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**Newbridge Quarry Extension
Pickering
North Yorkshire**

*Archaeological Evaluation
Interim Report
Volume 2: Appendices*

December 2008

Report No. 1901

CLIENT

CEMEX UK Operations Ltd.

**Newbridge Quarry Extension,
Pickering,
North Yorkshire**

Archaeological Evaluation

Summary

An archaeological evaluation by trail trenching was carried out on the site of the proposed northern extension of Newbridge Quarry, near Pickering. The work followed extensive geophysical survey which revealed a continuation of an Iron-Age and Romano British landscape previously investigated in advance earlier phases of quarrying the south between 1999-2006. The archaeology revealed comprised a trackway and appended enclosures and field system. A total of 33 trenches were targeted upon geophysical anomalies and apparently blank areas. The site would appear to have developed in the later iron Age and early Roman period, with a definite focus of activity in the 2nd century. Also taken into consideration have been some of the finds assemblages from the previous investigations to the south, which indicate a broad landscape contemporaneity with the archaeology of the 2008 evaluation site.



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Report Information

Client: Cemex UK Operations Limited
Address:
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Project Management: Ian Roberts BSc FSA MifA
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Report: David Williams and Ian Roberts
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The post-excavation finds and environmental processing was supervised by Alison Morgan who coordinated the post-excavation specialists. The report was prepared by David Williams and Ian Roberts.

Appendix 1: Inventory of primary archive

Phase	File/Box No	Description	Quantity
Evaluation	File no.1	Trench record sheets	34
		Context register	9
		Drawing sheet number record	2
		Drawing register	6
		Sample register	3
		Sample description sheets	
		Small finds register	1
		Photograph record sheet	17
		Colour transparencies (Film nos)	
		B&W negatives (Film nos)	
		B&W contact sheets (Film nos)	
		Digital photograph record sheet	4
		CD: digital photographs	1
Evaluation	File no. 2	Context Cards (100-310)	311
Evaluation	File no. 3	A3 permatrace	46
Evaluation	File no. 4	Written Scheme of investigation	1
		Risk assessment	1
		Site plans	3
		Copy of Desk-based assessment	1
Evaluation	Loose	Level book	1
Evaluation	Loose	Permatrace	1

Appendix 2: Concordance of contexts

Abbreviations

Bone	Animal bone
CBM	Ceramic building material
Cu. A.	Copper alloy object
Fe. O.	Iron object
GBA	General biological analysis soil sample
Flint	Flint object
Hum.	Human remains
Jet O.	Jet object
RB pot	Romano-British pottery
PRIA pot	Pre-Roman Iron Age pottery
Slag	Slag material

Context	Trench	Description	Artefacts and environmental samples
100	All	Topsoil	
101	All	Subsoil	PRIA pot (2); Cu. A. [brooch] (1)
102	20	Fill of rut 103	Bone (1)
103	20	Cut of rut	
104	20	Fill of ditch 105	GBA 2; RB pot (4);
105	20	Cut of ditch	
106	20	Cut of ditch	
107	20	Fill of ditch 106	GBA 1; RB pot (3); Bone (31)
108	22	Fill of ditch 109	GBA 3; PRIA pot (2); Bone (37); Flint (1); Slag (9)
109	22	Cut of ditch	
110	22	Fill of ditch 111	GBA 4; PRIA pot (2); Flint (2); Slag (1)
111	22	Cut of ditch	
112	21	Cut of ditch	
113	21	Fill of ditch 112	GBA 5; RB pot (23); Fe. O. (1); Bone (48)
114	18	Fill of ditch 115	GBA 6; PRIA pot (11); Bone (23); CBM (1)
115	18	Cut of ditch	
116	18	Fill of ditch 117	
117	18	Cut of ditch	
118	14	Upper fill of ditch 120	PRIA pot (11); Bone (15); Slag (1)

Context	Trench	Description	Artefacts and environmental samples
119	14	Lower fill of ditch 120	GBA 7; PRIA/RB pot (35); Bone (35); Stone (1)
120	14	Cut of ditch	
121	15	Cut of ditch	
122	15	Fill of ditch 121	GBA 8; Bone (9)
123	15	Fill of ditch 124	GBA 10; PRIA pot (1)
124	15	Cut of ditch	
125	15	Fill of ditch 127	GBA 125
126	15	VOID	
127	15	Cut of ditch	
128	27	Fill of ditch 129	GBA 9
129	27	Cut of ditch	
130	15	Cut of gully	
131	15	Fill of gully 130	GBA 17; PRIA pot (2); Bone (4)
132	15	Cut of gully	
133	15	Fill of gully 132	GBA 16
134	4	Upper fill of gully 136	PRIA pot (98); Bone (9)
135	4	Lower fill of gully 136	GBA 12; Bone (7)
136	4	Cut of gully	
137	4	Cut of pit	
138	4	Fill of pit 137	GBA 18
139	4	Cut of pit	
140	4	Fill of pit 139	GBA 19
141	4	Cut of pit	
142	4	Primary fill of 141	GBA 20
143	27	Fill of ditch 144	GBA 13
144	27	Cut of ditch	
145	27	Fill of ditch 146	GBA 14
146	27	Cut of ditch	
147	27	Fill of ditch 148	GBA 15
148	27	Cut of ditch	
149	27	Fill of gully 150	
150	27	Cut of gully	
151	4	Secondary fill of 141	Fe. O. (1)
152	33	Cut of pit	
153	33	Fill of 152	GBA 21
154	33	Upper fill of 155	PRIA pot (3); Flint (3)
155	33	Cut of pit (same as 152)	
156	33	Primary fill of 155 (natural?)	GBA 26
157	33	Cut of pit	
158	33	Fill of pit 157	GBA 22
159	33	Cut of pit	
160	33	Primary fill of 159	GBA 23

Context	Trench	Description	Artefacts and environmental samples
161	33	Secondary fill 159	GBA 25
162	33	Cut of pit	
163	33	Fill of pit 162	Hum. (Cremation sample 24);
164	33	Cut of feature	
165	33	Fill of feature 164	
166	5	Upper fill of ditch 169	
167	5	Stony fill of ditch 169	
168	5	Primary fill of 169	GBA 27; PRIA pot (3); Bone (13)
169	5	Cut of eastern enclosure ditch	
170	5	Fill of post-hole 171	GBA 28
171	5	Cut of post-hole	
172	5	Upper fill of 176	
173	5	Fill of 176	
174	5	Primary fill of 176	GBA 29; PRIA pot (2); Bone (2)
175	5	Natural clay layer at base of 176	
176	5	Cut of western enclosure ditch	
177	10	Cut of ditch	
178	10	Fill of ditch 177	
179	10	Fill of ditch 177	
180	10	Fill of ditch 177	PRIA pot (312); Bone (6)
181	10	Upper fill of ditch 177	
182	10	Cut of ditch (same as 228)	
183	10	Primary fill of 182 (same as 229)	
184	10	Upper fill of ditch 182	
185	5	Fill of post-hole 186	
186	5	Cut of post-hole	
187	5	Upper fill of ditch 190	RB pot (1);
188	5	Fill of ditch 190	Bone (16)
189	5	Fill of ditch 190	GBA 30; Bone (4)
190	5	Cut of ditch	
191	12	Fill of gully 192	
192	12	Cut of gully	
193	10	Cut of ditch	
194	10	Fill of ditch 193	GBA 31
195	10	Fill of ditch 193	
196	10	Cut of ditch (same as 226)	
197	10	Fill of ditch 196	
198	10	Fill of ditch 196 (same as 199, 200 and 227)	Bone (3)
199	10	Fill of ditch 196 (same as 198, 200 and 227)	
200	10	Fill of ditch 196 (Same as 199, 198 and 227)	Bone (8)
201	10	Cut of ditch	
202	10	Fill of ditch 201	GBA 33; GBA 34; PRIA pot (2); Bone (13)

Context	Trench	Description	Artefacts and environmental samples
203	10	Fill of ditch 201	PRIA pot (4);
204	18	Fill of pit 205	GBA 38; Bone (11)
205	18	Cut of pit	
206	18	Fill of ditch 208	GBA 43; RB pot (8); Fe. O. (1); Bone (7); Flint (3); CBM (1)
207	18	Fill of ditch 208	GBA 39; PRIA pot (18); Bone (11); Slag (21)
208	18	Cut of ditch	
209	18	Fill of ditch 212	RB pot (230); Cu. A. (1); Jet O. (1); Bone (156); Flint (3)
210	18	Burnt deposit in ditch 212	GBA 36; PRIA pot (3); Bone (1)
211	18	Fill of ditch 212	GBA 37; RB pot (3); Bone (28); Flint (1); Slag (13)
212	18	Cut of ditch	
213	18	Fill of feature 216	RB pot (31); Bone (6); Flint (2); Slag (92)
214	18	Fill of feature 216	PRIA pot (5); Bone (4); Flint (1); Slag (83)
215	18	Fill of feature 216	GBA 40; Bone (6); Slag (52)
216	18	Cut of square feature	
217	18	Fill of feature 216 (same as 213)	
218	18	Fill of ditch 208 (same as 207)	
219	18	Deposit in square feature 216	RB pot (4); Bone (2); Slag (7)
220	10	Cut of linear	
221	10	Fill of 220	GBA 41; PRIA pot (2); Bone (8)
222	18	Deposit above 213	Bone (1)
223	19	Upper deposit in cut 225	
224	19	Stony deposit in cut 225	GBA 35
225	19	Cut of ring gully	
226	10	Cut of ditch	
227	10	Fill of ditch 226 (same as 198, 199 and 200)	GBA 32; PRIA pot (7); Bone (15)
228	10	Cut of ditch (same as 182)	
229	10	Fill of ditch 228 (same as 183)	
230	20	Upper fill of pit 232	PRIA pot (2);
231	20	Lower fill of pit 232	GBA 42
232	20	Cut of pit	
233	25	Fill of gully 234	GBA 44
234	25	Cut of gully	
235	21	Cut of gully terminal	
236	21	Fill of gully 235	GBA 45; PRIA pot (11); Bone (1)
237	16	Cut of pit	
238	16	Fill of pit 237	GBA 64; PRIA pot (9);
239	28	Fill of gully 240	
240	28	Cut of gully	
241	28	Fill of gully 242	GBA46

Context	Trench	Description	Artefacts and environmental samples
242	28	Cut of gully	
243	19	Upper fill of 245	Flint (4)
244	19	Stony fill of 245	GBA 48
245	19	Cut of ring gully	
246	19	Stony fill of 246	GBA 47; Bone (18)
247	19	Cut of ring gully	
248	16	Cut of post-hole	
249	16	Fill of post-hole 248	GBA 66; RB pot (2);
250	16	Cut of post-hole	
251	16	Fill of post-hole 250	PRIA pot (2)
252	16	Cut of pit	
253	16	Fill of pit 252	GBA 67; PRIA pot (3); Bone (18)
254	16	Cut of pit	
255	16	Fill of pit 254	PRIA pot (2);
256	16	Cut of post-hole	
257	16	Fill of post-hole 256	GBA 65; Bone (743)
258	16	Cut of post-hole	
259	16	Fill of post-hole 258	PRIA pot (4); Bone (4)
260	21	Cut of post-hole	
261	21	Fill of post-hole 260	GBA 49
262	21	Cut or terminal gully	
263	21	Fill of gully 262	PRIA pot (3);
264	21	Cut or terminal gully	
265	21	Fill of gully 264	GBA 50; PRIA pot (6); Bone (25)
266	21	Cut of post-hole	
267	21	Fill of post-hole 266	GBA 51
268	26	Main fill of pit 272	GBA 53; Bone (30)
269	26	Burnt layer to north of pit 272	GBA 52; Bone (7)
270	26	Burnt layer to south of pit 272	
271	26	Primary deposit of pit 272	
272	26	Cut of pit	
273	26	Fill of post-hole 274	GBA 54
274	26	Cut of post-hole	
275	26	Post pipe? Fill of post-hole 277	GBA 55
276	26	Fill of post-hole 277	
277	26	Cut of post-hole	
278	16	Cut of Post-hole	
279	16	Fill of post-hole 278	PRIA pot (5);
280	16	Cut of Post-hole	
281	16	Fill of post-hole 280	
282	16	Cut of Post-hole	
283	16	Fill of post-hole 282	
284	16	Cut of Post-hole	

Context	Trench	Description	Artefacts and environmental samples
285	16	Fill of post-hole 284	PRIA pot (2);
286	21	Cut of post-hole	
287	21	Fill of post-hole 286	
288	21	Cut of pit	
289	21	Fill of pit 288	GBA 56; PRIA pot (1)
290	19	Upper fill of 293	PRIA pot (1); Flint (1)
291	19	Stony deposit of 293	
292	19	Primary fill of 293	GBA 57
293	19	Cut of Ring gully	
294	16	Fill of post-hole 295	GBA 58; Flint (1)
295	16	Cut of post-hole	
296	16	Fill of post-hole 297	GBA 59
297	16	Cut of post-hole	
298	16	Fill of post-hole 299	GBA 60
299	16	Cut of post-hole	
300	26	Fill of post-hole 301	GBA 61; PRIA pot (6);
301	26	Cut of post-hole	
302	26	Fill of post-hole 303	GBA 62
303	26	Cut of post-hole	
304	26	Fill of post-hole 305	GBA 63
305	26	Cut of post-hole	
306	21	Cut of post-hole 307	Bone (3)
307	21	Cut of post-hole	GBA 68
308	20	Upper fill of 106	
309	20	Lower fill of 106	
310	21	Primary fill of 112	
311	15	Primary fill of 121	
312	15	Upper fill of 121	
313	10	Fill of ditch 226	
314	10	Fill of ditch 226	
315	10	Upper fill of 226	
316	18	Cut of possible post-hole in base of 216	

Appendix 3: Written Scheme of Investigation

Newbridge Quarry Extension, Pickering North Yorkshire

Written Scheme of Investigation for Archaeological Evaluation and Assessment

1. Introduction

This written scheme is prepared on behalf of Cemex UK Operations Limited and details the archaeological mitigation strategy proposed to facilitate an extension to the existing Newbridge Quarry into a c.20 hectare area to the north-west of New Hambleton Farm, approximately 2km to the north of Pickering (central grid reference SE 799 876); an area bounded by Swainsea Lane to the west and Haugh Wood to the east, and the existing quarry to the south. The scheme has been designed following consultation with the North Yorkshire Heritage and Environment Section.

The extension site area is relatively flat and lies at between 90-105m AOD. The solid geology is Upper Calcareous Grit (Upper Oxfordian Stage) and the soils are shallow well-drained calcareous fine loams of the Elmton 2 Association.

The actual new areas of mineral extraction cover a total area of 17 hectares and are to be quarried in five separate phases. The remaining area includes a stand-off area to the north of New Hambleton Farm, in the south-east corner of the site, and a similarly sized area in the north-west corner of the site. Both of these areas may ultimately be used for stockpiling spoil and planting (see Fig. 1).

2. Previous Archaeological Work

Between 1999-2006 limestone extraction at Newbridge Quarry was preceded by a series of extensive open-area archaeological excavations, initially by the MAP Consultancy and from 2003 by Archaeological Services WYAS. The work identified some evidence for early prehistoric activity in the form of residual finds, but most of the evidence is for Iron Age and Romano-British occupation, with possible post-Roman activity. With the exception of three potential square barrows and an area of Iron Age open settlement, the settlement evidence principally took the form of a series of rectilinear enclosures that were appended to, or were focussed upon, a double ditched trackway (or driveway) that ran north-south through the entire phased extraction area. The enclosures, which were mainly on the eastern side of the trackway, were in some cases superimposed, with most containing roundhouses. Associated features have provided evidence of a generally mixed economy with arable cultivation represented by crop driers and querns, and animal husbandry reflected in the animal bones recovered.

Three extended inhumations were recovered from the settlement areas, although these need not necessarily be contemporary. The commonest form of burial was cremation, with some thirty un-urned examples being recovered, often from the upper fills of the trackway ditches. Their stratigraphic position in the ditch fills suggests that they are probably either of Late Roman or even post Roman date. A possible post-Roman phase to the site has been given further credence by the stratigraphic superimposition

of certain enclosures and the, as yet unsubstantiated, identification of post-Roman pottery (D. Powlesland pers. comm.). The 1999-2006 work has been the subject of an interim report (Signorelli and Roberts 2006). The only post-excavation work that has been carried out is the washing of pottery and the processing of 222 soil samples from the 2003-2005 excavations.

A full desk-based assessment was carried out for the proposed New Hambleton Farm extraction area in 2005 (Dodds 2005). This study drew upon cropmarks from air photographs to establish the existence of archaeological enclosures in parts of the site. In order to enhance this picture the new extraction area has been the subject of a 100% geophysical magnetometer survey, which was carried out in 2007 (Webb 2008). The geophysical survey results reveal that the western half of the site is occupied by what is almost certainly a continuation of the north-south double ditched trackway found to the south. As before, it seems to have formed a coaxial focus for other field boundaries and has several ditched rectilinear enclosures associated with it, especially on its eastern side. One very well defined square enclosure contains a rectangular geophysical anomaly that could be a building, whilst other unusual anomalies include a circular feature, which might be a prehistoric barrow, and an area of magnetic enhancement within the trackway in this area. The origin of the latter could be due to burning, which given the association of the trackway with cremation burials to the south, offers intriguing possibilities. The geophysical results reveal a complex dog-leg in the trackway, in an area that is obviously the result of several intersecting boundaries created at different times in the past and thus a key area to understanding the phasing of the landscape as a whole.

Apart from the continuation of two E-W linear ditches, and a diagonal NW-SE anomaly that may be geological, the geophysical survey has revealed few anomalies of obvious potential archaeological interest in the eastern half of the site. It should be noted, however, that geophysical survey will not detect small features such as pits and post-holes, that could be the only remnants of early prehistoric settlements, nor any features that do not have a magnetic component to their fill, for whatever reason.

3. General Archaeological Background and the Significance of the Site

Earlier Iron Age

Research into the Iron Age has been focussed largely upon the Wolds rather than the North York Moors. In particular it has concentrated on the distinctive square barrows of the Arras culture, a phenomenon unique to Eastern Yorkshire in Britain. These barrows, which date mainly to between the 5th and 1st centuries BC, are confined largely to the high Wolds, but examples do occur on the Moors (Dent 1999, 5; Cunliffe 2005, 214). Their predominant upland location accords with notions of a society dedicated largely to grazing, a land-use that some have seen to be further implied by the extensive dyke systems of that period. The contemporary settlements, however, remain obscure (Mackey 2003, 117). The failure to detect these settlements has generally been explained by the supposition that they were unenclosed and so difficult to detect as crop marks. One of the best known open settlements is at Garton Slack and Wetwang Slack where, importantly, the chronological and stratigraphical succession from a square barrow cemetery to open settlement and subsequent

enclosure in the later Iron Age and Roman period is well demonstrated (Mackey 2003, 119; Stoertz 1997, 46-7; Bradley 2007, 263-67).

Later Iron Age and Roman Period

From the later Iron Age single enclosures containing one or more roundhouses, nucleated groups or rectilinear sequences of linking enclosures ('ladder' or 'droveway' settlements), all become prevalent features in the Romano-British rural landscape of the region. These complexes were often associated with a wider field system as the landscape became increasingly more enclosed and spatially organised (Bevan 1999, 129; Dent 1999, 6; Fenton-Thomas 2003, 65; Mackey 2003, 119-20; Stoertz 1997; Giles 2007, 236). The trend towards enclosure was once equated with a perceived intensification of agriculture as a response to the Roman conquest (Ramm 1978, 10, 77), but as the process seems to have started in the late pre-Roman Iron Age it has since been viewed as a product of population increase (Branigan 1984, 27, 30; Dent 1983, 37-40; Hingley 1989). Archaeologically it has proved very difficult to detect any marked change in the nature of native rural settlement between the later Iron Age and the first two centuries of Roman occupation. There was apparently little Romanisation of the vast majority of the native population and the rural landscape generally seems to have been little changed as a result of Roman rule, the tangible impacts upon it being very localised, invariably in the immediate vicinity of forts, *vici* and Roman roads (Hingley 1989, 145; Taylor 2001, 53).

If a predominantly pastoral exploitation of the landscape seems likely for the earlier Iron Age, then the querns, crop drier and granaries found in considerable numbers on later Iron Age and Romano-British rural sites suggest a more agrarian economy (Dent 1983, 42). Nevertheless, agriculture remained largely on a domestic scale, even if the economic onus shifted (Powlesland 2003, 288). Arable farming seems to have been just one element of a broader mixed economy, where animal husbandry was still important. The faunal assemblages of the pre-Roman Iron Age are generally found to be dominated by sheep/goats (Haselgrove 1984, 14). However, Branigan (1984, 30) posed the possibility that certain native farmers may have switched from a mixed subsistence economy to a pastoral one to meet the demands of the Roman army, although Ramm (1978, 107) envisaged a large military demand for wheat. In fact it is likely that most early Romano-British farms operated on a mixed economy basis. It would seem likely that apparent differences or changes to the economies of native sites, whether represented in the adoption of material culture, or the proportions of crops grown and animals consumed, will have had much to do with their proximity to major Roman urban centres and communication routes.

In the context of the Roman landscape the site lies just 3 km to the south-east of the Roman marching camps at Cawthorn and even closer to Blandsby Park, immediately to the east, where recent work has investigated a Roman villa site.

Early Post-Roman Period

The Romano-British to Anglo-Saxon transition in the 5th and 6th centuries is little understood as most of the evidence for Anglo-Saxon invasion/migration is based largely upon distinctive cemetery sites, rather than settlement evidence. Thus the degree to which the transition was a result of cultural displacement or integration, and the rate of this change, is unclear (Loveluck 2003, 152). Few early Saxon sites are known from the North York Moors, the majority being from the Wolds or the Vale of

Pickering. One of the closest and most important sites is at West Heslerton where ritual landscapes of the Early Bronze Age (round barrows) and the Early Iron Age (square barrows) were succeeded by linear 'ladder' settlements focused upon droveways from c. 500 BC to AD 500. The Saxon period at West Heslerton saw an abandonment of the 'ladder' settlements and the evolution of dispersed open settlement of timber halls and *grubenhauser* associated with an extensive inhumation cemetery (Powlesland 2003, 287-290).

Significance of the Newbridge Quarry Site

The early prehistoric evidence from the 1999-2006 excavations at Newbridge Quarry is mainly represented by what are believed to be residual artefacts, principally flint tools and waste flakes. The presence of a barrow is unconfirmed. Although the site, as presently understood, is unlikely to be able to contribute significantly to specific aspects of early prehistoric archaeology, the evidence will supplement a growing corpus of data for this period across the region (see Manby *et al.* 2003, 82-91).

The archaeology of the Iron Age and Romano-British phases, within both the previous workings and the proposed extension, at Newbridge Quarry offer considerable potential for elucidating the chronology and transitional nature of settlement and settlement economy of these periods. On the face of it the Newbridge site represents a classic example of a transition from open settlement to an enclosed 'ladder' settlement focused upon a droveway. The 'ladder' settlement phenomenon is largely one defined from cropmarks in North East Yorkshire and thus was once thought to have been the product of a single phase of occupation. Newbridge is one of a number of recently excavated sites that reveals that they can be the product of several different phases of development at different periods. The data recovered from the Newbridge Quarry excavations offers the potential for being able ascertain to what degree there was continuity of occupation at different times, the possible degree of settlement migration and any changes to the forms and economies of the settlements, particularly as a result of Roman influence. Together with the opportunity to analyse pottery and other finds from stratified contexts, the Newbridge site offers the potential to address and test many of the research issues for rural settlement sites of this period in the region, as recently outlined by Mackey (2003, 119-121) and Ottaway (2003, 146).

If confirmed, the existence of an early post-Roman phase at Newbridge Quarry would demonstrate a degree of landscape continuity (i.e. a continued focus on the trackway/droveway) that is in contrast to sites such as West Heslerton. Very little is known of the settlement forms of this period and it is possible that West Heslerton is one of many post-Roman forms, some of which may not have changed radically since the later iron Age. The possible use of un-urned cremations is more akin to later Roman than Anglo-Saxon methods of disposal of the dead in this region and might, therefore, support a post-Roman British, rather than an Anglo-Saxon presence.

4. Aims and Objectives

The aims of this archaeological investigation will be:

- to preserve by record the archaeological features and deposits to be impacted upon by the proposed mineral extraction;
- to enhance the archaeological record for this part of North Yorkshire;
- to better understand the archaeology of the prehistoric, Roman and post-Roman periods, and the transition between those periods
- to assess the depth of ploughsoil and overburden across the site, and thus the degree of preservation of the archaeological remains
- to characterise the archaeology of the proposed development area
- to enable an assessment of the significance of the archaeological remains and thus provide a robust evidence base to assist North Yorkshire County Council in taking informed decisions about the weight that ought to be attached to their preservation and the determination of the planning application for the quarry extension.
- To assist in the development of an iterative archaeological mitigation strategy for the site

The specific objectives of the archaeological investigations will be:

- to record the nature and extent of any archaeological remains within the proposed extraction areas;
- to determine the date, function, condition, character, quality of survival, importance and date of such archaeological remains;
- to obtain an understanding of the development of the site through time and establish a phased chronology that articulates with the site investigated to the south;
- to bring the findings into the public domain through deposition of the results in the North Yorkshire HER and through appropriate publication.

5. Rationale and Methods

The evaluation of the new extension area will be effected in two ways: i) by direct invasive evaluation of the site, through a combination of trial trenching and small-scale area stripping; and ii) by selected assessment of the artefacts and samples recovered from the previous phases of work in order to provide a better chronological overview of the archaeological landscape and better gauge its archaeological significance and potential for further analysis of the assemblages. Together, the data derived from this work will inform the formulation of the mitigation strategy for the archaeological work to be carried out on the extension site.

i) Evaluation of the New Hambleton Farm extension site (Fig. 1)

The site falls into five extraction phases and two probable stockpiling/planting zones. In archaeological terms, as presently perceived, the site falls into two basic areas. The western half of the site contains a north-south trackway which forms a coaxial boundary to a number of field boundaries and has at least four enclosures appended to it. The enclosures appear to be discrete entities in terms of the geophysical representation, with no indication of a 'ladder' plan. Based upon cropmark and geophysical survey data, the eastern half of the site contains little of no archaeological evidence, there being only two possible field boundaries extending into and disappearing within this area, as well as a single discrete anomaly that may represent an archaeological feature.

The aim of the trial excavations within the proposed extension area will be:

- to characterise and date the known visible archaeology in the western part of the site
- to investigate the apparently blank areas either side of the main trackway, between the known enclosures to investigate the possibility of an open settlement or other features invisible to remote sensing
- to investigate the apparently blank areas in the eastern half of the site, with a particular objective to ascertain if and why the linear field boundaries in this part of the site are curtailed (e.g. is deeper plough soil or erosion responsible for their absence)

Thirty two trenches of varying size are proposed, which in total constitute a 1.7% sample of the site by area. It is not intended that every archaeological feature encountered will be sample excavated, as many of the trenches are for prospection purposes (presence/absence) in spatial terms. The level of sampling by manual excavation will be agreed with North Yorkshire Heritage and Environment Section once the trenches have been opened. Details of the trenches are provided in Table 1.

Desk-based Assessment

The desk-based assessment produced in 2005 will be updated as part of this evaluation process to include the findings of the excavations carried out in 2005 and 2006.

Soil Depth

The borehole survey already carried out for Cemex UK suggests that ploughsoil and subsoil depths are relatively uniform across the site (about 400mm), which is generally borne out by previous phases of excavation work in this landscape and the even nature of the geophysical data at the extension site. The bore-hole logs do not discriminate between the ploughsoil/subsoil and the clay overlying the limestone, all being included within an upper 'clay' deposit category which varies between 0.4-0.8m above the limestone. One notable departure is at a location to the north west of New Hambleton Farm, where the bore-hole log records the 'clay' as being 2.1m deep. This location seems to coincide with a linear north-south geophysical anomaly provisionally interpreted as a natural feature. Whilst ploughsoil and subsoil depths are generally perceived to uniform across the site, two east-west linear geophysical anomalies of likely archaeological origin do disappear within the eastern side of the site and it is not

clear if this is due to their termination, a change in the magnetic component of their fills, being further from the settlements, masking by deeper overburden or erosion by deep ploughing. The proposed trenches in these areas will investigate this, as well as informing upon the presence/absence of other archaeological features in the eastern part of the site.

Table 1. Rationale for proposed trial trenching

No.	Orientation	Dimensions	Purpose
1	E-W	50m x 2m	To investigate linear geophysical anomaly and an apparently blank area
2	E-W	50m x 2m	To investigate an apparently blank area.
3	N-S	50m x 2m	To investigate an apparently blank area
4	E-W	50m x 2m	To investigate date and function of sub-rectangular enclosure and likely geological feature running NW-SE through the site
5	E-W	50m x 2m	To investigate date and function of rectangular enclosure and other possible field boundaries of different phase
6	N-S	50m x 2m	To investigate likely geological feature running NW-SE through the site and an apparently blank area
7	E-W	50m x 2m	To investigate an apparently blank area
8	E-W	50m x 2m	To investigate linear geophysical anomaly and apparently blank area
9	Square	20m x 20m	Open area stripping of an apparently blank area for evidence of open settlement adjacent to trackway and enclosed areas
10	N-S	20m x 10m	To investigate relationships of field boundaries to inform landscape phasing
11	Square	10m x 10m	To investigate a geophysical anomaly in an apparently blank area of the landscape (possible kiln or area of burning)
12	N-S	50m x 2m	To investigate eastern extension of E-W field boundary and likely geological feature running NW-SE through the site in otherwise apparently blank area
13	N-S	50m x 2m	To investigate possible eastern extension of E-W field boundary in otherwise apparently blank area
14	N-S	50m x 2m	To investigate date and function of sub-rectangular enclosure
15	E-W	50m x 2m	To investigate date and function of sub-rectangular enclosure
16	Square	20m x 20m	Open area stripping of an apparently blank area for evidence of open settlement adjacent to trackway and enclosed areas
17	N-S	50m x 2m	To investigate an apparently blank area
18	N-S	30m x 4m	To investigate date and function of sub-rectangular enclosure and the nature of the possible structure within
19	Square	20m x 20m	Open area stripping to investigate a circular feature and an apparently blank area for evidence of ritual activity and/or open settlement adjacent to trackway and enclosed areas
20	E-W	30m x 4m	To investigate the trackway ditch at a point where a high magnetic response suggests possible ferrous or burnt material in the ditch fills
21	N-S	40m x 10m	Open area stripping to investigate southward extension of enclosure complex or an apparently blank area for evidence of open settlement adjacent to trackway and enclosed areas
22	E-W	50m x 2m	To investigate two possible phases of enclosure and an apparently blank area
23	N-S	50m x 2m	To investigate an apparently blank area
24	E-W	50m x 2m	To investigate an apparently blank area

25	N-S	50m x 2m	To investigate E-W field ditch and an apparently blank area of the landscape
26	Square	20m x 20m	Open area stripping of an apparently blank area for evidence of open settlement adjacent to trackway and enclosed areas
27	E-W	100m x 2m	To investigate trackway ditches, potential natural feature and an apparently blank area of the landscape
28	Square	20m x 20m	Open area stripping of an apparently blank area for evidence of open settlement adjacent to trackway and enclosed areas
29	N-S	50m x 2m	To investigate extension of E-W field boundary in otherwise blank area
30	E-W	50m x 2m	To investigate an apparently blank area
31	E-W	50m x 2m	To investigate an apparently blank area
32	N-S	50m x 2m	To investigate an apparently blank area
33	Square	20m x 20m	To investigate strong anomaly within ?geological feature running NW-SE through the site

Stripping, recording and sample excavation

The work will involve the controlled stripping of ploughsoil to the archaeologically required level. This shall be carried out under archaeological supervision. The 360 degree mechanical excavator employed will use its back-acter equipped with a toothless ditching bucket. Stripping will take place in level spits to the top of the first archaeological horizon or undisturbed natural. The resulting surface will be inspected for archaeological remains. Where archaeological remains require clarification, the relevant area will be cleaned by hand. Under no circumstances should the machine be used to cut arbitrary trenches down to natural deposits, nor shall plant (mechanical excavator and dumpers – if used) run upon the stripped area unless it is agreed with the supervising archaeologist.

Archaeological Services WYAS will plan the revealed archaeological features. The level of manual excavation shall be determined by the North Yorkshire Heritage and Environment Section. This work will be executed in a controlled and stratigraphic manner in order to meet the aims and objectives outlined above. The selected features will normally be investigated employing the following sampling strategies:

- Linear features: sufficient excavation will be carried out to investigate the depth, profile and fills of a ditch or gully and to recover dating and environmental evidence from its fills. Normally this will involve a minimum of 10% sample dispersed along the length of the feature (each sample section to be not less than 1m), or a minimum of a 1m sample section if the feature is less than 10m long or if only a small part of it is exposed. With respect to trial trenches, one 1m section will be located and recorded adjacent to the trench edge. Feature intersections will always be excavated in such a way to determine a stratigraphic relationship.
- Discrete features: pits, post-holes and other discrete features will normally be half-sectioned to determine and record their form with a minimum sample of 50% of discrete features in each area.
- A full written, drawn and photographic record of all material revealed during the course of the work shall be made. The excavation limits will be surveyed using

electronic survey equipment with larger scale hand drawn plans of features at 1:20 or 1:50, as appropriate. Sections of linear and discrete features will be drawn at 1:10. All sections, plans and elevations will include spot-heights related to Ordnance Datum in metres as correct to two decimal places and survey. Tie-in information will be undertaken during the course of the evaluation and will be fixed in relation to nearby permanent structures and roads and to the National Grid.

- All artefacts recovered will be retained and removed from the site for assessment and analysis, and where it is appropriate finds shall be recorded three dimensionally. Non-modern artefacts will be collected from the excavated topsoil and subsoil. Finds material will be stored in controlled environments, where appropriate. All artefacts recovered will be retained, cleaned, labelled and stored as detailed in the guidelines laid out in the IFA Guidelines for Finds Work. Any conservation work will be undertaken by approved conservators working to UKIC guidelines.
- Archaeological Services WYAS shall fully record all excavated and unexcavated archaeological contexts by detailed written records giving details of location, composition, shape, dimensions, relationships, finds, samples, and cross-references to other elements of the record and other relevant contexts, in accordance with best practice and in accordance with methods previously approved by the North Yorkshire Heritage and Environment Section. All contexts, and any small finds and samples from them will be given unique numbers. Bulk finds will be collected by context. Colour transparency and monochrome negative photographs at a minimum format of 35mm will be supported by a colour digital record.
- A soil-sampling programme shall be undertaken during the course of the investigation for the identification and recovery of carbonised and waterlogged remains, vertebrate remains, molluscs and small artefactual material. Environmental and soil specialists will be consulted during the course of the excavation with regard to the implementation of this sampling programme. Provision should be made for the removal of soil samples from all securely stratified deposits should be sampled for retrieval and analysis of all biological remains. This comprehensive approach will allow the site's environmental potential to be accurately assessed, so that an appropriate and more targeted strategy can be implemented if further mitigation is required. Sampling methods should follow English Heritage guidance (English Heritage, 2002).
- Flotation samples, for the recovery of charred plant remains, charcoal, small animal bones and mineralised plant remains, should be between 40 and 60 litres in size, although this may depend upon the volume of the context. Coarse sieved samples for the recovery of animal bones and other artefact/ecofact categories should be 100 litres plus. Entire contexts should be sampled if the volume is low. Whenever possible, flotation and coarse sieved (wet or dry) samples should be processed during fieldwork to allow the continuous reassessment and refinement of sampling strategies. Samples from waterlogged and anoxic deposits, which might contain plant macros and entomological evidence should normally be 20 litres in size (occasionally referred to as GBA – General Biological Analysis – samples). The English Heritage (2002) guidance

should be consulted for details of sample size for other specialist samples, which may be required.

- Environmental material removed from site will be stored in appropriately controlled conditions. The processing of environmental samples will be undertaken in accordance with the English Heritage (2002) guidance. In addition, the processing of environmental samples will only take place within facilities approved for such purposes by English Heritage's Regional Science Advisor.
- In the event of human remains being discovered they will be left *in situ* and covered and protected in the first instance. The removal of human remains will only take place in compliance with the Burial Act 1857 and with an exhumation licence obtained from the Ministry of Justice (MoJ) prior to the removal of the remains. Provision will be made for the specialist reporting of the remains by a recognised osteoarchaeologist.
- Provision will be made for the recovery of samples suitable for scientific dating (e.g. radiocarbon/AMS dating, archaeomagnetic and dendrochronological dating).
- All finds of gold and silver and associated objects shall be reported to HM Coroner according to the procedures relating to the Treasure Act 1997, after discussion with the Cemex UK and the North Yorkshire Heritage and Environment Section.

ii) Assessment of selected data recovered from previous excavations

In order to more fully characterise the archaeology of this landscape, and thus gauge its significance, it is proposed that a limited amount of specialist assessment is carried out on material recovered up to 2006. This work will be designed not just to satisfy this evaluation process, but will be an integral part of the work that will need to be carried out as part of the post-excavation process, yet to be formally initiated. The specific objectives of this element of the work will be twofold:

1. To confirm the periods of activity represented, with particular reference to the levels of early prehistoric and possible post-Roman activity;
2. To ascertain the potential for environmental reconstruction with a view being able to make meaningful statements about landscape environment, climate, settlement economy and ritual practices at different times in the past.

It is proposed that Objective 1 is achieved through a rapid assessment of the pottery assemblage recovered between 2003-2006 (some 3300 sherds), which will broadly provide information on the type and date of the recovered ceramics. A similar assessment will be carried out on the more modest assemblage (141) flint artefacts recovered. Additionally, radiocarbon dating will be carried out on one of the cremations found in the upper fill of the trackway ditch.

Objective 2 will be realised through a rapid assessment of preserved seeds, plant remains and microfauna present in the 222 soil samples already processed. The

assessment will quantify and assess the charred plant remains from each sample, employing a 5-point scale of grading, with items with particular potential highlighted. The assessment will also quantify non-marine molluscs and will be supported by an assessment of the small animal bone assemblage (>300 fragments).

6. Archive Preparation and Deposition

The primary site archive from the trial excavations will contain all the data collected during the on-site investigation, including records, finds and environmental samples. It will be quantified, ordered, indexed and internally consistent. Adequate resources will be provided during fieldwork to ensure that all records are checked and internally consistent. Archive consolidation will be undertaken immediately following the conclusion of fieldwork:

- the site archive will be checked, cross-referenced and indexed as necessary;
- all retained finds will be cleaned, conserved, marked and packaged in accordance with the requirements of the recipient museum;
- all retained finds will be assessed and recorded using pro forma recording sheets, by suitably qualified and experienced staff;
- a selection of the environmental samples will be processed by suitably experienced and qualified staff and recorded using pro forma recording sheets, to identify the presence or absence of environmental remains.

The archive will be assembled in accordance with the specification set out in English Heritage's "*Management of Archaeological Projects 2*" (English Heritage, 1991; Appendix 3). In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain:

- site matrices where appropriate;
- a summary report synthesising the context record;
- a summary of the artefact record;
- a summary of the environment record.

Provision will be made for the deposition of the archive, artefacts and environmental material, subject to the permission of the relevant landowner in the appropriate recipient museum. The museum curator will be advised of the timetable of the proposed investigation prior to evaluation commencing and Archaeological Services WYAS will adhere to any reasonable requirements the museum may have regarding conservation and storage of the excavated material and the resulting archive. The archive will be prepared in accordance with the guidelines published in "*Guidelines for the preparation of Excavation Archives for long-term storage*" (United Kingdom Institute for Conservation, 1990) and "*Standards in the Museum care of archaeological collections*" (Museums and Galleries Commission, 1994). Provision will be made for the stable storage of paper records and their long-term storage on a suitable medium.

Archive deposition will be arranged in consultation with the recipient museum and the North Yorkshire Heritage and Environment Section and will take into account all requirements of the recipient museum and of the relevant guidelines outlined above.

The timetable for deposition will be agreed subject to the further mitigation requirements beyond the evaluation stage. In the event of the evaluation work leading on to further investigation, deposition will be deferred in order that the evaluation archive can be integrated with that of the subsequent work and deposited as one archive.

The archiving of any digital data arising from the project should be undertaken in a manner consistent with professional standards and guidance (Richards & Robinson 2000). The archaeological contractor should liaise with an appropriate digital archive repository to establish their detailed requirements and discuss the transfer of the digital archive.

The archaeological contractor should also liaise with the HER Officer, North Yorkshire County Council, to make arrangements for digital information arising from the project to be submitted to the North Yorkshire Historic Environment Record for HER enhancement purposes. The North Yorkshire Historic Environment Record is not an appropriate repository for digital archives arising from projects.

7. Report Preparation, Contents and Distribution

Upon completion of the trial excavations the artefacts, ecofacts and stratigraphic information shall be assessed as to their significance and potential for further analysis and an interim assessment report prepared in accordance with English Heritage's "*Management of Archaeological Projects 2*" (English Heritage, 1991; Appendix 4).

An assessment report will include the following:

- a non-technical summary of the results of the work;
- a summary of the project's background;
- the site location;
- an account of the method;
- the results of the excavation, including phasing and interpretation of the site sequence and the assessment of artefacts and ecofacts, if recovered, and
- an appendix catalogue of the archaeological material recovered during the excavation.

The assessment report will be supported by an overall plan of the site, accurately identifying the location of trenches. Individual trench plans will show the location of archaeological features within each trench and supporting section drawings and photographs will illustrate the form and depth of the features and the nature of their fill.

The assessment report will outline the archaeological significance of the deposits identified, and provide an interpretation of the results in the context of what has been found in the region, but with particular regard to what was found in preceding phases of work on the quarry site.

The results of the assessments carried out on the data recovered up to 2006 will similarly be plotted against a map of the key archaeological features and feature groups and matched against the provisional phasing carried out for the Interim Report

of 2006. This will form a separate section within the evaluation report arising from the trial trenching.

Archaeological Services WYAS will submit copies of the evaluation/assessment reports to Cemex UK and the North Yorkshire Heritage and Environment Section within an agreed timetable. Copies of the reports will be supplied electronically to the North Yorkshire Historic Environment Record and to Dr Andy Hamm, English heritage Regional Science Advisor.

Upon completion of the evaluation/assessment a mitigation strategy shall be prepared in consultation with the North Yorkshire Heritage and Environment Section for the archaeological work that will be required, in the light of the evaluation/assessment results to phased mitigate mineral extraction.

8. Publication and Dissemination

Upon completion of the work Archaeological Services WYAS will make their work accessible to the wider research community by submitting summaries of their work to appropriate journals and newsletters, whilst a copy of the report to the North Yorkshire Historic Environment Record (NYHER) and an on line summary to OASIS (subject to the agreement of Cemex UK)

It should be noted that under the Environmental Information Regulations (2005) information submitted to NYHER becomes publicly accessible except where disclosure might lead to environmental damage. Any request for the information to remain confidential as sensitive information will be subject to a public interest test.

9. Copyright and Ownership

Unless aspects of copyright and ownership are specifically agreed between the Archaeological Services WYAS and Cemex UK, copyright of the reports will reside with Archaeological Services WYAS, who shall extend this to Cemex UK for the purposes of their Mineral Planning requirements. The archive will be owned by Cemex UK until which point transfer is agreed with the designated Museum. Unless directed otherwise.

Copyright in the documentation prepared by the archaeological contractor should be the subject of additional licences in favour of North Yorkshire County Council to use such documentation for their statutory functions, and to provide copies to third parties as an incidental to such functions.

10. Health and Safety

Archaeological Services staff will abide by the Health and safety regime of Newbridge Quarry. Notwithstanding, Archaeological Services WYAS have their own Health and Safety policies compiled using national guidelines which conform to all relevant Health and Safety legislation.

In addition, Archaeological Services WYAS will undertake a 'Risk Assessment' prior to on-site work commencing which sets project specific risk mitigation requirements to which all members of staff must adhere to. Archaeological Services WYAS always ensures that Health and Safety takes priority over archaeological matters.

11. Insurance

Archaeological Services WYAS has effected appropriate insurance cover with Zurich Municipal Insurance, Park House, 57-59 Well Street, Bradford, via Wakefield Metropolitan District Council. Any further enquiries should be directed to The Chief Financial Officer, Insurance Section, Wakefield MDC, PO Box 55, Newton Bar, Wakefield, WF1 2TT.

12. Monitoring

The fieldwork will be monitored by the North Yorkshire Heritage and Environment Section and Dr Andy Hammon, Regional Science Advisor for English Heritage Yorkshire and the Humber Region, who will be afforded the opportunity to inspect the site and the records during any stage of the work.

References

- Bevan, B., 1999, 'Land-Life-Death-Regeneration: interpreting a middle Iron Age landscape in eastern Yorkshire', in Bevan, B. (ed.), *Northern Exposure: Interpretive Devolution and the Iron Ages in Britain*, Leicester Archaeol. Monogr. 4, 123-47
- Bradley, R., 2007, *The Prehistory of Britain and Ireland*
- Branigan, K., 1984, 'North-East England in the First Century', in Wilson, P.R., Jones, R.F.J. and Evans, D.M. (eds), *Settlement and Society in the Roman North*, 27-33
- Cunliffe, B., 2005, *Iron Age Communities in Britain* (4th ed.)
- Dent, J.S., 1983, 'The Impact of Roman Rule on the Native Society in the Territory of the Parisi', *Britannia* 14, 35-44
- Dent, J., 1999, 'The Yorkshire Wolds in late prehistory and the emergence of an Iron Age society', in Halkon, P. (ed.), *Further Light on the Parisi*, 4-11
- Dodds, J., 2005, 'Newbridge Quarry, Pickering: Desk-based Assessment', ASWYAS Rep. 1333
- English Heritage, 2002, *Environmental Archaeology : A guide to the theory and practice of methods, from sampling and recovery to post-excavation* [2002/01].
<http://www.helm.org.uk/upload/pdf/Environmental-Archaeology.pdf>
- Fenton-Thomas, C., 2003, *Late Prehistoric and Early Historic Landscapes on the Yorkshire Chalk*, Br. Archaeol. Repts, Br. Ser. 350
- Giles, M., 2007, 'Good fences make good neighbours? Exploring the ladder enclosures of Late Iron Age East Yorkshire', in Haselgrove, C. and Moore, T. (eds), *The Later Iron Age in Britain and Beyond*, 235-49
- Haselgrove, C., 1984, 'The Later Pre-Roman Iron Age between the Humber and the Tyne', in Wilson *et al.* (eds), 6-26
- Hingley, R., 1989, *Rural Settlement in Roman Britain*
- James, S. and Millett, M., (eds), 2001, *Britons and Romans – Advancing an Archaeological Agenda*
- Loveluck, C., 2003, 'The archaeology of post-Roman Yorkshire, AD 400-700: overview and future directions for research', in Manby *et al.* (eds), 151-170
- Mackey, R., 2003, 'The Iron Age in East Yorkshire: A Summary of Current Knowledge and Recommendations for Future Research', in Manby *et al.* (eds), 117-21
- Manby, T.G., King, A. and Vyner, B., 2003, 'The Neolithic and Bronze ages: a time of early agriculture', in Manby *et al.* (eds), 35-113
- Manby, T.G., Moorhouse, S. and Ottaway, P., 2003, *The Archaeology of Yorkshire. An assessment at the beginning of the 21st century*
- Ottaway, P., 2003, 'Roman Yorkshire: a rapid resource assessment', in Manby *et al.* (eds), 125-150
- Powlesland, D., 2003, 'The Heslerton Parish Project: 20 Years of Archaeological Research in the vale of Pickering', in Manby *et al.* (eds), 275-91
- Ramm, H., 1978, *The Parisi, Peoples of Roman Britain*
- Richards, J. and Robinson, J. (eds), 2000. *Digital Archive From Excavation and Fieldwork A Guide to Good Practice* (Archaeology Data Service)

Signorelli, L. and Roberts, I., 2006, 'Newbridge Quarry, Newbridge, Pickering: Interim Report on Excavations', ASWYAS Rep. 1627

Stoetz, C., 1997, *Ancient Landscapes of the Yorkshire Wolds*

Taylor, J., 2001, 'Rural Society in Roman Britain', in James and Millett (eds), 46-59

Webb, A., 2008, 'Newbridge Quarry, Newbridge, Pickering: Geophysical Survey', ASWYAS Rep. 1770