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nps archaeology

Archaeological Excavation of Parcels 4 and 5, Three Score, Bowthorpe, Norfolk

Assessment Report and Updated Project Design

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Prepared for
Norwich City Council

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Location:	Three Score, Bowthorpe, Norfolk
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Grid Ref.:	TG 1858 0923
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Summary

During the late autumn and winter of 2013 NPS Archaeology were asked to undertake a Strip Map and Sample Excavation on behalf of Norse Care for Norwich City Council, prior to the creation of a new dementia care unit on open land at Three Score, Bowthorpe. Norfolk.

The work unearthed many archaeological features, relatively evenly distributed across the footprint of the new development. The limited number of features that could be dated were of Neolithic to Bronze Age date. It is likely that the majority of the undated features on the site were also of this period, as they were generally sealed beneath an early subsoil. Two of the ditches present on the site also dated to this general early period.

The site adds usefully to the corpus of known prehistoric sites situated within the Yare valley.

1.0 INTRODUCTION

This report begins by summarising the background to the project, the site's location and the project's initial aims. This introductory section is followed by a discussion of the site's archaeological and historical background (Section 3.0) and the methodologies employed during the work (Section 4.0).

Section 5.0 presents a summary of the results and 6.0 is an assessment of the stratigraphic, artefactual and environmental evidence recovered. Each data set has been assessed to determine its potential to yield further information and to identify aspects that are of wider significance. The results of these individual assessments are then brought together in a general discussion of the site's significance. The relevant results of the excavation are also brought into this assessment.

Section 7.0 comprises an Updated Project Design which describes the research objectives that will underpin subsequent work and details the nature of the additional tasks to be undertaken. Appendices contain tabulated information including specialist data.

2.0 PROJECT BACKGROUND

The open grassed area known as Three Score is situated between the centres of Bowthorpe and Earlham in Norwich (Fig. 1) and has been sub-divided into

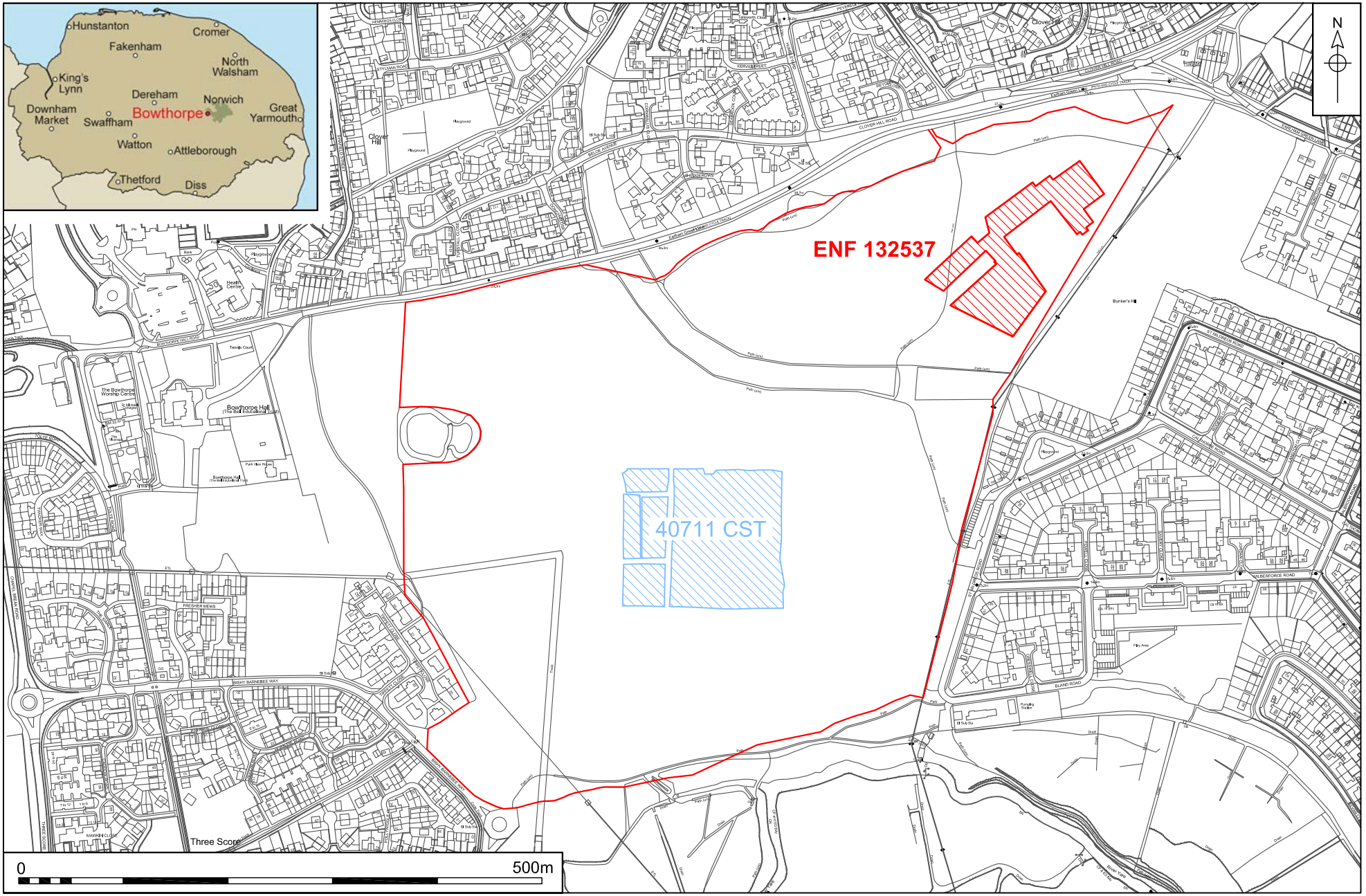

Figure 1. Site location. Scale 1:5000

numbered development parcels by Norwich City Council for purposes of planning and development. The development at Parcels 4 and 5 which comprise the present site is situated in the northeastern corner of Three Score. It is proposed by the City Council at this stage that a care village specialising in the care of dementia sufferers will be constructed here. This will comprise 80 care apartments and 92 flats with care schemes, with associated landscaping, car parking, open space and infrastructure.

A Strip Map and Sample Excavation was recommended by Norfolk Historic Environment Service (NHES) as a condition of the planning permission issued by Norwich City Council (13/02031/RM). The work was undertaken according to guidance issued by (NHES) and conducted in accordance with a Written Scheme of Investigation prepared by NPS Archaeology (01-04-14-2-1241). This work was commissioned and funded by Norwich City Council. The excavation was designed to mitigate the likely impacts of the development on the archaeological resource as part of the planning requirements.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government 2012). The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

2.1 Geology and Topography

The proposed development is situated on the northern side of the River Yare on a relatively steep south and east facing slope (Fig. 1). The River Yare lay within 450m of the southern limit of the site, running through the area in an east to west direction. The majority of the site was reasonably flat around 37m OD, although at the southern and eastern side of the site the natural slope started to increase. Currently the area is overgrown scrubland, dotted with small shrubs and occasional trees and is favoured by dog walkers and joggers.

The underlying geology for Parcels 4 and 5 is sand and gravel of the Crag Group. The superficial geological deposit is sand and gravel of the Sheringham Cliffs Formation (http://www.bgs.ac.uk/opengeoscience/).

The site archive is currently held by NPS Archaeology and on completion of the project will be deposited with Norfolk Museums and Archaeology Service (NMAS), following the relevant policies on archiving standards.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following section is compiled from data held by the Norfolk Historic Environment Record (NHER) and information from *Three Score Community Residential Development, Bowthorpe, Norwich. Assessment report and Updated Project Design* (Green 2008), supplemented by more recent additions to the NHER, of which a search was requested.

The area of Bowthorpe has expanded considerably since the late 20th century following the construction of major housing schemes and related infrastructure. As a direct result, several developer funded archaeological interventions have taken place during recent years. Key among these archaeological works have been the

evaluation and excavation to the south-west of the site at Dodderman Way (Percival 1999 and 2002) and evaluation and excavation to the immediate west at Bishy Barnabee Way (Trimble 2003 and 2004).

This archaeological undertaking reflects not just the expansion of Bowthorpe but the importance of its historic environment (Green 2008).

Prehistoric

The earliest evidence for human activity in the area of Bowthorpe is provided by finds of flint artefacts. Typologically dated prehistoric lithics retrieved from finds spots within the Yare Valley date from the late Mesolithic to the Early Bronze Age. A Mesolithic site at Great Melton (Wymer and Robins 1995), though set back a kilometre from the Yare Valley, indicates the presence of Mesolithic peoples in the locality. Excavation at the John Innes Centre (Whitmore 2004) located on a gentle slope within the Yare Valley recovered scatters of flint associated with a small quantity of pottery of Neolithic date. This material was present *in situ* below a significant depth of colluvium. Recent excavations at Three Score Road (Percival 2002) recorded Early Neolithic pits and a possibly structural ring-gully, as well as Late Neolithic/Early Bronze Age pits. Evidence for late Bronze Age activity in the area is sparse. Except for a small number of isolated finds and a single pit from excavations at Bishy Barnabee Way (Trimble 2004), no significant Iron Age presence has been detected. During the evaluation carried out at this site in 2004 (Green 2004) a Mesolithic/Upper Palaeolithic long blade was found in the plough soil. Evidence of Early Neolithic activity was limited to two pits and extensive patches of buried soil. Both of which fall within the area of the present excavation. There were no cut features of Bronze Age date but some of the unstratified flint was Later Neolithic/Early Bronze Age in character. Two ditches and two pits of Iron Age date were identified in the evaluation but all were located just out of the area of the present excavation (Green 2008).

Romano British

Finds of coins and other metal artefacts recovered from around Bowthorpe, often by metal detectorists, suggests activity of Roman date. The limited evidence does not at present indicate a focus for any related settlements. Aerial photography has revealed what is interpreted as a Romano-British field system, and a rectilinear enclosure system at the Three Score Road site (Percival 2002) is thought to be of comparable date. Excavations at Bishy Barnabee Way (Trimble 2004) also recorded Romano-British ditched features, the retrieved artefacts indicating a date for these features of late 1st to mid 2nd century AD. The evaluation at the present site (Green 2004) revealed a single dated pit or posthole of this date (just outside the area of the present excavation) together with a series of ditches which are undated but are probably Romano British in date. Unstratified fragments of Roman brick and tile together with a brooch (SF15) and a 4th century coin were also found within the plough soil.

Anglo-Saxon

Stray surface finds of coins, a brooch fragment and other metal artefacts have been found in the Bowthorpe/Earlham marshes to the north-west, and a Middle Saxon brooch from close to Toyle Road. The clearest evidence of Anglo Saxon settlement comes from the excavation of Early Saxon features at Bishy Barnabee Way. The site consisted of three, possibly four, sunken feature buildings (SFB)

characteristic of this period, as well as probable post-hole structures (Trimble 2004). An Early Saxon two posted SFB containing abundant artefacts was found in the evaluation within the area of the present excavation (Green 2004).

Medieval and Post-Medieval

A reference to Bowthorpe in the Domesday Book suggests that the village dates back to at least the Late Saxon period. Excavation at the ruined church of St Michael, west of the study area, indicated a late 11th-century date for the foundation of the church (Beazley and Ayers 2001).

The development area occupies a plot of land to the east of Bowthorpe Hall, which along with the church of St Michael, forms part of a deserted medieval village. Abandonment of villages was a phenomenon often associated with the 14th century, and usually linked to epidemics of disease or famine. In particular the Black Death of 1349 was devastating to rural economies. To the south of this deserted village possible evidence for a hollow way linking Bowthorpe to Colney was found during excavation at Dodderman Way (Percival 1999). No medieval cut features were encountered during the evaluation of the site (Green 2004) although it is likely some areas of earlier ploughsoil are of this date. Few post-medieval features were identified in the evaluation of the site (Green 2004) but of these an east west oriented ditch was observed in the present excavation. Other post-medieval finds from the evaluation include an infilled quarry to the west of the site.

Modern

The current development is the most recent of several in the locality, and represents the expansion of Norwich to the west. The development site formerly served as agricultural land, most recently under pasture but having been ploughed for arable even in recent years. An agricultural waste pit was recorded in the evaluation of this site in 2004 (Green 2004).

4.0 METHODOLOGY

(Figure 2; Plates. 1, 2, 3 and 4)

The programme of excavation recommended by NHES is required to ‘recover as much information as possible on the origins, date, development, phasing, spatial organisation, character, function, status, significance and the nature of social, economic and industrial activities on the proposed development site’. The project followed earlier evaluation of the site (Green 2004) and was undertaken as mitigation work, concentrated in the area of a footprint of the new building where the impact was to be greatest (Fig. 2).

Machine excavation was carried out with an 18 tonne tracked 360º hydraulic excavator equipped with a toothless ditching bucket and operated under constant archaeological supervision (Plates 1-4). The machine was supplied by Bryn Williams Plant Hire and driven by Pete and Carl. A dumper was also used to relocate the spoil into neat piles, separating topsoil and subsoil in order to backfill and re-instate the site following the fieldwork. Archaeological features observed cutting the underlying natural were marked using blue line paint to facilitate future reference during the excavation.

The site was securely fenced by Norse Group operatives acting on behalf of NPS and Norwich City Council.

Plate 1. The north part of the site, looking northeast

Plate 2. The central part of the site, looking north

Plate 3. The south part of the site, looking northwest

Plate 4. Machining, looking north

During the course of the project there was an alteration made to the proposed building which necessitated a change to the building footprint, extending it to the west and north. The original footprint was excavated between the14th October and 6th November 2013 and the additional area from the 2nd to 13th December.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds other than those which were obviously modern, were retained for inspection. It is notable that few metal finds were found.

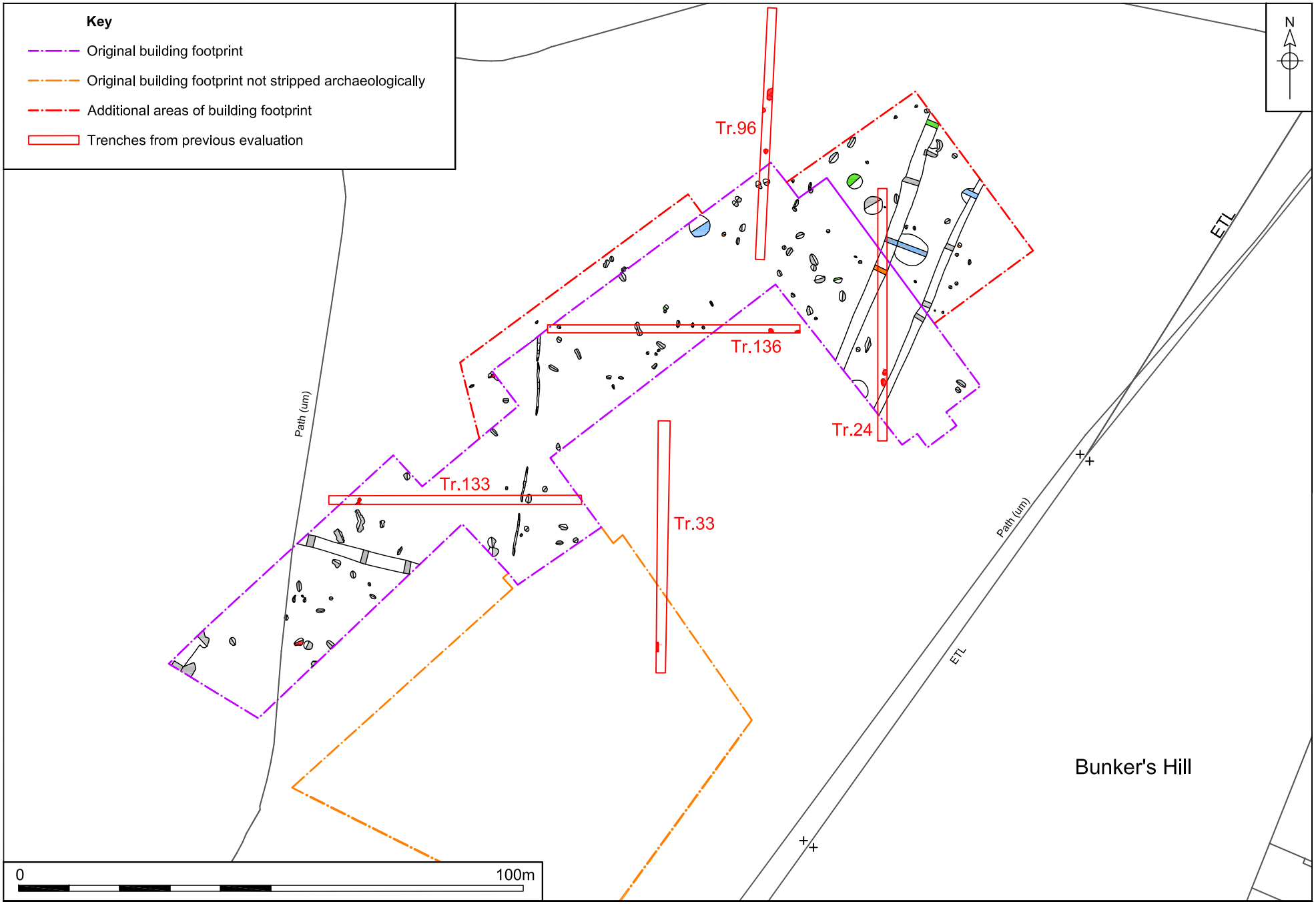

Figure 2. Plan of excavation. Scale 1:1000

A total of 36 samples were taken of which 11 were micromorphology and column samples, three were charcoal samples and the remainder (22) were bulk samples for plant macrofossil evidence.

All archaeological features and deposits were recorded using NPS Archaeology pro forma. Plans and sections were recorded at appropriate scales. Monochrome and high resolution digital photographs were taken of all relevant features and deposits where appropriate.

The site was surveyed using a GPS RTK Rover device operated by members of the NPS Land Survey Group. This provided accurate heights and survey points across the site and which were used during the course of the project. The single features and collections of features were planned using planning points which were then surveyed by NPS Land Survey Group. Some hand excavation took place whilst the machine stripping was being undertaken but the majority of the excavation was carried out after consultation with Ken Hamilton of Norfolk Historic Environment Service.

Site conditions were generally good, with the work taking place in often fine but cool weather. High winds and some rain had to be dealt with at times, in keeping with the season.

5.0 SUMMARY OF RESULTS

5.1 Evaluation Results

The following summary was first presented in Green's assessment report (2008). Section 5.1.3 below refers to the results from the five trenches which were located within the footprint of the new building.

5.1.1 Methodology

A total of 106 trenches measuring 50m were excavated in advance of a proposed housing development on the 28-hectare site at Three Score in Bowthorpe, Norwich in the late summer of 2004. The position of the trenches was agreed in advance with Norfolk Landscape Archaeology (now Norfolk Historic Environment Service (NHES)).

5.1.2 General Results

The evaluation commenced on the 14th March 2004. The trenches were stripped using a 360° mechanical excavator fitted with a toothless ditching bucket.

Archaeological remains were found in approximately 25% of the trenches. Eighty-five features were identified in total, thirteen of which were tree-holes and periglacial features. The largest number of features were undated, being most frequent to the north and west of the site. Many of these undated features were likely to be prehistoric. Small areas of a probable prehistoric buried soil were identified in the central area together with a single dated Neolithic pit. Several probable prehistoric pits were excavated together with two Iron Age ditches and two pits. Two undated ditches were likely to be part of a previously identified Romano-British field system. A fine Early Saxon 'two post' sunken-featured building (SFB) was found in the southern central area. This contained a wide range of Early Saxon pottery together with fragments of loom weights, a brooch and large amounts of animal bone. A second less certain SFB was also identified

to the north of the site. No features of medieval date were observed but a ploughsoil potentially of this date was observed in patches below the modern ploughsoil. Post-medieval and modern utilisation of the land includes agricultural use together with sand and gravel extraction, from quarries of various sizes, some large enough to be noted on 1:25,000 Ordnance Survey maps of the present day.

5.1.3 Relevant Trenches

There were five trenches located in the area of the footprint of the new building which defines the area of excavation (Trenches 24, 33, 96, 133 and 136)

Trench 24 was situated in the northern corner of the site. An undated pit or ditch terminus [330] was observed at the north end of the trench and two probable tree boles were also identified ([326] and [328]). These were found at the end of the trench situated away from the stripped building footprint and are in keeping with the type of archaeology found subsequently.

Trench 33 was in the central south part of the current site and it was devoid of archaeological remains, which ties up with what was observed during the excavation.

Trench 96 was located at the north eastern end of the site strip. At the time three natural features were observed ([394], [396] and [398]. [394]), and these were located close to two of the ditches found on the present site which did not appear within the trench. It would seem that the features were wrongly identified as natural features rather than the ditches they were found to be.

Trench 133 was situated in the southern half of the building footprint and contained two undated oval pits ([310] and [314]) which were located at the west end of the trench. They lay in the vicinity of several other similar pits found during the excavation.

Trench 136 contained two undated but probable prehistoric pits ([369] and [371]) which were excavated at the east end of the trench (just beyond what would be the stripped excavation). They are in keeping with the nature of the other features found during the excavation.

Other trenches located in the general area presented a similar amount of undated, but probably prehistoric, features.

5.2 Excavation Results

(Figures 3, 4 and 5)

The excavation revealed a sequence of archaeological features of largely Neolithic and Bronze Age date. The vast majority of the features on the site (around 90%) were undated but as they were sealed by an early subsoil there is every reason to believe that they were probably of Neolithic to Bronze Age date.

Grouping the features at this stage was not considered necessary or useful due to the spread of the features across the site and their reasonably similar date. Effort will be made in the analysis stage to refine the dates of features using scientific dating methods where appropriate (see below).

The archaeological features recorded during the excavation are discussed by type below.

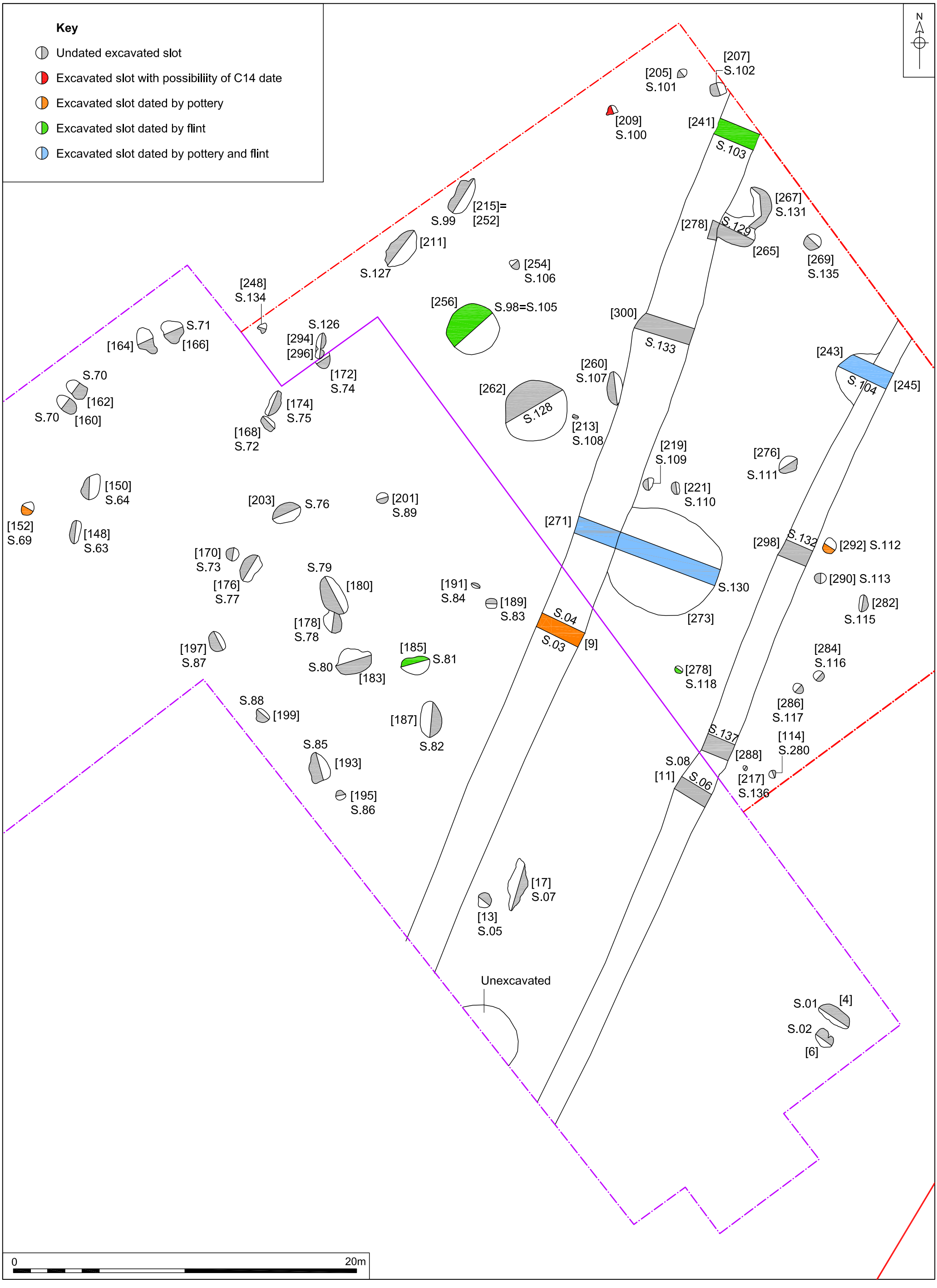

Figure 3. North part of the site. Scale 1:200

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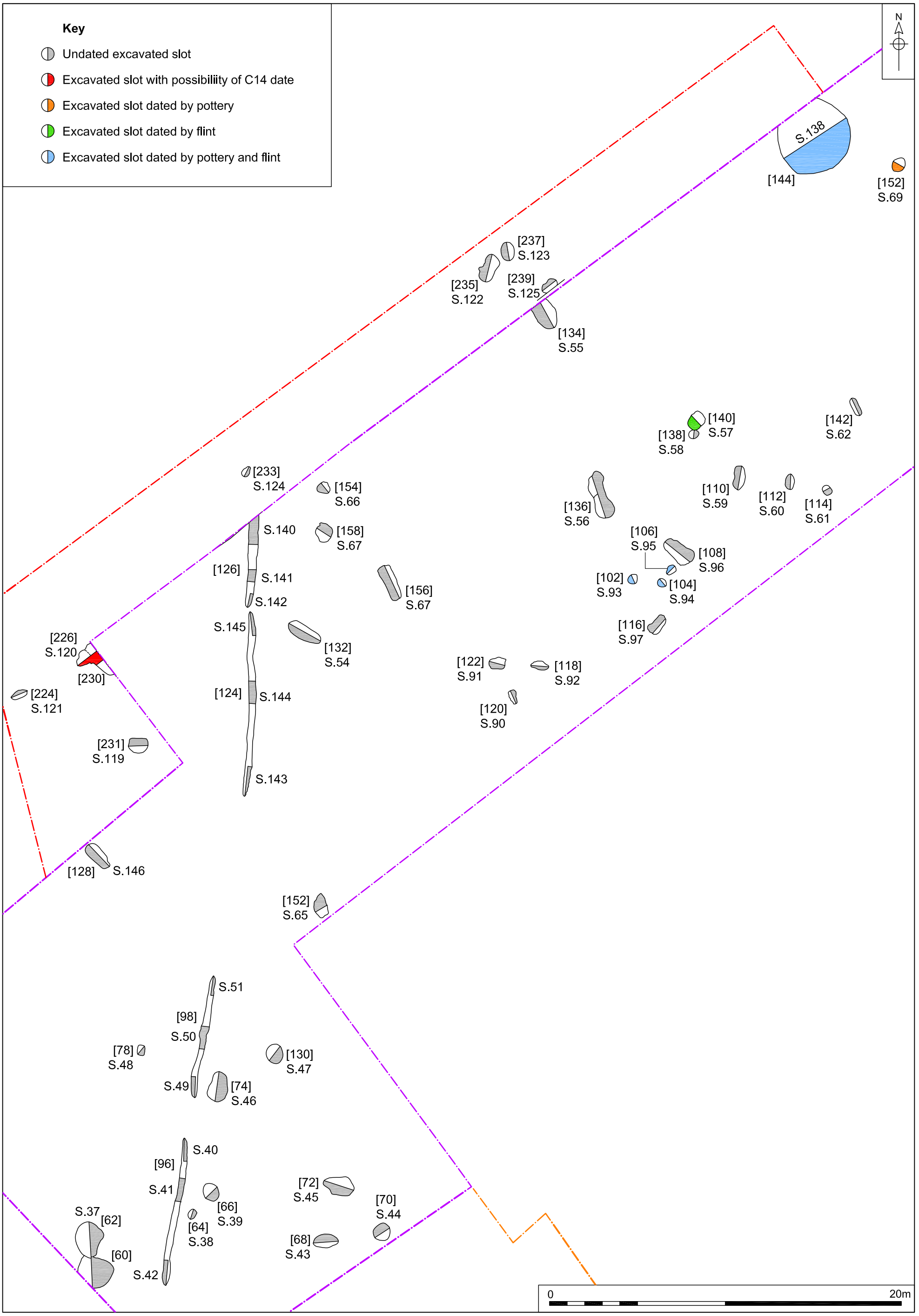

Figure 4. Central part of the site. Scale 1:200

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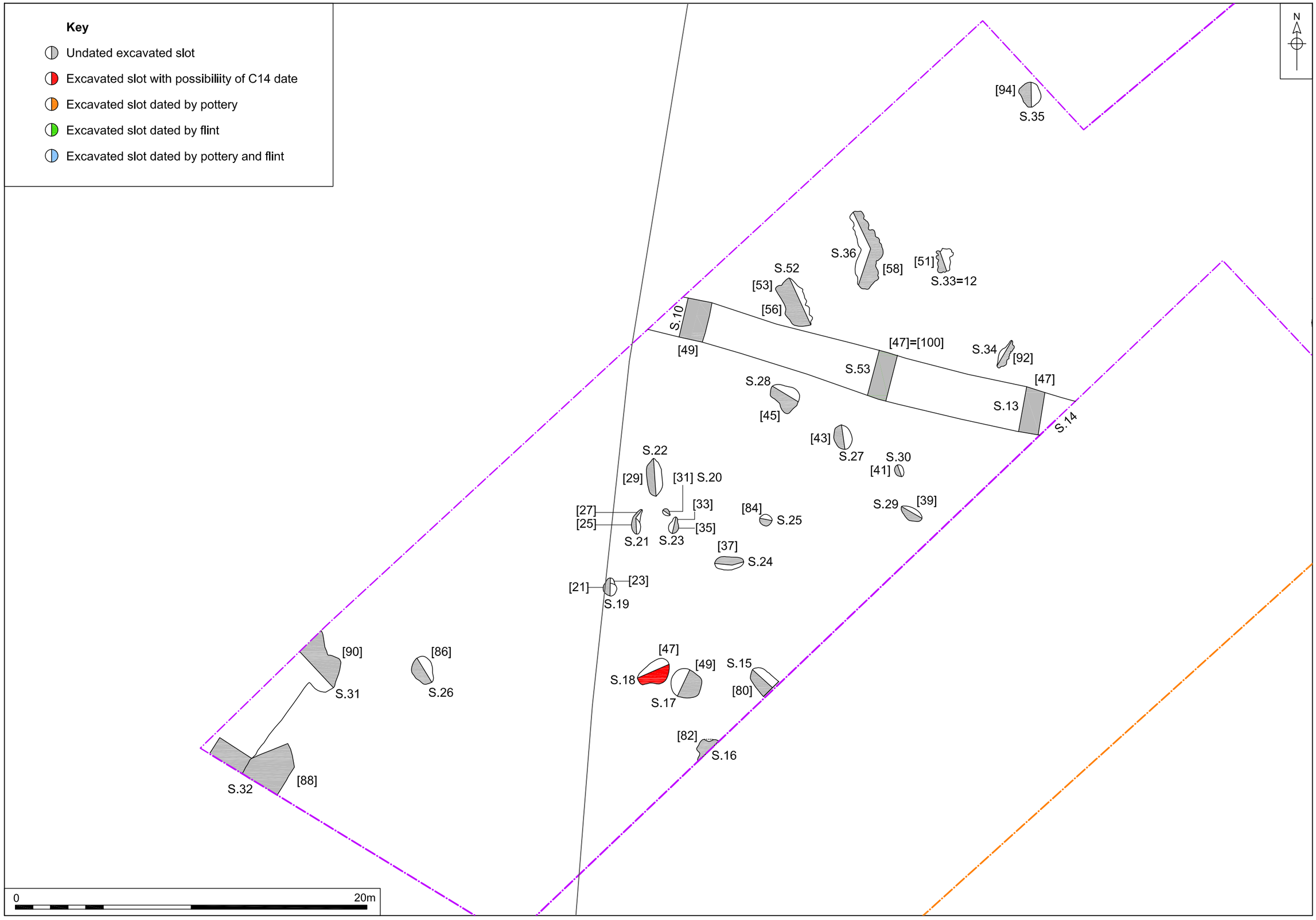

Figure 5. South part of the site. Scale 1:200

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5.2.1 Pits

(Plates 5 and 6)

For the purposes of this report, even very small circular or ovoid features have been interpreted as pits. It is unlikely that further post-excavation analysis will change this identification. There were 119 pits present on the site, several of which were very large and deep, others small and irregular. The average pit was between 1.00m and 2.00m long, 1.00m to 1.50m across and 0.20m to 0.40m deep with reasonably regular sides and probably undated.

Plate 5 shows one of these average pits (pit [202]). There were several places where they occurred in pairs, sometimes intercutting, though more often not. They were largely observed following the removal of sandy and gravelly subsoil [02]. There were no clear distribution patterns to the pits, and any loose concentrations at this stage should be treated with caution as they are based on observing the pits only within the stripped footprint of the building and not their wider context. A rare well-dated small pit cluster was formed by pits [102], [104] and [106], though many of the other pits were isolated and undated.

Plate 5. Pit [202], looking south

There were five relatively large pits present on the site ([144], [256], [262], [273], [243]) which were far larger and deeper than the average pit described above (see Plate 6 showing pit [256] for comparison). These pits had a sub-rounded shape in plan and ranged from 3.00m to 6.35m across and between 1.20m and 2.40m deep. They often had very regular sides which were steep, and sometimes vertical, and contained more than one fill. Four of the five pits were dated by either flints or pottery or combinations of both in the fill. These pits were isolated, and interestingly did not appear to have many of the smaller pits close by. Three of the pits ([256], [252], [273]) on the eastern side of the site appeared to form a line (Fig. 3) and just like the small pits, they were all sealed by the subsoil.

Plate 6. Pit [256], looking south

5.2.2 Ditches

(Plates 7, 8 and 9)

There were three ditches present on the site, all of which truncated the subsoil. The ditches seemed to reflect the topography of the site in that they lay at or close to the top of a southwards and eastwards slope. As the ditches extended beyond the limits of the stripped building footprint it was not possible to ascertain the relationship of the southern and northern ditches, though it is possible that as they lay at the top of an slope that was increasing in steepness they may have joined to form an enclosure at the top of the low hill.

Of the two ditches at the northern end of the site, ditch [9]=[300]=[241] (Plate 7) was the largest and was securely dated by pottery to the Bronze Age. It was 54.0m in length and extended beyond the edges of the excavation area. It was on average 2.50m across and had a depth of 1.10m. The sides were often steep and regular and the base roughly flat. A second ditch [11]=[288]=[298]=[245] (Plate 8) lay on the same alignment, several metres to the east, and though not dated in itself, may have had a similarly early date. However the topographical considerations cannot be ignored and this feature could be a later ditch designed to utilise the same aspects of the site's topography in a similar manner to the earlier features. Ditch [47]=[49]=[100] (Plate 9) was located towards the southern end of the site and had similar dimensions and shape as the larger of the northern ditches, and as previously mentioned, may have joined it to form an enclosure.

Plate 7. Ditch [300], looking north

Plate 8. Ditch [298], looking northeast

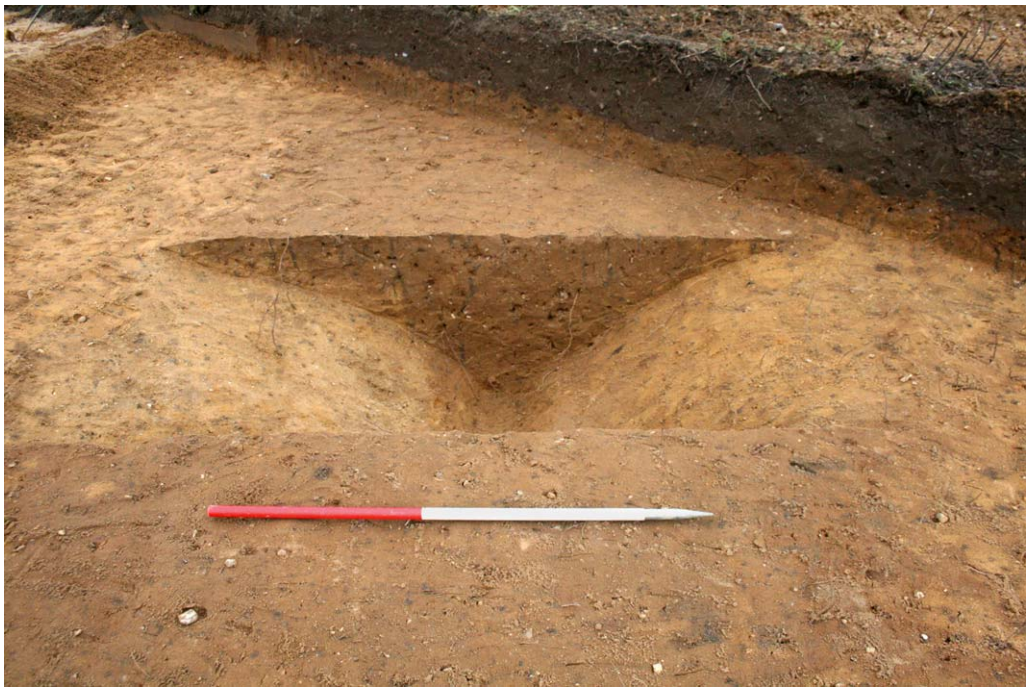

Plate 9. Ditch [47], looking east

5.2.3 Interrupted Gully

(Plate 10)

Though allocated four separate contexts in the field ([96], [98], [124], [126]), the four discrete segments of this feature are almost certainly part of the same entity (Fig. 4, Plate 10).

The irregular form of this feature and its length means that is highly unlikely to have a beam slot or other such building-related feature. The feature probably represents only the lowest portion of the original feature, and the interruptions between the segments may simply be areas where the feature was shallower. It may represent an internal boundary, possibly the last remaining and lowest part of a drainage gully designed to take water to one of the outer and deeper ditches or towards the edge of the slope. Though there is no relationship with the ditch to the south, it does appear to be orientated at a right angle to it.

The feature appears to be orientated on a north to south axis and extends in total for at least 44.00m. It was generally 0.40m wide and up to 0.16m deep, though often no more than 0.08m deep.

Plate 10. Gully [126], looking southwest

5.3 Archive Quantification

Table 1 below summarises the archive components that were generated during the excavation.

Archive	No.
Context records	302
Drawn sections	146
Drawn plans	70
Black and white films	6
Total Finds	137
Environmental samples	32

Table 1. Archive quantification

On completion of the excavation, all written and drawn records were checked and cross-referenced. Typed versions of context, drawing and sample registers were created. Context information and finds data were combined within a single spreadsheet. All photographic films were processed and a photographic archive assembled, accompanied by a list. The finds were washed, dried, marked, and bagged for inclusion into the site archive.

6.0 ASSESSMENT

The following section presents an assessment of the stratigraphic, artefactual and environmental data recovered during this work. This assessment considers the significance of each data set in relation to its potential to address the project objectives and research aims. It also seeks to identify aspects of the project that are of a wider significance or that can potentially address new research questions.

A variety of sources have been consulted as part of this assessment including *Research and Archaeology: A Framework for the Eastern Counties* (Brown and Glazebrook 2000) and in particular 'Research and Archaeology Revisited: A revised framework for the east of England (Medlycott 2011) which summarises the archaeological resources of East Anglia and presents detailed research agendas for each period.

6.1 Assessment of the Stratigraphic Data and Site Potential

6.1.1 The Stratigraphy

Stratigraphic relationships between the archaeological features on the site were limited in scope. As previously mentioned, many of the features were discrete and where they did occur with other features, there were few that demonstrated any physical relationship. The three ditches, and the interrupted gully also existed in isolation. The ditches clearly truncated the subsoil, a gravelly layer, which in turn sealed the remainder of the archaeological features. The complexity of layers that had been seen in the excavation 220m to the southwest (Green 2008) was not present here.

The dating of the site is rather problematic. For example the small pit cluster ([102], [104] and [106]) has pottery dating to the Early Bronze Age and flints which date to the Early Neolithic. This is a phenomenon which can be found in large features but for such small features, this difference in date is unusual. The nature of the archaeological remains on the present site is intriguing. The reasonably dark and 'soil' nature of the fills of many of the small and medium-sized pits did not contain a high quantity of sand and gravel as may be expected if they had infilled naturally which indicates deliberate backfilling. The purpose of the pits is presently unclear, although if they were refuse pits it is reasonable to assume that a number would have contained some pot and flint (it is unlikely that traces of bone in prehistoric features would have survived in the soil conditions).

6.1.2 Site Potential

The results from the work have the potential to contribute to ongoing research questions to determine the character of rural land use in the east of England and the regionalisation of settlement patterns.

The site contains elements of both Neolithic and Bronze Age activity, with combinations of the two periods within the same features. Following further analytical work along with Radiocarbon and OSL dating, it is hoped that the dating sequence can be refined, and understanding of the site and the site's potential can be more accurately realised. As Medlycott (2011) indicates, 'without dating such sites more closely, it is difficult to relate them to regional and national trends'. The results of this excavation (and future projects in Three Score) will be examined in

light of the large excavation to the southwest (Green 2008) and with other known prehistoric settlement and activity in the Yare valley in general.

The differences between this site and the 2008 excavation are interesting and exploration of these may add value to the site's potential. Whereas there were clear classifications and groupings of features possible on the latter, including classic Neolithic pits, the activity on the present site is more enigmatic and difficult to assign. It is known that Earlier Neolithic settlement in the East of England is often represented by pit clusters for example at the site at Kilverstone, Norfolk, highlighted by Medlycott (Garrow *et al.* 2006) and these are of the type found on the Three Score Community Residential Development excavation (Green 2008). One of the most important research aims in understanding the Neolithic is the 'transition from a shifting, semi-permanent settlement to a more settled landscape of fields and farms' and 'Neolithic stability is suspiciously late in East Anglia'. The present site may usefully add to the corpus of known sites which may help ultimately to address this point. For example the large pits are particularly interesting, and the OSL dating of the basal deposit from one of them may indicate that it was a long-lived landscape feature first excavated in the Neolithic. Medlycott highlights that the Neolithic evidence from Norfolk appears to be distinctively different to that from other parts of the country. This distinction needs to be explored in more detail at a regional level and if proven the present site will add to the list of known sites. In a similar way Medlycott (2011) stresses that 'Our understanding of the chronological development of pottery' needs to be further refined by using a range of dating methods in conjunction with the stratigraphic approach on sites.

Much of the site's potential and interest lies in the fact that there is a mix of Neolithic and Bronze Age activity present. In this way the site fits with a known phenomenon and Medlycott gives a wealth of examples where there is often Neolithic and Bronze Age activity present on the same site. Presumably the same locations are exploited throughout prehistory for similar reasons. On the Three Score Community Residential Development excavation (Green 2008), there was evidence for the re-cutting of Neolithic pits in the Bronze Age.

The Late Neolithic to early Bronze Age pit cluster represented by pits [102], [104] and [106] adds to a recorded corpus of small discrete groups of pits which appear across Norfolk. They tend to be indicators of settlement nearby but do not have an obvious practical function. The results of the environmental sampling on the site, where preservation is good, may have implications for better understanding the early farming environment and the local general environment also of that time. The site may highlight changing land use from the Neolithic to the Bronze Age and, with further work proposed across Three Score, this could lead to the understanding of a sizeable part of a prehistoric landscape.

Though there was no direct evidence for settlement at the site in the form of structures, importantly the pottery does suggest that there is settlement close by. The Historical Atlas of Norfolk (Ashwin 2005, 14) states that 'settlements of this period [Late Neolithic/early Bronze Age] are nationally rare, and have long proved elusive; they frequently lack the deep subsoil features which occur in earlier Neolithic sites'. Ashwin (2005) also highlights 'the importance of valley floor sites, where settlements of the period may be preserved'. The early subsoil present on the site does seem to indicate that the early features are well sealed and have not

been disturbed by ploughing. It is therefore less likely that intensive farming has removed all the direct settlement evidence of this period from the site itself.

If the ditch/ditches present on the site can be proved to be of Bronze Age date, this could suggest that there is potential to understand the development of early field systems in the area. Medlycott highlights recent sites such as Nova Scotia Farm, Ormesby St Margaret/West Caister, where a rectilinear enclosure and at least some components of a large coaxial field system were dated to the Bronze Age (Medlycott). Medlycott concludes that 'the extent to which such enclosures and land boundaries existed elsewhere in Norfolk in the Bronze Age is still unclear' and suggests that they seem to be more common in the southern half of East Anglia.' It would be useful to understand why second millennium BC field systems developed in some parts of the region, but not others.'

6.2 Assessment of the Artefactual Material

Finds were processed and recorded by count and weight, and an Excel spreadsheet was produced outlining broad dating. Each material type has been considered separately by the relevant specialist and their assessment reports and statement of potential are included below presented by material.

A list of finds in context number order can be found in Appendix 2a.

6.2.1 Prehistoric Pottery

by Andrew Peachey

Excavations recovered a total of 36 sherds (214g) of Bronze Age pottery in a slightly abraded, highly fragmented condition (Appendix 3). The assemblage was limited to body sherds but the fabric and decoration types present identify several of the sherds with either Beaker pottery of the Early Bronze Age or Deverel-Rimbury pottery of the Middle Bronze Age (Table 2).

Pottery Date	Sherd Count	Weight (g)
Early Bronze Age (Fabric G1)	19	142
Middle Bronze Age (Fabric F1)	7	31
Indeterminate Bronze Age (Fabric F1)	10	41
Total	***36***	***214***

Table 2. Quantification of prehistoric pottery by sherd count and weight (g)

6.2.1.1 Methodology

The pottery was quantified by sherd count and weight (g), rim estimated vessel equivalent (R.EVE), with fabrics examined at x20 magnification and fully described in the report. Rim type, profile, decoration and comparative examples were also recorded in free text comments in accordance with the guidelines developed by the Prehistoric Ceramics Research Group (PCRG 1995). All data was entered into a Microsoft Excel spreadsheet that forms part of the site archive.

6.2.1.2 Commentary

The Early Bronze Age pottery was entirely of a grog-tempered fabric (Fabric G1) typical of the region. The fabric has pale to mid orange external surfaces, mid grey internal surfaces and a dark grey core, with inclusions of common angular grog (0.5-2mm) and sparse angular quartz (0.25-0.5mm). All the sherds in this fabric

can be classified as from rusticated Beaker vessels. Pit [102] (103) contained 14 sherds (127g) that are non-cross-joining but from a single vessel with finger-tip impressed decoration arranged in a ‘crowsfoot’ pattern, comparable to a vessel at Harford Farm (Percival 2000, 94 p21) and a common type in Beaker assemblages in Norfolk and on the fen edge. Further small body sherds with finger-tip impressed decoration were also contained in pits [144] (147) and [152] (153).

The remaining Bronze Age pottery occurred in a fabric (Fabric F1) with common to abundant calcined flint (typically <2.5mm, occasionally to 5mm). The bulk of the sherds in this fabric could belong to vessels produced throughout the Bronze Age, but ditch [9] (10) contained a small body sherd with a limited section of raised cordon typical of middle Bronze Age Deverel-Rimbury bucket urns. Like Beaker pottery, which often forms a small component of assemblages from within and around Norwich (Percival 2011, 59), this type of Middle Bronze Age pottery is relatively well recorded in Norfolk, including at Mousehold Heath (Percival 2011, 65) and Grimes Graves (Longworth *et al* 1988, 37 and figs. 25-26), therefore may be regarded as further evidence for scattered Bronze Age occupation and activity in the valley of the River Yare.

6.2.2 Post-medieval Pottery

by Rebecca Sillwood

Three fragments of post-medieval pottery were recovered from two contexts.

Two conjoining pieces of glazed red earthenware were recovered from pit [70] fill [71] along with some worked flint. The pieces form a rim sherd, weighing 6g in total with orange glaze on both surfaces. A slightly larger fragment of 19th-century stoneware was found in pit [144] fill [147], weighing 44g. This piece was found alongside Bronze Age pottery and worked flint, and was stamped with a bee and the words ‘TRADE’ and ‘NORWI[CH]’.

6.2.3 Ceramic Building Material

by Rebecca Sillwood

Seven fragments of post-medieval ceramic building material (cbm) were recovered from three contexts, weighing a total of 82g.

The pieces were all fragments of plain roof tile or brick. Five pieces were recovered unstratified from the topsoil [1], one piece from ditch [47] fill [48] and one from ditch [100] fill [101], associated with worked flint.

6.2.4 Clay Pipe

by Rebecca Sillwood

A single fragment of clay tobacco pipe was recovered from fill [52] of ?hearth [51]. The piece is an undiagnostic undecorated fragment of stem, and as such cannot be more closely dated than post-medieval.

6.2.5 Metal Finds

by Rebecca Sillwood

Six copper alloy finds were recovered from the topsoil of the site [1]. The pieces include three modern buttons, all with four holes for attachment, and one post-medieval button with an integral loop.

Two coins were also found, one a halfpenny dating to 1971, and the second an illegible, but probably post-medieval coin or token.

One probably modern iron nail (4g) was also found in the topsoil [1], and has been discarded.

6.2.6 Flint

by Sarah Bates

6.2.6.1 Introduction

Seventy-two struck flints were recovered from the site (Appendix 4). The flint is mostly light to mid grey and quite smoothly textured but with some pieces having coarser-textured inclusions. Cortex, where present, is dark cream to orange cream-coloured with some of this being slightly speckled. Some small patches and areas of weathered or previously patinated surfaces occur. Gravel lumps and nodules were the main raw material utilised and these were likely to have been collected in the vicinity of the site. Most of the flint is quite sharp and, post-depositionally, it is mostly unpatinated with a few slightly patinated pieces. The assemblage is summarised in Table 3 and listed by context in Appendix 4.

6.2.6.2 Methodology

Each piece of flint was examined and recorded by context in an ACCESS database table. The material was classified by *category* and *type* (see archive) with numbers of pieces, and of complete, corticated, patinated and hinge fractured pieces, being recorded and the condition of the flint commented on. Additional descriptive comments were made as necessary. One small non struck fragment (weighing 64g) has been discarded.

Type	Number
core/tool	1
utilised core fragment	1
blade	2
blade-like flake	9
flake	35
chip	2
spall	1
scraper	5
side scraper	1
leaf-shaped arrowhead	1
flake used as knife	1
retouched flake	7
retouched fragment	1
utilised flake	5
Total	**72**
Non struck fragment (64g)	1

Table 3. Summary of the flint by type

6.2.6.3 The assemblage

A small squat, quite thin piece with some cortex on one side has flakes struck from both faces pit [144], fill [146]. It appears to have had some attention paid to the platform with slight 'retouch' or platform preparation having occurred. It is neat and is almost certainly a core although the use of such a relatively thin cortical piece seems at odds with its quite neat nature. It appears to be similar, however, to a number of 'flat' cores form Hurst Fen, some of which were used as scrapers (Clark 1960, 217, fig. 10). It may be an exhausted core the proximal end of which has been used as a scraper.

No other cores were found but a large thick flake from the side of a core has very regular parallel blade scars on its dorsal face and may be a core rejuvenation piece from a single platform core from pit [144], fill [146]. Cortex remains only on its sloping distal end and there is very slight retouch or utilisation of the extreme edge. An irregular thick flake with a slightly retouched edge has part of a former platform edge on its other side (also pit [144], fill [146]).

A small slightly curving blade which tapers to each end and the proximal part of a blade with an abraded platform edge is present. Nine blade-like flakes were also found (although one very small piece from ditch [100], fill [101] may be of thermal origin. Five of these, including one quite large neat thin piece, are from prepared cores. Four have abraded platform edges and one has a facetted platform (Butler 2005, 34, fig. 13, Andrefsky, 1998, 94, fig. 5.6, c.).

Thirty-five flakes were found. These are small to medium-sized pieces with two or three relatively large flakes. Although there are some anomalous pieces the flakes are predominantly quite thin and regular although, apart from those recorded as blade-like, they are generally quite broad in shape. Two small tertiary flakes are slightly curving and have multi directional scars on their dorsal faces; they might be thinning flakes from tools (from pit [144], fill [147] and pit [256], fill [259] (Andrefsky 1998, 118-119). Four flakes have cortical platforms and none of the ordinary (broader type) flakes exhibit evidence for abraded or otherwise prepared platforms. A spall and two small chips are also present.

Part of a very thin, and possibly fairly large and/or broad, kite type, earlier Neolithic leaf arrowhead was found (also from pit [144], fill [147]. It is of a semi-transparent pale slightly brownish grey flint and has bifacial flaking extending entirely across the surviving areas of each face.

An irregular broad flake has had its distal edge used as a knife [275]; the edge is chipped and small parts have some slight glossy surfaces.

Six scrapers were found. Three are small roughly ovate or sub-circular pieces with retouch around their distal edges (from ?hearth [51] deposit [52], pit [106], fill [107] and pit [243]). There is also an irregular flake with retouch around both sides and distal end (from pit [278], fill [279]). Its right side is thicker and the left side forms a broad point with part of its possibly utilised proximal end. There is also a slightly larger broad ovate scraper with retouch around its thick distal area pit [273, fill [275] (quite like one from Hurst Fen, Clark 1960, 218, fig. 11, F11) and another irregular scraper from pit [60], fill [61]. The latter is a hard hammer struck flake with its broad thick distal edge retouched. It has also been slightly flaked on another edge – possibly this was to blunt it during use (or it may be part of a former 'platform' edge).

A slightly curving thin flake which has a retouched edge and small notch might be a reused tool thinning flake (from topsoil [1]). Five other retouched flakes are present. A thick fragment, which has been struck by hard hammer and is quite neatly flaked along one side, is probably from a tool (pit [256], fill [259]). Five other flakes show signs of probable use.

6.2.6.4 Flint by context (in order of flint numbers in each pit)

Almost all of the flint from the site was found in pits with the largest amount (total 24 pieces) from two fills in pit [144]. The flint from this pit is notable for the presence of several sharp blade–like pieces some of which, along with some other flakes, are of a similar flint type. No refits have been identified however. The few retouched or utilised pieces from the pit are of different slightly glossier or patinated flint types. They include part of an arrowhead, a scraper, a probable core used as a tool, a retouched flake and a possible tool thinning flake. Two pieces which may be from trimming cores have subsequently been utilised.

Six small flints including flakes, a blade fragment and neat ovate scraper were found in pit [243].

An irregular scraper, a flake used as a knife and three small flakes were found in pit [273]. A range of flint types is present.

A small sub-circular scraper, a chip and two blade type pieces, one of them utilised, were found in pit [106]. The latter pieces are similar in flint type and nature.

Three quite irregular flakes and another irregular piece retouched as a side scraper were found in pit [278].

Two small flakes, one of them slightly retouched and the other a slightly curving possible thinning flake and a fragment (probably from a tool) were found in pit [256].

Two blade-like flakes of similar flint and another small irregular flake were found in pit [185].

A scraper on an irregular broad quite thick hard hammer struck flake and a primary flake from a gravel nodule came from pit [60].

Two small squat flakes, one of them retouched, came from pit [241].

A small scraper came from pit [51]. A slightly utilised flake of almost black flint from pit [102] is from a multi platform core which may have been quite regular and single small flakes were found in each of pits [70], [96] and [41]. The flake from the former was a smooth tertiary piece while that from [96] was a hard hammer struck primary flake. A tiny flake or spall was found in pit [104].

An abraded small piece, possibly of thermal origin, was found in pit [100] and eleven flakes (one of them retouched and one utilised) came from topsoil [1].

6.2.6.5 Discussion

Almost all of the flint from the present site was recovered from pits with much of it being from one excavated feature. A total of fifty-eight flints came from fourteen pits with twenty-four of these from one pit. This main pit assemblage includes a small core and some quite freshly struck debitage with a few tools (including a broken arrowhead) which are more 'weathered' in nature. The arrowhead is of

earlier Neolithic date and the nature of the rest of the flint, which includes several blade types, is not inconsistent with this date. It represents the knapping, use and discard of flint during this period. Smaller numbers of flints from the other pits included similar flakes and retouched pieces but no core type pieces. It is noted that most of the flints are small to medium sized with very few being described as 'very small' and only one being classed as a spall.

The deposition of flint in pits during this period is known from many sites (including Hurst Fen, Clark 1960, Spong Hill, Healy 1988 and Kilverstone Beadsmoore 2006). The material from the present excavation can be compared to that from those sites. It can also been seen alongside flint recovered previously from Three Score, Bowthorpe (NHER 40711) (Bishop 2008). There a much larger assemblage was shown to comprise material from more than one period but with little, of certainty, of pre-earlier Neolithic date. Flint was found in a few pits which were of Earlier Neolithic date and others of later date as well as from other deposits. As at the recently excavated site the earlier Neolithic pit assemblages at NHER 40711 included knapping debris and some discarded 'tools'. It was noted that material deposited in these pits must represent only a proportion of the flint that would have been produced, for example relatively few flakes and very little 'micro-debitage' (Bishop 2008). As at the sites mentioned above, it was thought likely that this represented the deliberate selection of certain pieces for deposition in the features.

Other work previously carried out in the Bowthorpe area has identified two distinct types of flint; blade type debitage (some of which was thought to be soft hammer struck) and tools including an end scraper and miniature adze of earlier Neolithic date and other more irregular debitage which was found with a collection of small scrapers and associated with Beaker pottery (NHER 9304) (Bates 2002). A few pieces of earlier Neolithic date and some flint considered to be of much later (Bronze Age or Iron Age) date were also found in an assemblage from Bishy Barnaby Way (NHER 35757), (Bates 2003). There are a few pieces from the present site which could, by their nature, be of later prehistoric date but the type and similarity of most of the flint, the presence of some pieces of, or likely to be of, earlier Neolithic date, and the absence of any clearly dateable later pieces strongly suggests the present assemblage provides further evidence for the selective deposition of the material into pits during this early Neolithic period. Only summary examination of the material has been undertaken but no re-fitting pieces, either within or (as seen at 40711 and at Kilverstone) between pits have been identified.

6.2.6.6 Burnt Flint

Seven pieces of burnt or heat-affected flint was recovered from four contexts, and have since been discarded, as they can offer no further information to the site.

Burnt flint was found in topsoil [1], ditch [49] fill [50] and in two pit fills ([93] from pit [92] and [206] from pit [205]). The burnt flint was found in isolation in each of its contexts (apart from in the topsoil), and could be evidence for the heating of stones for cooking, but is not easily datable.

6.2.7 Animal Bone

by Rebecca Sillwood

Four fragments of a single cattle tooth were recovered from pit [62] fill [63], weighing a total of 14g.

This was the only bone recovered from the site. It was also the only find from this context and cannot be dated.

6.2.8 General Finds Conclusions

The finds from this excavation at Bowthorpe are from either the prehistoric or post-medieval/modern periods.

The prehistoric material covers the period from the earlier Neolithic (the flint) through to the Bronze Age (the pottery). The flint is of similar type to that recovered in this area in previous excavations. However there is no Grooved ware present in the pottery assemblage, as has been identified in earlier excavations. It was noted at the time, however, that Grooved ware is a rare occurrence in Norfolk (Percival 2010) and the lack of it within this phase of works is probably not surprising.

A surprising amount of later intrusion appears to have occurred within contexts on this site, including a piece of clay pipe stem recovered from an otherwise prehistoric-looking hearth. A small amount of post-medieval pottery, cbm and metalwork were also found, sometimes along with prehistoric material, but also on its own. It may be that some post-medieval activity took place here which has caused intrusion of some later artefacts into earlier prehistoric features on the site.

6.3 Assessment of the Environmental Material

6.3.1 Plant Macrofossils

by Val Fryer

6.3.1.1 Introduction and method statement

Samples for the retrieval of the plant macrofossil assemblages were taken from across the excavated area, and twenty one were submitted for assessment. Of these, five (which form the basis of this report) were selected for evaluation to assess the content and preservation of the assemblages. These samples came from four pits and a ditch; Samples <1>, <6>, <7> and <9> came from pits [46], [141], [184], and [145] respectively and Sample <30> was from ditch [242].

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted are listed in Appendix 5. Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern roots, seeds, chaff and thorns were also recorded within all five assemblages.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ecofacts will be retained for further specialist analysis.

6.3.1.2 Results

Although charcoal/charred wood fragments are present throughout, other plant macrofossils are exceedingly scarce. Cereal grains, including specimens of barley (*Hordeum* sp.) and wheat (*Triticum* sp.), are present within the assemblage from pit [183] (Sample <7>), but all are very poorly preserved, being severely puffed

and distorted, probably as a result of combustion at an extremely high temperature. The same assemblage also includes a possible cotyledon fragment of an indeterminate large legume (Fabaceae), but preservation is so poor that closer identification is not possible. Sample <9> from pit [144] includes a single small fragment of hazel (*Corylus avellana*) nutshell.

With the possible exception of Sample <9>, the assemblages are all heavily contaminated with intrusive materials including numerous small pieces of coal and black porous and tarry residues. The majority of the latter are probable bi-products of the burning coal, although some fragments within the assemblage from Sample <7> are possible residues of the combustion of organic remains (including cereal grains) at very high temperatures. Sample <7> also includes numerous siliceous globules and silica skeletons of cereal awn, probably indicating that combustion occurred within a well oxygenated fire (possibly a bonfire). Other remains are scarce, but do include small, abraded bone fragments, a fish bone and a splinter of burnt stone.

6.3.1.3 Conclusions and recommendations for further work

In summary, of the five samples selected for evaluation, four appear to be severely contaminated with intrusive materials. Such contamination is often recorded where night soil from the city was deposited during the post-medieval period or where steam implements were used on the land during the early modern era. Sample <7> does contain a low density of cereal grains, which appear to have been burnt within a bonfire, but although these may indeed be of prehistoric date, their contemporaneity with the context cannot be proven.

It is proposed to assess the samples taken from the bases of three of the large pits (Samples <26>, <27> and <32> from pits [256], [262] and [243] respectively) in the analysis stage in an attempt to gain environmental information from well-sealed deposits. In addition Samples <2> (?hearth [51]), <11> (pit [205]), <13> (pit [226]) and <14> (pit [233]) will be processed in an attempt to obtain sufficient carbonised material to produce AMS samples for radiocarbon dating.

6.3.2 Radiocarbon

Samples of charcoal were hand collected from three pits (Samples <34>=[47], <35>=[210] and <36>=[226]). These samples will be submitted for C14 analysis in order to date the three pits and to possibly extrapolate this dating to the site in general.

If sufficient carbonised material can be obtained from the flots from Samples <2> (?hearth [51]), <11> (pit [205]), <13> (pit [226]) and <14> (pit [233]) they will also be submitted for AMS radiocarbon dating.

6.3.3 Soil micromorphology/pollen

It is proposed that three monolith samples (<15>, <16> and <17>) collected from the base of a single pit (pit [256]) be submitted for analysis to determine both the nature of the infilling of the pit and potentially surrounding landscape use. Four soil micromorphology samples (<21> to <25>) with be extracted from the monoliths in order to analyse the chemistry and pollens within the deposits.

6.3.4 Optimally Stimulated Luminescence dating

Optimally Stimulated Luminescence (OSL) sample (<20>) from monolith <17>, along with background radiation samples <18> and <19>, have already been taken and stored in cool conditions.

It is hoped that the OSL analysis will provide a date for the deposition of the earlier deposits within pit [256].

7.0 UPDATED PROJECT DESIGN

7.1 Introduction

This Updated Project Design is based on the results of the assessment and details the general aims of the post-excavation programme and its revised research objectives. It also presents a publication proposal that suggests how and where the project's results should be published. This is followed by a breakdown of the individual tasks that need to be undertaken to bring this project to completion.

7.2 General Aims

The aims of the post-excavation programme can be summarised as follows:

- To undertake further analysis of specific data sets where required to meet the initial aims of the project and any revised research objectives that have arisen as a result of the assessment.
- To create an ordered and indexed research archive for deposition with an appropriate curatorial institution.

7.3 Revised Research Objectives

Following the assessment of the evidence recovered during this project it is possible to set out refined research objectives. These are as follows:

- To refine, where feasible, the developmental sequence of the site. To achieve this, further refining of the dating of the features will be attempted, utilising scientific dating (Radiocarbon, OSL).
- To place the overall site into a wider regional context, in particular by comparing it to Neolithic and Bronze Age sites around the area, particularly in the Yare valley.
- Relate the results from this excavation with those from the earlier nearby excavation at Bowthorpe (Green 2008).
- To disseminate the results of the project via an archive report and report suitable for inclusion in Norfolk Archaeology.

7.4 Stratigraphic Analysis

The provisional and specific phasing of the site itself presented in this report will be examined with reference to the wider context of the site.

It is proposed that the apparent wide range of dates of archaeological material in some of the features (Early Neolithic flint and Early Bronze Age pottery from the same features) could be profitably examined in the analysis stage of the project. Residuality, a degree of curation, and/or continuity of flint styles into a later period may all play a part. The 2008 excavation did have some features which initiated in the Neolithic and were more clearly re-dug in the Bronze Age (Green 2008) and there may be similar activity present on this site. Proposals for Radiocarbon dating and Optical Stimulated Luminescence (OSL) dating may help resolve the actual date of some of the comparable features and could perhaps further refine the data.

The pits may have been excavated for ritual purposes and reviewing the pits in their wider context will be vital for understanding them better.

7.5 Artefactual Analysis

Generally the assemblage of finds does not seem exceptional and overall no further work is needed.

7.5.1 Prehistoric Pottery

by Andrew Peachey

The prehistoric pottery is fully recorded and requires no further work.

7.5.2 Post medieval Pottery

by Rebecca Sillwood

The post medieval pottery is fully recorded and requires no further work.

7.5.3 Ceramic Building Material

by Rebecca Sillwood

The ceramic building material is fully recorded and requires no further work.

7.5.4 Clay Pipe

by Rebecca Sillwood

The clay pipe is fully recorded and requires no further work.

7.5.5 Metal Finds

by Rebecca Sillwood

The metal finds are fully recorded and require no further work.

7.5.6 Flint

by Sarah Bates

The flint is fully recorded and requires no further work.

7.5.7 Animal Bone

by Rebecca Sillwood

The animal bone is fully recorded and requires no further work.

7.6 Environmental Analysis

7.6.1 Plant Macrofossils

by Val Fryer

On the basis of the current assemblages, it is thought very unlikely that assessment of the remaining sixteen samples is merited, unless any are from contexts which were both well sealed and intrinsically dated. Despite the risk of intrusive material, four samples that appear to contain carbonised matter have been selected in an attempt to provide suitable and sufficient material to submit for AMS dating .

The less contaminated sample (Sample <9>) does suggest that the lower fills of the large pits have remained better sealed and uncontaminated whereas the many shallow pits and reasonably shallow ditches may have been affected by ploughing and other activities since the medieval period. Hence there is scope to examine the large storage pits and selection of suitable samples should be undertaken.

Bulk samples from features three pits ([244], [257] and [263]) will be submitted for analysis in an attempt to obtain information on the surrounding environment during the early Neolithic and Bronze Age.

7.6.2 Radiocarbon dating

by Frances M. L. Green

The high density of pits (both small and large) and ditches, including at least five exceptional pits, reminiscent of Iron Age 'storage pits', recorded in this excavation are likely to be prehistoric but with exception a few finds of Early Neolithic and Bronze Age activity the features largely remain undated. This site is part of a wider archaeological landscape already investigated in this part of the Yare valley (Green 2008). Dating these features would provide an important dimension to existing prehistoric activity on this valley side. In order to provide dating for at least a sample of these features a program of radiocarbon (C14) dating is suggested.

There are hand-collected samples of charcoal from three undated pits from the site (Samples <34>=[47], <35>=[210] and <36>=[226]) which have provided sufficiently large amounts of charcoal for a C14 AMS sample (10-20mg charcoal is required).

In addition, an attempt will be made to collect charcoal from the flots from Samples <2> (?hearth [51]), <11> (pit [205]), <13> (pit [226]) and <14> (pit [233]) however the likelihood of obtaining a suitable amount of material is slight given the results from the sub-sample of bulk samples submitted for assessment (see 7.6.1 above).

Any charcoal will require identification prior to submission for C14 dating.

7.6.3 Soil micromorphology/Pollen analysis

by Frances M.L. Green

The use and nature of the infilling of the substantial flat bottomed cylindrical pits is not known. Three monoliths (<15>, <16> and <17>) were taken from a single pit (pit [256]) which was a representative example of these types of feature at the site.

The monoliths sampled an almost continuous sequence of the pit fill and provide the basis for a detailed scientific analysis of one of these currently enigmatic features. The characteristics of the soil which infill these features will provide information potentially not only about the nature of the infilling of the features and their possible use but also about the surrounding landscape and landscape use. Such an investigation would use soil micromorphology, soil chemistry and pollen analysis.

7.6.3.1 Soil micromorphology and associated soil chemistry.

Four soil micromorphology samples from monoliths <15>, <16> and <17> (two from the lower two monoliths and one from the upper) and associated soil chemistry samples <21>-<25> would provide valuable information as to the formation and source of the sediments within the pit and possibly explain the

function of the feature. There would be a particular emphasis on soils from the very base of pit [256].

7.6.3.2 Pollen analysis

It is suggested a maximum of six pollen samples associated with the four soil micromorphology samples be analysed to determine local vegetation at a time the pit was utilised.

7.6.4 Optimally Stimulated Luminescence dating

by Frances M.L. Green

Large storage pit [256] was selected for detailed analysis and optical stimulated luminescence (OSL) techniques provide a suitable method of dating in the absence of organic remains for Radiocarbon dating.

OSL sample (<20>) from monolith <17> and the background radiation samples <18> and <19> have already been taken and stored in cool conditions. The sample will be submitted to UCL for analysis

7.7 Publication Proposal

It is proposed that an archive report be produced which will be submitted to Norfolk Historic Environment Service. It is envisaged that this work will be presented as a summary report in the relevant local or period journal.

7.8 Storage, Curation and Conservation

The intended recipient for the artefactual material is the Norfolk Museums and Archaeology Service (NMAS), subject to the agreement of the landowner. The artefacts and ecofacts will be packaged according to NMAS specifications, following the guidelines laid out the Institute for Archaeologists' Standards and Guidelines for the creation, compilation, transfer and deposition of archaeological archives (2008) and Brown (2007).

7.9 Resources and Programming

The post-excavation programme will be undertaken by a project team led by a Senior Project Officer (Peter Crawley) responsible for implementation of the Updated Project Design. Elements of the programme will be delegated to nominated staff. The work of each team member will be scheduled and co-ordinated by the Senior Project Officer. To ensure completion of the project to agreed performance targets, monitoring of the project will be carried out by a member of the NPS Archaeology senior management, who will also provide advice and support to the Senior Project Officer.

7.9.1 Staff

The project team will consist of NPS Archaeology staff and External Specialists where applicable.

Staff	Initials	Role
Jayne Bown	JB	Archaeology Manager
Peter Crawley	PC	Senior Project Officer
David Dobson	DD	Senior Illustrator

Staff	Initials	Role
Val Fryer	VF	Environmental
Frances M.L. Green	FG	Palaeoenvironmentalist
Richard Macphail	RM	Soil scientist
Nigel Page	NP	Project Manager
Andrew Peachey	SP	Finds Specialist
Rebecca Sillwood	RS	Finds Co-ordinator
Jean Luc Schwenniger	JLS	OSL specialist

7.9.2 Analysis Tasks

Task	Task Description	Duration (days)	Staff
Stratigraphic Analysis			
1	Consider morphology of the pits, the topography of the site in relation to linear features.	1.0	PC
Artefactual Analysis			
	Collate finds section for archive and article from information already submitted	1.0	RS
Environmental Analysis			
	Identify charcoal from samples to be submitted for AMS dating (minimum of three samples – exact number to be determined)	--	tbd
	Process and analyse three bulk samples from large pits and process four bulk samples for charcoal collection	--	VF
	Preparation, posting and collation of AMS and OSL samples plus identification of charcoal samples	1.0	FG
	Soil micromorphology analysis and report	--	RM
	OSL analysis and report	--	JLS
	Pollen Analysis and report	--	FG
Archive Report			
	Consider the analysis results from stratigraphic, scientific, environmental analyses and artefact evidence	1.0	PC
	Draft descriptive text and discussion	4.0	PC
	Digitise relevant sections for report	3.0	PC
	Graphics - create illustrations, figures, plates	2.5	DD
	Internal review	2.0	JB/NP
	Final review	0.5	NP
	Report production and submission	0.5	DD
	Cross-check and prepare archive	2.0	PC/RS
Article for Norfolk Archaeology			
	Recast descriptive text and discussion from archive report	2.0	PC

Task	Task Description	Duration (days)	Staff
	Graphics: recast illustrations, figures and plates from archive report and create new images where necessary	1.0	DD
	Internal review	1.0	JB/NP
	Final review	0.5	NP
	Report production and submission	0.5	DD

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Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description
1	Deposit			Topsoil
2	Deposit			Subsoil
3	Deposit			Natural
4	Cut	Pit		Pit
5	Deposit		4	Fill of pit
6	Cut	Pit		Pit
7	Deposit		6	Fill of pit
8	Deposit		6	Fill of pit
9	Cut	Ditch		Ditch
10	Deposit		9	Fill of Ditch
11	Cut	Ditch		Ditch
12	Deposit		11	Fill of Ditch
13	Cut	Pit		Pit
14	Deposit		13	Fill of pit
15	Cut	Pit		Pit
16	Deposit		15	Fill of pit
17	Cut	Feature?		Possible feature
18	Deposit		17	Fill of [17]
19	Cut	Pit		Pit
20	Deposit		19	Fill of pit
21	Cut	Pit		Pit
22	Deposit		21	Fill of pit
23	Cut	Pit		Pit
24	Deposit		24	Fill of pit
25	Cut	Pit		Pit
26	Deposit		25	Fill of pit
27	Cut	Pit		Pit
28	Deposit		27	Fill of pit
29	Cut	Pit		Pit
30	Deposit		29	Fill of pit
31	Cut	Pit		Pit
32	Deposit		30	Fill of pit
33	Cut	Pit		Pit
34	Deposit		32	Fill of pit
35	Cut	Pit		Pit
36	Deposit		34	Fill of pit
37	Cut	Pit		Pit
38	Deposit		36	Fill of pit
39	Cut	Pit		Pit

Context	Category	Cut Type	Fill Of	Description
40	Deposit		38	Fill of pit
41	Cut	Pit		Pit
42	Deposit		40	Fill of pit
43	Cut	Pit		Pit
44	Deposit		42	Fill of pit
45	Cut	Pit		Pit
46	Deposit		44	Fill of pit
47	Cut	Ditch		Ditch
48	Deposit		47	Fill of [47]
49	Cut	Ditch		Ditch
50	Deposit		49	Fill of [49]
51	Cut	Hearth?		Burnt Spread/Hearth
52	Deposit		51	Fill of [51]
53	Cut	Pit		Pit
54	Deposit		53	Fill of pit
55	Deposit		53	Fill of pit
56	Cut	Pit		Pit
57	Deposit		56	Fill of pit
58	Cut	Pit/Gully		Crescent shaped Pit/gully
59	Deposit		58	Fill of [58]
60	Cut	Pit		Pit
61	Deposit		60	Fill of pit
62	Cut	Pit		Pit
63	Deposit		62	Fill of pit
64	Cut	Pit		Pit
65	Deposit		64	Fill of pit
66	Cut	Pit		Pit
67	Deposit		66	Fill of pit
68	Cut	Pit		Pit
69	Deposit		68	Fill of pit
70	Cut	Pit		Pit
71	Deposit		70	Fill of pit
72	Cut	Pit		Pit
73	Deposit		72	Fill of pit
74	Cut	Pit		Pit
75	Deposit		74	Fill of pit
76	Cut	Pit		Pit
77	Deposit		76	Fill of pit
78	Cut	Pit		Pit
79	Deposit		78	Fill of pit
80	Cut	Pit		Pit
81	Deposit		80	Fill of pit

Context	Category	Cut Type	Fill Of	Description
82	Cut	Pit		Pit
83	Deposit		82	Fill of pit
84	Cut	Pit		Pit
85	Deposit		84	Fill of pit
86	Cut	Pit		Pit
87	Deposit		86	Fill of pit
88	Cut	Pit		Pit
89	Deposit		88	Fill of pit
90	Cut	Pit		Pit
91	Deposit		90	Fill of pit
92	Cut	Pit		Pit
93	Deposit		92	Fill of pit
94	Cut	Pit		Pit
95	Deposit		94	Fill of pit
96	Cut	Gully		Southern section of irregular gully
97	Deposit		96	Fill of [96]
98	Cut	Gully		Middle section of irregular gully
99	Deposit		98	Fill of [98]
100	Cut	Ditch		Ditch
101	Deposit		100	Fill of [100]
102	Cut	Pit		Pit
103	Deposit		102	Fill of pit
104	Cut	Pit		Pit
105	Deposit		104	Fill of pit
106	Cut	Pit		Pit
107	Deposit		106	Fill of pit
108	Cut	Pit		Pit
109	Deposit		108	Fill of pit
110	Cut	Pit		Pit
111	Deposit		110	Fill of pit
112	Cut	Pit		Pit
113	Deposit		112	Fill of pit
114	Cut	Pit		Pit
115	Deposit		114	Fill of pit
116	Cut	Pit		Hollow/Pit
117	Deposit		116	Fill of pit
118	Cut	Pit?		Possible feature
119	Deposit		118	Fill of [118]
120	Cut	Pit		Pit
121	Deposit		120	Fill of pit
122	Cut	Pit		Pit
123	Deposit		122	Fill of pit

Context	Category	Cut Type	Fill Of	Description
124	Cut	Gully		1st section of north gully
125	Deposit		124	Fill of [124]
126	Cut	Gully		2nd section of north gully
127	Deposit		126	Fill of [126]
128	Cut	Pit		Pit
129	Deposit		128	Fill of pit
130	Cut	Pit		Pit
131	Deposit		130	Fill of pit
132	Cut	Pit		Pit
133	Deposit		132	Fill of pit
134	Cut	Pit		Pit
135	Deposit		134	Fill of pit
136	Cut	Pit		Pit
137	Deposit		136	Fill of pit
138	Cut	Pit		Pit
139	Deposit		138	Fill of pit
140	Cut	Pit		Pit
141	Deposit		140	Fill of pit
142	Cut	Pit		Pit
143	Deposit		142	Fill of pit
144	Cut	Pit		Pit
145	Deposit		144	Fill of pit
146	Deposit		144	Fill of pit
147	Deposit		144	Fill of pit
148	Cut	Pit		Pit
149	Deposit		148	Fill of pit
150	Cut	Pit		Pit
151	Deposit		150	Fill of pit
152	Cut	Pit		Pit
153	Deposit		152	Fill of pit
154	Cut	Pit		Pit
155	Deposit		154	Fill of pit
156	Cut	Pit		Pit
157	Deposit		156	Fill of pit
158	Cut	Pit		Pit
159	Deposit		158	Fill of pit
160	Cut	Pit		Pit
161	Deposit		160	Fill of pit
162	Cut	Pit		Pit
163	Deposit		162	Fill of pit
164	Cut	Pit		Pit
165	Deposit		164	Fill of pit

Context	Category	Cut Type	Fill Of	Description
166	Cut	Pit		Pit
167	Deposit		166	Fill of pit
168	Cut	Pit		Pit
169	Deposit		168	Fill of pit
170	Cut	Pit		Pit
171	Deposit		170	Fill of pit
172	Cut	Pit		Pit
173	Deposit		172	Fill of pit
174	Cut	Pit		Pit
175	Deposit		174	Fill of pit
176	Cut	Pit		Pit
177	Deposit		176	Fill of pit
178	Cut	Pit		Pit
179	Deposit		178	Fill of pit
180	Cut	Pit		Pit
181	Deposit		180	Fill of pit
182	Deposit		180	Fill of pit
183	Cut	Pit		Pit
184	Deposit		183	Fill of pit
185	Cut	Pit		Pit
186	Deposit		185	Fill of pit
187	Cut	Pit		Pit
188	Deposit		187	Fill of pit
189	Cut	Pit		Pit
190	Deposit		189	Fill of pit
191	Cut	Pit		Pit
192	Deposit		191	Fill of pit
193	Cut	Pit		Pit
194	Deposit		193	Fill of pit
195	Cut	Pit		Pit
196	Deposit		195	Fill of pit
197	Cut	Pit		Pit
198	Deposit		197	Fill of pit
199	Cut	Pit		Pit
200	Deposit		199	Fill of pit
201	Cut	Pit		Pit
202	Deposit		201	Fill of pit
203	Cut	Pit		Pit
204	Deposit		203	Fill of pit
205	Cut	Pit		Pit
206	Deposit		205	Fill of pit
207	Cut	Pit		Pit

Context	Category	Cut Type	Fill Of	Description
208	Deposit		207	Fill of pit
209	Cut	Pit		Pit
210	Deposit		209	Fill of pit
211	Cut	Pit		Pit
212	Deposit		211	Fill of pit
213	Cut	Pit		Pit
214	Deposit		213	Fill of pit
215	Cut	Pit		Pit
216	Deposit		215	Fill of pit
217	Cut	Pit		Pit
218	Deposit		217	Fill of pit
219	Cut	Pit		Pit
220	Deposit		219	Fill of pit
221	Cut	Pit		Pit
222	Deposit		221	Fill of pit
223	Deposit		221	Fill of pit
224	Cut	Pit		Pit
225	Deposit		224	Fill of pit
226	Cut	Pit		Pit
227	Deposit		226	Fill of pit
228	Deposit		226	Fill of pit
229	Cut	Pit		Pit
230	Deposit		229	Fill of pit
231	Cut	Pit		Pit
232	Deposit		231	Fill of pit
233	Cut	Pit		Pit
234	Deposit		233	Fill of pit
235	Cut	Pit		Pit
236	Deposit		235	Fill of pit
237	Cut	Pit		Pit
238	Deposit		237	Fill of pit
239	Cut	Pit		Pit
240	Deposit		239	Fill of pit
241	Cut	Ditch		Ditch
242	Deposit		241	Fill of [241]
243	Cut	Pit		Pit
244	Deposit		243	Fill of pit
245	Cut	Ditch		Ditch
246	Deposit		245	Fill of [245]
247	Deposit		239	Fill of [239]
248	Cut	Pit		Pit
249	Deposit		248	Fill of pit

Context	Category	Cut Type	Fill Of	Description
250	Cut	Pit		Pit
251	Deposit		250	Fill of pit
252	Cut	Pit		Pit
253	Deposit		252	Fill of pit
254	Cut	Pit		Pit
255	Deposit		254	Fill of pit
256	Cut	Pit		Pit
257	Deposit		256	Fill of pit
258	Deposit		256	Fill of pit
259	Deposit		256	Fill of pit
260	Cut	Pit		Pit
261	Deposit		260	Fill of pit
262	Cut	Pit		Pit
263	Deposit		262	Fill of pit
264	Deposit		262	Fill of pit
265	Cut	Pit		Pit
266	Deposit		265	Fill of pit
267	Cut	Pit		Pit
268	Deposit		267	Fill of pit
269	Cut	Pit		Pit
270	Deposit		269	Fill of pit
271	Cut	Ditch		Ditch
272	Deposit		271	Fill of Ditch
273	Cut	Pit		Pit
274	Deposit		273	Fill of pit
275	Deposit		273	Fill of pit
276	Cut	Pit		Pit
277	Deposit		276	Fill of pit
278	Cut	Pit		Pit
279	Deposit		278	Fill of pit
280	Cut	Pit		Pit
281	Deposit		280	Fill of pit
282	Cut	Pit		Pit
283	Deposit		282	Fill of pit
284	Cut	Pit		Pit
285	Deposit		284	Fill of pit
286	Cut	Pit		Pit
287	Deposit		286	Fill of pit
288	Cut	Ditch		Ditch
289	Deposit		288	Fill of ditch [288]
290	Cut	Pit		Pit
291	Deposit		290	Fill of pit

Context	Category	Cut Type	Fill Of	Description
292	Cut	Pit		Pit
293	Deposit		292	Fill of pit
294	Cut	Pit		Pit
295	Deposit		294	Fill of pit
296	Cut	Pit		Pit
297	Deposit		296	Fill of pit
298	Cut	Ditch		Ditch Cut
299	Deposit		298	Fill of [298]
300	Cut	Ditch		Ditch
301	Deposit		300	Fill of [300]
302	Deposit		300	Fill of [300]
303	Deposit			natural soil found at southern end of site

Appendix 1b: OASIS Feature Summary

Period	Material	Total
Neolithic to Bronze Age	Pits	12
	Ditches	2
Undated	Pits	107
	Ditch	1
	Gully (interrupted)	1
Post-medieval	Pits	

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
1	Ceramic Building Material	5	41g	Post-medieval	Roof tile and brick fragments
1	Copper-Alloy	1	3g	Post-medieval	Coin/Token
1	Copper-Alloy	3	3g	Modern	Buttons
1	Copper-Alloy	1	5g	Post-medieval	Button
1	Copper-Alloy	1	2g	Modern	Coin; halfpenny; 1971
1	Flint – Burnt	1	95g	Unknown	DISCARDED
1	Flint – Struck	11	186g	Prehistoric	
1	Iron	2	4g	Modern	Nails; DISCARDED
10	Pottery	7	31g	Middle Bronze Age	
48	Ceramic Building Material	1	33g	Post-medieval	Roof tile fragment
50	Flint – Burnt	2	111g	Unknown	DISCARDED
52	Clay Pipe	1	2g	Post-medieval	Stem only
52	Flint – Struck	1	14g	Prehistoric	
61	Flint – Struck	2	109g	Prehistoric	
63	Animal Bone	4	14g	Unknown	
71	Flint – Struck	1	9g	Prehistoric	
71	Pottery	2	6g	Post-medieval	GRE; conjoining rim sherd; 16th-18th century
93	Flint – Burnt	1	37g	Unknown	DISCARDED
97	Flint – Struck	1	19g	Prehistoric	
101	Ceramic Building Material	1	8g	Post-medieval	Roof tile fragment
101	Flint – Struck	1	1g	Prehistoric	
103	Flint – Struck	1	32g	Prehistoric	
103	Pottery	14	127g	Early Bronze Age	
105	Flint – Struck	1	1g	Prehistoric	
105	Pottery	1	6g	Early Bronze Age	
107	Flint – Struck	4	39g	Prehistoric	
107	Pottery	3	2g	Bronze Age	
141	Flint – Struck	1	32g	Prehistoric	
146	Flint – Struck	5	202g	Prehistoric	
146	Pottery	3	2g	Bronze Age	
147	Flint – Struck	19	178g	Prehistoric	inc. part of arrowhead
147	Pottery	2	4g	Early Bronze Age	

Context	Material	Qty	Wt	Period	Notes
147	Pottery	1	44g	Post-medieval	Stoneware bottle; stamped with a bee and the words TRADE and NORWI[CH]
153	Pottery	2	5g	Early Bronze Age	
186	Flint – Struck	3	14g	Prehistoric	
206	Flint – Burnt	3	74g	Unknown	DISCARDED
242	Flint – Struck	2	17g	Prehistoric	
244	Flint – Struck	6	27g	Prehistoric	
244	Pottery	1	19g	Bronze Age	
259	Flint – Struck	4	33g	Prehistoric	
275	Flint – Struck	5	93g	Prehistoric	
275	Pottery	1	5g	Bronze Age	
279	Flint – Struck	4	65g	Prehistoric	
293	Pottery	2	13g	Bronze Age	

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Prehistoric	Flint – Struck	72
Bronze Age	Pottery	10
Early Bronze Age	Pottery	19
Middle Bronze Age	Pottery	7
Post-medieval	Ceramic Building Material	7
Post-medieval	Clay Pipe	1
Post-medieval	Copper-Alloy	2
Post-medieval	Pottery	3
Modern	Copper-Alloy	4
Modern	Iron	2
Unknown	Animal Bone	4
Unknown	Flint – Burnt	7

Appendix 3: Prehistoric Pottery Catalogue

Context	Description	Spot Date	Total Pottery		F1		G1	
			No.	Wt.	No.	Wt.	No.	Wt.
10	Fill of Ditch	MBA	7	31g	7	31		
103	Fill of pit	EBA	14	127g			14	127
105	Fill of pit	EBA	1	6g			1	6
107	Fill of pit	BA	3	2g	3	2		
146	Fill of pit	BA	3	2g	3	2		
147	Fill of pit	EBA (with PMED)	2	4g			2	4
153	Fill of pit	EBA	2	5g			2	5
244	Fill of pit	BA	1	19g	1	19		
275	Fill of pit	BA	1	5g	1	5		
293	Fill of pit	BA	2	13g	2	13		
			36	**214g**	**17**	**72**	**19**	**142**

Appendix 4: Flint Catalogue

Ctxt	Cat	Type	No	Comp	C	Prim	P	Sharp	E.dam	Hinge	CP	PP	Bt	Date	Comment
1	flak	flake	9	7	5	0	0		slight	0	0	0	0		various qu irreg fls, 1 long. Most sm. 1 v thick
1	retf	retouched flake	1	1	0	0	0			0	0	0	0		medium sized squat fl, thin and slightly curving, ret short part dist, forms v shallow' short convex length and a sm notch
1	unsk	non-struck fragment	0	0	1	0	0			0	0	0	0		irreg battered frag, discarded
1	utfl	utilised flake	1	1	0	0	0			0	0	0	0		sm fl with v slight poss ret/notch, consid ctxt, cld be damage
52	scpf	scraper	1	1	1	0	0			0	0	0	0	ln/ba	qu sm roughly subcirc, dist part ret around edge, qu neat
61	flak	flake	1	1	1	1	0		slight	0	0	0	0		fairly large prim fl from gravel nodule, or/cream cort
61	scpf	scraper	1	1	1	0	0			0	0	0	0		irreg, on squat thickish hh fl with thick slightly convex ret scr edge, some 'ret' on another edge left of plat, is frm other face and may be from a former plat
71	flak	flake	1	0	0	0	1	quite		0	0	0	0		sm squat slightly pat
97	flak	flake	1	1	1	0	0		slight	0	0	0	0		sm thick prim fl, gravel
101	flak	blade-like flake	1	0	0	0	1		yes	0	0	0	0		sm abraded/pat - may be thermal frag
103	utfl	utilised flake	1	1	0	0	0	quite		0	0	0	0		qu thick longish fl from reg multi plat core - qu large core, poss slight ut edge
105	flak	spall	1	0	0	0	0			0	0	0	0		
107	blad	blade	1	1	0	0	0	quite		0	0	0	0		sm slightly curving and tapers to each end
107	flak	chip	1	0	0	0	0			0	0	0	0		v sm frag
107	scpf	scraper	1	1	1	0	0			0	0	0	0		sm subcirc squat, ret dist
107	utfl	utilised flake	1	1	1	0	0	quite		0	0	0	0		regular fl with bl type scars, similar? To 'bl' from same ctxt, ut edge

Ctxt	Cat	Type	No	Comp	C	Prim	P	Sharp	E.dam	Hinge	CP	PP	Bt	Date	Comment
141	flak	flake	1	1	1	0	0			0	0	0	0		hh fl with cort from grav nodule but qu reg with bl type scars
146	core	core/tool	1	1	1	0	0			0	0	0	0		sm squat piece, slight 'patina'? with flakes from both faces, rel thin for a core, some 'ret'/ damage on one edge might show use as scr type tool
146	corf	utilised blade	1	1	1	0	1	quite		0	0	1	0		qu large thick fl from side of bl type core, regular dorsal scars and abr plat edge, its steep 'scr-like' distal end has very slight ut edge
146	flak	flake	1	1	1	0	0	quite		0	0	0	0		qu jagged fl but form ?reg core
146	retf	retouched flake	1	1	0	0	1			0	0	0	0		qu thick, has slight ret of an edge, also shows evid for former plat along other side
146	utfl	utilised flake	1	1	1	0	0			0	0	0	0		qu sm thick pointed fl with prob ut edge
147	arhd	leaf-shaped	1	0	0	0	0			0	0	0	0	eneo	part of v thin prob kite-shaped arhd, bifacially flaked, size unknown, incomplete
147	flak	blade-like flake	5	4	4	0	1	quite		0	0	5	0		abr plat edges, and one facetted plat, 1 partic neat fairly large thin piece
147	flak	chip	1	0	0	0	0			0	0	0	0		
147	flak	flake	10	7	7	0	1	quite		0	3	0	0		mostly qu thin, 1 slightly curving tert sm fl, several cort plats
147	retf	retouched flake	2	2	1	1	0			1	0	0	0		1 prim fl - v thin 'cort' and ret around much of edges, 1 irreg fl with slight ret edge
186	flak	blade-like flake	2	1	1	0	2	quite		0	0	0	0		both sm fls with bl type scars, slight pat
186	flak	flake	1	1	1	0	0	quite		0	0	0	0		sm irreg/squat
242	flak	flake	1	1	1	0	0	yes		0	0	0	0		sm squat - slight greyish pat
242	retf	retouched flake	1	1	0	0	1			0	0	0	0		sm squat fl with thick plat which, unusually, has v slight ret along its ventral edge
244	blad	blade	1	0	0	0	0		slight	0	0	1	0		sm prox frag of bl, abr plat
244	flak	flake	3	3	1	0	1		slight	0	0	0	0		all v sm irreg

Ctxt	Cat	Type	No	Comp	C	Prim	P	Sharp	E.dam	Hinge	CP	PP	Bt	Date	Comment
244	scpf	scraper	1	1	0	0	0			0	0	0	0		neat sm ovate scr
244	utfl	utilised flake	1	1	1	0	0			0	0	0	0		sm pointed cort fl with slight ut edge
259	flak	flake	1	1	0	0	1	quite		0	0	0	0		sm squat slightly curving flake, slight pat, cld this be a trimming fl - ?platform, but has multi direct scars
259	retf	retouched flake	1	1	1	0	0			0	0	0	0		sm squat fl, slight ret dist
259	retf	retouched flake	1	1	1	0	0			0	0	0	0		irreg sm sq fl, slight ret dist
259	retf	retouched fragment	1	0	1	0	0			0	0	0	0		prob frag from ret/flaked tool, has been struck by hh and also poss broken by being struck hard, - uncertain….
275	flak	flake	3	3	2	0	0	yes		0	0	0	0		al sm, 1 poss from trimming edge of core palt - has sm jagged 'overhangs'
275	scpf	scraper	1	1	0	0	1			0	1	0	0		slight irreg ovate fl, qu thick, neat ret thicker dist part
275	utfl	knife	1	1	1	0	1			0	1	0	0		irreg thn medium sized fls, broad dist edge chipped- thru use
279	flak	blade-like flake	1	1	1	0	0		slight	0	0	0	0		sm
279	flak	flake	2	2	1	0	0		some	0	1	0	0		both broadish/squat from mpcs,
279	scpf	side scraper	1	1	0	0	1			0	0	0	0		qu sm, both sides ret, left thicker

Key:

C=Cortex; P=Patinated; CP=Cortical Platform; PP=Prepared Platform; B=burnt

Appendix 5: Plant Macrofossils

Sample No.	**1**	**6**	**7**	**9**	**30**
Context No.	**46**	**141**	**184**	**145**	**242**
Feature No.	**44**	**140**	**183**	**144**	**241**
Feature type	**Pit**	**Pit**	**Pit**	**Pit**	**Ditch**
Cereals and other potential food plants					
Hordeum sp. (grains)			x		
Triticum sp. (grains)			xcf		
Cereals indet. (grains)			x		
(silica skeletons -awn)			xx		
Large Fabaceae indet.			xcfcoty		
Tree/shrub macrofossils					
Corylus avellana L.				x	
Other plant macrofossils					
Charcoal <2mm	xx	x	xxx	xx	xxxx
Charcoal >2mm	x		x	xx	xxx
Charcoal >5mm	x		x	x	x
Charred root/stem	x	x			x
Indet.culm node			x		
Indet. seed			x		
Other remains					
Black porous 'cokey' material	xxx	xxx	xxxx	x	xx
Black tarry material	xxx	xxx	xxx		x
Bone	x	x	x		
Burnt stone					x
Fish bone			x		
Siliceous globules			xxx		
Small coal frags.	xxxx	xxx	xx	x	x
Sample volume (litres)	**20**	**20**	**20**	**20**	**20**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**	**100%**	**100%**

Key to Table

x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens
cf = compare coty = cotyledon

Appendix 6: List of Samples

Sample No	Context	Feature	Status	Sample Type
1	46	[45]	Assessed	Bulk Sample
2	52	[51]	Analysis stage	Bulk Sample
3	30	[29]	Not submitted	Bulk Sample
4	101	[100]	Not submitted	Bulk Sample
5	103	[102]	Not submitted	Bulk Sample
6	141	[140]	Assessed	Bulk Sample
7	184	[183]	Assessed	Bulk Sample
8	107	[106]	Not submitted	Bulk Sample
9	145	[144]	Assessed	Bulk Sample
10	153	[152]	Not submitted	Bulk Sample
11	206	[205]	Analysis stage	Bulk Sample
12	208	[207]	Not submitted	Bulk Sample
13	227	[226]	Analysis stage	Bulk Sample
14	234	[233]	Analysis stage	Bulk Sample
15		[256]	Analysis stage	Monolith
16		[256]	Analysis stage	Monolith
17		[256]	Analysis stage	Monolith
18		[256]	Analysis stage	OSL
19		[256]	Analysis stage	OSL
20		[256]	Analysis stage	OSL
21		[256]	Analysis stage	Soil chemistry and pollen
22		[256]	Analysis stage	Soil chemistry and pollen
23		[256]	Analysis stage	Soil chemistry and pollen
24		[256]	Analysis stage	Soil chemistry and pollen
25		[256]	Analysis stage	Soil chemistry and pollen
26	257	[256]	Analysis stage	Bulk Sample
27	263	[262]	Analysis stage	Bulk Sample
28	206	[205]	Not submitted	Bulk Sample
29	208	[207]	Not submitted	Bulk Sample
30	242	[241]	Assessed	Bulk Sample
31	293	[292]	Not submitted	Bulk Sample
32	244	[243]	Analysis stage	Bulk Sample
33	303	--	Not submitted	Half Bag Bulk Sample
34	48	[47]	Analysis stage	Small bag of charcoal
35	209	[210]	Analysis stage	Small bag of charcoal
36	227	[226]	Analysis stage	Small bag of charcoal

Appendix 7: OASIS Report Summary

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: norfolka1-170782

Project details

Project name	Norse Care Home, Three Score, Bowthorpe - excavation
Short description of the project	During the late autumn and winter of 2013 NPS Archaeology were asked to undertake a Strip Map and Sample Excavation on behalf of Norse Care for Norwich City Council, prior to the creation of a new dementia care unit on open land at Three Score, Bowthorpe. Norfolk. The work unearthed many archaeological features, relatively evenly distributed across the footprint of the new development. The limited number of features that could be dated were of Neolithic to Bronze Age date. It is likely that the majority of the undated features on the site were also of this period, as they were generally sealed beneath an early subsoil. Two of the ditches present on the site also dated to this general early period. The site adds usefully to the corpus of known prehistoric sites situated within the Yare valley.
Project dates	Start: 14-10-2013 End: 13-12-2013
Previous/future work	No / Yes
Any associated project reference codes	ENF132537 - HER event no.
Type of project	Recording project
Site status	None
Current Land use	Vacant Land 2 - Vacant land not previously developed
Monument type	PIT Late Prehistoric
Monument type	DITCH Late Prehistoric
Monument type	PIT Uncertain
Monument type	DITCH Uncertain
Monument type	GULLY Uncertain
Monument type	PIT Post Medieval
Significant Finds	STRUCK FLINT Late Prehistoric
Significant Finds	POT Early Bronze Age
Significant Finds	POT Bronze Age
Significant Finds	POT Middle Bronze Age
Significant Finds	TILE Post Medieval
Significant Finds	BRICK Post Medieval

Significant Finds	BURNT FLINT Uncertain
Investigation type	"Open-area excavation"
Prompt	National Planning Policy Framework - NPPF

Project location

Country	England
Site location	NORFOLK NORWICH NORWICH Norse Care Home, Three Score, Bowthorpe
Study area	0.50 Hectares
Site coordinates	TG 1858 0923 52.636232592 1.23071508525 52 38 10 N 001 13 50 E Point

Project creators

Name of Organisation	NPS Archaeology
Project brief originator	NPS Archaeology
Project design originator	NPS Archaeology
Project director/manager	Nigel Page
Project supervisor	Peter Crawley
Type of sponsor/funding body	Local Authority
Name of sponsor/funding body	Norse care for Norfolk County Council

Project archives

Physical Archive recipient	Norfolk Museums and Archaeology Service
Physical Contents	"Animal Bones","Ceramics","Environmental","Worked stone/lithics"
Physical Archive notes	NMAS are not accepting new archives at thetime of compiling this summary
Digital Archive recipient	NPS Archaeology
Digital Contents	"Animal Bones","Ceramics","Environmental","Stratigraphic","Survey","Worked stone/lithics","other"
Digital Media available	"Images raster / digital photography","Images vector","Spreadsheets","Survey","Text"
Paper Archive recipient	Norfolk Museums and Archaeology Service
Paper Contents	"Animal Bones","Ceramics","Environmental","Stratigraphic","Survey","Worked stone/lithics","other"
Paper Media available	"Context sheet","Plan","Report","Section","Survey "
Paper Archive notes	NMAS are not accepting newarchives at thetime of compiling this summary

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Excavation of Parcels 4 and 5, Three Score, Bowthorpe, Norfolk; Assessment Report and Updated Project Design
Author(s)/Editor (s)	Crawley, P.
Other bibliographic details	Report 2014/1083/AUPD
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OASIS: