Fern Archaeology • Bothy East • 7 Pottergate • Gilling East • North Yorkshire • YO62 4AR • Tel. 01653 628071 • Mob. 07974 269134 • Email: cjrf100@aol.com

Client:

Mrs Margaret Firn
Highland House
Old London Road
Towton
LS24 9PB

Appl. No. 8/69/36/TA **2005/1206/FUL**: Proposed Development: Erection of a dormer bungalow with integral garage (following demolition of existing bungalow). The bungalow, Old London Road, Towton.

Report on the archaeological watching brief off Old London Road, Towton, North Yorkshire

September – October 2006

By Chris Fern BA MA

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Summary

An archaeological watching brief was carried out by Fern Archaeology on behalf of Mrs Margaret Firn at the northern limit of the village of Towton, North Yorkshire (**Figure 1**). The ground works undertaken for the new development revealed the footprint of a small building with surviving evidence for a dry-stone wall construction, post-pads and a laid clay floor (**Figure 5**). Medieval pottery found associated with these features suggests a date range from the late-12th to 15th centuries. Habitation of the structure may have ceased in the late 15th century, since at this point the building appears to have been used for ironsmithing, an episode possibly related to the historical horizon of the Battle of Towton in 1461. The evidence for this was a deposit of metal-working waste found back-filling a possible 'furnace'.

The medieval structural evidence overlaid a single north-south aligned ditch of uncertain date (**Figure 3**). Post-medieval features included the articulated remains of a mature dog, probably representing the modern burial of a pet.

The supervised presence on site of a metal-detectorist allowed the recovery of a range of metal objects that would otherwise have been lost. Highlights include a counterfeit half-guinea of George III, the pin of a medieval annular brooch and a lead spindle whorl of possible 8th-10th century date (**Figures 6-7**).

Site Location and Development

The site is located at the junction of the A162 and Old London Road, at the northern edge of the village of Towton, North Yorkshire, (**Figure 1**). The development, which is also immediately to the south of the Rockingham Farm building, is centred at National Grid Reference (NGR) SE 48507, 39672. Prior to any ground works the existing bungalow on the site was demolished. This building proved to have only very shallow foundations, and hence their existed a good potential for the survival of archaeological remains. The footprint of the new dormer bungalow (with integral garage) covered an area approximately 200m², which was superimposed over the plot of the demolished dwelling.

The topography of the village at this point comprises a ridge of land with a fall to the west and a gradual accent northwards along the line of the A162 towards Tadcaster. The modern Ordnance Survey records a height of approximately 24m AOD (*Above Ordnance Datum*) 80m along the downward course of the Old London Road, to the west of the development, and a height of approximately 33m AOD, 250m north along the line of the A162. The height above sea level at the point of the development is hence approximately 27m AOD.

The underlying solid geology of the area comprises Upper Magnesian Limestone bordering Middle Permian Marl immediately to the west. The drift geology is glacial sand and gravel (**C1000)** resulting in a covering of fine loamy topsoil (Sutherland 2001).

The development is situated 110m from the site of Towton Hall where a number of mass graves have been archaeologically excavated, which relate to the 1461 Battle of Towton. In addition, previous work near the site has revealed evidence for late medieval occupation. Therefore, in view of the potential for archaeological remains relating to the battle and the village's formation, North Yorkshire County Council placed an archaeological watching brief condition on the development (**Appendix 6**).

The watching brief took place over four days between the 28th September and 3rd October 2006. The weather in this period varied from sunny and mild to overcast and very wet.

The site code allocated is **TOW'06**.

Historical and Archaeological background

The village of Towton is best known for the Wars of the Roses battle fought nearby, on Palm Sunday, 29th March 1461. A mass grave from the battle which contained the remains of approximately sixty individuals was discovered within the village, next to Towton Hall, in July 1996. Some individuals were found to have suffered serious head wounds consistent with medieval conflict and were subsequently radiocarbon dated to the period of the battle (Boylston *et al* 2000).

Existing ridge-and-furrow field systems, possibly dating to the medieval period, can be seen in the meadow to the south of the hall.

The field to the west of the development area contains a number of platforms and earthworks which are typical of medieval 'toft and croft' settlement remains and may therefore indicate occupation in this period. The field to the north of this demonstrates further evidence, from aerial photographs of crop-marks, of ploughed-out ridge-and-furrow. Their limit may indicate the northern edge of the medieval village, since this boundary aligns with one shown on the earliest 1849 First Edition Ordnance Survey, although it is not present on the subsequent 1908 survey.

In September 2001 an archaeological watching brief was carried out by Mr Tim Sutherland, just to the southwest of the current site, and immediately to the south of the observed platform earthworks. This recorded the remains of a rectangular stone built single cell structure, measuring 4m x 3.5m (Sutherland 2001). Although the function of this building could not be definitely established the excavator identified it as the possible kitchen of a medieval dwelling.

The earliest surviving maps for Towton village provide evidence for the extent of settlement in the later post-medieval period. Jeffries's Map of 1770 shows some detail of the site plot, to the north of the junction of the Old London Road and current A162. In particular, one building is shown fronting the Old London Road at this point. By the time of Greenwood's map of 1817 the site plot is shown as vacant, though it is difficult to be sure of the cartographic accuracy of these early plans. The First Edition 6" to 1 mile Ordnance Survey of 1849 provides greater detail and assured accuracy. This suggests a building at the frontage of the A162, set slightly back from the Old London Road. It does not however correspond with any of the buildings shown on Jeffries' Map, which are not shown, suggesting that they had been demolished by this time.

Methodology

The methodology used was that directed by North Yorkshire County Council (NYCC) in their Written Scheme of Investigation (WSI) for an archaeological watching brief (**Appendix 6**), and in accordance with that in *Management of Archaeological Projects 2* (English Heritage 1991). In addition, the *Standard and Guidance for Archaeological Watching Brief* issued by The Institute of Field Archaeologists (IFA) was adhered to throughout both the fieldwork and post-excavation phases. The archaeological contractor appointed for the project was Fern Archaeology. The supervising archaeologist for the duration was Chris Fern, who was assisted by Mr Tim Sutherland. In addition, a metal-detector survey was conducted under archaeological supervision by Mr Simon Richardson. This succeeded in recovering a number of metal artefacts, both stratified and unstratified.

Following the removal of the shallow demolished bungalow footings, the entire footprint area of the new development was topsoil stripped, under archaeological

supervision, using a JCB with a toothless ditching bucket (**Figure 8a**). Subsequently encountered archaeological deposits, layers and structures were cleaned, recorded, and where possible, sampled by hand excavation to define their character and date. Full records were maintained on a hand-held computer using the single context recording system and *Munsell Soil* classifications, the details of which are presented in **Appendix 1**. A full photographic record of the watching brief findings was made using colour digital photography (at 6 megapixel resolution) and monochrome 35mm film. Sections were recorded on *permatrace* at 1/10 scale, with plans recorded at 1/20 scale. All of the recorded plans and sections have been reproduced here in a digitised format in **Figures 3-5**, with a selection of photographs shown in **Figures 8-9**. A record of surface levels was maintained throughout. However, the lack of an extant benchmark in the village meant that only a local relational height survey was possible. The 00.00m point (Base Point) allocated was the southeast corner of Rockingham Farm at the point at which the wall meets the concrete footpath (**Figure 2**). Details of the heights numbered in **Figure 3** are given in **Appendix 3**.

The site archive is indexed in **Appendix 7**.

Fieldwork Results

The archaeological remains encountered during the watching brief were recorded with a separate context number for each discreet layer, cut, fill and structure. A complete plan of these features is shown in **Figure 3**, while the contexts are detailed in **Appendix 1**. All cut features were cut into the natural gravel, unless otherwise specified. The recorded sections of the features discussed are presented in **Figure 4**.

The topsoil, **C1034**, comprised a dark brown loam layer which averaged 0.3m in depth. Stratified finds from the topsoil comprised two small coin 'hoards' of 20th century date. These were found in the area between the eastern trench limit and the garden wall. However, it is very likely that other unstratified finds recovered by the metal-detectorist from the machine-spoil are derived from this layer, including the counterfeit Georgian half-guinea (**Figure 6c**).

Encountered below the topsoil at the northern end of the site was a layer (**C1011**) of orangey-brown clayey sand, which appeared to be abutted by a further ovoid deposit of dark brown clayey sand, **C1006** (**Figure 8b**). They were flecked with charcoal and fragments of coal, and were of firm compaction. Both were encountered at approximately 1m below the site Base Point. Appearing to abut these deposits were two sections of limestone wall, **C1001** and **C1003** (**Figure 8b**). Upon excavation **C1006** proved to be the fill of a cut, **C1005**, which had partially removed layer **C1011**, and it transpired, a section of wall **C1003**, though this survived as a stain over the natural gravel in the bottom of the cut. Recovered from fill **C1006** was a sherd of *Cistercian ware* and one of *Coal Measure Whiteware*, as well as a sizeable limestone block, which may have derived from wall **C1003**. Cut **C1005** measured 3.0 x 1.7m in plan, by 0.36m deep. Layer **C1011** was approximately 0.16m deep and was immediately over the natural chalk gravel (**C1000**). Hand-collected from this layer was a small quantity of animal bone, two sherds of *Coal Measure Whiteware* and one of *Humberware*.

Both sections of limestone wall appeared to be bonded only by a clay matrix, though this itself may have been the method of their setting. Alternately, they may have been constructed without bonding. **C1001** ran for almost 4.0m on an east-to-west alignment, continuing under the western trench limit (**Figure 5**). It was 0.4m in width and survived for most of its length to only a single course of unshaped stones, except at its eastern end, where a double course survived. It was uncertain if the eastern limit represented the terminus of the wall. No pottery was found within the immediate make-up of the wall, though two sherds of medieval pot were recovered during its cleaning; one of *Northern Gritty ware* and one of *Scarborough ware*. A small portion of the wall had been cut away by the later ditch, **C1012**, which contained brick in its upper fill. Along the rest of its length it rested straight on the natural gravel, with no evidence for any foundation cut. The surviving 0.8m length of wall **C1003,** by comparison, was set within a deliberate cut, **C1004**, 0.9m wide by 0.12m deep, that was excavated through layer **C1011**. The brown clayey sand matrix in which the limestone blocks were set, **C1033**, included a sherd from a *Red-ware* bowl, decorated with internal green glaze. The stratigraphic relationship established between layer **C1011** and foundation cut **C1004** strongly suggests that wall **C1003** is a later adjunct to wall **C1001**.

A further shallow ovoid scoop, **C1007**, had slightly damaged the southern edge of wall **C1001**. It measured 1.4 x 1.24m in plan and was 0.15m deep. This was backfilled with a dark brown silty and clayey sand with charcoal and clay inclusions, **C1008**.

Immediately east of the surviving limit of wall **C1001**, at 1.00m below the Base Point, was an elongated ovoid feature, **C1022**, 1.08m in length. This contained the articulated remains of a mature dog, lying in an extended supine position (**Figure 8c**). The top of the burial had been truncated, resulting in the loss of the long bones and skull of the animal skeleton (**C1024**), though the vertebrae and ribs had survived well. No finds were found in the surviving 0.15m depth of grave backfill, **C1023**, though the dark brown silty loam fill suggests a relatively recent interment.

Next to be encountered was a large rectangular shaped block of sandstone, that stood 0.2m proud of, and centred upon, a square base of limestone flagstones (**Figure 8d**). This stone platform, **C1013**, measured 1.2 x 1.2m in plan, and rested on the natural gravel. At its southern and western edges it was abutted by an orangey-brown clayey sand deposit, **C1019**.

Immediately to the northwest of **C1013** a patch of burning was revealed at 1.07m below the Base Point. Regrettably, the full extent of this feature, **C1009**, was not initially realized, and hence the completion of its excavation and record had to be hurried in the closing stages of the watching brief. It comprised a pair of small conjoined ovoid hollows, with a total length of 1.88m, and a maximum width of 0.84m. The excavation revealed that the hollows had been deliberately dug together, with a joining neck. The fills of both hollows revealed a deliberate and structured use of the feature, possibly as some kind of 'furnace'. The latest fill episode in the north-east hollow, **C1010**, comprised a clinker-mix of burnt and unburnt coal fragments, small red schist slabs and almost 2kg of metalworking slag. Other finds included a stone spindle-whorl (**Find 6**) and two sherds of *Coal Measure Whiteware* pottery. The

opposite hollow contained what appeared to be a rough stone lining (**C1030**) of limestone slabs and rounded cobbles, with a large slab set horizontally on the base of the hollow. The stones appeared to be contained within a thin light brown clayey sand fill, **C1028**, which also lined both hollows. Though recorded as a single context this must in fact be two, assuming that the stones placement fulfilled a deliberate purpose; that in which the stones were set, and that which overlaid and sealed them, following the furnace's disuse. This fill contained two *Humberware* sherds and two of *Northern Gritty ware*. The recorded section for this feature (**Figure 4**) shows clearly this fill sequence and stone structure, as well as the different depths of the two hollows. The northeast hollow is shallow and elongated, whereas the southwest hollow is deeper and more rounded, with a maximum depth of 0.26m. Given the identification of the feature as a possible furnace the absence of evidence for an associated fired ground surface or clay daub is surprising.

To the east of **C1013** was the remains of another structure built of roughly fashioned limestone blocks, **C1014**. It appeared to comprise a length of wall, 0.4m in width, aligned north-to-south, 3.4m of which was exposed, with a continuation of its southern course under the trench edge. It survived to a maximum of two courses and appeared to rest on the natural gravel. The eastern edge of the wall was abutted by rubble and what may have been flagstones (**Figure 5**). Two sherds of *Northern Gritty ware* were recovered from above these flagstones.

Two metres west of **C1013** was a sub-rectangular cut, **C1015**, which measured 1.36 x 1.0m in plan. Upon excavation the feature, which was cut into natural gravel, was found to be only 0.1m deep and filled with brown clayey sand, **C1018**, together with large pieces of flattish limestone. These stone fragments may be the remains of broken flags. In the bottom of this scoop feature was a small posthole, **C1016**. The exposed portion measured 0.48 x 0.4m in plan, and was 0.2m in depth. It was backfilled with a dark brown clayey sand.

Fill **C1018** was very similar to, and may therefore be associated with, layer **C1019**. This was an orangey-brown clayey sand spread, flecked with charcoal and containing coal fragments and animal bone. The layer extended over an area approximately 4.5 x 6m. Finds from **C1019** were a roll of lead (**Find 2**), an iron square-headed nail (**Find 3**), a heavily corroded iron nail, and two sherds of pottery; one of *Northern Gritty ware* and one of *Humberware*.

The southern limit of layer **C1019** was defined by a further length of limestone wall of roughly cut blocks. The full 5.8m length of the east-to-west aligned wall, **C1025**, was contained within the excavation area. The wall was 0.25m in width and survived for most of its length to a single course, being 0.91m below the site Base Point. At each end the wall was joined at 90˚ by two sections of returning wall, approximately 0.65m in width. One sherd of *Northern Gritty ware* was found during the cleaning of the wall. From examination of the wall's makeup it was clear that again only a superficial bond of clay was apparent, with the foundation set immediately atop the natural gravel sub-soil. Layer **C1019** abutted the wall on its northern side, while a matrix of redeposited silty chalk gravel, **C1035**, was deposited against the wall's eastern edge. This last context was found to contain a sherd of *Northern Gritty ware* and a fragment of glazed medieval roof tile.

The western limit of layer **C1019** and wall **C1025** had been partially truncated by modern disturbance. This was visible on the surface as a dark brown spread of silty clayey sand containing tile, brick and concrete inclusions. This spread was itself truncated by ditch **C1012**.

A 4.6 x 0.5m slit trench was excavated east-to-west across layers **C1019** and **C1026** to confirm their relationship and character. The plan and section (**Figures 3 and 4**) generated from this show clearly the modern cut, **C1027**, and the uniform *c*.0.1-0.15m depth of layer **C1019**, which overlaid the gravel natural. Also revealed at the eastern end of the trench was the edge of a pit feature, cut **C1029**, which was cut through the natural gravel and was backfilled with brown silty clayey sand, **C1031**. No finds were recovered from this feature which ran beneath wall **C1025**. Also excavated was a section of ditch, **C1020**, which was cut into the natural gravel and backfilled with a sandy chalk gravel, fill **C1021**. At this point the ditch survived to a width of 0.9 x 0.48m deep.

Ditch **C1020** ran for the full 25m length of the excavation trench on a north-to-south course (**Figures 2 and 9**). Stratigraphically it was cut by furnace **C1009** and overlaid by structure **C1013**, wall **C1025**, and layer **C1019**. A second 1.85m section of the ditch was excavated at its wider northern end. The recorded section shows a 1.32m wide U-shaped profile, with a surviving depth of 0.34m. Two slightly different fills were evidenced, suggesting a possible re-cutting episode. The later fill **C1032** comprised a brown clayey gravel, compared to the sandy chalk gravel fill of **C1021**. Both were similar to the chalk gravel natural into which the ditch was cut and may represent redeposition from an original adjacent ditch bank. The faintness of this feature, relative to the surrounding natural gravel, is apparent from the site photograph in **Figure 9**. Fragments of animal bone were recovered from the ditch backfill, but no pottery. However, a lead spindle-whorl (**Find 4**) of Anglo-Scandinavian date was recovered by metal-detector from the interface with the topsoil at the ditch's southern end.

Finds

All finds were hand-collected during excavation. The animal bone, ceramic building material (CBM), glass, pottery and stone finds have been hand-washed to prepare them for expert examination and archiving. The copper-alloy (Cu), clay daub and iron (Fe) finds have been dry brushed. The finds were excavated, have been packaged, and will be marked and archived in accordance with the *First Aid for Finds* manual (Watkinson and Neal 2001). A summary of all the finds is to be found in **Appendix 2**. Expert assessment has been undertaken for the pottery and the metal-working waste from furnace **C1009**, the reports for which are in **Appendices 4 and 5**.

Alan Vince and Kate Steane of AVAC undertook the pottery assessment. The medieval ceramic assemblage of twenty-three sherds was found to have a likely date range from the late 12th to the late 15th centuries. The earliest and most common fabric was *Northern Gritty ware* which occurred in multiple contexts across the site, including notably layer **C1019** and walls **C1001, C1014 and C1025** (+**C1035**); but was markedly absent from **C1006**, **C1010** and **C1011**, that are argued below to

represent later medieval or early post-medieval phases of activity (see below). Broadly contemporary fabrics are represented by a 13th-century sherd of *Scarborough ware* and a fragment of glazed medieval roof tile. The later medieval pottery types chiefly comprise the late 15th-century *Coal Measures Whiteware* and 14th-century *Humberware*. These were found chiefly associated with furnace **C1009** (and its associated contexts), layer **C1011** and deposit **C1006**. The later phasing of C**1006** is further supported by the *Cistercian ware* handle fragment from this context. *Cistercian ware*, though originating in the 15th century, is more common in the subsequent early post-medieval period. The later phasing of wall-foundation **C1033** is indicated by the green glazed *Red-ware* from this matrix, which at its earliest is 16th century in date. In addition, the assessment also identified a fragment of 12th-14th glazed medieval roof ridge tile, recovered from deposit **C1035**.

Also recovered from the furnace fill was a stone spindle-whorl (**Figure 6b**). It is a plain hollow cylinder form, with rounded edges, that was presumably shaped on a lathe. Such items are not chronologically well understood, not least since such a rudimentary form could have been produced over a long period. In this instance, however, it is likely that it dates to around the 15th century, the period of the furnace.

The presence during the excavation of a skilled metal-detectorist (and archaeologist), Simon Richardson, allowed the recovery of multiple metal artefacts, which though unstratified, would otherwise have been lost (**Figures 6 and 7**). A few finds are broadly contemporary with the timescale of the medieval pottery: a copper-alloy pin from an annular brooch; a small copper-alloy buckle; and less definitely, a rectangular belt-plate with chamfered corners, and a corroded copper-alloy strap-end (**Figures 7**). Other items which are attributable to the same period, or to the subsequent early post-medieval period by right of their context, are: a square-headed nail; a roll of lead; and copper-alloy metal-working dross (**Figure 6d**).

The earliest recovered object is a lead spindle-whorl with moulded line and triple-dot decoration (**Figure 6a**). The artefact is a common flattened-conical form well known within the north and midlands, and with a limited distribution in East Anglia. The Portable Antiquities Scheme has recorded over 60 such examples, though their date is debated (Geake Pers. Comm.). However, given their marked distribution within the Viking Danelaw territories, an 8th-10th century date may be suggested. The current example was found at the interface of the topsoil and ditch fill **C1021**, and it is therefore uncertain to which context it belongs. If the latter is the right assignation, then it comprises valuable dating evidence for the ditch, which otherwise produced only two fragments of animal bone.

Metal finds of post-medieval date are a counterfeit gilt-silver half-guinea of George III and a lead seal (**Figure 7c**). The obverse of the coin shows the right facing laureate bust of George III, with the legend 'GEORGIVS III DEI GRATIA', and the date 1790. On the reverse is a quartered shield with the royal coat of arms surrounded by an abbreviated text, which is only partially legible. It reads 'D.S.T.M.S.T.E.T.C…..', though the author is uncertain of what this abbreviates. The coin has a frilled edge and is pierced for suspension, with a surviving loop-attachment. The lead seal is held on an attachment of copper-alloy wire. There is no decoration surviving on the seal, if indeed any ever existed.

Modern metal-detected finds are the two small collections of 19th and 20th century pennies and half-pennies, and a decorated silver oval cufflink with an abstract floral design.

Other finds included two wedge-shaped pieces of lead, which may be vessel repairs, though it is uncertain if these are medieval in date.

Besides the pieces of waste copper-alloy, the main evidence for metalworking on the site comes from furnace **C1009**, which contained within fill **C1010** almost 2kg of ferrous slag. This has been analysed by Catherine Mortimer. Her report, in **Appendix 5**, suggested that the slag, and spherical hammerscale found associated with it, was the waste product of ironsmithing; from the refining of an iron bloom or billet.

Nineteen pieces of disarticulated animal bone were recovered, together with the articulated remains of a mature dog (**Figure 8c**). This small animal bone assemblage, of mainly sheep/goat and large ungulate (cattle?) has limited research potential and so has not been sent for specialist assessment. A number demonstrate cut-marks, while one mammal long bone fragment from **C1019** may have been deliberately struck for use as an awl. Also of note is the wing-bone of a goose, demonstrating cut-marks, which was recovered from **C1028**, one of the furnace fills. The mature dog skeleton had been badly truncated with the result that the skull and long bones had been totally removed. The size of the ribs and vertebrae suggest an animal of medium to large stature.

Interpretation

The archaeology and artefacts excavated during the watching brief are a significant discovery for the local and regional understanding of the origins and history of the village of Towton. The discoveries made, and the follow-up specialist analyses, allow a phased interpretation of the occupation and site use. However, it should be stressed that the small size of the ceramic assemblage and the nature of excavation by watching brief, mean that the conclusions on dating are more subjective than is ideal.

Phase 1 comprises features that pre-date the main episode of medieval archaeology, represented by the building of **Phase 2**. Ditch **C1020** was cut or sealed by a number of medieval features, including the furnace, structural features and floor deposits (**Figures 3 and 5**). The ditch fill, **C1021**, contained no pottery, and is only tentatively dated to the Anglo-Scandinavian period by the lead spindle-whorl find. If this is an intrusive find, then it may well be considerable older than the early medieval period, being potentially of Roman or prehistoric date. The other features allocated to this phase, post-hole **C1016** and pit **C1029**, are undated by finds, but were stratigraphically sealed by the **Phase 2** contexts **C1018** and **C1019** respectively.

The features of **Phase 2** are dated by associated pottery between the late 12th century and the 15th century. Wall sections **C1001** and **C1025,** and the structural features, **C1013** and **C1015**, are interpreted as the remains of a medieval building, the outline of which is postulated in **Figure 5**. **C1013** is likely to be the foundation pad for a vertical wooden-post support, while feature **C1015** may represent the badly disturbed

remains of a matching second. The parallel walls, **C1001** and **C1025**, would therefore represent the two end walls of a small rectangular structure measuring 11m long by 5.6m in width, and aligned north-to-south. Wall **C1025** appears to exhibit the remains of two thicker return walls, one for either side of a building. The western section of this wall does not survive. Noted evidence for disturbance along this side of the site, in the form of modern features **C1012** and **C1026,** may account for this, as may the ground works for the previous bungalow structure. The identification of the easternmost section of **C1025** as a return wall is however problematic, since this would conflict with the location of post-pad **C1013**. Instead this section may represent the remains of a doorway, or even possibly the base portion of a spiral stair, given the notable external curvature of the foundation stones used at this point; though neither explanation is altogether convincing.

It is uncertain if wall section **C1014** is part of the same structure, or whether it represents the rear wall of a later post-medieval building. Possibly it is that shown fronting the Towton to Tadcaster road on the 1849 First Edition Ordnance Survey, though this building is not shown on Jefferies or Greenwood's earlier 18th- and 19th-century maps. The evidence of the masonry also suggests a post-medieval structure, possibly incorporating a chimney. What appeared to be flagstones were set on the eastern side of this wall, which were overlaid by soils and rubble containing late 12th - 14th century pottery, though this may be residual.

The evidence for walls **C1001** and **C1025** indicates that the ground surface of the site was initially prepared by its reduction to the natural gravel, upon which the foundation stones and post-pad of the building were set. Within the structure itself a clay floor was laid, **C1019**, that survived principally within the southern half of the building and in proximity to post-pad **C1013**. The slot-trench excavated through the floor deposits produced two unabraded sherds of pot, the latest of which cannot be earlier than the late 14th century, but the earliest of which may be late 12th century. It proved impossible to identify more than one floor layer in section, which combined with the lack of diagnostic finds, makes a more refined dating impossible. In addition to which, both sherds could be intrusive. A number of pieces of pottery were also recovered in association with wall **1025**, including in a redeposited gravel, **C1035,** accumulated against the wall's exterior. These comprised only sherds of *Northern Gritty ware* together with a glazed ridge tile fragment, all of which date between the late 12th and 14th centuries. Possibly these finds were included in soils backfilled against the sunken walls, and would therefore indicate a date for the buildings construction. Sherds of pottery found associated with wall **C1001** corroborate a similarly date in the late 13th century. The metal-detected medieval brooch pin, buckle and belt-plate would all fit with an occupation dated between the 13th and 15th centuries.

Layer **C1011** is also allocated to **Phase 2** on account of the medieval pottery in its make-up, as well as by the fact that it was cut by the early post-medieval wall-foundation of wall **C1003**. It abutted wall **C1001** and is, therefore, to be associated with this structure, though it is notable that if this is the case it is on the external side of the building outline suggested in **Figure 5**.

The main evidence for a cessation of occupation of the building is furnace **C1009**, which is allocated as **Phase 3a**. Although, no actual evidence was found for the

furnace pit having been cut through the building floor, it is strongly suspected that this was the case. The coal smoke and sulphurous fumes that would have been produced by this metal-working episode are a strong indicator that normal habitation of the building had ceased. The standing walls, and possibly the surviving roof, of the structure would however have provided the ideal sheltered location for the forge of an itinerant metalworker. Such individuals are historically attested for the period, referred to as *forgiae errantes* (Tylecote 1992, 75-76). The *Coal Measures Whiteware* pottery from this feature provides an earliest possible date for the furnace in the late 15th century. If this date is correct then the historical horizon of the building's abandonment would fall within a short span of the 1461 battle of Towton. It is reasonable to expect that such an event would have had a detrimental impact on the life of a small rural village, which may have included the displacement or worse of its population, on at least a temporary basis.

Phase 3b is dated to the early post-medieval period. Wall **C1003** is assigned this date on account of the sherd of well-associated *Red-ware* green glazed pot. In addition to which, it also cut floor layer **C1011**. Given this date, the wall is interpreted as a structural add-on to the medieval build of **Phase 2**, which by this inference must have been reoccupied in this period. Also allocated to this phase are the areas of disturbance, cuts **C1005** and **C1007**. The former truncated wall **C1003**, and the latter wall **C1001**, suggesting that they are both later than the building's occupation. A date in the 16th century is suggested for wall **C1003**.

Phase 4 comprises those archeological features and layers dated from the late post-medieval period through to the modern-day. The areas of disturbance along the western edge of the site, **C1012** and **C1026** are allocated to this period, as is dog burial **C1024**. No datable finds were found in the burial, though the soil backfill of this grave was dark and loamy, being not dissimilar to the topsoil. Probably it represents the relatively recent interment of a favourite pet.

A summary of the site phasing is therefore:

Phase 1: post-hole **C1016**; ditch **C1020**; pit **C1029**. Dated prehistoric (unspecific) to medieval 13th century AD

Phase 2: medieval building, floor layer and associated deposits; **C1001**, **C1011**, **C1013**, **C1015**, **C1019**, **C1025**, **C1035**. Dated medieval late 12th- late 15th century

Phase 3a: furnace **C1009** and its fills. Dated medieval late 15th-16th century

Phase 3b: walls **C1003** and **C1014**; features **C1005** and **C1007**; Dated post-medieval 16th-17th century

Phase 4: features **C1012** and **C1027**; dog skeleton **C1024**; topsoil **C1034**. Dated post-medieval 18th-20th century

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Bibliography

Boylston, A., Fiorato, V. and Knusel, C. 2000. *Blood Red Roses: The Archaeology of a mass grave from the Battle of Towton AD 1461* (Oxford)

Cumberpatch, C. G. 2004 'South Yorkshire and north Derbyshire medieval ceramics reference collection', http://ads.ahds.ac.uk/catalogue/specColl/ceramics_eh_2003/

English Heritage 1991. *Management of Archaeological Projects 2* (London)

Hayfield, C. 1992. 'Humberware: the development of a later medieval pottery tradition', in D. Gaimster and M. Redknap, (eds) *Everyday and Exotic Pottery from Europe: Studies in honour of John G. Hurst* (Oxford); 38-44

Holdsworth, J. 1978. *Selected pottery groups AD 650-1780* (London)

Institute of Field Archaeologists 1994 'Standard and Guidance for an archaeological watching brief'
http://www.archaeologists.net/modules/icontent/inPages/docs/codes/watch_brief.pdf

Jennings, S. 1992. *Medieval Pottery in the Yorkshire Museum* (York)

Starley, D. 1995. 'Hammerscale' Archaeological Datasheet 10, *Historical Metallurgy Society*

Sutherland, T. 2001. (Unpublished) 'Archaeological Watching Brief at Rockingham Farm, Towton, North Yorkshire'

Vince, A. 2004. 'Characterisation Studies of Medieval Glazed Wares from York', AVAC Reports 2004/151 Lincoln, Alan Vince Archaeology Consultancy

Vince, A. and Steane, K. 2005. 'Blue Bridge Lane and Fishergate House: Artefacts & Environmental Evidence: The Humberware Pottery', http://www.archaeologicalplanningconsultancy.co.uk/mono/001/rep_ceramics_humber.html

Watkins, J. G. 1982. 'Scarborough Ware - the evidence from Hull', *Medieval Ceramics,* 6; 94-6

Watkinson, D. and Neal, V. 2001. *First Aid for Finds* (London)

Appendix 1: archaeological context descriptions

Context	Identification	Interpretation	Shape	Munsell Colour	Soil/Stone Type	Inclusions	Finds	Dimensions (cm) Length – Width – Depth	Date (*period*)	Phase
1000	subsoil	natural	amorphous	10YR5.6	sandy chalk gravel			- – - – -	natural	
1001	structure	wall	linear		limestone, clay bonded		medieval pottery	384 – 40 – 40	medieval	2
1003	structure	wall	linear		limestone, clay bonded		post-medieval pottery	80 – 80 – 8	post-medieval	3b
1004	cut	wall-foundation trench	linear					80 – 90 – 12	post-medieval	3b
1005	cut		ovoid					300 – 170 – 36	post-medieval	3b
1006	fill		scoop	10YR3.4	clayey sand	charcoal, coal, gravel, limestone blocks	medieval pottery	300 – 170 – 36	post-medieval	3b
1007	cut		ovoid					140 – 124 – 15	post-medieval	3b
1008	fill		scoop	10YR3.3	silty clayey sand	charcoal, coal, gravel		140 – 124 – 15	post-medieval	3b
1009	cut	furnace	complex					188 – 84 – 26	late medieval – early post-medieval	3a

1010	fill	furnace	scoop		clinker	coal, schist slabs	animal bone, medieval pottery, 1990g slag, spindle-whorl	158 – 60 – 10	late medieval – early post-medieval	3a
1011	layer	floor	amorphous	7.5YR3.4	clayey sand	charcoal, coal, gravel	animal bone, medieval pottery	440 – 300 – 16	post-medieval	3b
1012	fill	ditch	linear	10YR.3.3	silty clayey sand	coal, gravel	brick, tile (not retained)	2200 – 40 – **	post-medieval – modern	4
1013	structure	post-pad	square		sandstone, limestone			120 – 120 – 20	medieval	2
1014	structure	chimney base? wall?	linear		limestone, clay bonded	rubble infill	medieval pottery	340 – 70 – 34	post-medieval?	3b?
1015	cut	disturbed post-pad?	sub-rectangular					136 – 100 – 10	medieval	2
1016	cut	post-hole	ovoid					48 – 40 – 20	prehistoric – medieval	1-2
1017	fill	post-hole	U-shaped	10YR4.3	silty clayey sand	gravel, limestone pebbles		48 – 40 – 20	prehistoric – medieval	1-2

1018	fill	disturbed post-pad?		10YR3.2	clayey sand	gravel	limestone slabs	136 – 100 – 10	medieval	2
1019	layer	floor	amorphous	7.5YR4.6	clayey sand	charcoal, coal, gravel	animal bone, charcoal, iron nails, lead objects, medieval pottery	600 – 440 – 18	medieval	2
1020	cut	ditch	linear					2500 – 134 – 34	prehistoric – medieval	1
1021	fill	ditch	U-shaped	10YR5.4	sandy chalk gravel		animal bone, spindle-whorl	2500 – 134 – 34	prehistoric – medieval	1
1022	cut	burial	ovoid					108 – 52 – 15	late post-medieval – modern	4
1023	fill	burial	flat-based	10YR3.1	silty loam			108 – 52 – 15	late post-medieval – modern	4
1024	skeleton	dog	supine				animal bone	80 – 24 – 10	late post-medieval – modern	4
1025	structure	wall	linear		limestone		polished stone, medieval pottery	5800 – 68 - 10	medieval	2
1026	fill	modern disturbance	unknown	10YR3.2	silty clayey sand	limestone pebbles	tile, concrete (not retained)	5600 – 320 – 24	late post-medieval – modern	4
1027	cut	modern disturbance	amorphous					5600 – 320 – 24	late post-medieval – modern	4

1028	fill	furnace	complex	10YR4.3	clayey sand	gravel	animal bone, coal, medieval pottery	188 – 84 – 26	late medieval – early post-medieval	3a
1029	cut	pit?	amorphous					150 – 28 – 24	prehistoric – medieval	1
1030	structure	furnace	complex		limestone slabs, rounded flint		polished limestone fragment	24 – 24 – 4 (largest slab)	late medieval – early post-medieval	3a
1031	fill	pit?	unknown	10YR4.4	silty clayey sand	gravel, limestone pebbles		150 – 28 – 24	prehistoric – medieval	1
1032	fill	ditch	U-shaped	10YR4.6	clayey gravel			** – 80 – 18	prehistoric – medieval	1
1033	fill	wall-foundation	flat-based	10YR4.4	silty clayey sand	gravel		80 – 90 – 12	post-medieval	3b
1034	layer	topsoil	amorphous	10YR3.1	loam	gravel, coal, limestone blocks and pebbles	coins	** – ** – 30	modern	4
1035	layer	redeposited natural	amorphous	10YR5.4	silty chalk gravel		medieval tile, medieval pottery	100 – 24 – 20	medieval	2

Appendix 2: archaeological finds with provisional dates

Context	Find No.	Material	Type	Description	Date Range
1012/1026	1	Cu	metalworking	Copper-alloy dross; waste from metalworking? 34 x 30mm	medieval/post-medieval?
1019	2	Pb	craftworking	Roll of lead. 58 x 30 x 13mm	medieval?
1019	3	Fe	nail	Iron square-headed nail with bent shank, 26 x 10mm; very little corrosion	medieval?
1021	4	Pb	whorl	Lead spindle-whorl with flat-conical profile, decorated with radiating lines, interspersed with panels of triple-dot ornament. 27 x 27 x 11mm	8th-10th century
1000	5	Cu	metalworking	Copper-alloy dross; waste from metalworking? 17 x 15 x 5mm	medieval/post-medieval?
1010	6	stone	whorl	Stone spindle-whorl with cylindrical flat-ended profile and no decoration. 20 x 20 x 30mm	medieval?
Unstrat.	7	Ag + Au	coin	Gilt-silver counterfeit of George III gold half-guinea, dated 1790. The obverse shows a portly profiled head with laurel crown and ribboned hair, within the motif 'GEORGIVS III DEI GRATIA'. The reverse is emblazoned with the royal coat of arms within a shield surrounded by the abbreviated lettering ' D.S.T.M.S.T.E.T.C….', only part of which remains. The coin has a frilled edge and has been holed to serve as a pendant, the attachment loop of which survives. The gilding is very worn. 25mm diam.	18th century
Unstrat.	8	Cu	brooch	Copper-alloy pin from an annular brooch, with moulded and incised decoration, possibly representing a dog's head. Strong patina, but very little corrosion. 63 x 7 mm	12th-15th century?
Unstrat.	9	Cu	object	Part of a heavily corroded and concreted copper-alloy strap-end, formed of a strip of metal. In two fragments. 41 x 11mm	medieval?
Unstrat.	10	Cu	buckle	Small copper-alloy D-shaped buckle without pin; mould lines survive along loop. Whitish patina with medium corrosion. 18 x 16 x 3mm	12th-15th century?
Unstrat.	11	Cu	object	Plate of sheet copper-alloy, rectangular in shape with chamfered corners, each of which is holed, though no rivets survive. Strong patina, with only slight corrosion, but has damages to edges and is partially bent. May have been mounted on belt.50 x 45 x 1mm.	medieval?
Unstrat.	12	Pb	craftworking	A wedge-shaped piece of lead. Possibly a vessel repair? 18 x 18 x 8mm	medieval?
Unstrat.	13	Pb	craftworking	A wedge-shaped piece of lead. Possibly a vessel repair? 23 x 14 x 8mm	medieval?
Unstrat.	14	Pb + Cu?	seal?	A circular seal attached to twisted bronze? wire. Seal is 15 diam. x 3mm	post-medieval?

Unstrat.	15	Ag	cufflink	Silver cuff-link with both oval halves intact and joined by a long-loop. Faces have abstract floral? ornament. 16 x 13 x 1mm	19th-20th century
Unstrat.	16	ceramic	pot: 3 x body sherds	Three vessel sherds from wheel-thrown vessels: *Brandsby-type ware* of white to grey fine and hard sandy fabric, with green glaze; two sherds of *Northern Gritty ware,* one with gritty fabric with grey inner core, oxidised to a browny-red outer. One, grey abraded gritty fabric with outer slip.	12th-15th century
1034	17	Cu	hoard	Three coins: Victoria, One Penny 1900; George VI, Half Penny 1945; Elizabeth II, Two Pence 1971	20th century
1034	18	Cu	hoard	Three coins: Victoria, Half Penny 1862; Victoria, Half Penny 1875; Edward VII, Half Penny 1906	20th century
1033	19	ceramic	pot: 1 x rim sherd	Rim sherd from a *Red-ware* wide-flanged bowl: the fine sandy fabric has a grey core oxidised to a red outer edge. The interior of the bowl has green glaze decoration.	16th-18th century
1025	20	ceramic	pot: 1 x body sherd	*Northern Gritty ware* body sherd of gritty fabric, with a reduced grey interior and red oxidised exterior. The exterior is decorated with a metallic purple-brown glaze.	12th-14th century
1001	21	ceramic	pot: 1 x body sherd, 1 x rim sherd	Two sherds from different vessels: *Scarborough ware* body sherd of fine red sandy fabric with an external dark green glaze; the rim sherd is from a *Northern Gritty ware* vessel with the fabric as above.	12th-13th century
1021	22	animal bone	2 x fragments	One long bone fragment from a medium-large mammal, with butchering marks; one long bone fragment from a medium mammal.	prehistoric - medieval
1006	23	ceramic	pot: 1 x body sherd, 1 x handle sherd	Two sherds from different vessels: a body sherd of *Coal Measures Whiteware*, of a purple gritty fabric with an external metallic purple glaze; the handle sherd is from a *Cistercian ware* cup with the characteristic brown glaze and fine red-brown sandy fabric.	15th-16th century
1028	24	animal bone	5 x fragments	One rib fragment from a large mammal, with butchery mark; one rib fragment from a small mammal; one long bone fragment from a medium mammal; one long bone from a small mammal/bird; one wing bone from a goose with butchery marks.	medieval/post-medieval?
1028	25	ceramic	pot: 3 x body sherds, 1 x rim sherd	Four sherds from three different vessels: two body sherds (from one vessel?) of *Humberware*, a hard and fine silty fabric, grey in colour with a green glazed, pitted, exterior: two body sherds are of *Northern Gritty Ware.* One of a coarse gritty fabric with a red oxidised exterior and light grey reduced interior. It has green glaze on the exterior. One upright rim sherd of, a gritty red-brown fabric (with a grey interior), with purple-brown glaze.	12th-15th century

1014	26	ceramic	pot; 2 x body sherds	Two sherds from two different *Northern Gritty ware* vessels: both sherds are lightly grit-tempered with a grey reduced core, oxidised to red or brown exterior edges. One has green splash glaze decoration.	12th-14th century
1035	27	CBM	tile; 1 x fragment	One fragment of floor? tile of a pinkish-red medium sand fabric, with a light grey core. One edge has all-over green glaze decoration, while the other has incidental splashes of the same. The piece is slightly abraded.	12th-14th century
1035	28	ceramic	pot; 3 x base sherds	Three sherds from one *Northern Gritty ware* vessel: it is of a gritty fabric with a grey core, oxidised to a red-brown exterior. There are minute patches of purple? glaze. Sooting survives on the exterior.	12th -14th century
1025	29	stone	1 x fragment	A piece of polished limestone, possibly a floor tile, with evidence of burning on the upper surface.	medieval?
1019	30	charcoal	charcoal	25mm length of carbonised wood stem; full circumference surviving, 21mm diam.	medieval?
1019	31	Fe	nail	Heavily corroded and concreted iron nail. 35 x 10mm	medieval?
1019	32	ceramic	pot: 1 x body sherd, 1 x base sherd	Two sherds from two different vessels: one *Northern Gritty ware* base sherd of a gritty fabric, with a light grey interior and a cream exterior; one body sherd of *Humberware*, a hard and fine silty fabric, grey in colour with a green glazed, pitted, exterior. Possible from the same vessel as those sherds from C1028.	12th-15th century
1019	33	animal bone	4 x fragments	One fragment of scapula from a large mammal; one long bone fragment from a medium mammal; one fragment from a large mammal long bone, possibly deliberately struck as a tool; one long bone from a small mammal/bird.	medieval?
1011	34	ceramic	pot: 3 x body sherds	Three sherds from three different vessels: two of *Coal Measures Whiteware,* with a light grey core and red-brown exterior surfaces, one of which is decorated with both purple and green glazes; One sherd of green glazed *Humberware*	15th-16th century
1011	35	animal bone	7 x fragments	One fragment of scapula from a large mammal, with butchery mark; two fragments from the long bones of large mammals; one rib fragment from a large mammal; one ovicaprid jaw; one molar from a large mammal; one ulna fragment from a large mammal.	medieval/post-medieval?
1010	36	slag	*c.*90 x fragments	1990g of metalworking slag. Two forms seem to be represented: one has a higher metallic content, appears uncorroded, is heavier, with some pieces exhibiting some casting facets. This may be tap-slag; the other is a lighter aerated slag, exhibiting ferrous corrosion, coal inclusions, and sulphur content.	16th-18th century
1010	37	animal bone	1 x fragment	A long bone fragment from a large mammal.	medieval?

1010	38	ceramic	pot: 2 x body sherds	Two sherds from two different *Coal Measures Whiteware* vessels: both are of gritty fabric and are decorated with purple glaze. One has been burned, presumably in the hearth in which it was found.	15th-16th century
1024	39	animal bone	dog skeleton	The articulated remains of a mature dog. The skeleton is missing the long bones and skull, which had been removed by truncation.	post-medieval?

Finds Summary

Find Type	Early Medieval (5th-10th century)	Medieval (11th-15th century)	Post-Medieval (16th-19th century)	Modern (20th- 21st century)	Total
Ag	-	-	1	1	2
animal bone	2	10	7+	-	19+
CBM	-	1	-	-	1
ceramic pot	-	23	2	-	25
Cu	-	4	2	6	12
Fe	-	2	-	-	2
Pb	1	1	3	-	5
Slag	-	90	-	-	90
Stone	-	2	-	-	2
Total	3	133	15	7	**158**

Appendix 3: height survey

Height Point		Read Height (m)		Point Zero (m)		Final Height (m)
1		-1.75		0.89		-0.86
2		-1.85		0.89		-0.96
3		-1.9		0.89		-1.01
4		-1.95		0.89		-1.06
5		-1.92		0.89		-1.03
6		-1.68		0.89		-0.79
7		-1.95		0.89		-1.06
8		-1.83		0.89		-0.94
9		-1.85		0.89		-0.96
10		-1.97		0.89		-1.08
11		-2.24		0.89		-1.35
12		-1.9		0.89		-1.01
13		-2.09		0.89		-1.20
14		-1.89		0.89		-1.00
15		-1.95		0.89		-1.06
16		-2.05		0.89		-1.16
17		-1.94		0.89		-1.05
18		-2.2		0.89		-1.31
19		-2.03		0.89		-1.14
20		-1.96		0.89		-1.07
21		-1.89		0.89		-1.00
22		-1.96		0.89		-1.07
23		-1.96		0.89		-1.07
24		-1.78		0.89		-0.89
25		-1.92		0.89		-1.03
26		-1.91		0.89		-1.02
27		-1.95		0.89		-1.06
28		-1.96		0.89		-1.07
29		-1.63		0.89		-0.74
30		-1.7		0.89		-0.81
31		-1.83		0.89		-0.94
32		-1.9		0.89		-1.01
33		-1.92		0.89		-1.03
34		-1.58		0.89		-0.69
35		-1.84		0.89		-0.95
36		-1.8		0.89		-0.91
37		-1.89		0.89		-1.00
38		-1.82		0.89		-0.93
39		-1.9		0.89		-1.01
40		-1.97		0.89		-1.08
41		-1.85		0.89		-0.96
West building corner		-0.95		0.89		-0.06
South fence post		-1.75		0.89		-0.86
Northern fence post		-1.64		0.89		-0.75

Appendix 4: Assessment of the Pottery from Towton, North Yorkshire (TOW'06). By Alan Vince and Kate Steane

A small quantity of pottery was submitted to the authors for identification and assessment. The finds range in date from the late 13th to early 14th century (or possibly earlier) to the late 16th century or later.

Description

Ceramic building material

A single fragment of a glazed ridge tile was recorded. The fabric is not familiar to the authors (coded MEDLOC). Glazed ridge tiles were used from the later 12th century onwards but there does not seem to have been a tradition of glazed ridge tile use in the later medieval period in Yorkshire. This fragment is therefore probably of late 12th to mid 14th-century date.

Medieval pottery

Twenty three sherds of medieval pottery were recorded (**Table 2**). They have a mean weight of 15gm. None of the sherds show any sign of abrasion and some are moderately large, ranging up to 59 gm. For comparison, the mean sherd weight for medieval pottery found in fieldwalking is close to 5gm.

Most of the sherds are of *Northern Gritty ware* (NGR), made from a light-firing, Coal Measures clay with a quartzose sand temper consisting of sandstone-derived quartz grains (Cumberpatch 2004). Similar fabrics were produced in a number of centres in West Yorkshire from the later 12th century onwards. In places, these fabrics continued to be produced into the late medieval period, contemporary with the *Humberware* production found in the Humber wetlands and Vale of York, but those examples are often fired to almost stoneware temperatures and so a later 12th to mid 14th-century date is likely for the Towton examples. The next most common fabric is *Coal Measure Whiteware* (CMW) of the over-fired type produced at Rawmarsh, South Yorkshire (37 miles south of Towton), in the later 15th and 16th centuries (Vince in Cumberpatch 2004). This ware was distributed using the Humber basin river network and examples are known, for example, from Kingston-upon-Hull. Alternatively, Towton lies close to the line of the Great North Road, and the Rawmarsh products may have been transported overland.

Four sherds of *Humberware* (HUM) were recorded. This ware was produced from a fine, silty, clay which occurs widely around the Humber basin (Hayfield 1992), and recently a kiln producing very similar-looking wares in the *Humberware* tradition was excavated in York (Vince and Steane 2005). The nearest known sources to Towton were at West Cowick (c.20 miles southeast of Towton) and York (12 miles to the northeast).

Finally, two sherds of North Yorkshire whitewares were recorded. One is a *Brandsby-type ware* (BRAN, Alan Vince 2004; 1978; Jennings 1992) and the other *Scarborough ware* (SCAR). Both come from jugs produced in the later 13th century or later (as shown by the presence of Scarborough at Hull, Watkins 1982). Both of these types probably arrived at Towton via York.

Both jars and jugs were present in the collection and one of the NGR jars has sooting on the exterior.

Post-medieval pottery

Two sherds of 16th-century or later date were present. One is a *Cistercian ware* cup (CSTN) and the other a glazed red earthenware bowl (GRE). Both types could have been current in the 16th century although CSTN is now thought to have been introduced during the 15th century (Boyle, pers. comm.) and glazed red earthenware continued to be produced into the 18th or 19th centuries.

Stratigraphy

Table 1 lists the pottery types by context and gives the earliest possible date for the deposition of each group. However, since no context produced more than 4 sherds and most of the wares have a long period of use these dates could be centuries earlier than the actual deposition dates.

Nevertheless, the pottery does indicate that there was activity on the site from at the very latest the early 14th century through to the late 16th century.

Table 1

Context	NGR	CMW	HUM	BRAN	SCAR	MEDLOC	TPQ
C1001	1				1		l13th C +
C1006		1					l15th C +
C1010		2					l15th C +
C1011		2	1				l15th C +
C1014	2						l12th C +
C1019	1		1				l14th C +
C1025	1						l12th C +
C1028	2		2				l14th C +
C1035	3					1	l12th C +
U/S	2			1			NA

Table 2

Context	class	REFNO	Cname	Subfabric	Form	Part	Nosh	NoV	Weight	Use
C1010	POTTERY	38	CMW	RAWMARSH	JAR	BS	2	2	4	
C1006	POTTERY	23	CSTN		CUP	H	1	1	4	
C1019	POTTERY	32	HUM		JUG/JAR	BS	1	1	4	
C1001	POTTERY	21	SCAR		JUG	BS	1	1	7	
U/S	POTTERY	16	BRAN		JUG	BS	1	1	8	
C1011	POTTERY	34	HUM		JUG/JAR	BS	1	1	8	
U/S	POTTERY	16	NGR		JUG	BS	1	1	8	
C1025	POTTERY	20	NGR		JUG	BS	1	1	10	
U/S	POTTERY	16	NGR		JAR	BS	1	1	11	
C1001	POTTERY	21	NGR		JUG	BS	1	1	12	
C1028	POTTERY	25	NGR		JUG	R;BS	2	2	12	
C1028	POTTERY	25	HUM		JUG/JAR	BS	2	2	15	
C1019	POTTERY	32	NGR		JAR	BS	1	1	20	
C1014	POTTERY	26	NGR		JAR	BS	2	2	21	
C1035	POTTERY	28	NGR		JAR	B	3	1	32	SOOTED EXT
C1011	POTTERY	34	CMW	RAWMARSH	JAR	BS	2	2	40	
C1035	CBM	27	MEDLOC		RIDGE	BS	1	1	57	
C1006	POTTERY	23	CMW	RAWMARSH	JAR	BS	1	1	59	
C1003	POTTERY	19	GRE		PANC	R	1	1	61	

Appendix 5: Assessment of metalworking slag from Furnace C1009. By Cath Mortimer

A small deposit of metalworking waste was recovered from a watching brief and excavation on the northern edge of Towton. The material was found in the top layer (C1010) of fills within a small hearth or furnace cut through the floor deposits of a medieval building. The furnace (C1009) comprised two joined oval hollows and was lined with stones and a 'clayey sand fill'. Pottery found in the hearth/furnace fill suggests late 15th or 16th century dates, when the earlier building may have become derelict.

Analysis

1990g waste was examined visually and under a microscope. A magnet passed over the smaller debris picked up spherical hammerscale. Spherical hammerscale is made when droplets of liquid slag are expelled during hot working, either when pieces of iron were being fire-welded together or when the iron bloom was being worked into a billet or bar (Starley 1995). There may also have been some flake hammerscale present but it was difficult to be sure because of the presence of large quantities of other magnetic material, which is probably flakes from corroded iron objects or iron-rich clay (from the furnace lining). The majority of the material is ironsmithing debris, in the form of small irregularly-shaped slag fragments. Generally these are very 'rusty' in colour, and rough in texture. Although some of the pieces are attracted to the magnet, it does not seem likely that any of these are pieces of iron objects, just magnetic forms of slag. Some of the pieces are more highly vitrified, where the temperature was higher, including some which has formed hollowed-out channels. There is no record of any vitrified clay, either *in situ* within the 'furnace' area, or in other deposits on site. This is curious, as even a short-lived episode of ironsmithing would normally result in some fired clay. Coal was recovered elsewhere at the site, and is suggested as the fuel.

Summary

Slag is not in itself datable, but the ironsmithing collection seen here is compatible with its suggested late medieval context.

Ironworking may be carried out inside darkened structures by preference, since iron glows with different colours at different temperatures, and it is easier to judge this in a darkened space. However, ironworking will necessarily also produce smoke and fumes which need venting away. Hence a semi-derelict structure might be quite suitable.

North Yorkshire County Council

STANDARD WRITTEN SCHEME OF INVESTIGATION (WSI) FOR LIMITED ARCHAEOLOGICAL RECORDING ("WATCHING BRIEF")

1 The purpose of the work is to record and recover archaeological remains which are:
a) affected by proposed development only to a limited and clearly defined extent,
b) not available or susceptible to standard area excavation techniques, or
c) of limited importance or potential.
The work should not require the construction programme or development to be held up while archaeological investigation takes place, although some developers may give such a facility.

2 The WSI represents a summary of the broad archaeological requirements needed to comply with an archaeological planning condition or obligation. The scheme does **not** comprise a full specification or Bill of Quantities, and the County Council makes no warranty that the works are fully or exactly described. No work on site should commence until the implementation of the scheme is the subject of a standard ICE Conditions of Contract for Archaeological Investigation or similar agreement between the Developer and the Archaeologist.

3 The Archaeologist should notify by letter or e-mail the County Archaeology Service (archaeology@northyorks.gov.uk) at least 10 working days in advance of the start of work on site.

4 The removal of overburden (that is vegetation, turf, loose stones, rubble, made ground, Tarmac, concrete, hardcore, building debris and topsoil) should be supervised by the Archaeologist contracted to carry out the WSI. The Archaeologist should be informed of the correct timing and schedule of overburden removal.

5 Removal of overburden by machine should be undertaken using a back-acting excavator fitted with toothless or ditching bucket only. Where materials are exceptionally difficult to lift, a toothed bucket may be used temporarily. Subsoils (B horizons) or deep, uniform fills of features may also be removed by back-acting excavator but only in areas specified by the Archaeologist on site, and only with archaeological supervision. Bulldozers or wheeled scraper buckets should not be used to remove overburden above archaeological deposits. Where reinstatement is required, topsoil should be kept separate from other soil materials.

6 Metal detecting within the development area, including the scanning of topsoil and spoil heaps, should only be permitted subject to archaeological supervision and recording such that metal finds are properly located, identified, and conserved. All metal detection should be carried out following the Treasure Act 1996 Code of Practice.

7 Where structures, finds, soil features and layers of archaeological interest are exposed or disturbed by construction works, the Archaeologist should be provided with the opportunity to observe, clean, assess, excavate by hand where appropriate, sample and record these features and finds. If the contractors or plant operators notice archaeological

remains, they should immediately tell the Archaeologist. The sampling of deposits for palaeo-environmental evidence should be a standard consideration, and arrangements should be made to ensure that specialist advice and analysis are available if appropriate.

8 Heavy plant should not be operated in the near vicinity of archaeological remains until they have been recorded, and the Archaeologist on site has allowed operations to recommence at that location. Sterile subsoils (C horizons) and parent materials below archaeological deposits may be removed without archaeological supervision. Where reinstatement is required, subsoils should be backfilled first and topsoil last.

9 Upon completion of fieldwork, samples should be processed and evaluated, and all finds identified, assessed, spot-dated, properly stored, and subject to investigative conservation as needed. A field archive should be compiled consisting of all primary written documents, plans, sections, and photographs. The Archaeologist should arrange for either the County Archaeologist or an independent post-excavation specialist to inspect the archive before making arrangements for the transfer of the archive to an appropriate museum or records office.

10 A summary report should be produced following NYCC guidelines on reporting. The report should contain planning or administrative details of the project, a summary of works carried out, a description and interpretation of the findings, an assessment of the importance of the archaeology including its historical context where appropriate, and catalogues of finds, features, and primary records. All excavated areas should be accurately mapped with respect to nearby buildings, roads and field boundaries. All significant features should be illustrated with conventionally-scaled plans, sections, and photographs. Where few or no finds are made, it may be acceptable to provide the report in the form of a letter with plans attached.

11 Copies of the summary report should be provided to the client(s), the County Heritage Section (HER), to the museum accepting the archive, and if the works are on or adjacent to a Scheduled Ancient Monument, to English Heritage. A licence should be granted to the accepting museum and the County Council to use the documentation arising from the work for its statutory functions and to give to third parties as an incidental to those functions.

12 Upon completion of the work, the Archaeologist should make their work accessible to the wider research community by submitting digital data and copies of reports online to OASIS (http://ads.ahds.ac.uk/project/oasis/). Submission of data to OASIS does not discharge the planning requirements for the Archaeologist to notify the County Archaeology Service of the details of the work and to provide the Historic Environment Record (HER) with a summary report on the work.

13 Under the Environmental Information Regulations 2005 (EIR) information submitted to the HER becomes publicly accessible, except where disclosure might lead to environmental damage, and reports cannot be embargoed as ‘confidential’ or ‘commercially sensitive’. Requests for sensitive information are subject to a public interest test, and if this is met, then the information has to be disclosed. The Archaeologist should inform the client of EIR requirements, and ensure that any information disclosure issues are resolved before completion of the work. Intellectual property rights are not affected by the EIR.

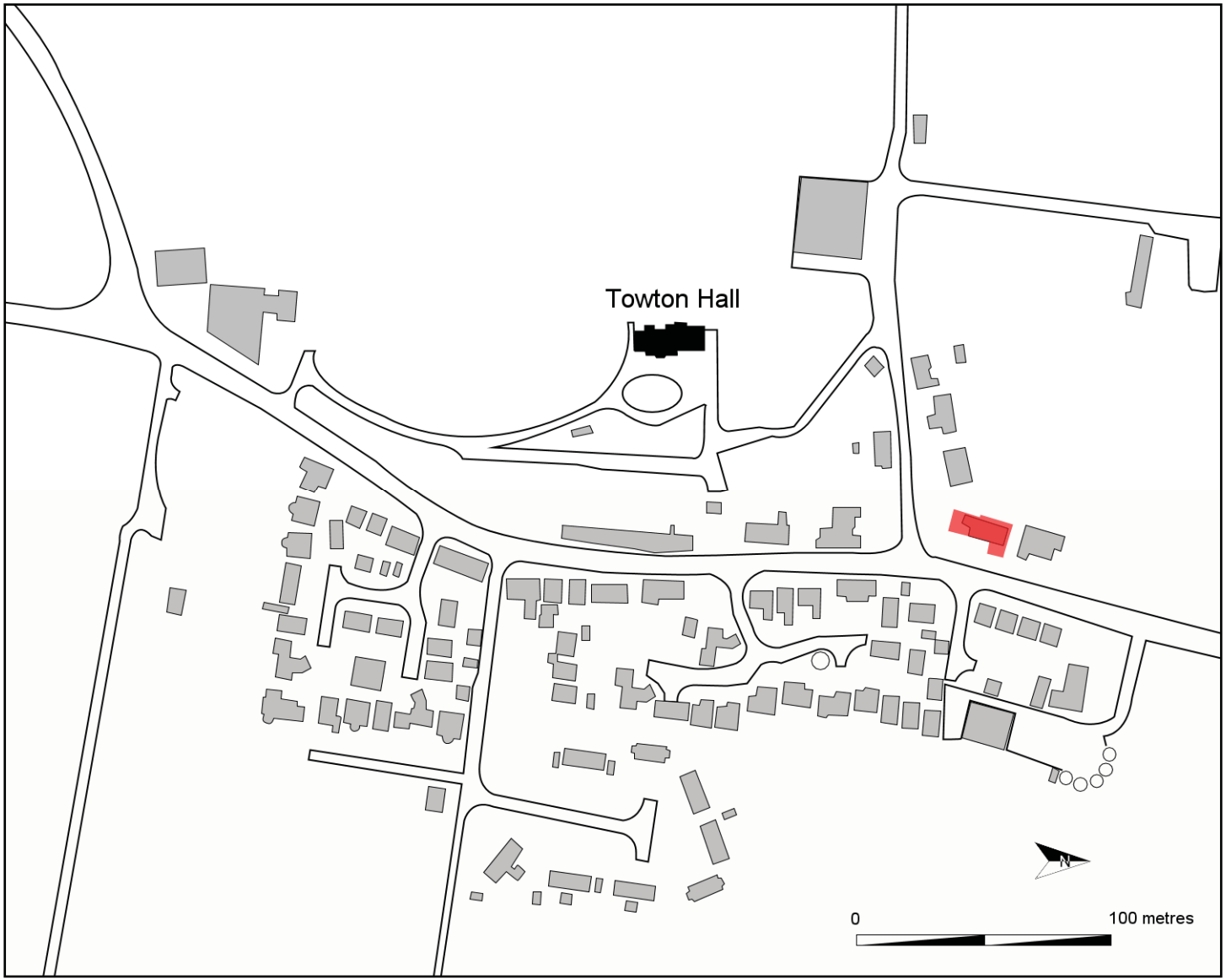
14 The County Archaeologist should be informed as soon as possible of the discovery of any unexpected archaeological remains, or changes in the programme of ground works on site. Any significant changes in the archaeological work should be specified in a variation to the WSI to be approved by the planning authority. If there is a need to remove human remains, an exhumation licence should be obtained from the Department for Constitutional Affairs (coroners@dca.gsi.gov.uk), or a faculty obtained where the remains are buried in land consecrated according to the rites of the Church of England.

Appendix 7: archive

It is hoped that the whole archaeological archive will be deposited with a suitable museum in the near future. Currently the archive resides with Fern Archaeology, where access can be facilitated on request.

Project Location:	Old London Road, Towton		
Site Code:	TOW'06		
Description:	**Material**	**Size**	**Quantity**
Field drawings labeled FD1-6	permatrace	various	6
monochrome photographs	matt prints	6"x 4"	28
monochrome negatives	negative film	35mm	28
colour photographs from digital	matt prints	6"x 4"	77
photographic register	paper	A4	3
Finds	various	details in **Appendix 2**	
NYCC Project Brief	paper	A4	6
Appendix 1	paper	A4	4
Appendix 4: Pottery Assessment by AVAC	paper	A4	4
Appendix 5: Slag Assessment	paper	A4	1
Email Correspondence: with Peter King and extract of his PhD	paper	A4	4
Email Correspondence: with H. Geake	paper	A4	2
Appendix 2: Finds (with annotations)	paper	A4	4
Figure 1	paper	A4	1
Appendix 3: height survey	paper	A4	1
George III half-guinea from Ebay	paper	A4	2
George III half-guinea 5th Bust	paper	A4	1
context register	paper	A4	1

client architectural plans	paper	A1	2
'Heights for final drawing'	paper	A4	1
'Trench Location Sketch Plan'	paper	A4	1
3D sketch of furnace C1009	paper	A4	1
Plan of principle archaeological features (Figure 2)	paper	A4	1
finds drawings	paper	A4	5
Digital Archive	CD	CD	2
Watching Brief Report	paper	A4	43



Traced from client map.

Figure 1. Site location (Scale 1:1250)

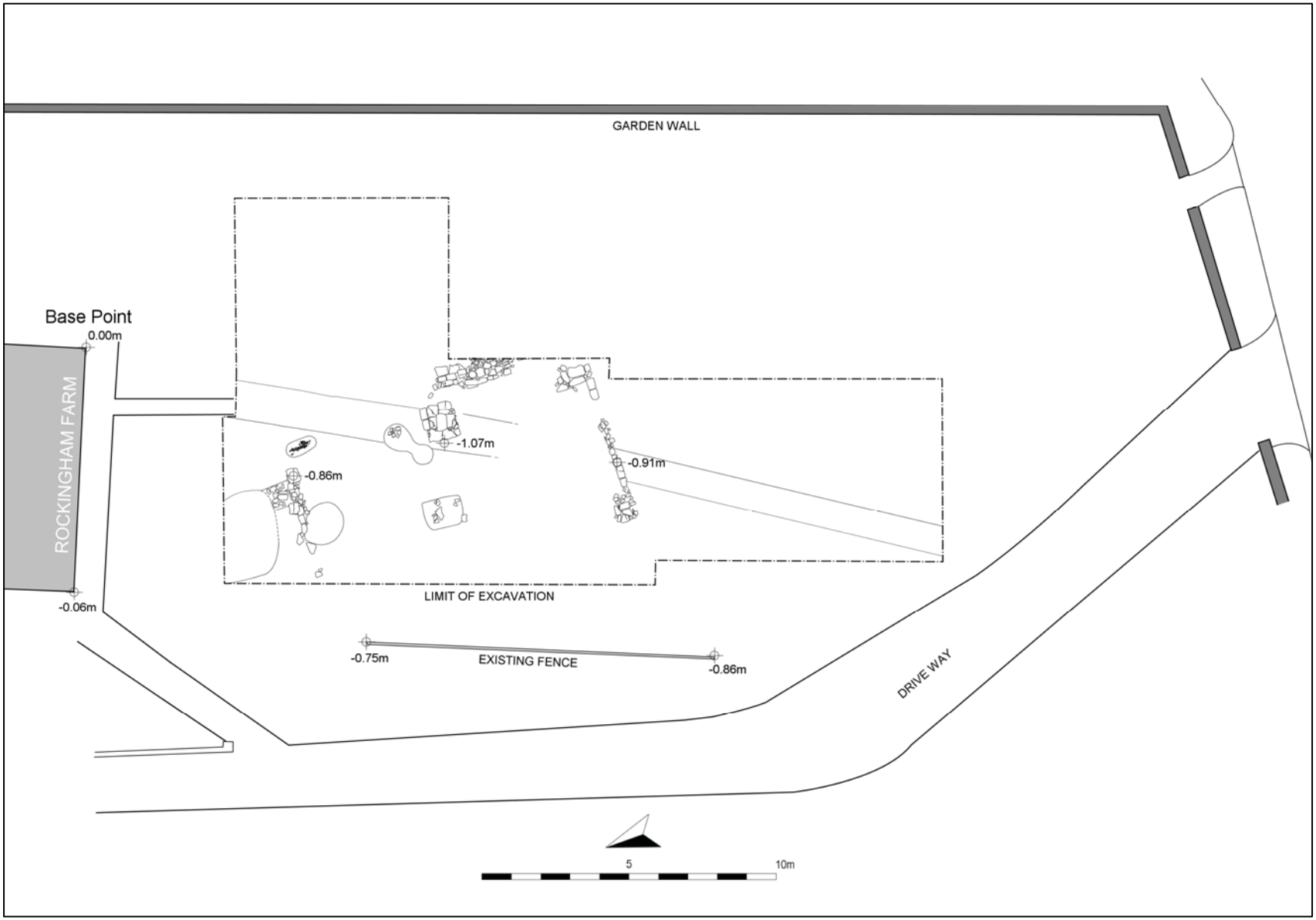


Figure 2. Location of ground disturbances and archaeology (Scale 1:200)

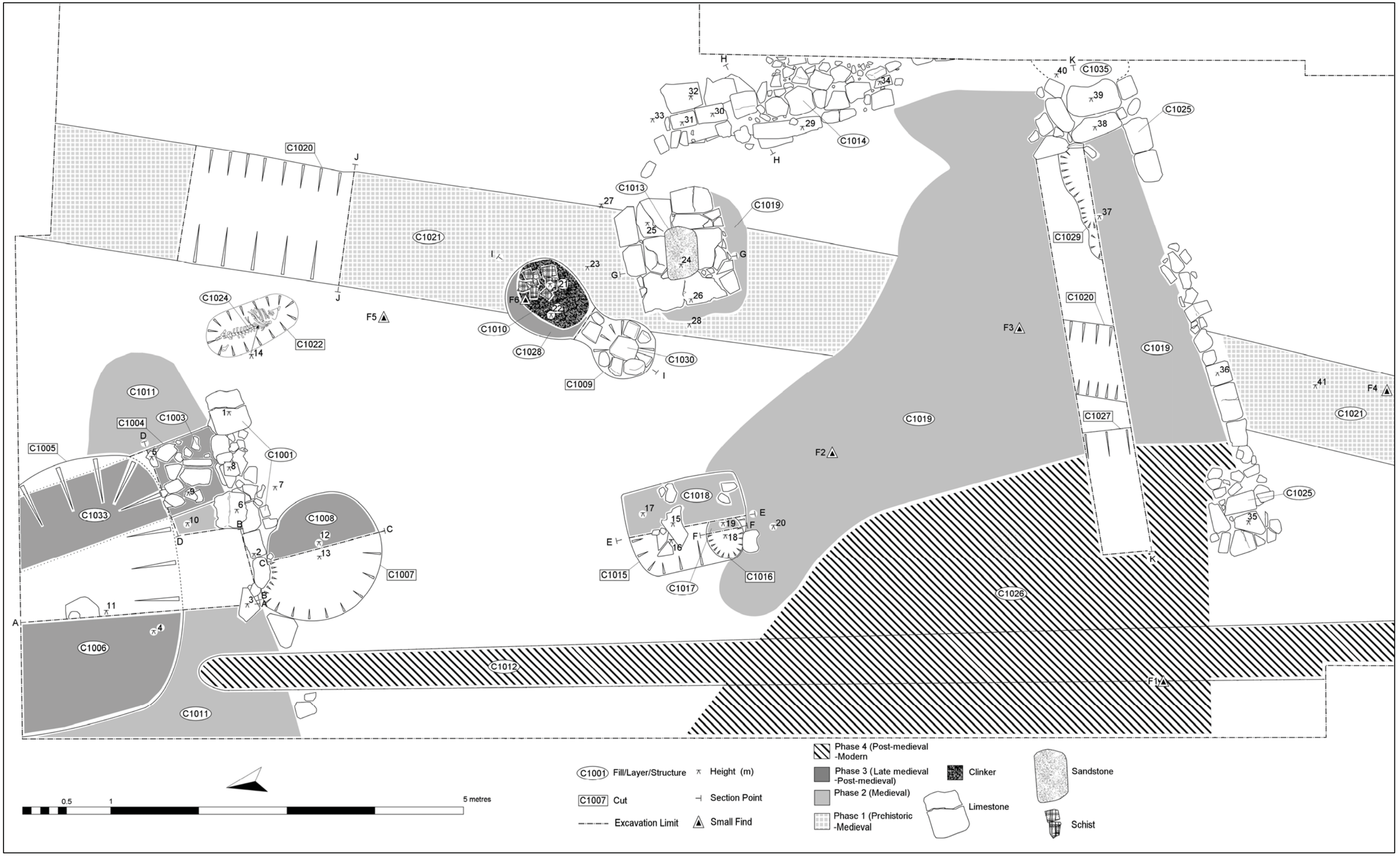


Figure 3. Plan of all archaeological features (Scale 1:40)

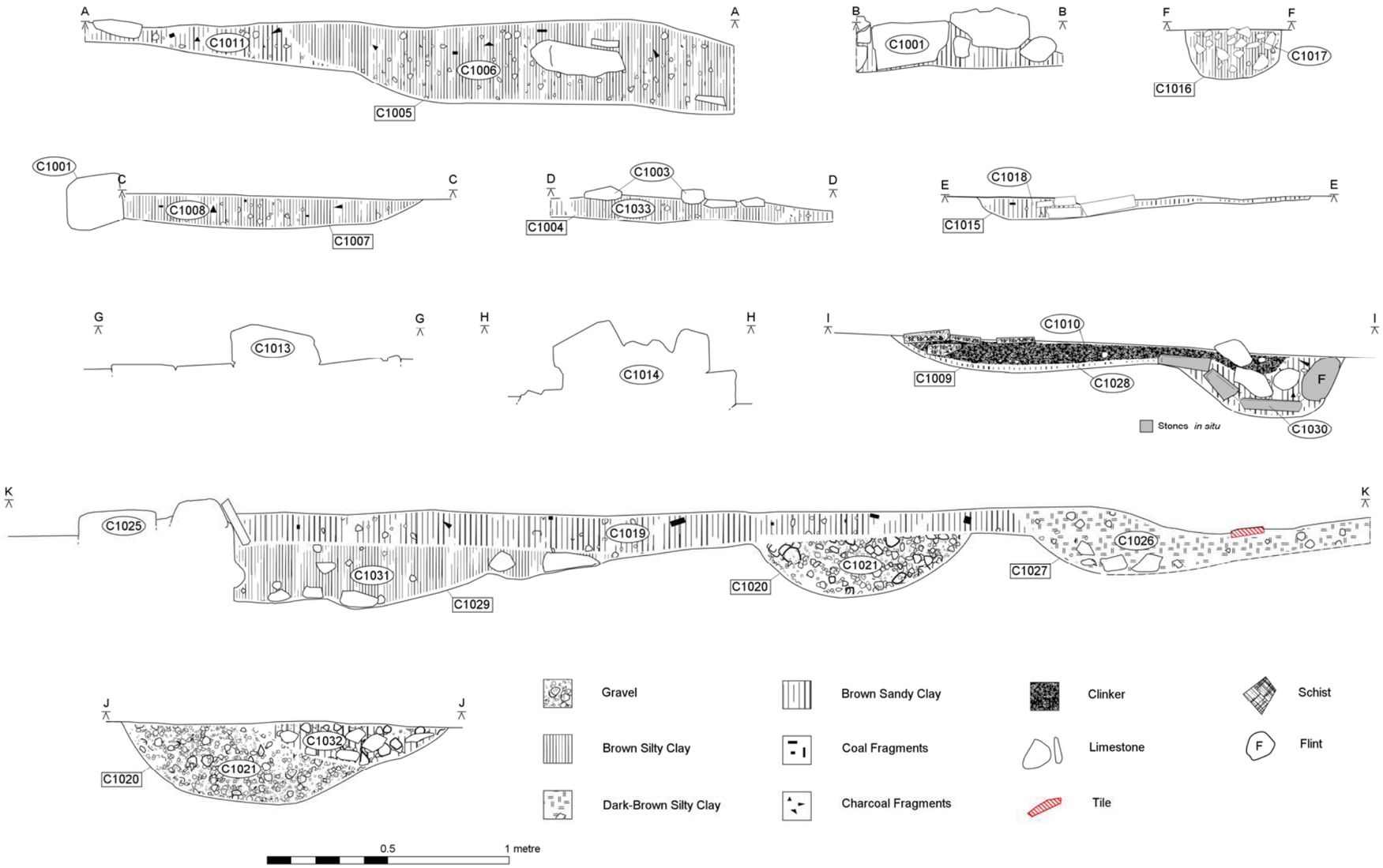


Figure 4. Archaeological sections (Scale 1:20)

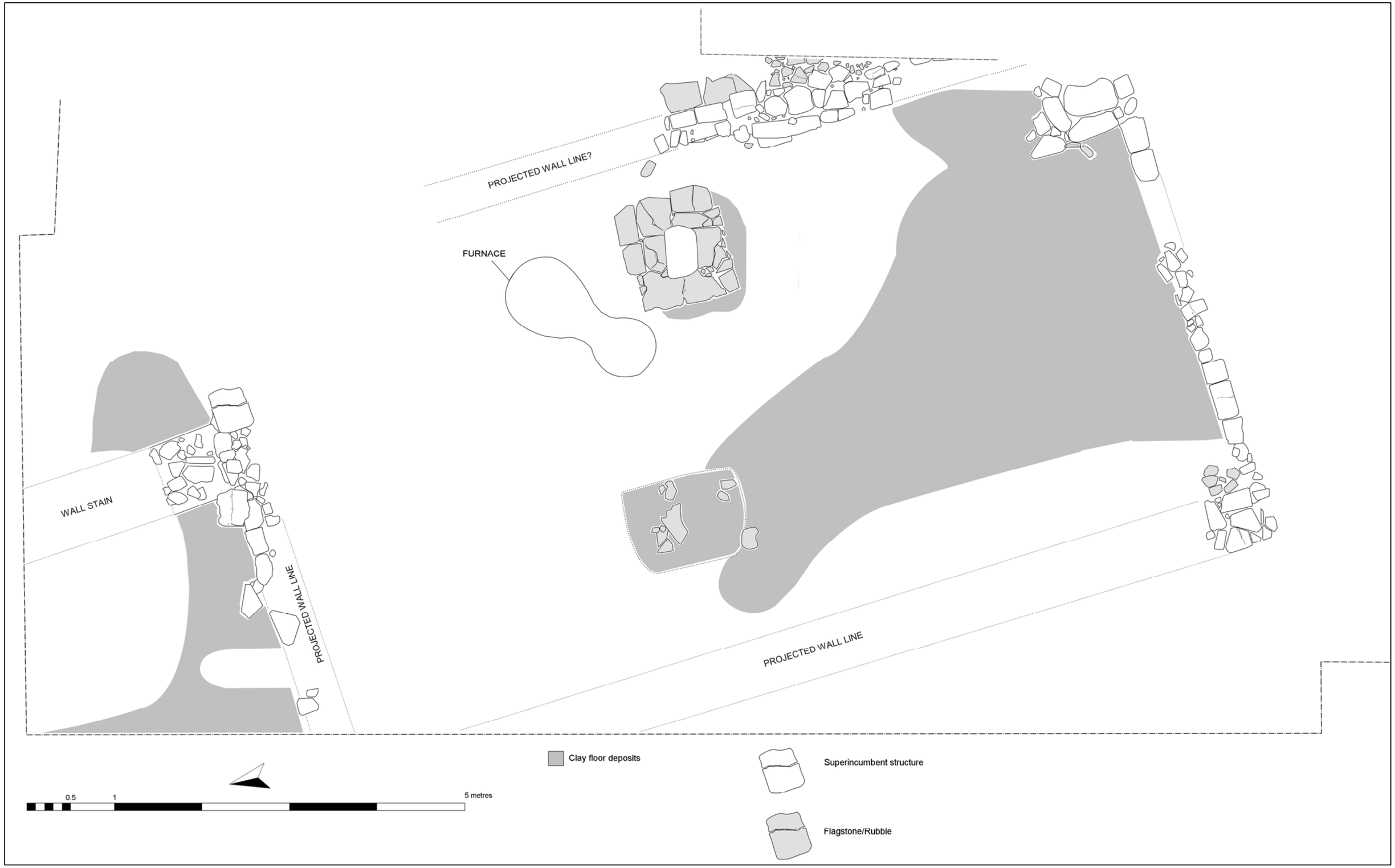
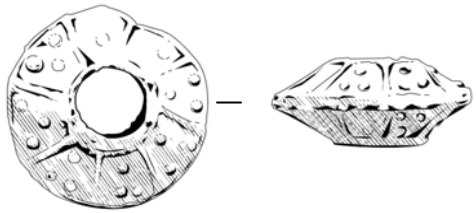
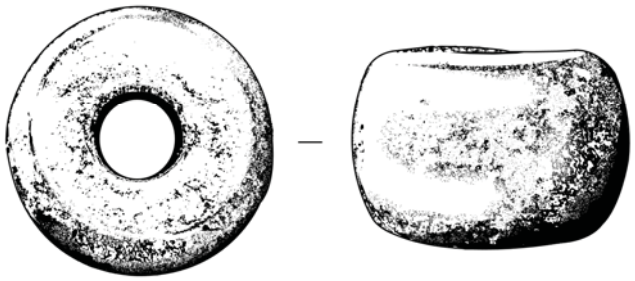


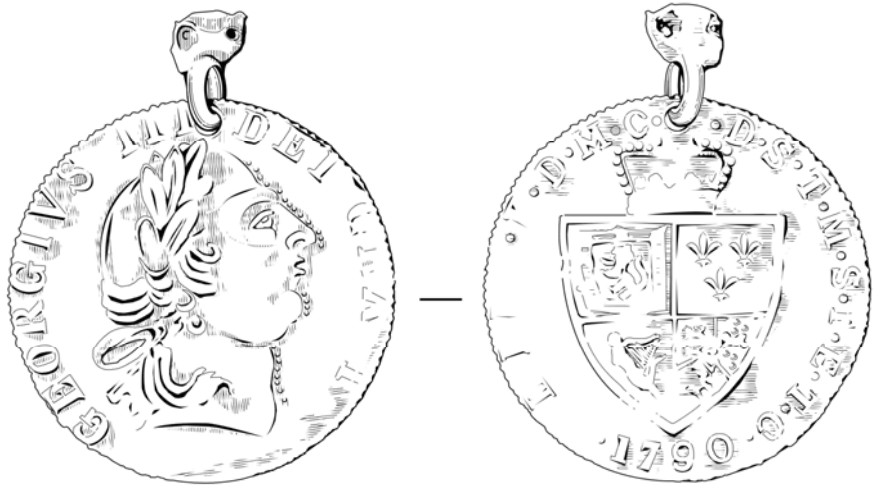
Figure 5. Building remains with projected outline (Scale 1:40)



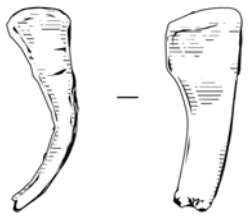
a.



b.

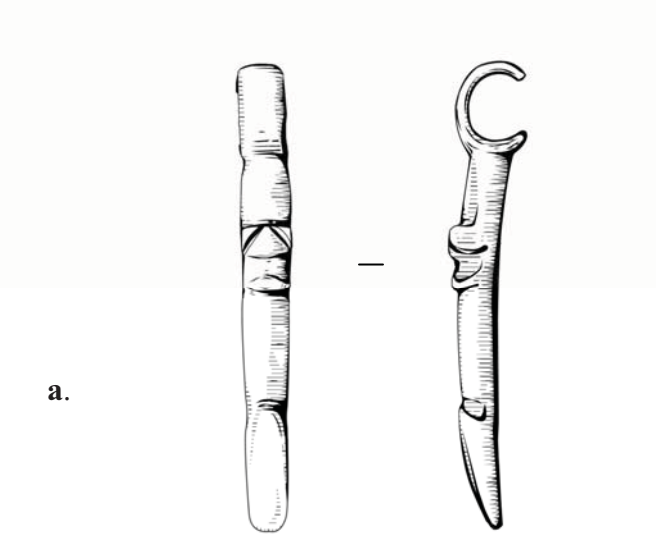


c.



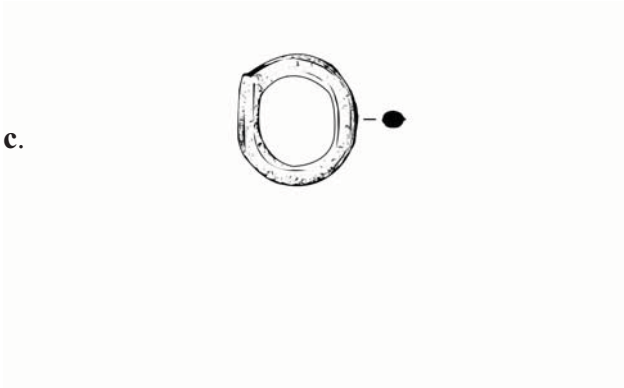
d.

Figure 6a. Find 4, lead spindle-whorl **b**. Find 6, stone spindle-whorl
c. Find 7, gilt-silver half-guinea of George III **d**. Find 3, iron square-headed nail (a, b & d Scale 1:1; c Scale 2:1)

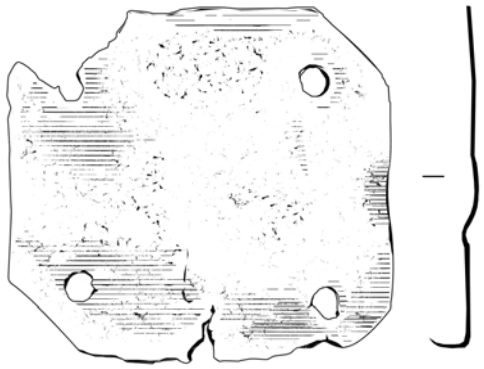


a.

b.



c.

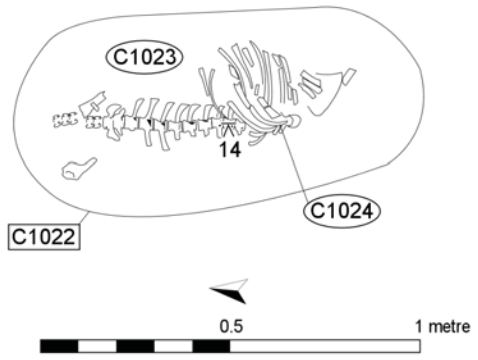


d.

Figure 7a. Find 8, copper-alloy pin from an annular brooch **b**. Find 9, corroded copper-alloy strap-end **c**. Find 10, copper-alloy D-shaped buckle **d**. Find 11, sheet copper-alloy belt-mount (Scale 1:1)

a.

b.



c.

d.

Figure 8a. Topsoil stripping by machine, looking south **b**. Sections of walls C1001 and C1003, looking south **c**. Plan of dog burial **d**. Post-pad, looking north, with furnace C1010 in the background (c is Scale 1:20)

Figure 9. Site post-excavation, looking south