Phase III, Glebe Quarry, Wilsford Heath, Ancaster, North Kesteven, Lincolnshire

Archaeological Excavation Report

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Report prepared for

Glebe Stone Sales Ltd.

by

A. Lane

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PCAS Archaeology Ltd
47, Manor Road
Saxilby
Lincoln
LN1 2HX
Tel. 01522 703800

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Summary

PCAS Archaeology Ltd. (formerly Pre-Construct Archaeological Services Ltd.) were commissioned by Glebe Stone Sales Ltd. to undertake a scheme of archaeological excavation and recording associated with Phase III of Glebe Quarry, near Ancaster, Lincolnshire.

Glebe Quarry lies c.2.5km south of Ancaster, an important Roman town on Ermine Street, and a branch off of Ermine Street close to the quarry leads to the large Roman villa near Haceby.

The archaeological works during Phase III identified a single stratigraphically modern pit containing the disarticulated remains of a horse. No further features were identified.

Fig. 1: Site location map. Development site highlighted in red. Scale 1:25 000

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1.0 Introduction

PCAS Archaeology Ltd. (formerly Pre-Construct Archaeological Services Ltd) was commissioned by Glebe Stone Sales Ltd to undertake a scheme of archaeological excavation associated with the top- and sub-soil strip of Phase III of Glebe Quarry, near Ancaster, Lincolnshire.

Roman and medieval remains have been found in the vicinity of the quarry, with previous excavation at the quarry itself yielding mixed results. The results of this excavation were largely negative, with just one pit revealed within the excavation area.

2.0 Site location and description (Figs. 1 & 2)

Glebe Quarry is located within the parish of Wilsford in the North Kesteven District of Lincolnshire, 3km to the south of Ancaster and 9km southwest of Sleaford. The quarry lies on the east side of the B6403, east of Kingstreet and south of Heath Lane.
Access to the site is from either of these roads, but for this phase of the works is likely to be from Heath Lane via a track west of Glebe Farm.

The site comprises approximately 2 acres of land on the west side of the existing quarry. Prior to the start of works in Phase III the site was rough ground, occupied by scrubby trees and bushes. Land to the west and north is currently in use as arable farmland, although there are plans to extend the quarry still further in future.

The site's central National Grid Reference is SK 98874 41078.

3.0 Geology and topography

The British Geological Survey records no drift geology on the site: the solid Lincolnshire Limestone (undivided) is exposed in this area (BGS, 1972). Localised patches of glacial till were observed area during the 2009 watching brief on the eastern side of Phase II (Savage 2010).

The site occupies high ground (approximately 90m AOD) overlooking the Ancaster Gap to the north. Benchmarks recorded in the surrounding area include a cut mark in the building on Heath Road opposite the junction with the quarry access road, which is recorded at a height of 91.885m OD.

4.0 Planning Background

This phase of the extraction works is the latest at Glebe Quarry. Permission was granted in June 2011 by Lincolnshire County Council as acting Minerals Planning Authority (MPA), application ref: N74/0182/11.

A Written Scheme of Investigation (WSI) for monitoring the top and sub-soil strip in Phase III was written by PCAS and approved by the Archaeological Planning Advisor to Lincolnshire County Council. All works were undertaken according to this WSI; this document presents the results of the archaeological work.

5.0 Archaeological and historical background

An archaeological desk-based assessment for the site was completed in 2008 (Rowe, 2008), however there has been limited archaeological investigations in the intervening years.

Evidence suggests the Ancaster Gap was an attractive site for prehistoric settlement; this former river valley formed part of the prehistoric trackway the Jurassic Way, and there are a number of Bronze and Iron Age sites known in the vicinity. Around the quarry site itself there are several identified prehistoric monuments. The earliest evidence of activity is the discovery of a Neolithic flint blade during a watching brief during water main works close to the King Street/Heath Lane junction (LHER ref: 65478). A Neolithic/Bronze Age pit alignment was revealed during a similar scheme near Wilsford Reservoir c. 90m north of the site (LHER ref: 65351; LAS, 2008).

A series of cropmark features have been identified on aerial mapping, features indicating enclosures, field systems and trackways (LHER refs: 62739; 63945) lie in the arable farmland to the west of the site, largely on the west side of King Street, and the cropmark circular feature measuring c.50m in diameter with a central discrete pit lying less than 400m to the southwest of the site is interpreted as a possible Bronze Age round barrow (LHER ref: 65131). The dating and character of these feature has yet to be confirmed, however it suggests the presence of a prehistoric community in both the Bronze and Iron Ages.

The Jurassic Way and the Ancaster Gap were later incorporated into the Roman Ermine Street, which extended from London to Lincoln and north towards the River Humber crossing towards Yorkshire. South of Lincoln, much of Ermine Street is now incorporated into the minor road High Dyke, the B6403, appearing as a soil mark before it joins the A1 at Colsterworth. Kings Street also follows a former Roman road branching off Ermine Street towards the villa site at Haceby. The Roman road has been identified as a hollow way north of Quarry Farm, where investigations have revealed limestone fragments have been used to resurface the road (LHER ref: 33974). Given the proximity to a major Roman road, it is likely there is significant Roman occupation in the vicinity.

Ancaster itself was a large Roman fort and town, with earthworks, artefacts and mosaics being found around the southern edge of the town. Excavations to the north of the quarry have revealed Romano-British field boundaries and the limestone foundations of a small rectangular building, interpreted as possibly agricultural in purpose (LAS 2008). Scatters of mid-late Roman pottery and fragments of burnt limestone have been found in a concentrated area at the former Wilsford Quarry, less than 200m northeast of the centre of Phase III of the current quarry, again interpreted as probably agricultural in origin and associated with a larger, settlement (LHER ref: 61720), possibly Ancaster itself. Although there is currently no known evidence for it, it is likely limestone for building was being quarried in the area in the Roman period.

Following the collapse of Roman Britain settlement pattern changed and many of the outlying farms were abandoned in favour of the security of the larger towns. Ancaster was one such town, however despite Saxon artefacts being found albeit in small numbers during archaeological investigations in the town, and the presence of a large Saxon cremation cemetery on the southern edge of the town adjacent to High Dyke, there is no known structural evidence of the Saxon settlement here (LHER ref: 30334; 30335). It is possible that Roman structures and traditions continued to be used in the town well beyond the withdrawal of the Roman Empire.

The quarry lies in a landscape scattered with settlements recorded in the Domesday Book, including Kelby, Wilsford and Ancaster, and place name evidence suggests many of the other villages in the area are Saxon or Norse in origin. Despite this, there are no known Saxon sites in the vicinity of the quarry. Occupation continued in many of these villages throughout the medieval period, the economy being mainly agricultural as evidenced by the ridge and furrow earthworks surrounding the medieval settlements. Ancaster limestone and the local stone masons were in demand in this period due to the quality of the limestone being quarried from the area. As the demand for carved effigies fell, demand for building stone grew, and the Ancaster quarries continued to trade. Operations at the medieval quarries continued into the postmedieval period; Wilsford Quarry immediately north of Glebe Quarry, was in use since at least the late 17th century. Glebe Quarry itself was opened in the late 19th century, with the main quarry lying to the southeast of the current quarry.

Ahead of previous phases of work at Glebe Quarry archaeological works have included the monitoring of topsoil stripping from Phase II and a walkover of an area stripped prior to the archaeological monitoring to assess for archaeological potential. No archaeological remains were encountered in these areas and no further monitoring works were considered necessary.

6.0 Methodology

The adopted methodology followed the scheme set out within the approved WSI (PCAS, 2015). Phase III of the quarry was marked out and the top and subsoil removed under archaeological supervision using a tracked JCB excavator. Ground conditions at the start of the strip (dense rooting) required the use of a toothed bucket for the initial topsoil excavation, which was replaced by a smooth ditching bucket for the removal of the subsoil. Spoil was stored on site and later removed.

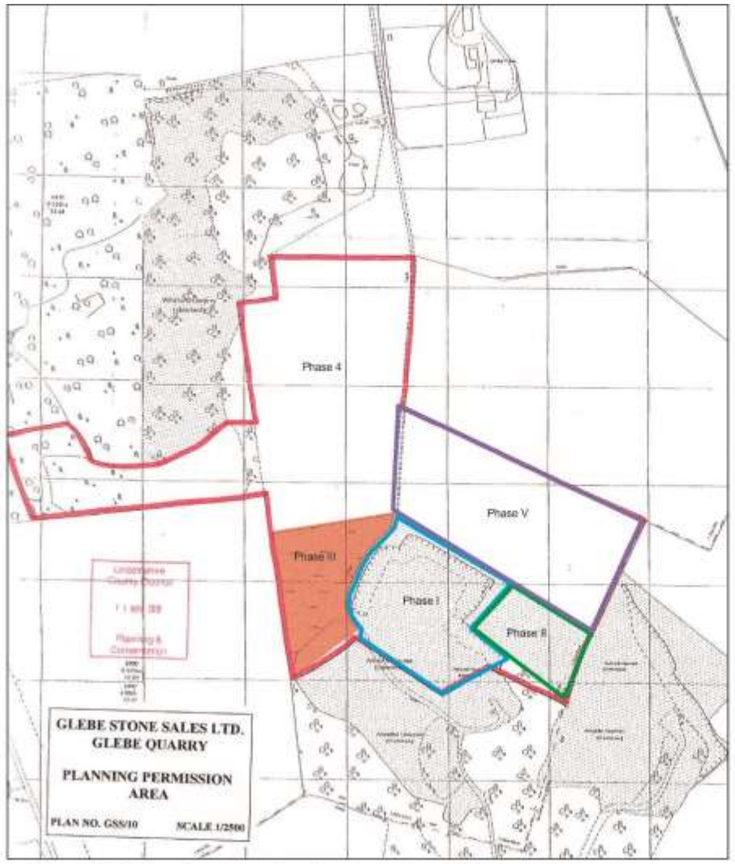
The exposed surfaces of the subsoil and natural geology at each stage of the excavation were examined for archaeological features. All identified features and deposits were investigated and recorded. Context sheets were completed for each feature/deposit, and the site was planned at a scale of 1:500, with detailed plans of excavate features at scale 1:20. A representative section was drawn at scale 1:20. Colour slide and digital photographs were taken to complement these accounts.

Fieldwork was undertaken in two stages; initial works were completed between 3rd – 7th August 2015 by B. Wheeliker and J. Coles, a small bund area along the norther edge of the site was removed and excavated at a later stage on the 13th – 14th December 2017 under the archaeological supervision of R. Dickenson.

Following completion of field work all artefacts and records were returned to PCAS offices for processing. Animal bone was submitted to J. Curl for identification, and a small amount of CBM recovered from the subsoil was catalogued by Z. Tomlinson. No horizons suitable for environmental sampling were exposed.

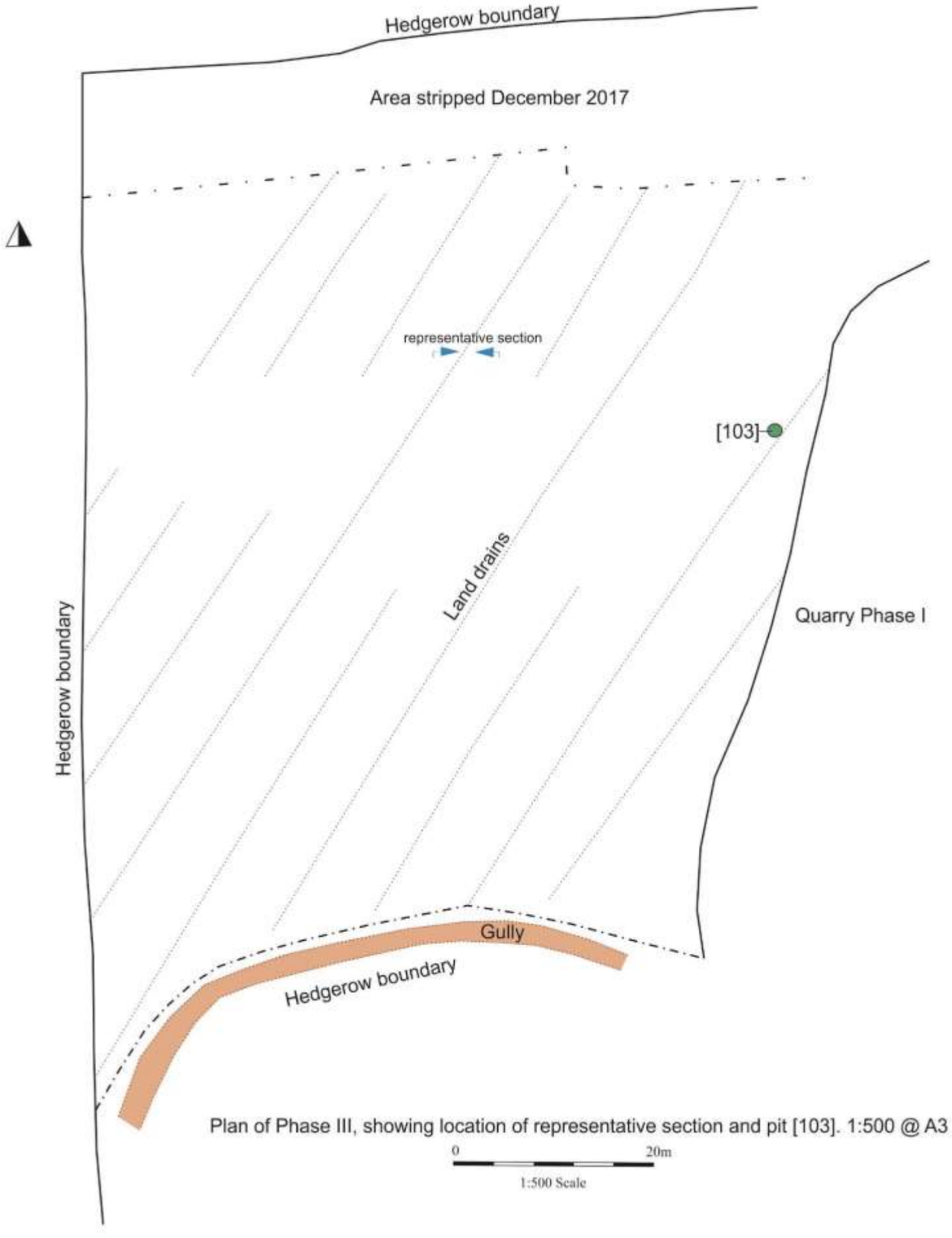
7.0 Results (Fig. 2-4)

The archaeological excavation recorded a basic stratigraphy of topsoil (100) overlying subsoil (101). Topsoil depth is recorded as 0.15m, and subsoil 0.25m deep overlying the natural geology (102). A small quantity of ceramic building material from the subsoil (101) has been dated from the 17th century – modern. A single cut feature was observed during these archaeological works, cut through the subsoil (101).



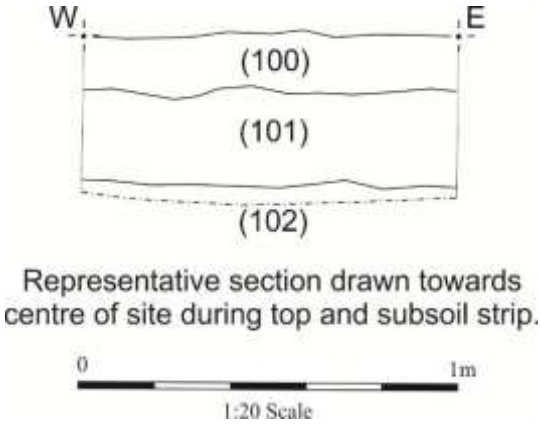
Plan of Glebe Quarry, showing location of Phase III in relation to previous and future planned phases. Not to scale.

Looking south along the east boundary of Phase III



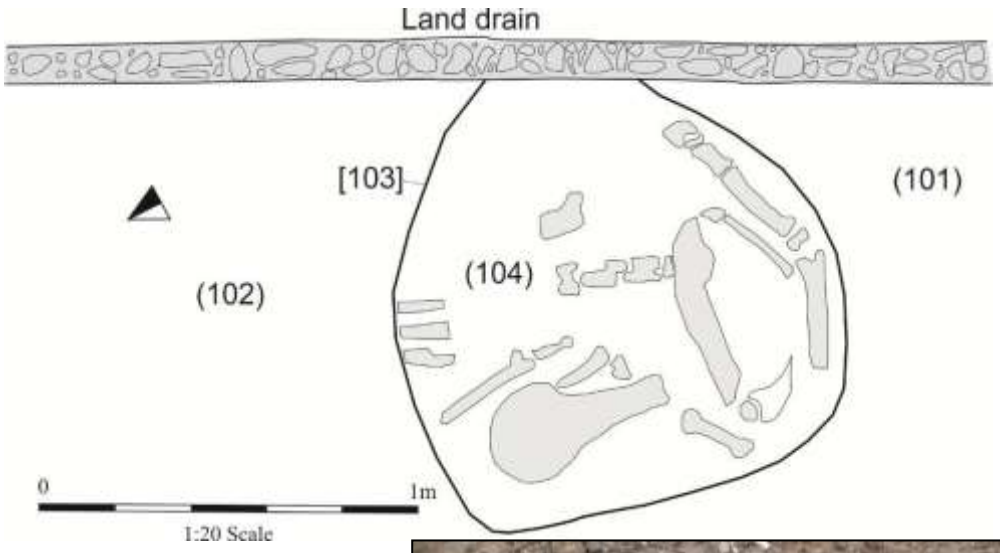
Plan of Phase III, showing location of representative section and pit [103]. 1:500 @ A3

Figure 2: Plan of Glebe Quarry (not to scale) and Phase III working (1:500).



Left: Looking east across the excavation area during subsoil strip, note the limestone land drains running across the site.

Pit [103] lay towards the east side of Phase III, roughly circular in plan at 1.50m in diameter and c.0.50m deep, truncated by a land drain. It contained the disarticulated partial skeleton of a small horse, in a matrix of mixed topsoil and subsoil type material indicating deliberate excavation of the pit for the disposal of the remains and immediate backfilling. There was no dating evidence associated with the feature, however it was cut through the subsoil indicating a very modern date.



Above Fig. 4 and Plate right: Pit [103] containing the disarticulated horse skeleton.

No other features or horizons were identified during this phase of archaeological works at Glebe Quarry.

8.0 Discussion and Conclusion

The archaeological monitoring of the top and subsoil removal within Phase III of Glebe Quarry identified a single cut feature, a pit containing the disarticulated remains of a horse. The specialist assessment of the animal bone has identified some wear on the bone suggesting the animal was used for traction. In addition, there were some butchery marks that did not correspond with traditional butchery or skinning practices, and it is thought the bones may have been impacted during efforts to inter the animal. Cutting through the subsoil, this feature was stratigraphically modern (17th century onwards) however no dating evidence was recovered from the pit itself to confirm this. This is consistent with the results of the archaeological works on Phase II of the quarry, to the east of the current site, although given the importance of neighbouring Ancaster and the proximity of the Roman road the potential for archaeological remains to be encountered elsewhere within the quarry workings remains present.

9.0 Effectiveness of methodology

The archaeological monitoring of the top and subsoil removal allowed for all cut features within Phase III to be identified and recorded. On this occasion there was only a single feature to excavate and record, however the methodology allowed for the possibility of significant buried remains to be revealed and recorded in appropriate detail prior to extraction works.

10.0 Site Archive

The documentary and physical archive for this scheme is currently in the possession of PCAS Archaeology Ltd. Following the acceptance of the report, the archive will be prepared and deposited at The Collection, Lincoln, where it can be accessed under the Accession Number 2015.67.

12.0 Bibliography

Campbell *et al.*, 2011, *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation (2nd edition)*, English Heritage

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Websites:

http://domesdaymap.co.uk/

http://www.heritagegateway.org.uk/Gateway

http://list.english-heritage.org.uk/mapsearch.aspx

http://mapapps.bgs.ac.uk/geologyofbritain/home.html

Planning documents accessed online at:

http://eplanning.lincolnshire.gov.uk/ePlanning/tabPage3.jsp?aplId=29238

Appendix 1: Context Summary Phase III Glebe Quarry

Context	Type	Description	Notes
100	Layer	Topsoil. Dark brown silty loam with clay, malleable and heavily rooted. 0.15m deep	Modern
101	Layer	Subsoil. Light brown yellowish hue clay silt, no inclusions. 0.25m deep.	Modern CBM
102	Layer	Natural geology. Orange brown compact clay with occasional grey striations and limestone fragments.	
103	Cut	Cut of pit. Approximately circular but irregular, with a poorly defined edge. C.1.20m diameter, 0.50m deep.	Cut through subsoil 101. Animal bone
104	Fill	Single fill of [103]. Mixed topsoil and subsoil with occasional patches of redeposited natural. Rapid backfill of newly excavated pit. Contains partially disarticulated horse skeleton.	Animal bone

Appendix 2:The Bone Analysis with summary catalogue

by Julie Curl –Sylvanus – Archaeological, Natural History & Illustration Services for PCAS. Jan 2021

The bone assemblage

This assessment was carried out following a modified version of guidelines by English Heritage (Davis, 1992). All of the bone was scanned to determine range of species and elements present with the total number of bones identified to each species (NISP). A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible a record was made of ages and any other relevant information, such as pathologies. Counts and weights taken and additional counts were made for each species identified, Counts were also taken of bone classed as 'countable' (Davis, 1992) remains. Attempts were made to refit fragments where it appeared they may form one bone and this is noted in the catalogue. Measurements of suitable bones were taken following Von Den Driesch, 1976. As this is a small assemblage, the catalogue and measurements were produced directly into tables in the appendix.

The assemblage – quantification, provenance and preservation

A total of 5,960g of bone, consisting of 257 fragments, was recovered from this site, which is quantified by context in Table 1.

The bone is in good condition, although fragmented from butchering and disturbance. None of the bone was burned, indicating burial as the favoured method of disposing of waste.

Invertebrate (insect, isopod, mollusc) damage was low, which would suggest burial for remains in this assemblage was quite rapid. No canid gnawing was observed on these remains, suggesting scavenger activity was low and that the bones or meat was not required for domestic or working dogs.

Bone was recovered from ditch, layer and gully fills. No finds dating was available at the time of writing this report, but the site is close to a Medieval village and a 17th Century Manor and finds have been made in the area that show regular activity dating back to the Mesolithic.

Ctxt	Ctxt Qty	Wt (g)	Species	NISP
103	15	346g	Equid	15
104	242	5,614g	Equid	242
TOTALS	257	5,960g	NISP	257

Table 1. Quantification of the bone assemblage

Species, ages, modifications and discussion

A single species was identified from this assemblage, with remains from both bone producing contexts identified as equid.

Context 103 produced fragments of rib, vertebrae and isolated molars and premolars, none of which showed any butchering marks.

Context 104 yielded a complete metatarsal and metacarpal, axis and cervical vertebrae, scapulas, pelvic fragments, fragments of humerus and tibia, a calcaneus, tarsals, carpals and talus, two proximal phalanges, intermediate phalange and one distal phalange (hoof) and isolated teeth and mandible fragments.

Metrical data (following Von Den Driesch, 1976) suggests an animal with a mean height of 14.9 Hands High, which is in the range for a small horse, but, given the limited range of bones for measurement, a slightly larger than average pony is possible.

The equid showed a few pathologies. The distal humerus showed some arthritic wear and exostoses on the distal condyle. The distal tibia also showed some exostoses. The articular surface of one scapula shows a shallow irregular shaped lesion that suggests some strain on the animals shoulders from an early age and wear of the soft elements between the bones. Exostoses and some eburnation was noted on one proximal phalange, another proximal phalanges showed exostoses and small exostoses and some irregular growth at the proximal end of the metatarsal.

The equid metatarsal showed some unusual butchering, with an area of hacking measuring 115mm long removing a part of the front of the mid-proximal shaft. This butchering was excessive for any attempts at skinning and did not remove the lower leg, so it is possible that it was difficult to bury the equid in the space available and some light butchering was required to bend and fit the legs in to the space.

Conclusions

This is a fairly small assemblage that appears to be suggest a partial equid burial with some disturbance. The minimal butchering, with a hacked metatarsal, suggests perhaps some consideration on the use of the hide, but no further skinning evidence was seen, so the animal may have been rejected for this use; it is possible that the minimal butchering was required to try and fit a large animal into its burial space, where sometimes some limbs are chopped to fit them into a space that is too small. The measurements suggest a small horse or a larger pony such as a male Fell Pony. The animal was probably used for occasional riding as the tooth wear indicated a mature animal, but the pathologies seen were not severe; with severe arthritis and strain observed with regular traction and working animals.

Recommendations for further work

If further excavations are carried out at this site, then it is recommended that the remains from this assemblage are included in the analysis to consider and compare the available elements from this animal and increase the range of measurements available for a more accurate estimation of stature and breed. Context, phasing and dating information would further aid the interpretation of these remains. Otherwise, no further work is required.

Bibliography

Baker, P. and Worley, F. 2014. *Animal Bones and Archaeology, Guidelines for best practice*. English Heritage.

Davis, S. 1992. *A rapid method for recording information about mammal bones from archaeological sites.* English Heritage AML report 71/92

Driesch, A. Von Den. 1976. *A guild to the measurements of animal bones from archaeological sites.* Peabody Museum Bulletin 1, Cambridge Mass., Harvard University.

1. Catalogue of the bone from GQAX15

Ctxt	Ctxt Qty	Wt (g)	Species	NISP	Age	Element range	Comments
103	15	346g	Equid	15	Adult	Ribs, vertebrae fragments, isolated upper and lower molars and premolars.	Heavy wear on tooth grinding surfaces.
104	242	5,614 g	Equid	242	Adult	Axis and cervical vertebrae, scapulas, pelvic frags, metatarsal, metacarpal, calcaneus, talus, distal/intermediate and proximal phalanges, tarsals, isolated molars, distal tibia, distal humerus	
TOTALS	257	5,960 g	NISP	257			

Appendix 2. Measurements following Von Den Driesch, 1976 (all in mm)

Context	Species	Element	Fusion	Gl	Bd	BatF	Bfd	Bp	SD
104	Equid	Metatarsal	Fused	275		56.1	55.3	59.6	38.9
104	Equid	Metacarpal	Fused	238		53.2	5.6	57.1	41.8
104	Equid	Tibia	Fused		84.7				
104	Equid	Proximal phalange	Fused	91.5					
104	Equid	Proximal phalange	Fused	87.6					

Appendix 3: An Assessment of the Ceramic Building Material

Phase III, Glebe Quarry, Wilsford Heath, Ancaster, North Kesteven, Lincolnshire.
Site Code: GQAX15
Zoe Tomlinson. Bsc. Msc.

Introduction

A total of six fragments of ceramic building material (CBM) weighing 76 grams in total were presented for examination. The assemblage was examined both visually and where necessary under x20 binocular microscope and then recorded using locally and nationally agreed codenames. The CLAU medieval and Roman tile type series were consulted for comparative material. The resulting archive was then recorded on an Access database and complies with the guidelines laid out in Slowikowski, *et al.* (2001)), the Archaeological Ceramic Building Materials Group (2001) and the Lincolnshire County Council's *Archaeological Handbook* (2016).

Condition

The material is in variable condition with most fragments showing a degree of abrasion. The fragments are all small in size ranging from 3 grams to 21 grams. One fragment has evidence of burning.

Overview of the Material

Three fragments of brick (BRK) and three fragments of unidentified ceramic building material (MISC) were recovered. The types are shown and quantified in Table 1.

Codename	Full name	Total fragments	Total weight in
BRK	Brick	3	38
MISC	Unidentified	3	38
Totals		**6**	**76**

Table 1: Ceramic material codenames and total quantities by fragment count and weight

Site Sequence

All the ceramic building material was recovered from deposit (**101**). The three fragments of brick all appear to be fragments of handmade brick. They are all a similar oxidised sandy marbled fabric. One has a sanded surface and one has slight evidence of burning. They possibly date from the 17th to the 19th century. Three miscellaneous un-diagnostic fragments of ceramic building material in sandy fabrics with one having a moderate amount of small sized iron rich grains were also recovered. It is possible they date from the late medieval to the modern period.

Conclusion & Recommendations

This group of ceramic building material is too small and undiagnostic to be of use in site interpretation and does not inform the chronological sequence. I recommend that the fragments can be discarded with a fully quantified archive in consultation with the local curator.

References

2001, Draft Minimum Standards for the Recovery, Analysis and Publication of Ceramic Building Material, third version [internet]. Available from http://www.geocities.com/acbmg1/CBMGDE3.htm

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Slowikowski, A. Nenk, B. and Pearce, J. 2001. *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics.* Medieval Pottery Research Group, Occasional Paper 2.

context	cname	fabric	frags	weight	action	description	date
101	BRK	marbled sandy fabric	1	21	discard	handmade; abraded; evidence of burning	C17-C19
101	BRK	marbled sandy fabric	2	17	discard	hand made; abraded; sanded surface	C17-C19
101	MISC	various sandy oxidised	2	21	discard	abraded	early modern?
101	MISC	sandy oxidised fabric + iron	1	17	discard	abraded	late medieval - early modern

OASIS DATA COLLECTION FORM: England

Phase III, Glebe Quarry, Ancaster, Lincolnshire: Archaeological Excavation - PCAS Archaeology Ltd

OASIS ID - preconst3-414361

Versions

View	Version	Completed by	Email	Date
View 1	1	Alison Lane	alison.lane@pcas-archaeology.co.uk	3 February 2021

Completed sections in current version

Details	Location	Creators	Archive	Publications
Yes	Yes	Yes	Yes	1/1

Validated sections in current version

Details	Location	Creators	Archive	Publications
No	No	No	No	0/1

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