 3 hearth 10263 (210g: Fig. 15) and Period 3 Ditch J (26 fragments, weighing 2kg: not illustrated). For both groups the fabric is similar, silty and containing no flint or burnt-out organics. None of the fragments from hearth 10263 or Ditch J show the full thickness of a weight, nor did any preserve the full length. Some rounded fragments from Ditch J suggest that the lower end of the weight may have been curved, making the entire weight approximately the shape of a segment of a circle, rather than strictly triangular. Where the bore was preserved, it was approximately 12mm in diameter and cut the sides of the weight 55-65mm from its apex. All the angles of the clay mass were filleted to varying degrees and the sides of the weights were up to 10° away from being perpendicular to the faces.

The common interpretation of triangular clay weights is a loom weights for use with vertical (warp-weighted) looms. Tri-perforated forms are highly characteristic of the Iron Age and it is to be expected that such forms continue in use beyond the invasion period.

Material which was too fragmented for fullest identification amounted to 59 fragments (1207g). This grouping includes 39 pieces (680g) from Ditch J which were not identifiable either as from clay weights or tuyères, both of which were present in this deposit. Of these, eight pieces (457g) contained voids indicative of an organic temper and may be representative of burnt daub.

APPENDIX 5: ARCHAEO-METALLURGICAL RESIDUES BY DR T.P. YOUNG

Summary

Context 10048, a fill of Ditch J (Cut10047), interpreted on the basis of pottery to be of 1st-century AD age, yielded a small collection (1120g) of ironworking slag, together with a total of 4195g of fired, and locally vitrified, clay. The iron slag includes three examples of smithing hearth cakes (SHCs), two with weights of approximately 300g and one fragmentary example that would have had an original weight of 360-420g. The heaviest example possesses an unusual dense upper layer with a planar haematised top.

The ceramic fragments include at least 26 fragments of block tuyères, of unknown length. The front faces of the tuyères are strongly slagged and eaten back to as much as 45° to the vertical. The abundance of siliceous fragments on the faces of most tuyères may suggests it had been used as a smithing flux.

The use of tuyères in early ironworking in Britain is unusual, but with a few recorded instances from the Iron Age. Ceramic tuyères are, in contrast, a very characteristic aspect of ironworking in the early medieval and medieval periods in Ireland (but only rarely in Britain).

Methodology

All materials were examined visually with a low-powered binocular microscope where required. As an evaluation, the materials were not subjected to any high-magnification optical inspection, not to any form of instrumental analysis. The identifications of materials in this report are therefore necessarily limited and must be regarded as provisional. The examined materials are listed in Table 5.1.

Results

Description of the residues: Slag (14 pieces, 1104g)

The slags are dominated by three medium-sized smithing hearth cakes (SHCs): a deformed example weighing 286g, a complete example weighing 300g and an incomplete example weighing 292g (estimated at 7%, suggesting an original weight of approximately 400g).

The three examples differ in internal texture. The 292g fragment (together with a 30g fragment) is from a neatly formed SHC with two layers of slag – an upper dense plate of slag with a haematised top, separated by a vesicular boundary from a lower dense bowl, possibly with elongate, ‘bladed’ olivine. The original cake was approximately 95mm in diameter and 30mm deep.

The 286g example is also dense, but the shape (plano-convex, 90x75x35mm, with a 20mm raised slag mass on one side) suggests that the cake may have been deformed during hot extraction. The example weighing 300g is dense, and of a similar size to the 292g fragment (plano-convex,

95x100x30mm) but the internal texture is one of coalesced prills, rather than of a dense slag puddle. Other slag fragments include thin sheets of dense slag with a ceramic contact surface and fragments of charcoal-bearing slag.

Tuyères (26 pieces, 1297g) (Fig. 13.2, 13.3)

Twenty-six fragments of a rather silty ceramic (fired clay) were identifiable as fragments of tuyères. There were no complete tuyère faces, nor were there any identifiable fragments from the rear of the tuyères. The largest fragments comprised up to 50% of the face of the tuyère, leaving some room for uncertainty about the form of the complete artefacts. The surviving evidence suggests that the tuyères were approximately square in cross section (90x95mm), with angles between the faces in the form of a fillet of radius 15mm. The centrally-placed bore appears to have typically about 25mm close to the front fact, but widening towards the rear. One piece provides a suggestion that the bore might have been angled downwards slightly towards the front, but this was not observed in the other fragments.The front faces of the tuyères were angled back at approximately 45° to the axis of the tuyère. It is likely that this was not the original form, but the result of erosion in the hot-zone of the furnace above the blowhole. Some small fragments suggest some tuyères suffered severe erosion on all sides of the blowhole, leaving it surround by a conical area of ceramic.

The front faces of the tuyères varied from those with eroded shapes with a greenish glaze-like slag, to examples with thick and irregular developments of slag, particularly in the lower half of the face. Although some of the tuyère fragments showed rare inclusions of a pale siliceous rock, the slagging of several fragments was extremely rich in such grains. Although these resistate materials might have accumulated from the partial melting of a substantial section of tuyère, they might also possibly be derived from the use of coarse welding flux. The slagging disappeared rapidly to the sides of the tuyères.

The tuyères were formed from a silty paste, mostly fired to a buff colour. Deeper red oxidised colours occurred adjacent to the blowhole itself and the slagging was typically underlain by a thin zone of reduced-fired ceramic. Pale grey firing also extended locally onto the unslagged sides of the tuyères. The maximum preserved length of a tuyère was 80mm, but there was no evidence for their original length.

Distribution of the residues

The described material is all from Ditch J, fill 10047. This has a mid to late 1st century AD date (Period 3), with a possibility that it is just pre-conquest.

Interpretation

The slags from the assemblage are from ironworking (smithing). The weights of the SHCs may be compared with those of assemblages of Roman age, but there are few Iron Age assemblages for

which equivalent metrics are available. Iron Age bloomsmithing slags from Truro (Young 2015) included three SHCs weighing from 890-1165g. Late Iron Age to earliest Roman smithing slags from Kingstone (Herefordshire; Young 2012) included a suite of SHCs from 230-636g (interpreted as probable secondary smithing slags) with outliers of 786-1025g (interpreted as probable bloomsmithing slags). Crew (1998) summarised the assemblage from Crawcwellt West, Gwynedd, as containing larger SHCs of 300-400g, together with smaller cakes of 100-150g. He attributed the larger sizes to bloom refining and the smaller ones to "the final stages of smithing". It should be noted however that the Crawcwellt furnaces, and presumably therefore the blooms, were small by typical Iron Age standards. Roman blacksmithing assemblages typically have mean weights of less than 400g and maximum weights of 850g (e.g. SHC assemblages from Roman smithies at Neath, Carmarthen, Bulmore, Marsh Leys and Cowbridge; Young 2013, Crew 2003, Young 1999, Young 2011, Barford 1996 respectively). Roman bloomsmithing assemblages are poorly known, but several sites in the hinterland of the Forest of Dean where there was iron production also show the presence of large SHCs (e.g. Frocester Court, Thomas 2000). Other such sites in the area may have gone unrecognised; recent attempts by Allen (2009, 2010) to propose non-slag tapping furnaces from the Romano-British period around the Severn Estuary are probably erroneous, for the so-called furnace bottoms of his papers (mainly with weights less than 1kg) are extremely similar to the SHCs from bloomsmithing at Miskin and elsewhere. The site at School Road, Miskin (author's unpublished data) has an assemblage of particularly large SHCs (mostly 1.0 to 2.5kg), but this may have been a specialist site, with no secondary smithing.

The present assemblage would therefore most easily be interpreted as from secondary smithing (blacksmithing), despite overlap in SHC weights with bloomsmithing slags from North Wales.

The use of ceramic tuyères is, however, an unusual aspect of this site. The evidence for the occurrence of tuyères in the British Iron Age is complicated by several occurrences that have probably been misreported as tuyères, when they are probably simply the vitrified face of the hearth around the blowhole (most occurrences of so-called disc tuyères). In fact, tuyères need to be elongate to function and therefore any functional tuyère must be of the form reported occasionally as block tuyères. This use of 'block' is therefore redundant, and such artefacts may simply be called tuyères.

There are, however, some certain uses of tuyères in the British Iron Age. Several fragments of probable tuyères, interpreted as having had an elliptical (150x100mm) cross section were recovered from a Middle Iron Age iron production site at Truro (Young 2008, 4-5). These tuyères were probably, but not certainly, employed at the site in smithing hearths, not in the smelting furnaces. Tuyères of much closer form to the present examples were found at the Middle Iron Age copper smelting site at Domgay Lane, Four Crosses (Young 2010). These fragments indicate a tuyère with a flat base 120mm wide, vertical sides and rounded angles. The form of the top of the tuyère is uncertain, but was possibly more rounded.

In contrast, tuyères are extremely rare from Roman metalworking sites, being only relatively common on iron-smelting sites in SE England where tuyères with twin bores are found. Ceramic tuyères (although largely with an oval-cross section) are much more widely associated with a technology introduced into both eastern England and Ireland early in the early medieval period. Their use did not persist in England, but in Ireland they form a major component of ironworking residue assemblages though into the post-medieval period.

The occurrence of the tuyères together with large triangular loom weights (see pp. *) provides some further evidence for craft activity in an Iron Age, rather than Romanised, style.

Conclusion

The residues, both slags and tuyères, form a small but very important assemblage of Late Iron Age character. The materials should be retained and deposited with the site archive, so that may remain accessible for future studies. Although the materials have this high level of importance, their occurrence as a small assemblage of debris isolated from the originating metallurgical features, reduces their potential for yielding additional information of benefit to the current project. Therefore, no further analysis is recommended at this time.

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Table 5.1: summary catalogue of slags and fired clay

label	context	Sample wt	item wt	Item no	notes
slag	10048	1120			
			292	1	70% of a (95)x(65)x30mm brittle fractured plano-convex SHC; flat slightly haematised top; dense, 10mm thick, vesicle-free upper plate of slag; 20mm thick bowl below also dense, possibly bladed; vesicles on boundary between the two layers; blebs of lining slag on neatly rounded base; top smooth but very slightly dimpled.
			30	1	A fragment from margin of SHC as above; bladed olivine, haematised top; slightly irregular base without true dimples.
			300	1	A 95x100x30mm, plano-convex SHC; formed of a dense mass of coalesced prills; deeply dimpled on top, slightly dimpled on base; slight charcoal impressions on top.
			286	1	A slightly irregular SHC, uplifted lump of slag to one side may be deformation; 90x70x35mm main dense mass, 20mm high raised area to one side
			110	3	Thin sheets of dense slag, with probable ceramic/sediment contact on one face, other side smooth to very slightly lobate.
			20	6	Small fragments, including some wispy pieces, possibly from around charcoal moulds.
			66	1	Dense rusty slag fragment; flat top; slightly prilly internally; has attached charcoal-bearing slag at one end - possibly an SHC fragment or other smithing slag.
fired clay	10048	2910			
vitreous slag	10048	1285			
					Tuyères (total 26 pieces, 1297g)
			258	2	Conjoining fragments of tuyère. Asymmetry suggest right side of tuyère; 45mm top to mid bore, probably 45mm to base but not well preserved; top receded to 40mm behind face of bore; bore c27mm diameter; centre of bore to vertical edge 47mm. Top angle has 15mm diameter fillet, base probably the same; paste silty with large angular cherty clasts to15mm long axis. some dark red flecks; mainly buff,

label	context	Sample wt	item wt	Item no	notes
					but grey surface below slag on lower face and curving onto base; maximum preserved thickness 80mm; face has glossy glassy slag with broad dimples; not very granular even towards base.
			225	2	Conjoining fragments of highly slagged tuyère tip.
			74	2	Conjoining fragments of nose of tuyère; face oblique to bore; face coated in quartzose fragments to 8mm; bore c30mm.
			126	1	Tuyère fragment with slightly tapering bore, 25mm at narrow end; no faces but sides 45 and 47mm from bore; angle between sides not preserved; bore striated as if tool twisted.
			85	1	Piece very similar to 126g piece above, but less of bore preserved.
			85	1	Strongly-slagged section of tuyère face, with part of bore, but very little ceramic attached to slag; bore c25mm; face oblique to bore.
			47	1	Small fragment of nose of tuyère with small quarter cone shaped ceramic preserved round bore; very heavily slagged; bore 22mm.
			70	1	Part of slagged tuyère face, face angled, corner fillet 20mm radius
			204	14	Fragments of vitrified/slagged tuyère as above
			123	1	Quarter of tuyère face (lower left?); vertical side seems to pass into curved base rather than fillet and flat; side of tuyère appears curved too in plan - so may be angular truncated rugby- ball shape? Centre of bore probably 45mm from line of side and just 35mm above base; appears to be slightly inclined downwards.
			76	1	Angle of tuyère side with 140° angle rather than fillet, few further details.
					loom weights (26 pieces, 2000g)
			83	1	Bulbous piece of buff-brown fired clay with possible trumpet-shaped opening partially preserved.
			21	1	Small rounded buff silty fragment
			186	1	Large block of silty buff-brown with sides at fractionally less than 90° and 13mm fillet
			108	1	Block as above, large face is slightly curved with ridge across, fillet7mm

label	context	Sample wt	item wt	Item no	notes
			22	1	Small fragment as above with 12mm fillet
			135	1	c12mm fillet, 85° angle, hole starts 37mm above base, at approximately 45°
			65	1	Hole starts 37mm above base at approximately 60° to side; fillet approximately 12mm.
			126	1	Top corner of weight; hole starts 55mm and 65mm from corner, 20mm above base; hole 12mml sides 100° and 85° to base; fillet 8mm on one side almost angular the other
			118	1	Hole 36mm above base c 10mm fillet, side a fractionally over 90°
			39	1	Rounded corner; sides at 120°, both at just over 90° with base
			110	1	100° angle with 10mm fillet
			92	1	110° angle with 10mm fillet
			235	1	Large bulbous mass, side straight passes into rounded end; 55mm preserved thickness; c60mm radius of curvature on rounded end
			32	1	100° angle with 10mm fillet
			118	1	100° angle with 15mm fillet
			28	1	90° angle with 10mm fillet
			246	5	Fragments with a rounded face - possible weights
			236	5	Fragments with one flat face, probably weights but might be tuyère
					Uncertain (29 pieces, 680g)
			162	14	Oxidised fired scraps with a foliation,
			46	3	Mostly oxidised fired silty fragments, uncertain origin
			15	4	Mostly reduced fired silty fragments, uncertain origin
			457	8	Blocks with apparent remnants of organic temper, 2 have a flat face, one has a curved ace. Although all might be from weights, none shows definite characters and all might be simple daub

APPENDIX 6: METAL FINDS BY E.R. MCSLOY

Objects of metal (iron) were limited to two items; which are described below. Identification of iron needle Ra. 1.1 has been assisted by x-radiography (Plate XRK15/100 in archive).

An earlier Roman date is suggested for needle Ra. 1.1 (Fig. 13.1) based on associated pottery. Manning illustrates a large number of similar sewing needles of 1st or 2nd century date from London, most in the 5–8cm long size range (Manning 1985, 35–6).

The barbed wire support post or 'corkscrew picket' from modern ditch 10314 is of a form developed for military use in WW1 and which was also used in WW2. In use the tightly spiralled terminal was driven into the ground using the handle of an entrenching tool inserted into the bottom eye for leverage. Specifically military use of this example is uncertain, as it is probable that some found their way into civilian hands following both conflicts.

Catalogue

Ra. 1.1 Iron needle. Round-sectioned with flattened head featuring elongated eye. Length 79mm; width at head 5mm. max diam. 3mm. Period 3. Ditch J (fill 10048). *Fig. 13.1*

Cxt 10315 Steel 'screw picket' type barbed wire post. Corkscrew type terminal with 4 x looped 'eyes' for carrying the barbed wire. Length 168 cm; diam. 14–15mm. Period 6 ditch 10314 (fill 10315). *Not illustrated*.

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APPENDIX 7: ANIMAL BONES BY ANDY CLARKE

A collection of animal bones numbering 37 fragments (17.3g) was recovered by a combination of hand excavation and bulk soil sampling from 17 deposits. The bones were poorly preserved and highly fragmented, rendering 97% of the assemblage unidentifiable to species (Appendix C).

It was possible to identify the presence of Cattle (*Bos taurus*) from a single, isolated molar tooth from deposit 10174, the primary fill of post-medieval ditch 10173. The remainder of the assemblage while unidentifiable displayed clear signs of having been burnt. However, due to the low recovery and minute size of these fragments, they can offer no further useful interpretative information.

Table 7.1 : Identified animals by fragment count (NISP), weight and context

F.L	P.P	Cut	Fill	BOS	LM	MM	Ind	un-id SS	Total	Weight (g)
	2	10021	10022					5	5	0.5
	2	10029	10030					1	1	0.2
	3	10035	10036					2	2	0.2
Ditch J	3	10047	10048			1			1	3
	2	10054	10055					1	1	0.1
	2	10060	10061					1	1	0.1
	2	10068	10069					3	3	1
	2	10088	10089					1	1	0.1
	2	10104	10105					2	2	0.2
	2	10104	10106					3	3	0.1
	5	10119	10120		1				1	3
Ditch/gully F	2	10169	10170					3	3	0.2
	4	10173	10174	1					1	6
	3	10219	10220				3		3	2
	3	10263	10264					2	2	0.1
	3	10263	10330					1	1	0.2
	1	10311	10312					4	4	0.1
	1	10316	10317					1	1	0.1
voided			10044					1	1	0.1
Total				**1**	**1**	**1**	**3**	**31**	**37**	
Weight (g)				**6**	**3**	**3**	**2**	**3.3**	**17.3**	

F.L = Feature Label; P.P = Provisional Period; BOS = cattle; LM = cattle sized mammal; MM = sheep size mammal; Ind = Indeterminable; un-id SS = unidentifiable fragments from bulk soil samples.

APPENDIX 8: PLANT REMAINS AND CHARCOAL BY SARAH COBAIN

Introduction

A total of 51 bulk soil samples were retrieved for plant macrofossil and charcoal assessment. The aim of this report was to initially assess the type, preservation and quantity of plant macrofossil and charcoal remains and where appropriate carry out full analysis to provide evidence of socio-economic activities being undertaken on the site (crop husbandry, diet, living conditions of communities, exploitation of woodlands for fuel, woodland management), and to infer the composition of the local flora and woodlands.

Methodology

Following flotation (CA Technical Manual No 2), the residue was dried and sorted by eye, the floated material scanned and seeds identified using a low power stereo-microscope (Brunel MX1) at magnifications of x10 to x40. Identifications were carried out with reference to images and descriptions by Cappers *et al.* (2006), Neef *et al.* (2012) Berggren (1981) and Anderberg (1994). Nomenclature follows Stace (1997). A selection of charcoal fragments were fractured by hand to reveal the wood anatomy on radial, tangential and transverse planes. The pieces were then supported in a sand bath and identified under an epi-illuminating microscope (Brunel SP400) at magnifications from x40 to x400. Identifications were carried out with reference to images and descriptions by Gale and Cutler (2000) and Schoch *et al.* (2004) and Wheeler *et al.* (1989). Nomenclature of species follows Stace (1997).

Results

The results are presented in tabular form (Tables 8.1–8.10). SS refers to the Soil Sample number. Taxa have been identified as one of two possibilities (for example alder/hazel - *Alnus glutinosa/Corylus avellana*) where the two species exhibit similar morphology but the species are not sufficiently well-preserved to observe subtle anatomical differences required for full identification.

Discussion

Period 1 Early Neolithic

Pits and postholes 10246 (SS 47), 10318 (SS 51), 10320 (SS 52) and 10316 (SS 55) dating to the Neolithic period were concentrated in the southern area of site. Plant macrofossil and charcoal recovery was low with small numbers of hazelnut shells, and indeterminate cereal grains/grain fragments identified. Charcoal was recorded as oak, alder/hazel and hawthorn/rowan/crab apple. The paucity of this material suggests it is residual, resulting from wind-blown hearth debris.

The only exception to this was pit 10311 (SS 50) which contained 57 hazelnut shells and two indeterminate cereal grains and three cereal grain fragments. Charcoal was abundant and identified dominantly as oak, with smaller amounts of maple, alder/hazel, hawthorn/rowan/crab apple and cherry species. Given the larger quantity of charred material within this feature it is likely to represent a deposit of domestic waste, suggesting possible settlement nearby. This material is typical of that found in Neolithic features with hazelnut being a common hand collected food stuff and cereal used to produce bread or used whole in soups/stews. The charcoal identified suggests that local woodland consists of stands of oak and maple with shrubby areas consisting of alder/hazel, hawthorn/rowan/crab apple and cherry species.

Period 2 Later Iron Age (c. 400 – 10 BC)

Roundhouse 1 (Gullies F and G)

Plant remains and charcoal recovered from the fills associated with Roundhouse 1 (Gullies F (SS 24–SS 26) and G (SS 27–SS 28 and SS 49)) and internal pits 10052 (SS 14), 10054 (SS 15), 10056 (SS 16), 10058 (SS 17), 10060 (SS 18), 10066 (SS 20) and 10068 (SS 21) were present in low concentrations. Charred hazelnut shells were found in pits 10056 and 10066, Gully F (SS 25) and Gully G (SS 28 and SS 49) and a single wheat grain in Gully F (SS 25) and a single possible emmer wheat grain in Gully G (SS 49). The small amount of charcoal scattered across all features was identified as oak, maple, alder/hazel, birch, hawthorn/rowan/crab apple, cherry species and blackthorn. Cutting the northern terminal of Gully G was pit 10104 (SS 29 and SS 30). No plant remains were identified and only a small amount of charcoal was recorded identified as oak, alder/hazel and hawthorn/rowan/crab apple.

Roundhouse 2 (Gullies H and K)

Within the internal area defined by Roundhouse 2 postholes 10021 (SS 1), 10031 (SS 6), 10033 (SS 7) and 10037 (SS 9) contained small numbers of wheat and indeterminate cereal grains. Posthole 10029 (SS 5) contained no plant remains. Charcoal in all features was rare and identified as oak, alder/hazel, ash and hawthorn/rowan/crab apple. In the central eastern part of the site postholes 10027 (SS 4) and 10039 (SS 10) contained no plant macrofossils. Pit 10025 (SS 2 and SS 3) contained one wheat grain and two indeterminate cereal grains. All three features contained small amounts of charcoal identified as oak, gorse/broom and ash.

The small number of hazelnut shells and cereal grain fragments scattered within the fills and features associated with Roundhouse 1 and 2 are most likely residual resulting from wind-blown hearth debris, however it is possible that some form of crop processing or domestic food production was taking place nearby or in the vicinity of these features. Although charcoal was rare, it suggests that local woodlands consisted of stands of oak, maple and ash with shrubby areas/hedgerows consisting of alder/hazel, birch, gorse/broom, hawthorn/rowan/crab apple, cherry species and blackthorn.

Period 3 Late Iron Age/Early Roman (10 BC – AD 100)

Samples dating to the Late Iron Age/Early Roman period were recovered from ditch E (SS 19 and SS 23) and a group of pits/postholes (10180 (SS 31), 10182 (SS 32), 10184 (SS 33), 10186 (SS 34), 10188 (SS 36), 10190 (SS 37), 10192 (SS 38), 10194 (SS 39), 10196 (SS 40 and SS 41), 10202 (SS 35), 10215 (SS 44), 10217 (SS 42), 10219 (SS 43)), located to the north east of ditch E. Plant remains were only identified within ditch E (SS 19 and SS 23) and within pits/postholes 10180 (SS 31), 10215 (SS 44) and 10219 (SS 43) and consisted of hazelnut shells and a spelt wheat grain within ditch E (SS 19). Charcoal from all these features was rare and identified as oak, alder/hazel, birch, hawthorn/rowan/crab apple and cherry species. The only exception to this was pit/posthole 10186 which contained a large assemblage of oak charcoal. Given only one species is identified, it is possible that this material represent a burnt *in-situ* post or alternatively a dump of hearth/furnace debris.

Hearth 10263 (SS 53 and SS 54), located to the south of ditch L contained no plant macrofossil material. Charcoal was abundant and identified as oak. Pit/posthole 10035 (SS 8) located to the north-east of Roundhouse 2 contained no plant macrofossil or charcoal material.

The paucity of material recovered from these feature precludes any further interpretation of function. The charcoal rich deposits within hearth 10263 and pit/posthole 10186 suggests some form of activity was taking place on site, however given the absence of any diagnostic artefactual material it cannot be determined whether the activity was industrial or domestic in nature. Charcoal from other species was rare and as such it is not possible to provide a reconstruction of local woodlands.

Period 4 Post-medieval (c. AD 1500 – 1800)

Posthole 10265 (SS 10265) located to the north of ditch I contained no plant macrofossil or charcoal material and as such no further interpretation can be provided.

Period 6 Undated

Posthole 10045 (SS 13) located to the north of site and pit/posthole 10248 (SS 45) located to the north of ditch E contained no plant macrofossil or charcoal and as such no further interpretation can be provided.

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Table 8.1 Plant macrofossil identifications (Periods 1 and 2)

Context number				10247	10312	10317	10319	10321	10022	10026	10026	10028	10030
Feature number				10246	10311	10316	10318	10320	10021	10025	10025	10027	10029
Sample number (SS)				47	50	55	51	52	1	2	3	4	5
Flot volume (ml)				8	335	9	2.5	<0.5	43	2	17.5	2.5	4.5
Sample volume processed (l)				40	20	9	35	4	22	5	18	5	10
Soil remaining (l)				0	0	0	0	0	0	0	0	0	0
Period				1	1	1	1	1	2	2	2	2	2
Plant macrofossil preservation				Moderate	Moderate	Moderate	Poor	Poor	Poor	N/A	Poor	N/A	N/A
Habitat	**Family**	**Species**	**Common Name**										
HSW	**Betulaceae**	***Corylus avellana* L.**	**Hazelnut shells**	**10**	**57**	**11**		**1**					
E		*Triticum*	Wheat grain						1		1		
E		*Poaceae*	Indeterminate cereal grain (whole)		2				1		2		
E		*Poaceae*	Indeterminate cereal grain (fragment)	1	3		1						
D/A	Rubiaceae	*Galium aparine*	Cleavers						1				
			Total	11	62	11	1	1	3	0	3	0	0

Table 8.2 Plant macrofossil identifications (Period 2)

Context number				10032	10034	10038	10040	10053	10055	10057	10059	10061	10067
Feature number				10031	10033	10037	10039	10052	10054	10056	10058	10060	10066
Sample number (SS)				6	7	9	10	14	15	16	17	18	20
Flot volume (ml)				5.5	14	4.5	11.5	38	17.5	6	1.5	1	8
Sample volume processed (l)				10	10	10	7	20	20	20	15	8	30
Soil remaining (l)				0	0	0	0	0	0	0	0	0	0
Period				2	2	2	2	2	2	2	2	2	2
Plant macrofossil preservation				Poor	Poor	Poor	N/A	N/A	N/A	Good	N/A	N/A	Moderate
Habitat Code	**Family**	**Species**	**Common Name**										
HSW	Betulaceae	*Corylus avellana* L.	Hazelnut shells							1			1
E		*Triticum*	Wheat grain	cf 2									
E		*Poaceae*	Indet. cereal grain (whole)	1									
E		*Poaceae*	Indet. cereal grain (fragment)	1		3							
D/A	Rubiaceae	*Galium aparine*	Cleavers	1									
			Total	5	0	3	0	0	0	1	0	0	1

Table 8.3 Plant macrofossil identifications (Periods 2 and 3)

Context number				10069	10083	10085	10089	10097	10101	10105	10106	10170	10036
Feature number				10068	10082	10085	10088	10096	10100	10104	10104	10169	10035
Feature Label					F	F	F	G	G			G	
Sample number (SS)				21	24	25	26	27	28	29	30	49	8
Flot volume (ml)				1.5	23	4	10	2	3.5	5	1	9	9.5
Sample volume processed (l)				13	24	32	33	17	18	15	9	26	6
Soil remaining (l)				0	0	0	0	0	0	0	0	0	0
Period				2	2	2	2	2	2	2	2	2	3
Plant macrofossil preservation				N/A	Moderate	N/A	Poor	N/A	Moderate	N/A	N/A	Poor	N/A
Habitat Code	**Family**	**Species**	**Common Name**										
HSW	Betulaceae	*Corylus avellana* L.	Hazelnut shells				1		2			3	
E		*Triticum*	Wheat grain				1						
E		*Triticum dicoccum*	Emmer wheat grain									?1	
D/A	Rubiaceae	*Galium aparine*	Cleavers		1		1						
			Total	0	1	0	3	0	2	0	0	4	0

Table 8.4 Plant macrofossil identifications (Periods 3)

Context number				10065	10077	10181	10183	10185	10187	10189	10191	10193	10195
Feature number				10064	10076	10180	10182	10184	10186	10188	10190	10192	10194
Feature Label				E	E								
Sample number (SS)				19	23	31	32	33	34	36	37	38	39
Flot volume (ml)				19	12.5	8	4.5	4.5	4	5	2.5	0.5	5.5
Sample volume processed (l)				32	27	26	25	9	3	27	5	2	15
Soil remaining (l)				0	0	0	0	0	0	0	0	0	0
Period				3	3	3	3	3	3	3	3	3	3
Plant macrofossil preservation				Poor	Moderate	Moderate	N/A	N/A	N/A	N/A	Moderate	N/A	N/A
Habitat Code	**Family**	**Species**	**Common Name**										
HSW	Betulaceae	*Corylus avellana* L.	Hazelnut shells	1	1	1							
E		*Triticum spelta*	Spelt wheat grain	1									
D/A	Rubiaceae	*Galium aparine*	Cleavers								1		
			Total	2	1	1	0	0	0	0	1	0	0

Table 8.5 Plant macrofossil identifications (Periods 3, 4 and 6)

Context number				10197	10198	10204	10216	10218	10220	10264	10330	10266	10046	10249
Feature number				10196	10196	10202	10215	10217	10219	10263	10263	10265	10045	10248
Sample number (SS)				40	41	35	44	42	43	53	54	48	13	45
Flot volume (ml)				3	11	12	2.5	<0.5	5	471	1251	1.5	44	9
Sample volume processed (l)				10	20	26	9	1	12	35	16	9	9	10
Soil remaining (l)				0	0	0	0	0	0	0	0	0	0	0
Period				3	3	3	3	3	3	3	3	4	6	6
Plant macrofossil preservation				N/A	N/A	Moderate	Moderate	N/A	Moderate	N/A	N/A	N/A	N/A	N/A
Habitat Code	**Family**	**Species**	**Common Name**											
HSW	Betulaceae	*Corylus avellana* L.	Hazelnut shells				1		3					
D/A	Rubiaceae	*Galium aparine*	Cleavers			1								
			Total	0	0	1	1	0	3	0	0	0	0	0

Table 8.6 Charcoal identifications (Period 1)

Context number			10247	10312	10321	10317	10319	10022	10026	10026	10028	10030
Feature number			10246	10311	10320	10316	10318	10021	10025	10025	10027	10029
Sample number (SS)			47	50	52	55	51	1	2	3	4	5
Flot volume (ml)			8	335	<0.5	9	2.5	43	2	17.5	2.5	4.5
Sample volume processed (l)			40	20	4	9	35	22	5	18	5	10
Soil remaining (l)			0	0	0	0	0	0	0	0	0	0
Period			1	1	1	1	1	2	2	2	2	2
Charcoal quantity >2mm			+++	+++++	+	++	+++	+++	+++	+	+	+
Charcoal preservation			Poor	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Poor
Family	**Species**	**Common Name**										
Aceraceae	*Acer campestre* L.	Field maple		5				1				
Betulaceae	*Alnus glutinosa* (L.) Gaertn./ *Corylus avellana* L.	Alder/Hazel		4		2	2	1				
Fabaceae	*Ulex* L./*Cytisus* Desf.	Gorses/Brooms r/w								2		
Fagaceae	*Quercus petraea* (Matt.) Liebl./*Quercus robur* L.	Sessile Oak/Pedunculate Oak	10	63	2	2	8	5	10		1	1
Oleaceae	*Fraxinus excelsior* L.	Ash								1		
Rosaceae	*Crataegus monogyna* Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/Crab apple		9		6		1				
	Crataegus monogyna Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/Crab apple r/w		3								
	Prunus L.	Cherries r/w		5								
	Prunus L.	Cherries		11				1				
		Total	10	100	2	10	10	8	10	3	1	1

Table 8.7 Charcoal identifications (Period 2)

Context number			10032	10034	10038	10040	10053	10055	10057	10059	10061	10067
Feature number			10031	10033	10037	10039	10052	10054	10056	10058	10060	10066
Sample number (SS)			6	7	9	10	14	15	16	17	18	20
Flot volume (ml)			5.5	14	4.5	11.5	38	17.5	6	1.5	1	8
Sample volume processed (l)			10	10	10	7	20	20	20	15	8	30
Soil remaining (l)			0	0	0	0	0	0	0	0	0	0
Period			2	2	2	2	2	2	2	2	2	2
Charcoal quantity >2mm			+	+	++	+	++	++	+	+	+	+++
Charcoal preservation			Moderate	Poor	Moderate	Poor	Moderate	Moderate	Moderate	Moderate	Poor	Moderate
Family	**Species**	**Common Name**										
Aceraceae	*Acer campestre* L.	Field maple										2
Betulaceae	*Alnus glutinosa* (L.) Gaertn./ *Corylus avellana* L.	Alder/Hazel			5		2	2		3		1
Fagaceae	*Quercus petraea* (Matt.) Liebl./*Quercus robur* L.	Sessile Oak/Pedunculate Oak	1	1	2	1	6	4	3		1	6
	Quercus petraea (Matt.) Liebl./*Quercus robur* L. r/w	Sessile Oak/Pedunculate Oak r/w							2			
Oleaceae	*Fraxinus excelsior* L.	Ash	1									
Rosaceae	*Crataegus monogyna* Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/Crab apple			3		1	3		3		1
	Prunus L.	Cherries						1				
	Prunus spinosa L.	Blackthorn					1					
		Total	2	1	10	1	10	10	5	6	1	10

Table 8.8 Charcoal identifications (Period 2)

Context number			10069	10083	10085	10089	10097	10101	10105	10106	10170	10036
Feature number			10068	10082	10085	10088	10096	10100	10104	10104	10169	10035
Feature Label				F	F	F	G	G			G	
Sample number (SS)			21	24	25	26	27	28	29	30	49	8
Flot volume (ml)			1.5	23	4	10	2	3.5	5	1	9	9.5
Sample volume processed (l)			13	24	32	33	17	18	15	9	26	6
Soil remaining (l)			0	0	0	0	0	0	0	0	0	0
Period			2	2	2	2	2	2	2	2	2	3
Charcoal quantity >2mm			+	+++	++	+++	+	+	+++	+	+++	0
Charcoal preservation			Moderate	Poor	Poor	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	N/A
Family	**Species**	**Common Name**										
Aceraceae	*Acer campestre* L.	Field maple							1			
Betulaceae	*Alnus glutinosa* (L.) Gaertn./ *Corylus avellana* L.	Alder/Hazel	1		3		2	1		1	3	
	Betula L.	Birches				1		1				
Fagaceae	*Quercus petraea* (Matt.) Liebl./ *Quercus robur* L.	Sessile Oak/ Pedunculate Oak	1	1	2	3		3			3	
	Quercus petraea (Matt.) Liebl./ *Quercus robur* L. r/w	Sessile Oak/ Pedunculate Oak r/w					2					
Rosaceae	*Crataegus monogyna* Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/ Crab apple		1		2			3		2	
	Crataegus monogyna Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/ Crab apple r/w							1			
	Prunus L.	Cherries			1	4	1	1	4	1	2	
	Prunus spinosa L.	Blackthorn							1	1		

Context number			10069	10083	10085	10089	10097	10101	10105	10106	10170	10036
Feature number			10068	10082	10085	10088	10096	10100	10104	10104	10169	10035
Feature Label				F	F	F	G	G			G	
Sample number (SS)			21	24	25	26	27	28	29	30	49	8
Flot volume (ml)			1.5	23	4	10	2	3.5	5	1	9	9.5
Sample volume processed (l)			13	24	32	33	17	18	15	9	26	6
Soil remaining (l)			0	0	0	0	0	0	0	0	0	0
Period			2	2	2	2	2	2	2	2	2	3
Charcoal quantity >2mm			+	+++	++	+++	+	+	+++	+	+++	0
Charcoal preservation			Moderate	Poor	Poor	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	N/A
		Indeterminate		8	4			4				
		Total	2	2	6	10	5	6	10	3	10	0

Table 8.9 Charcoal identifications (Period 3)

Context number			10065	10077	10181	10183	10185	10187	10189	10191	10193	10195
Feature number			10064	10076	10180	10182	10184	10186	10188	10190	10192	10194
Feature Label			E	E								
Sample number (SS)			19	23	31	32	33	34	36	37	38	39
Flot volume (ml)			19	12.5	8	4.5	4.5	4	5	2.5	0.5	5.5
Sample volume processed (l)			32	27	26	25	9	3	27	5	2	15
Soil remaining (l)			0	0	0	0	0	0	0	0	0	0
Period			3	3	3	3	3	3	3	3	3	3
Charcoal quantity >2mm			+	+++	+	++	++	+++++	+	0	+	0
Charcoal preservation			Poor	Moderate	Poor	Poor	Poor	Poor	Moderate	N/A	Moderate	N/A
Family	**Species**	**Common Name**										
Betulaceae	*Alnus glutinosa* (L.) Gaertn./ *Corylus avellana* L.	Alder/Hazel		2					2			
	Betula L.	Birches		1								
Fagaceae	*Quercus petraea* (Matt.) Liebl./*Quercus robur* L.	Sessile Oak/ Pedunculate Oak	1	5	3	cf 2	4	100	5		2	
	Quercus petraea (Matt.) Liebl./*Quercus robur* L. h/w	Sessile Oak/ Pedunculate Oak h/w							1			
	Quercus petraea (Matt.) Liebl./*Quercus robur* L. r/w	Sessile Oak/ Pedunculate Oak r/w			1							
Rosaceae	*Crataegus monogyna* Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/ Crab apple	1	2								
		Indeterminate				8	6					
		Total	2	10	4	2	4	100	8	0	2	0

Table 8.10 Charcoal identifications (Periods 3, 4 and 6)

Context number			10197	10198	10204	10216	10218	10220	10264	10330	10266	10046	10249
Feature number			10196	10196	10202	10215	10217	10219	10263	10263	10265	10045	10248
Sample number (SS)			40	41	35	44	42	43	53	54	48	13	45
Flot volume (ml)			3	11	12	2.5	<0.5	5	471	1251	1.5	44	9
Sample volume processed (l)			10	20	26	9	1	12	35	16	9	9	10
Soil remaining (l)			0	0	0	0	0	0	0	0	0	0	0
Period			3	3	3	3	3	3	3	3	4	6	6
Charcoal quantity >2mm			+	++	+	+	0	+++	++++++	++++++	+++	0	0
Charcoal preservation			Moderate	Moderate	Moderate	Moderate	N/A	Moderate	Moderate	Poor	Moderate	N/A	N/A
Family	**Species**	**Common Name**											
Betulaceae	*Alnus glutinosa* (L.) Gaertn./ *Corylus avellana* L.	Alder/Hazel		3	1						3		
	Alnus glutinosa (L.) Gaertn./ *Corylus avellana* L.	Alder/Hazel r/w		1									
Fagaceae	*Quercus petraea* (Matt.) Liebl./*Quercus robur* L.	Sessile Oak/ Pedunculate Oak	4	6	1	2		7	100	100	3		
Rosaceae	*Crataegus monogyna* Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/ Crab apple			2			2			2		
	Crataegus monogyna Jacq./ *Sorbus* L./*Malus sylvestris* (L.) Mill.	Hawthorn/Rowans/ Crab apple r/w									1		
	Prunus L.	Cherries r/w									1		
	Prunus L.	Cherries				1		1					
		Indeterminate				4							
		Total	4	10	4	3	0	10	100	100	10	0	0

Key

HSW = hedgerow/scrub/woodland species; A = arable weed; D = opportunistic species; E = economic species

r/w = roundwood

indet. = indeterminate

+ = 0–5 items; ++ = 6–20 items; +++ = 21–40 items; ++++ = 50–99 items; +++++ = 100–500 items; ++++++ = >500 items

APPENDIX 9: RADIOCARBON DATING BY SARAH COBAIN

Radiocarbon dating was undertaken in order to confirm the dates of pit 10311 and pit/postholes 10316 and 10318 (Table 9.1). The samples were analysed during September 2015 at Scottish Universities Environmental Research Centre (SUERC), Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow, G75 0QF, Scotland.

The uncalibrated dates are conventional radiocarbon ages. The radiocarbon ages were calibrated using the University of Oxford Radiocarbon Accelerator Unit calibration programme OxCal 4.2 (Bronk Ramsey 2009) using the IntCal13 curve (Reimer *et al.* 2013).

References

Bronk Ramsey, C. 2009 'Bayesian analysis of radiocarbon dates', *Radiocarbon* **51**, 337–360

Reimer, P.J., Bard, E., Bayliss, A., Beck, J.W., Blackwell, P.G., Bronk Ramsey, C., Grootes, P.M., Guilderson, T.P., Haflidason, H., Hajdas, I., HattŽ, C., Heaton, T.J., Hoffmann, D.L., Hogg, A.G., Hughen, K.A., Kaiser, K.F., Kromer, B., Manning, S.W., Niu, M., Reimer, R.W., Richards, D.A., Scott, E.M., Southon, J.R., Staff, R.A., Turney, C.S.M., & van der Plicht, J. 2013 'IntCal13 and Marine13 Radiocarbon Age Calibration Curves 0–50,000 Years cal BP', *Radiocarbon* **55,** 1869–1887

Table 9.1 Radiocarbon dating results

Feature	Lab No.	Material	δ ^{13}C	Radiocarbon age	Calibrated radiocarbon age 95.4% probability	Calibrated radiocarbon age 68.2% probability
Context 10312 Pit 10311	SUERC-62301	Carbonised plant remain - *Corylus avellana* (hazelnut shell)	-24.1‰	4799 ± 30 yr BP	3649–3621cal BC (19.8%) 3606–3522cal BC (75.6%)	3640–3630 cal BC (11.6 %) 3580–3534 cal BC (56.6%)
Context 10317 Pit/posthole 10316	SUERC-62302	Charcoal - *Crataegus monogyna/Sorbus/Malus sylvestris* (hawthorn/rowan/crab apple)	-26.0 ‰	4835 ± 30 yr BP	3695–3678 cal BC (3.5%) 3669–3627 cal BC (53.3%) 3587–3529 cal BC (38.6%)	3655–3632 cal BC (45.4%) 3558–3538 cal BC (22.8%)
Context 10319 Pit/posthole 10318	SUERC-62306	Charcoal - *Prunus* (cherry species)	-28.0 ‰	4920 ± 30 yr BP	3766–3647 cal BC (95.4%)	3707–3656 cal BC (68.2%)

APPENDIX 10: OASIS REPORT FORM

PROJECT DETAILS		
Project Name	Cloakham Lawns, Axminster, Devon	
Short description	Archaeological investigations were undertaken by Cotswold Archaeology in January and February 2014 at the request of Bovis Homes Ltd at Cloakham Lawns, Axminster, Devon. In the light of the results of preceding desk-based and field evaluations (CA 2009; 2010) a targeted area was excavated within the development site. The earliest features were pits containing fragments of pottery, flintwork and charred hazelnut shells. Radiocarbon dates on hazelnut shells returned Early Neolithic dates. The occupation may have been transient, with some of the larger features probably tree-throws, whilst the smaller examples appeared to be postholes. The latter included alignments that suggest the presence of a structure, but there was no overall pattern that could be interpreted as a building. Iron Age to early Roman settlement probably started in the later Iron Age (*c.* 300 BC). Pottery of the 1st century AD indicates that occupation was continuous until around the time of the Roman conquest, but perhaps did not outlast the 1st century. Features comprised curving gullies, pits and postholes. Generally, postholes lacked distinguishing characteristics and it was not possible to determine whether the curving gullies were structural or drainage features. Overall, the identified Iron Age/early Roman settlement appears to be of relatively low status and represents a seemingly typical small farmstead.	
Project dates	6 January to 21 February 2014	
Project type	Excavation	
Previous work	DBA (CA 2009) Geophysics (PCG 2010) Field Evaluation (CA 2010)	
Future work	Unknown	
PROJECT LOCATION		
Site Location	Cloakham Lawns, Axminster, Devon	
Study area (M^2/ha)	0.9ha	
Site co-ordinates (8 Fig Grid Ref.)	SY 3037 9921	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Ian Barnes	
Project Supervisor	Steven Sheldon	
MONUMENT TYPE	Roundhouses and associated pits/postholes	
SIGNIFICANT FINDS	Lithics, ceramics	
PROJECT ARCHIVES	Intended final location of archive (museum/Accession no.)	Content
Physical	Royal Albert Memorial Museum/ RAMM: 14/02	Pottery, Flint, animal bone, metal objects
Paper	Royal Albert Memorial Museum/ RAMM: 14/02	Trench recording forms, context sheets, photo registers, section drawings, drawing registers, sample sheets & registers
Digital	Royal Albert Memorial Museum/ RAMM: 14/02	Digital photographs, Access Database
BIBLIOGRAPHY		
CA (Cotswold Archaeology) 2015 *Cloakham Lawns, Axminster, Devon: Archaeology Report.* CA typescript report **15757**		

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