PART B: DATA ASSESSMENT

7. STRATIGRAPHIC DATA

7.1 Paper Records

7.1.1 The contents of the paper archive are set out in the following table:

Item	No.	Sheets
Context register	1	5
Context sheets	176	176
Section register	1	1
Section drawings	18	42
Plans	16	66
Environmental sample register	1	1
Environmental sample sheets	12	12
Small finds register	0	0

7.2 Photographic Records

7.2.1 The contents of the photographic archive are set out in the following table:

Item	No.	Sheets
Colour slide register	2	2
Colour slides	67	4
Monochrome print registers	4	4
Monochrome prints	133	19
Monochrome negatives	133	7

7.3 Project Archive

7.3.1 The complete project archive, including the paper and photographic records, is currently housed at the Northern Office of Pre-Construct Archaeology. The environmental samples are currently stored at the offices of PRS, along with paper and electronic records pertaining to the environmental assessment The archive will be deposited with York Castle Museum for permanent storage, detailed requirements of the repository will also be met prior to deposition. The accession number is YORYM: 2003.274.

8. POTTERY ASSESSMENT

8.1 Introduction

8.1.1 The pottery assemblage comprised 32 sherds of pottery weighing a total of 367 grams and represented a maximum of 25 vessels. An earlier report on material from the evaluation (Cumberpatch, 2002) identified medieval types including Tees Valley wares, Reduced Sandy wares and Splash Glazed wares, as well as post-medieval and recent material. The evaluation report should be read in conjunction with the present one in order to obtain an overview of the assemblage.

8.1.2 The details of the BED 03 assemblage are summarised in Table 1.

8.2 Discussion

8.2.1 With the exception of the sherd of German stoneware and the sherd of possible imported Sandy ware, the medieval material consisted of a variety of locally manufactured wares. In contrast to the assemblage from the evaluation, the absence of material clearly belonging to the Tees Valley ware tradition was striking and it is unclear how far this is the result of chronological distinctions between the two groups and how far it may relate to other factors.

8.2.2 The range and type of the pottery recovered points to medieval activity on or close to the site, but there is a distinct and marked absence of post-medieval and early modern material. The latest pottery from the site is of recent date, the earliest sherd being the Brown Salt Glazed Stoneware bottle.

8.3 Recommendations

8.3.1 A full report on the material should involve the re-examination of the assemblage from the evaluation and the presentation of a unified report, including a single type series. No further work is required on the 19th and 20th century material but comparison of the medieval material with assemblages from Northallerton and Catterick would be of value in setting the group into its regional context.

Context	Type	Number	Weight	ENV	Part	Form	Date range	Notes
1	Brown Salt Glazed Stoneware	1	104	1	Neck/rim	Bottle	C19th	Wide mouthed stoneware bottle
1	Coarse Sandy ware	1	9	1	BS	U/ID	Medieval	Oxidised sandy ware with patchy glaze internally
1	Slipware	1	61	1	Base	Open vessel	LC17th - C18th	Press-moulded dish with trailed white slip decoration internally
16	Buff Sandy ware	1	19	1	BS	U/ID	C13th - C14th	Heavily tempered sandy ware with abundant fine quartz and occasional non-crystalline grit
59	Gritty ware	1	5	1	BS	U/ID	C12th - C14th	cf. Gritty ware sherds from BED02: 48
59	Late Medieval Sandy ware	1	6	1	BS	U/ID	C15th - C16th	Oxidised sandy ware with bright glaze internally and externally and traces of incised decoration externally
77	Flow blue type Whiteware	1	1	1	BS	U/ID	C19th	Small part of diffuse blue designs
77	Late Whiteware	2	26	1	Rim	Mug	C20th	Hand painted enamel colours; floral motifs
77	Whiteware	2	9	1	Rim	Jar	C19th - EC20th	Folded rim, plain whiteware
77	Whiteware	1	3	1	BS	U/ID	C19th - EC20th	Plain whiteware
94	?Splash Glazed Sandy ware	3	18	1	BS	U/ID	MC11th - EC13th	Discoloured and burnt sherd with black deposit internally and on broken edges; pitted green glaze externally
94	Buff Sandy ware	2	12	2	BS	U/ID	Medieval	Fine, even buff sandy ware, unglazed, probably local
94	German stoneware	1	8	1	?Handle	Bottle	C15th - C16th	Possibly Frechen-Köln type
94	Gritty ware	1	10	1	Rim	Jar	MC11th - C13th	Typical medieval gritty ware with pointed rim; abundant quartz and non-crystalline grit
94	Gritty ware	1	7	1	BS	U/ID	MC11th - C13th	As the rim from this context; an abraded body sherd
94	Late Medieval Sandy ware	1	12	1	Rim	Dish	C15th - C16th	An oxidised sandy ware with a thin layer of white slip under bright green glaze; ?European
94	Late Medieval Sandy ware	1	5	1	BS	Hollow ware	C15th - C16th	Resembles the dish rim from the same context but from a different vessel
94	Oxidised Sandy ware	6	23	3	Rim & BS	Jug	C13th - C15th	Patchy-green glaze on an oxidised sandy ware with a thin pale grey layer under glaze
104	Oxidised Sandy ware	1	2	1	BS	U/ID	C13th - C14th	Quartz tempered buff sandy ware
104	Reduced Sandy ware	1	13	1	BS	U/ID	LC13th - C15th	Typical local reduced sandy ware with incised lines external
150	Later Medieval sandy ware	1	6	1	BS	U/ID	C13th - C15th	A fine oxidised sandy ware with odd (?discoloured) black metallic glaze externally
150	Reduced Sandy ware	1	7	1	BS	U/ID	LC13th - C15th	Typical local micaceous reduced sandy ware
	Total	32	367	25				

Table 8a. Catalogue of pottery from BED 03

9. ANIMAL BONE ASSESSMENT

9.1 Introduction

9.1.1 A total of 37 identifiable bone fragments was recovered during the excavations to the rear of 26 Market Place, Bedale (Table 9a). Very few unidentifiable fragments were included in the assemblage and these have not been counted or tabulated. The bones were in an excellent state of preservation due to waterlogged ground conditions. This is a very small assemblage of animal bones and any conclusions drawn regarding economic conditions and husbandry practices are necessarily highly tentative. The animal bones are recorded on an Excel file.

9.2 Methods

9.2.1 All identifiable bone fragments have been recorded and counted. The separation of sheep and goat was attempted on the radius and distal metacarpal using the criteria described in Boessneck (1969). Equid postcrania were checked against criteria summarised in Baxter (1998). Mandible wear stages are based on Grant (1982). Bone measurements in general follow von den Driesch (1976). Dog withers height and mid-shaft diameter (and its index) is based on Harcourt (1974), horse, cattle and sheep withers heights are based respectively on Kiesewalter (1888), Matolcsi (1970) and Teichert (1975). Only complete bones have been measured.

9.3 Phase V.1: Medieval boundary ditches

9.3.1 Although cattle bones are slightly more frequent than those of sheep/goat in the medieval ditch deposits, ovicaprid remains are relatively frequent, especially as the assemblage derives from ditches where the remains of larger mammals would be expected to be relatively much more common (Wilson 1996). No goat bones could be identified but two out of three ovicaprid bones certainly belong to sheep. They include a complete radius from [140], which came from an animal around 53cm high at the shoulder.

9.3.2 Horse remains are relatively frequent, as is to be expected in ditch deposits (Wilson op. cit.). They include a third metacarpal found in [38] from a pony sized animal of 14 hands.

9.3.3 The radius of a medium sized dog approximately 43cm high at the shoulder was recovered from the same context.

9.3.4 Of particular interest is the partial skeleton of a goose (twelve bones) found in the same context. Although somewhat larger than a brent goose (Branta bernicla), this bird was undersized for a domestic goose or a wild greylag (Anser anser). It may be a small domestic specimen, but the possibility that it belongs to one of several similarly sized and anatomically difficult to distinguish wild species (bean, pink-footed, white-fronted or barnacle) remains high.

9.4 Phase V.2: Medieval alluvial inundation

9.4.1 Cattle bones dominated the assemblage from deposit [150]. They included the horncore of an adult mediumhorn cow (Armitage 1982) and a metatarsal from a beast with a withers height of 123cm. The posterior cranium of a small dog found in this context has been gnawed by rats. A dog ulna from the same context came from an animal 43cm at the shoulder.

9.5 Phase V.3: Medieval ditch reinstatement

9.4.2 A robust dog femur found in context [1] came from a medium sized animal approximately 40cm high at the shoulder. One fragment of cattle bone was also recovered from this ditch fill.

9.5 Discussion and conclusions

9.5.1 The bones of sheep are relatively frequent in the medieval ditch deposits. Cattle are much more predominant in the assemblage from deposit [50] and include mediumhorns. The medieval horse remains derive from pony sized animals of around 14 hands. The dogs in all phases are medium sized 40-43cm high at the shoulder. The medieval ditch assemblages are probably biased in favour of the bones of the larger domestic species (cattle and horse) (Wilson 1996). The skeleton of a goose, most probably a wild bird, was found in medieval ditch [38].

Taxon	Period			Total
	Phase V.1	Phase V.2	Phase V.3	
Cattle (*Bos* f. domestic)	4	8	1	13
Sheep/Goat (*Ovis/Capra* f. domestic)	3	1	(-)	4
Sheep (*Ovis* f. domestic)	(2)	(-)	(-)	(2)
Horse (*Equus caballus*)	3	1	(-)	4
Dog (*Canis familiaris*)	1	2	1	4
Goose (*Anser/Branta* sp.)	1*	(-)	(-)	1
Total	12	14	2	28

Table 9a. *Number of identified specimens (NISP).*

"Sheep/ Goat" also includes the specimens identified to species. Numbers in parentheses are not included in the total of the period.
* twelve bones from a partial skeleton

10. ASSESSMENT OF BIOLOGICAL REMAINS

10.1 Introduction

10.1.1 A previous field evaluation, undertaken by PCA in 2002, revealed evidence relating to medieval, post-medieval and modern occupation of the site. In addition, an accumulation of peat material was encountered across the central portion of the site, suggesting the presence of a localised area of ancient wetland. An assessment study of the pollen indicated an early Holocene, broadly Mesolithic, origin for the peat and this was confirmed by radiocarbon dating. In evaluation Trench 2, a deep sequence of alluvial silts, overlain by a peat formation, was recorded. These deposits were associated with the prehistoric wetland area.

10.1.2 The excavation described in this report was undertaken to identify the full extent of the ancient wetland area, examine any possible evidence of anthropogenic activity at its margins and to recover further material (through bulk sampling) to characterise the ancient environment and gain absolute dates for organic accumulations.

10.1.3 Four column samples (two parallel columns in each of two sections) and six related sediment samples for radiocarbon dating, together with two bulk sediment samples ('GBA'/'BS' sensu Dobney *et al.*, 1992) from medieval ditches, were recovered from the deposits and submitted to PRS for an evaluation of their palaeoecological/bioarchaeological potential.

10.2 Methods

10.2.1 The samples were inspected in the laboratory and their lithologies recorded. For the column samples the deposits were recorded following the sediment classification system of Troels-Smith (1955), together with a brief written description. The bulk samples were described using a standard pro forma.

10.2.2 Sub-samples for pollen and diatom preparation were extracted from each sequence (Column Samples 1 and 4) depending on the stratigraphy. Pollen samples were concentrated on sediment with the highest apparent organic content, whilst diatom samples were taken from silt and clay rich segments of the monoliths.

10.2.3 A total of nine sub-samples for pollen analysis were taken from Section 17, four from the peat layer (Context 158) at intervals of 0.04 m and five from the laminated organic silts (Contexts 159-168) at intervals of 0.16 m. Four diatom samples were taken from the laminated organic silts (at 0.54 m, 0.74 m, 0.88 m and 1.08 m; Contexts 159-168).

10.2.4 A total of 15 sub-samples for pollen analysis were taken from Section 18. Ten of these were from the peat layer (Contexts 71, 171, 172, 173) at 0.08 m intervals and five from the laminated organic silts (Context 176) at 0.16 m intervals. Four sub-samples for diatom analysis were taken from the laminated organic silts (at 1.02 m, 1.22 m, 1.29 m and 1.49 m; Context 176).

10.2.5 Pollen and diatom preparations followed standard procedures (Moore *et al.* 1991 for pollen; Batterbee et *al.* 2001 for diatoms). At least 125 total land pollen grains (TLP) excluding aquatics and spores were counted for each sample where possible. Pollen nomenclature follows Moore *et al.* (1991), with the modifications suggested by Bennett *et al.* (1994). The pollen sum is based on percentage of TLP excluding obligate aquatics and spores. Percentages for these excluded groups are calculated as percentage of the basic sum plus sum of the relevant group.

10.2.6 Two of the columns (Column Sample 2 from Section 17 and Column Sample 3 from Section 18) were divided into sub-samples according to the excavators' allocated contexts. Eleven of these, and 3 kg sub-samples of each of the bulk samples, were processed following the procedures of Kenward *et al.* (1980; 1986), for the recovery of plant and invertebrate macrofossils. As the corresponding pair of columns (those sub-sampled for pollen and diatoms) remain largely intact, an approximately equal amount of sediment to that processed for this assessment remains for each deposit.

10.2.7 Plant remains were examined from a series of sieved samples during examination for material suitable for dating by AMS. In addition the two bulk samples (from medieval ditch fills) were investigated via a residue, washover and flot from paraffin flotation, in one case, and residue and flot in the other Plant remains (and the general nature of the residues, flots and washovers) were recorded briefly by 'scanning' taxa and other components being listed directly to a PC using Paradox software. Notes on the quantity and quality of preservation were made for each fraction.

10.2.8 Insects in the flots were recorded using 'assessment recording' sensu Kenward (1992), creating a list of the taxa observed during rapid inspection of the flot, with a semi-quantitative estimate of abundance, and a subjective record of the main ecological groups. A record of the preservational condition of the remains was made using scales given by Kenward and Large (1998). This scheme provides scales for chemical erosion and fragmentation (0.5-5.5, the higher figure representing the greatest degree of damage), and colour change (0-4), in each case giving a range and a value for the position and strength of the mode (Kenward and Large 1998, tables 2, 3 and 5-7).

10.2.9 For three of the deposits requiring radiocarbon dating plant macrofossils (for dating via AMS) were recovered from the processed sub-samples prior to the application of paraffin flotation. A fourth deposit (Section 17, Context 158) did not yield suitable remains for AMS dating to be attempted and, in view of the macrofossils recovered, it was thought that processing additional material from the dedicated dating sample (Sample 7) would be similarly unproductive. After consultation with the excavator, it was decided to submit plant remains recovered from the base of Column Sample 3 (Section 18, Context 176, 0.0 to 9.0 cm in monolith tin D) for dating in place of material from Context 158 (Section 17), thus providing an earliest date for the longer of the two sequences.

10.2.10 Two of the sub-samples extracted from Column Sample 3 (from Contexts 71 and 172) were not processed for assessment as they appeared of very similar composition to those above, and above and below, respectively, in the sequence. For these, 5 cm slivers of raw sediment (from 1 to 6 cm from the lowest point of each deposit) where sent for dating. After pre-treatment, Context 172 gave 1.6 g of organic remains which were dated by AMS. Context 71 gave rather more organic material (7.4 g) and radiometric dating with extended counting was employed.

10.2.11 All of the material for radiocarbon dating was submitted to Beta Analytic Inc.

10.3 Results

Radiocarbon dates

The radiocarbon dates reported here confirmed and refined the results for the deposits in Section 18 ranging from cal BC 7970 to 6050 (the earliest peat layers being dated to cal BC 7040 to 6670). The individual results from radiocarbon dating of the selected deposits are summarised in Table 10a.

Column samples

The results for the lacustrine and peat deposits from the main trench are presented by Section.

For the sub-samples for plant and invertebrate macrofossils the uppermost contexts are considered first in each case. These sub-samples varied considerably in size depending upon the thickness of the deposit.

Dates quoted in the text sections following refer to the conventional radiocarbon age obtained.

SECTION 18 – COLUMN SAMPLES 3 AND 4

Pollen and diatoms

No diatoms were present in the samples. This may be a result of the acid environment causing dissolution of the silica based frustules. The presence of copulae (girdle bands connecting the diatom frustules) in some samples indicated that diatoms were once present, but it is difficult to draw further conclusions based on this evidence alone. Further information regarding preservation and taphonomic processes may be found in Lowe and Walker (1998, p. 177) or Batterbee (1986).

The results of the pollen analyses are presented as a percentage pollen diagram (Figure 13). With the exception of the samples from 0.21 m and 0.45 m, all the samples assessed contained high to moderate concentrations of pollen. Pollen concentrations in the samples from 0.21 m and 0.45 m were too low to permit adequate counts. Preservation was assessed as good to moderate for the samples from this sequence.

The radiocarbon dates indicated that sediment accumulation began at 8770+/-40 BP (Beta-187370). The basal section of the diagram (1.65-1.01 m) corresponding to the laminated organic silts, was characterised by high percentages of Corylus avellana-type (hazel-type, 70-80%). Other trees and shrubs were recorded at lower percentages, with Betula (birch) up to 15% and Ulmus (elm) up to 8%. Lower values for Quercus (oak, 5% maximum) and Pinus sylvestris L. (Scots pine, 5% maximum) were also recorded. Little herbaceous pollen was present.

Following the transition to peat at around 0.95 m, which was dated to 7940+/-40 BP (Beta-167369), there was a marked change in the pollen spectra with Cyperaceae (sedges) increasing markedly to around 90% and Corylus avellana-type initially reduced to approximately 5%. Quercus increased slightly initially and values for Pinus sylvestris were also enhanced and there was a significant increase in Pteropsida (monolete) indet. to 80% TLP+spores. A peak in Betula of approximately 50% at 0.37-0.29 m shortly after 7490+/-60 BP (Beta-187366) was associated with the beginning of a decline in Cyperaceae and a reduction in Pinus sylvestris. However, by the close of the diagram, and just after a date of 7290+/-40 BP (Beta-187365), the situation was reversed, with Pinus sylvestris peaking at 40% and Betula reduced to 10%. The proportion of Alnus glutinosa (L.) Gaertner (alder) also rose to 10% by the top of the diagram.

The Section 18 sequence reflects early Holocene vegetation changes. The basal segment of the diagram records hazel dominated wood/scrub land, with some birch probably also present locally. Other trees including oak and elm were perhaps growing either as subordinate components of the local arboreal cover or at some distance from the site in extra-local contexts. The low percentages of herbaceous pollen indicate that the woodland was fairly dense with few open areas. The sizeable increase in Cyperaceae above 0.77 m is closely associated with a change in the stratigraphy from organic silt to peat and suggests that following basin infill, sedge communities became established on the sampling site.

Likewise, the marked rise in Pteropsida (monolete) indet. must reflect the local expansion of ferns. Hazel woodland probably remained dominant in the wider landscape, with the reduction in representation of this pollen type largely a result of its suppression by the abundance of Cyperaceae. The increase in pine is most likely a reflectipn of the increased local availability of suitable conditions for this tree as a result of peat growth.

The steady reduction in Cyperaceae and rise in Betula above 0.53 m is probably a reflection of successional processes, with the continued accumulation of peat at the site leading to a slightly drier substrate suitable for birch growth at the expense of sedge communities. By the close of the diagram, similar processes connected to changes in soils on and around the site, and resulting from peat accumulation, probably account for the fall in Betula and peak in Pinus sylvestris. During this period there is little evidence for changes in the extent of the other arboreal taxa, although the rise in Alnus glutinosa at the top of the diagram may be connected to the beginning of the local expansion of this tree.

Plant and invertebrate macrofossils

Context 67 [Tin A: 18.0 to 50.0 cm]

Sample 311/T (1.75 kg sieved to 300 microns with paraffin flotation)

Dark brown, crumbly, woody detritus. Troels-Smith: Dl2Dh/Dg2.

The large residue of about 120 cm^3 was of granular woody detritus, including some largish wood fragments (they were very crumbly; it was impossible to check their identification using hand-cut thin-sections). There were also some small, squarish, shiny bark fragments which were selected for dating. The large fine fraction was essentially undisaggregated amorphous peaty matrix with wood and bark fragments and a few rootlets. The only identifiable remains were traces of birch (Betula) fruits.

The fict was small, with rather few insects and a few mites and cladocerans. While most of the insects would have exploited swamp with pools, there was a tiny fragment from a single wood-boring beetle (probably Grynobius planus (Fabricius)), perhaps a pointer to the development of trees locally. A much larger sub-sample would probably give an assemblage of insects just large enough to be informative.

Context 171 [Tin B: 20.0 to 32.0 cm]

Sample 309/T (0.7 kg sieved to 300 microns with paraffin flotation)

Dark brown, rather crumbly, mix of mud and fine detritus. Troels-Smith: Ld3Dg/Dh1.

There was a large residue of about 375 cm^3 of woody and herbaceous detritus, mostly very fine roots (presumably ancient) and monocotyledonous stem/leaf fragments, with some wood fragments to 10 mm (all rather poorly decayed and perhaps largely comprising roots rather than twigs or stem wood). The large fine fraction was remarkably free of identifiable remains, apart from a few poorly preserved birch fruits.

The small flot included only modest numbers of insect remains, which were often badly preserved, fragmented and pale (E 2.5-4.5, mode 3.0 weak; F 2.0-5.5, mode 3.5 weak). There were some aquatics (both beetles and a few ctadocerans), but this was probably the fauna of swamp with pools. No 'dry land' (as opposed to marsh) species were recorded. A larger sub-sample would give a useful assemblage in the context of a stratigraphic series.

Context 173 [Tin B: 0.0 to 8.0 cm; Tin C: 38.0 to 48.0 cm]

Sample 307/T (1.35 kg sieved to 300 microns with paraffin flotation)

Mid to dark brown (somewhat 'banded'), mix of mud and fine detritus. Troels-Smith: Ld47Dg+.

The very large residue of about 1300 cm^3 consisted of herbaceous detritus rich in fine rootlets, with some small woody fragments, and frequent sedge (Carax) nutlets (with more in the flot). Other well-preserved identifiable remains included some fragments of hazel (Corylus avellana L.) nutshell and remains of other woody taxa (birch female catkin-scales, with traces of fruits and buds/bud-scales and oak (Quercus) bud/bud-scales) and a little moss (some identified as *Hypnum* cf. *cupressiforme* Hedw.). Traces of fern shoots (small emerging fronds, perhaps a species such as marsh fern, Thelypteris palusMs Schott) and fern trachekis were also noted. One whole hazelnut recovered from this samples showed evidence of rodent gnawing.

The flot was notable for its large proportion of seeds. Insect remains were numerous but variably preserved and mostly pale (E 2.5-4.5, mode 3.5 weak; F 1.5-4.0, mode 2.5 weak; trend to pale 1-4, mode 3 distinct). There were quite large numbers of aquatics, but a 'swamp' fauna was well represented, and deposition must have been at the water's edge, or in pools. A notable record was of fragments of what appeared to be the floghopper *Aphrophora major* Uhler, typically found on *Myrica gale* L., supporting the inference of swamp. All of the terrestrial fauna, including a range of both beetles and bugs, may have exploited moss and litter in a swamp. A larger sub-sample would provide a useful group of insect remains capable of giving a detailed reconstruction of local conditions, although very careful processing would be needed to try to avoid fragmenting the fossils further, and identification would be time-consuming.

Context 174 [Tin C: 36.0 to 38.0 cm]

Sample 306/T (0.2 kg sieved to 300 microns with paraffin flotation)

Mid to dark brown, 'moss-rich' detritus. Troels-Smith: Dh4.

This very small sample, representing a thin layer, yielded a huge residue of about 1200 cm^3 of fine herbaceous detritus which proved to be a mass of matted fine moss (Drepanocladus) fragments, pale and rather decayed, with some fine roots, and some well-preserved birch fruits. Sedge nutlets were frequent, but no other identifiable plant remains were noted.

The flot. which was large in relation to the amount of sediment processed, consisted mostly of fragments of moss (*Drepanocladus*) shoots. Insect remains were not abundant and their preservation variable (E 1.5-3.0, mode 2.5 weak; F 2.0-4.0, mode 3.0 weak). Although aquatics were present (there were no crustaceans, however), the overall impression was, again, of a swamp fauna. A sub-sample of 3 to 5 kg would be needed to provide a useful assemblage and clarify depositional conditions. No truly terrestrial forms were seen, although this is not surprising in such a small group.

Context 176 [Tin C: (34.0-36.0) to 36.0 cm]

Sample 305/T (0.28 kg sieved to 300 microns with paraffin flotation).

Dark brown, soft mud, with a little herbaceous detritus. Troels-Smith: Ld3Dg1.

A moderate-sized to large residue of about 80 cm^3 of organic debris was obtained from this sub-sample. It was quite rich in identifiable plant remains, mainly birch fruits (with buds/bud-scales and female catkin-scales), together with tree leaf fragments and unidentifiable (rather decayed) moss (though some material determined as *Drepanocladus*, typical of bogs, fens and marshes, was also present). There were also traces of saw-sedge nutlets (*Cladium mariscus* (L.) Pohl) and bog-bean (*Menyanthes trifoliata* L.) seeds representing waterside or fen habitats. Preservation was generally good or very good. Indicators of open water were traces of hornwort (*Ceratophyllum*) fruits and Characeae oogonia, but most of the other remains were from terrestrial plants, including oak (*Quercus*) and rowan (*Sorbus aucuparia* L.).

Insect remains were present in modest numbers, but their preservation was sometimes fairly poor (E 2.0-3.5, mode 3.0 weak; F 2.5-5.0, mode 3.5 weak). The flot, which was quite large bearing in mind the very small sub-sample processed, was difficult to sort, and the numerous very fragmented insects would be difficult (but often not impossible) to identify. Deposition was aquatic, though cladocerans were rare and no ostracods were seen. The terrestrial component was limited. A substantial sub-sample (perhaps 3-5 kg) would be required to give an interpretatively useful assemblage in the context of a stratigraphic series.

Context 176 [Tin D: 0.0 to 9.0 cm]

Sample 303/T (3.6 kg sieved to 300 microns with paraffin flotation)

Dark grey-brown, soft (working more or less plastic), mud, with some fine laminations/partings. Snails were present. Troels-Smith: Ld4test mol.+.

The residue was not checked at this stage for plant remains (being, in essence, the same as that recorded from Sample 301, below). The flot was large and very rich in insect remains, although the latter were typically reduced to small fragments which would be fairly difficult to identify and quantify. Chemical preservation was generally quite good, however (E 1.5-3.0, mode 2.0 weak; F 2.5-5.0, mode 4.0 weak). The fauna indicated aquatic deposition, including flowing water (*Limnius volckmari* (Panzer)), but terrestrial conditions were only weakly represented. A larger sub-sample (significantly more than the 3.6 kg already processed) would be needed to obtain much information about conditions beyond the site of deposition, and the nature of the flot was such that sorting would be slow. However, despite these methodological difficulties, the fauna would be of value as part of a stratigraphic series.

Context 176 (Tin C: 0.0 to 12.0 cm; Tin D: 27.0 to 50.0 cm]

Sample 301/T (1.0 kg sieved to 300 microns with paraffin flotation)

Mid yellowish-brown (oxidising mid to dark grey-brown), soft (working more or less plastic), mud, with moderate numbers of snails present. Troels-Smith: Ld4test mol.+.

There was a moderate-sized residue of about 200 cm^3 of herbaceous detritus and (mostly) very fine mollusc shell fragments. The former included free leaf fragments (to 5 mm in maximum dimension), with moderate numbers of fruits, buds/bud-scales and female catkin-scales of birch. Preservation of plant material was generally good. Other plant remains observed were restricted to traces of saw-sedge nutlets and poplar/aspen (*Populus*) buds/bud-scales; the fine fraction was rather rich in oogonia of the freshwater green alga stonewort (Characeae). A lacustrine to base-rich fen environment is indicated with trees fringing the wetland area.

The flot, which was fairly large, was rich in invertebrate remains, predominantly fragments of immature insects. Preservation was fairly good (E 1.5-3.0, mode 2.0 weak; F 2.0-3.5, mode 2.5 weak). The deposit was undoubtedly watertain, for *Daphnia* ephippia were abundant (order of 10^2), there were aquatic snails (fragments of planorbids but not identifiable to species), and most of the insects—both beetles and bugs—were aquatics. A rich environment, with well-developed vegetation, is suggested, and there were indications of flowing water from *Oulimnius*, *Limnius* and *Esolus* species. While swamp or waterside species were represented, terrestrial insects were notably rare. A larger sub-sample (3-5 kg) of this deposit would provide a substantial insect assemblage of use in reconstructing aquatic and waterside habitats.

SECTION 17 – COLUMNS SAMPLES 1 AND 2

Pollen and diatoms

No diatoms were present in the samples. As with the samples from Section 18, the presence of copulae in some samples indicated that diatoms were once present, but, again, it is difficult to draw further conclusions based on this evidence alone.

The results of the pollen analyses are presented as a percentage pollen diagram (Figure 14). With the exception of the samples from 0.47 m and 0.51 m, all the samples assessed contained adequate concentrations of pollen. The samples from 0.47 m and 0.51 m contained only trace organic residues with few palynomorphs present. Preservation was assessed as poor to moderate for the samples from this sequence, but, on the whole, the pollen spectra made ecological sense and it is thought likely that the samples were largely unbiased.

The pollen spectra from the organic silts (0.67 m, 0.83 m and 1.05 m) were dominated initially by *Betula*, which attained 80% in the basal sample, falling to around 40% as percentages of Poaceae increased to 30%. Other trees and shrubs included *Pinus sylvestris* (up to 6%), *Corylus avellana*-type (1-2%) *Salix* (2-3%) and *Juniperus communis* L. (juniper, 1-3%), but these were not dominant components. A sparse range of herbaceous taxa was recorded, including Cyperaceae, *Rumex* (docks), *Artemisia*-type (cf. mugwort), *Thalictrum* (meadow rue), *Helianthemum* (rock-rose) and Caryophyllaceae (pink/campion family). Low peaks of 4% in *Helianthemum* at 0.83 m and *Thalictrum* at 0.67 m represented the highest values for herbs other than Cyperaceae or Poaceae. *Betula* remained dominant following the transition from organic silts to peat at around 0.44 m, with the most marked change being the increase in *Pinus sylvestris* to as much as 16%. A marked rise in Pteropsida (monolete) indet. to up to 70% TLP+spores was also observed at this point. The representation of *Corylus avellana*-type was also enhanced slightly to 3-5%. Few herbs were present, although Lactuceae undiff. was recorded at 2-3% at 0.35 m and 0.39 m.

The Section 17 sequence reflects the presence of birch scrub/woodland around the sampling site. Few other trees were present, aside possibly from some willow and limited extents of juniper, with the *Pinus* curve probably reflecting long distance transport.

Some open grassland and sedge communities are suggested, although the Poaceae may also derive from local wetland grasses such as *Phragmites*. The likelihood of the latter source being favoured by the sparse record for other herbs. Those herbs which were recorded include mugwort rock rose, meadow rue and species' of dock typical of 'open steppe' communities on disturbed, possibly skeletal soils. The marked increase in Pteropsida (monolete) indet. at 0.43 m indicates a local expansion of ferns, possibly related to processes associated with the hydroseral succession from open water to semi-terrestrial conditions as the basin infilled. Pine also seems to have begun to expand locally at this time, possibly also as a result of the availability of suitable peaty soils around the basin.

Plant and invertebrate macrofossils

Context 168 [Tin A: 7.5 to 16.0 cm; Tin B: 45.0 to 50.0 cm]

Sample 209/T (1.55 kg sieved to 300 microns with paraffin flotation)

Dark brown, firm (to crumbly), well humified (?slightly woody), detritus peat. Troels-Smith: Ld/Dg47Dl+.

The small residue of barely 50 cm^3 comprised clasts of undisaggregated humic material with a little gravel (to 10 mm), and coal, cinders and charcoal (all to 3 mm). A single charred barley grain (*Hordeum*) was also noted. Uncharred plant remains included small numbers of Characeae oogonia, with traces of other aquatics (white water-lily, *Nymphaea alba* L., seed fragments and pondweed, *Potamogeton* sp., fruits) and traces of poplar/aspen buds/bud-scales.

The flot consisted mostly of decayed plant material, with only traces of insect remains. No other invertebrates were noted.

Context 169 [Tin A: 0.0 to 7.5 cm; Tin B: 30.0 to 45.0 cm]

Sample 208/T (1.85 kg sieved to 300 microns with paraffin flotation)

Light yellow-brown (locally mid to dark brown), soft to crumbly (working slightly plastic), slightly humic marl, flecked but not clearly banded with mollusc shell. Troels-Smith: Lc4As/Ag+test mol.+.

The residue of about 330 cm^3 was of moderate size for the size of the sub-sample. It comprised undisaggregated marl with abundant snails (largely fragmentary and unidentified). Not surprisingly, given the nature of the sediment, Characeae oogonia were frequent, other aquatic taxa including white water-lily and pondweed. The only truly terrestrial remains were traces of poplar/aspen buds/bud-scales.

The small flot consisted predominantly of numerous planorbid (most probably *Planorbis planorbis* (L.)) and other aquatic snails (including many Lymnaea peregra (Müller), some *Valvata piscinalis* (Müller) and a few ?*Bithynia leachii* (Sheppard)), and there were only traces of other invertebrate remains. The latter showed variable preservation (E 2.5-4.0) and had no potential for interpretation. As a whole, the snails suggest slow moving or still, thickly weeded (consistent with the aquatic plant remains), hard water.

Context 161 [Tin B: 0.0 to 17.5 cm; Tin C: 30.5 to 50.0 cm]

Sample 206/T (4.4 kg sieved to 300 microns with paraffin flotation)

Very pale to light to mid grey-brown, finely banded, silty marl, with some amorphous organic material. Troels-Smith: Lc3Ld1As/Ag+.

The small residue of about 250 cm^3 consisted of herbaceous plant detritus and a little undisaggregated marl. There were a few rather eroded birch fruits and poplar/aspen buds/bud-scales and a small range of other taxa essentially representing aquatic and marsh habitats, though there was no very large and coherent assemblage.

The flot was large (not unexpected in view of the large sub-sample processed), and contained of the order of several thousand carapaces (as opposed to ephippia) of cladocerans, as well as numerous chironomid (midge) larval head capsules, placing deposition in water. There were a few aquatic beetles, but the terrestrial component was limited. Overall, the impression was of a lake or deep pond sediment. Although chemically in fairly good condition, the beetle remains were often very fragmentary and difficult to see amongst the other debris in the flot (E 2.0-3.0, mode 2.5 weak; F 2.0-5.0, mode 3.0 weak). While the insect remains (other, perhaps, than Chironomidae) have little potential for detailed interpretation (although of some use in a stratigraphic series), the cladocerans from this layer may be valuable as a source of information regarding water quality, and they should perhaps be assessed by an appropriate specialist.

Context 164+166+166 [Tin C: (14.0-14.5) to 22.0 cm]

Sample 203/T (0.8 kg sieved to 300 microns with paraffin flotation)

Dark brown (Context 165 forming a paler band between 164 and 166 but otherwise identical), firm to brittle, silty amorphous organic sediment/mud. Troels-Smith: Ld3As/Ag1 to LdlAs/Ag+.

This small sub-sample yielded a very large residue of about 525 cm^3 of fine plant debitus, the coarser fraction consisting of flakes of undisaggregated humic silt (probably best interpreted as a silty nekron mud). The fine fraction contained some Characeae oogonia and traces of birch fruits and female catkin-scales.

The flot was rather large bearing in mind the small sub-sample processed, and included abundant midge (Chironomidae) larval head capsules, modest numbers of beetle remains, and a few cladocerans (mostly *Daphnia*). Preservation was rather poor and the remains generally pale and fragmented (E 3.0-4.5, mode 2.5 weak; F 2.0-5.5, mode 3.5 weak, trend to pale 1-4, mode 3 weak). While deposition was clearly aquatic (from the chironomids and cladocerans) there were only traces of aquatic insects, most representing waterside or terrestrial habitats. This fauna would probably have been of considerable interest if better preserved and larger, but, even allowing for the processing of a very large sub-sample, the invertebrates remain of borderline value except as general indicators and as part of a series.

Bulk sediment samples

Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample number.

Context 38 [Phase V.1 ditch fill]

Sample 5/T (3 kg sieved to 300 microns with paraffin flotation and washover; approximately 15 litres of unprocessed sediment remain)

Moist, mid to dark brown to mid to dark grey-brown, stiff and brittle to crumbly (working soft), very humic silt and fine herbaceous detritus. Fragments of wood and fresh water molluscs were present.

The washover of about 80 cm^3 taken to concentrate mollusc consisted mainly of (presumably ancient) fine rootlets with well-preserved achenes of water-crowfoot (*Ranunculus* Subgenus *Batrachium*), snails and quite a lot of beetles not extracted by paraffin flotation. The small residue of about 300 cm^3 was mainly woody and herbaceous detritus with a little sand and moderate amounts of whole and fragmentary snail shell, wood fragments (to 25 mm) and (presumably reworked) peat fragments (to 10 mm). Quite a lot of the wood could well be from twigs; all were rather eroded. The seeds present were mostly well-, sometimes very well-preserved, however, the assemblage being dominated by water crowfoot, with Characeae, saw-sedge and celery-leaved crowfoot (*Ranunculus sceleratus* L.). Other taxa, present in smaller amounts, included a number typical of wet ditches though some may have arrived from disturbed habitats in the vicinity. Traces of bone (unidentified fragments) and charcoal were present, but there was otherwise no very strong evidence from the plant remains for human activity, however. The identifiable snail remains were all of freshwater planorbids, most probably *Planorbis planorbis* (L.) typically found in ditches and small ponds containing weeded hard water.

The fill contained quite large numbers of insects, which were chemically well preserved but often comminuted (E 1.5-3.0, mode 2.5 weak; F 2.0-5.0, mode 3.0 weak), as well as of the order of 100 *Daphnia* ephippia (probably two species at least) and numerous ostracods. A range of aquatic beetles and bugs was noted, all being fairly tolerant of stagnant water, and there were several larval cases of caddis flies (Trichoptera). There were appreciable quantities of terrestrial insects, with hints of grassland (e.g. the chafer *Hoplia philanthus* (Fuessly)) and dung (*Aphodius* and *Geotrupes* species). *Dead* wood was indicated by *Ptilinus pectinicornis* (Linnaeus) and *Grynobius planus* (Fabricius), both of which occur in structural as well as natural timber. The addition of insects from a further sub-sample should provide a good range of evidence concerning local environment and land use.

Context 139 (Phase V.1 ditch fill]

Sample 6/T (3 kg sieved to 300 microns with paraffin flotation; approximately 16 litres of unprocessed sediment remain)

Idoict, mid to dark brown to mid to dark grey-brown (to black internally – giving a sulphide smell when lumps were broken open), brittle to crumbly (working soft), very humic, slightly sandy silt, with fine and coarse herbaceous detritus. Occasional patches of pale grey clay silt (to 12 mm) were present as were fragments of wood (or ?woody root).

The moderately large residue of about 450 cm^3 was of woody debris with many snail shell fragments. Preservation of the plant remains was good, with some sulphide blackening and (in some specimens) pyritisation. Although the more frequent remains (Characeae, rush (*Juncus*), white water-lily, persicaria (*Polygonum persicaria* L.), water crowfoot and docks (*Rumex*)) pointed to damp ground and standing water the presence of seeds of cultivated flax (*Linum usitatissimum* L.), with material which may well be stem fragments and stem epidermis of this plant, suggests human activity—most probably in the form of flax retting.

Preservation of invertebrates was variable, from good to poor (E 1.5-4.0, mode 3.0 weak; F 1.5-5.0, mode 3.5 weak). Ostracods were very abundant (order of 10^3), and there were numerous ephippia of *Daphnia* and a second characteristic cladoceran (order of 10^3 in both cases). Further evidence of aquatic deposition came from some pond snails (?*Lymnaea* sp.) and a modest range of insects, the latter including an Elminthid, suggesting flowing water (probably an inflow, not at the point of deposition). There were some waterside and terrestrial insects, the latter indicating herbaceous vegetation and (somewhere) dung. An additional sub-sample of perhaps 5 kg would give an interpretatively useful group of insect remains, although fragmentation would slow identification. Very careful processing might allow recovery of less damaged remains, although the fossils may have been broken during deposit formation (drying or the activity of scavengers?) or subsequently (compression of the deposits by overburden or machinery?).

10.4 Discussion and Statement of Potential

10.4.1 Column samples

10.4.1.1 The pollen spectra from both Sections 17 and 18 record early Holocene vegetation changes, but there are very good grounds to believe that Section 17 reflects a slightly earlier phase of landscape development Birch (*Betula*) woodland spread rapidly over the landscape in the earliest Holocene; with a date for this expansion of 10120+/-180 BP (Birm-405) available from the Bog at Roos in Holderness (Beckett, 1981). Pollen evidence from the nearby site of Star Carr in the Vale of Pickering indicates that hazel (*Corylus*) arrived in this area at around 9400 BP, replacing the *Betula* woodland, with elm (*Ulmus*) and then oak (*Quercus*) arriving *circa* 7500 BP (Day and Mellars, 1994). The dominance of *Betula* in the Section 17 diagram, and low values for other tree taxa, thus suggests that this sequence is earlier than that of Section 18. Indeed, it is possible that the sequence reaches back into the Late-glacial. The few herbs recorded in the samples from the laminated organic silts include *Artemisia*, *Helianthemum* and *Thalictrum*, taxa which are typical of the bare, disturbed soils of the Loch Lomond Stadial (Day, 1995). Radiocarbon dating would be required to support this hypothesis.

10.4.1.2 The vegetational changes recorded in the upper part of the Section 18 pollen diagram appear to be largely connected to processes related to the transition from open water, reflected by the laminated silts, to a peat accumulating system. The poor representation of arboreal taxa such as *Quercus* and *Ulmus*, which elsewhere are recorded in higher percentages by 9000-8500 BP (Birks, 1989), is probably a result of the very high values for Cyperaceae, rather than an indication of the delayed expansion of these trees.

10.4.1.3 No identifiable diatom remains were recovered from the sub-samples and the potential for further study is clearly very low.

10.4.1.4 Plant macrofossil remains preserved by anoxic waterlogging were generally well preserved and usually reasonably abundant and the assemblages often of quite restricted diversity, as might be expected in deposits which were largely detritus peats. Preservation of invertebrate remains was very varied within and between deposits. Some assemblages gave the subjective impression that there may have been general decay, so perhaps the deposits as a whole may be at risk from dewatering. The concentration of invertebrates varied, too, from very low to moderately high (extremely high if crustaceans are included), probably reflecting ecological conditions, rate of sediment accumulation and (in the case of the lake deposits) distance from the shoreline.

10.4.1.5 All the plant and insect assemblages indicated aquatic deposition, though in some cases in swamp rather than open water; the sequence of insect assemblages from Section 18 seems to show a hydroseral succession leading to swamp with *Myrica* (though there is no specific evidence for that plant from the botanical material).

10.4.1.6 The only evidence of possible human activity from the sub-samples from the columns was the small quantity of charred plant remains and cinder recovered from Context 158 (Section 17, Column Sample 2). Context 158 lay immediately beneath a 19th century dump deposit (Context 157, not assessed) and the possibility of contamination from this layer cannot be discounted.

10.4.2 Bulk sediment samples

10.4.2.1 The plant and invertebrate remains from the medieval ditch fills indicated that these features held water. In one case (Context 139), some evidence of human activity was suggested, namely flax reiting. Additional information regarding local land use and the immediate environment would almost certainly be forthcoming from detailed study of the remains (particularly of insects) from larger sub-samples.

10.5 Recommendations

10.5.1 Eastern England has proven to be a key area for the study of late-glacial and early Holocene environments, with detailed palaeoecological studies carried out at Roos Bog in Holderness (Beckett, 1981), Gransmoor Quarry in the Hull valley (Walker *et al.*, 1993), Star Carr in the Vale of Pickering (Day, 1995; Day & Mellars, 1994) and most recently at Cove Farm Quarry, Westwoodside in the Humberhead levels (Bateman *et al.*, 2001). Although lacking the context of the later Holocene, and thus effectively fragmentary records, the Bedale sequences should be regarded as having the potential to provide further information to this picture regarding the timing and nature of early Holocene vegetation changes. More detailed pollen analyses of both sequences are therefore recommended, ideally in conjunction with plant and invertebrate macrofossil analyses and supported by radiocarbon dating of the Section 17 sequence.

10.5.2 No further investigation of these samples for diatoms is recommended.

10.5.3 Further analysis of the plant and invertebrate macrofossil assemblages from the Mesolithic lake/swamp deposits would give a more detailed picture of ecological conditions and the hydroseral succession, although information about the wider landscape would be limited. Samples from some of the deposits would need very careful processing, and sorting and identification of insects would sometimes be laborious. In exploring the lake/swamp deposits further, the assemblages would need to be seen as part of a stratigraphic series, making some of the smaller groups, which would not stand in isolation, more useful.

10.5.4 The macrofossil remains from the medieval ditch deposits have much more potential for reconstruction of local land-use and human activity and certainly deserve detailed analysis (via larger sub-samples) providing dating can be refined.

10.6 Retention and Disposal

10.6.1 All of the remaining sediment, together with the remains extracted from the processed sub-samples, should be retained for the present

10.7 Archive

10.7.1 All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

Context	Sample	Location in column sample monolith	Beta Number	Submitted material	Conventional radiocarbon age	Calibration of radiocarbon age to calendar years @ 2-sigma
67	311/T	Tin A: 18.0 to 50.0 cm	Beta-187365	Bark fragments, probably birch (*Betula*): 335 mg	7290 +/- 40 BP	Cal BC 6230 to 6050 (Cal BP 8180 to 8000)
71	310	Tin A: 1.0 to 6.0 cm (Tin 2: 33.0 to 33.0 cm)	Beta-187366	Organic sediment: 220 g	7490 +/- 60 BP	Cal BC 6445 to 6225 (Cal BP 8395 to 8175)
171	309/T	Tin B: 20.0 to 32.0 cm	Beta-187367	Small wood and bark fragments: 65 mg	7940 +/- 40 BP	Cal BC 7040 to 6670 (Cal BP 9000 to 8620)
172	308	Tin B: 9.0 to 14.0 cm	Beta-187368	Organic sediment: 115 g	7960 +/- 50 BP	Cal BC 7055 to 6670 (Cal BP 9005 to 8620)
173	307/T	Tin B: 0.0 to 8.0 cm Tin C: 38.0 to 48.0 cm	Beta-187369	Three small fragments of well preserved hazel (*Corylus avellana* L.) nutshell: 70 mg	7940 +/- 40 BP	Cal BC 7040 to 6670 (Cal BP 9000 to 8620)
176	301/T	Tin D: 0.0 to 9.0 cm	Beta-187370	Tree bud-scales, birch female catkin scales, dicotyledonous leaf fragments: 27 mg	8770 +/- 40 BP	Cal BC 7970 to 7650 (Cal BP 9920 to 9600)

Table 10a. Summary of the radiocarbon dates (all deposits from Section 18)

Position in column	Context	Sample number	Troels-Smith	Transition	Description	Notes
Tin A: 18.0 to 50.0 cm	67	311	Dl2Dh/Dg2	grades to...	Dark brown, crumbly, woody detritus	
Tin A: 0.0 to 18.0 cm Tin B: 32.0 to 50.0 cm	71	310	Dh/Dh3Ld1	grades to...	Dark brown, somewhat crumbly, detritus	
Tin B: 20.0 to 32.0 cm	171	309	Ld8Dg/Dh1	grades to...	Dark brown, rather crumbly, mix of mud and fine detritus	
Tin B: 8.0 to 20.0 cm	172	308	Ld8Dg/Dh1	grades to...	Dark brown mud with fine detritus	softer and less crumbly than Sample 309
Tin B: 0.0 to 8.0 cm Tin C: 56.0 to 48.0 cm	173	307	Ld4?Dg+	grades to...	Mid to dark brown (somewhat 'banded'), mix of mud and fine detritus	
Tin C: 36.0 to 38.0 cm	174	306	Dh4	grades to...	Mid to dark brown, 'moss-rich' detritus	moss rich detritus
Tin C: (34.0-36.0) to 36.0 cm	175	305	Ld3Dg1	sharp boundary to...	Dark brown, soft mud, with a little herbaceous detritus	
Tin C: 12.0 to (34.0-36.0) cm	176	304	Ld4test mol.+	grades to...	as 303 but locally paler brown	
Tin C: 0.0 to 12.0 cm Tin D: 27.0 to 56.0 cm	176	303	Ld4test mol.+		Dark grey-brown, soft (working more or less plastic), mud, with some fine laminations/partings. Snails were present	some fine laminations / partings
Tin D: 9.0 to 27.0 cm	176	302	Ld4test mol.+	grades to...	Mid grey-brown, soft (working more or less plastic), mud. Snails present	lighter shade of grey-brown
Tin D: 0.0 to 9.0 cm	176	301	Ld4test mol.+		Mid yellowish-brown (oxidising mid to dark grey-brown), soft (working more or less plastic), mud, with moderate numbers of snails present	yellow-brown in colour

Table 10b. Summary of the column sample description.

Section 18, Column Sample 3

The deposits are listed in stratigraphic sequence from top to bottom with their positions within the individual monoliths recorded from the base of each tin. Where the overlapping of the monoliths has resulted in the same deposit being present in two tins the positions within each are given

Position in column	Context(s)	Sample number	Troels-Smith	Transition	Description	Notes
Tin A: 16.0 to 50.0 cm	157	210	Gg1As1Ag2	grades over lower 5 cm to...	Dark grey-brown, crumbly (working slightly plastic), stony clay silt	humic in lower 5 cm
Tin A: 7.5 to 15.0 cm Tin B: 45.0 to 50.0 cm	158	209	Ld/Dg4?Dl+	very sharp boundary to...	Dark brown, firm (to crumbly), well humified (?slightly woody), detritus peat	
Tin A: 0.0 to 7.5 cm Tin B: 30.0 to 45.0 cm	159	208	Lc4As/Ag+test mol.+	very sharp boundary to...	Light yellow-brown (locally mid to dark brown), soft to crumbly (working slightly plastic), slightly humic marl, flecked but not clearly banded with mollusc shell	
Tin B: 17.5 to 30.0 cm	160	207	As/Ag4	very sharp boundary to...	Mottled light to mid grey and brown, soft (working plastic), clay silt to silty clay	
Tin B: 0.0 to 17.5 cm Tin C: 30.5 to 50.0 cm	161	206	Lc3Ld1As/Ag+	very sharp boundary to...	Very pale to light to mid grey-brown, finely banded, silty marl, with some amorphous organic material	
Tin C: 29.5 to 30.5 cm	162	205	Ld3As/Ag1 to Ld4As/Ag+	very sharp boundary to...	as 203 but less 'rubbary'	
Tin C: 22.0 to 29.5 cm	163	204	Lc3Ld1test mol.+	very sharp boundary to...	Pale yellow/mid to dark brown banded marl and mud	
Tin C: (14.0-14.5) to 22.0 cm	164+165+166	203	Ld3As/Ag1 to Ld4As/Ag+	fairly sharp boundary to...	Dark brown (Context 165 forming a paler band between 164 and 166 but otherwise identical), firm to brittle (and somewhat 'rubbery'), silty amorphous organic sediment/mud	Context 165 appears to be just a lighter coloured band
Tin C: (8.0-11.5) to (14.0-14.5) cm	168	202	As/Ag4?Sh+	fairly sharp boundary to...	Mid grey-brown, soft (working plastic), ?slightly humic, silt	
Tin C: 0 to (8.0-11.5) cm	169	201	Ga/Gs2As/Ag1Gg1		Light grey plastic clay with abundant wood and gravel	

Table 10c. Summary of the column sample descriptions

Section 17, Column Sample 2

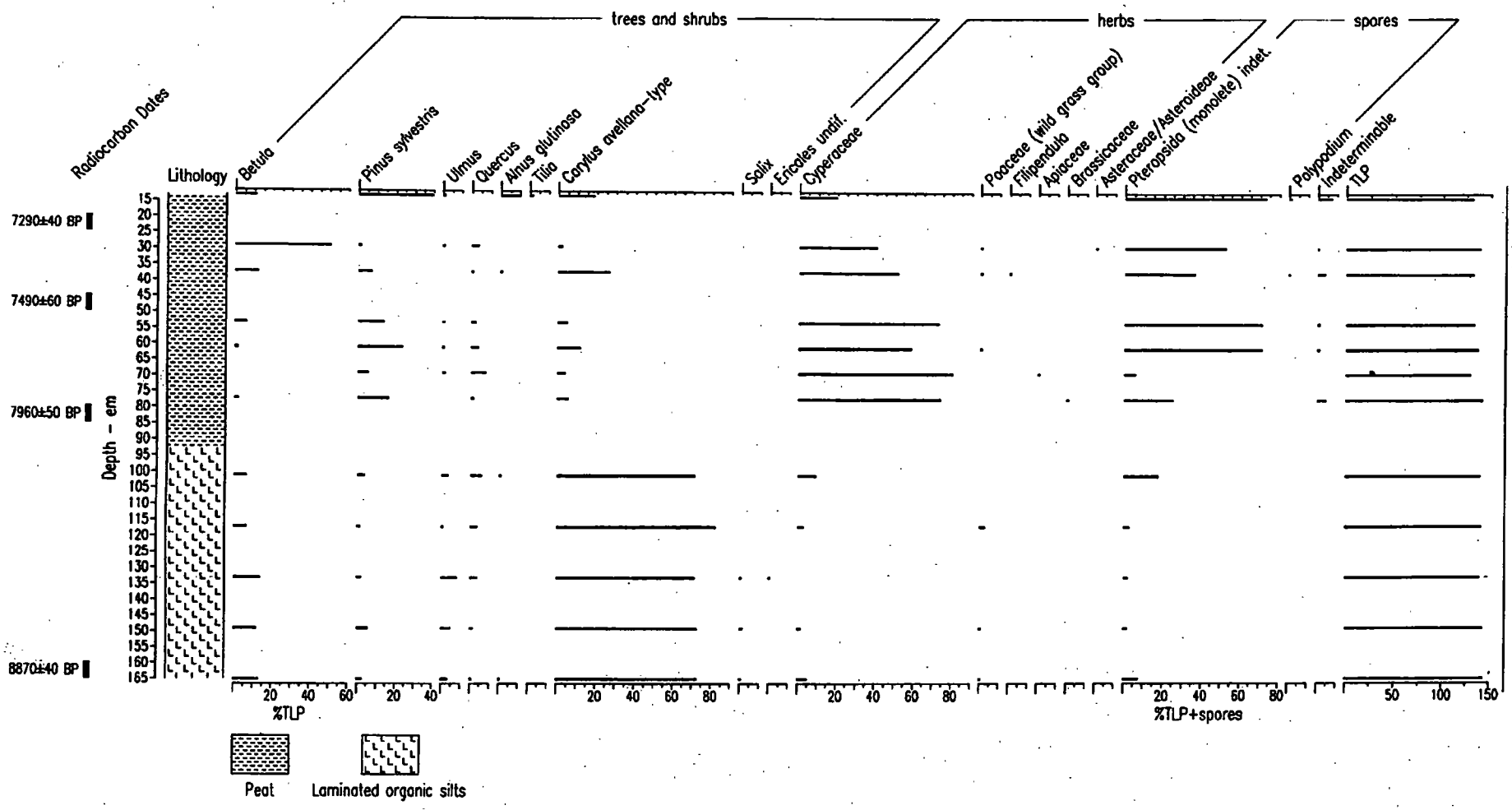

Figure 13. Percentage pollen diagram for Saction 18

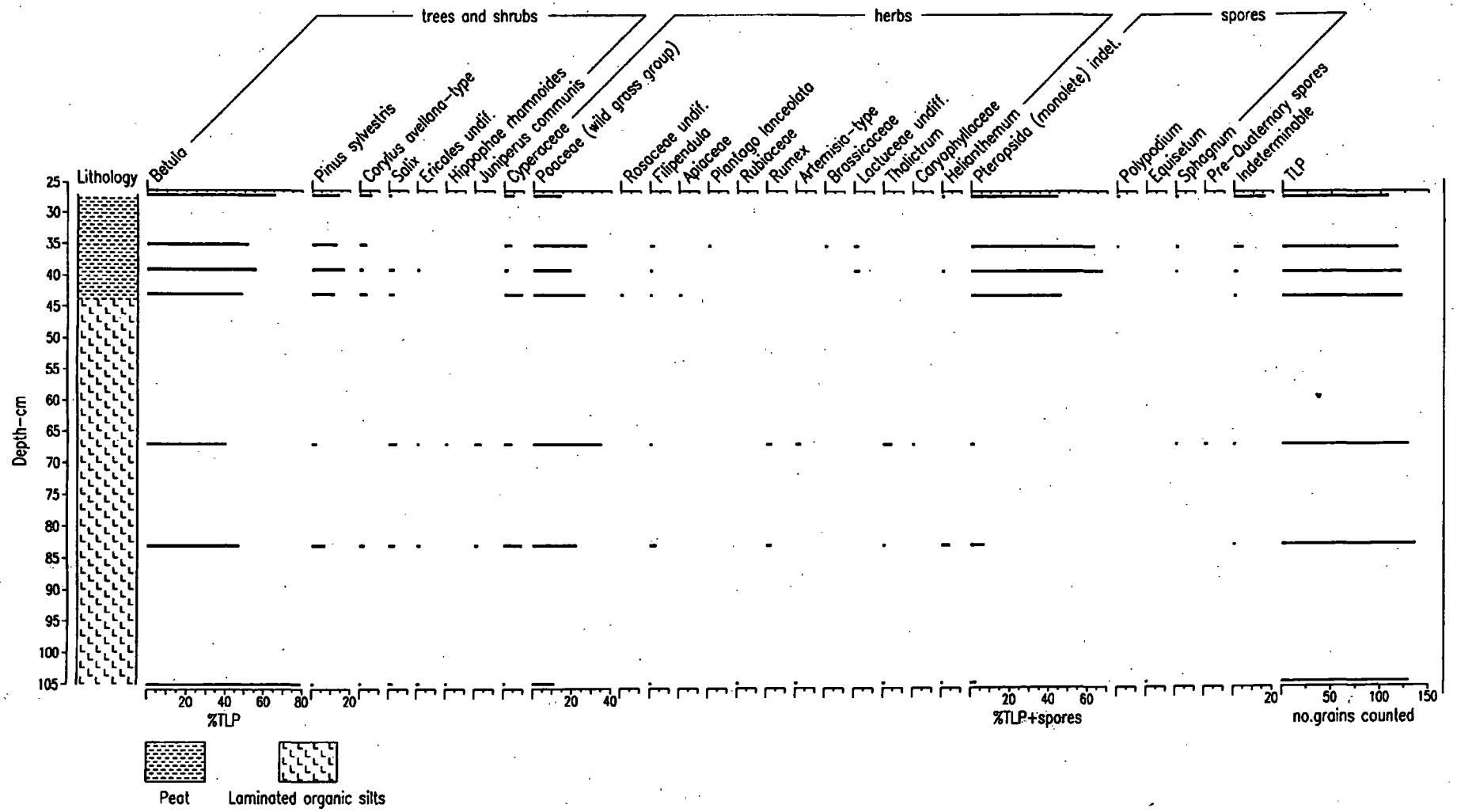

Figure 14. Percentage pollen diagram for Section 17

11. SIGNIFICANCE OF THE PROJECT DATA AND PUBLICATION OUTLINE

11.1 Introduction

11.1.1 The significance of each element of the project data-set is summarised in the following sub-sections, which also set out recommendations for further analysis. In addition, an outline proposal of any further action required in each case is stated.

11.1.2 Although archaeological significance or 'value' is a subjective concept, for the purposes of this section of the report, the significance of each dataset has been defined simply as being low, moderate or high with the project's research objectives in mind, these reflecting current local, regional and national archaeological research agendas.

11.2 Environmental Data

11.2.1 One of the principal aims of the fieldwork, as outlined in the Specification, was to fully assess the environmental material in the prehistoric wetland area in an attempt to establish the palaeoenvironmental conditions at the site. The excavation revealed the presence of prehistoric wetland deposits of high significance in a local and regional context. Eastern England has proven to be a key area for the study of late-glacial and early Holocene environments. Although lacking the context of the later Holocene, and thus effectively fragmentary records, the Bedale sequences should be regarded as having the potential to provide further information to this picture regarding the timing and nature of early Holocene vegetation changes. More detailed pollen analyses of both sequences are therefore recommended, ideally in conjunction with plant and invertebrate macrofossil analyses and supported by radiocarbon dating of the Section 17 sequence.

11.2.2 No further investigation of these samples for diatoms is recommended.

11.2.3 Further analysis of the plant and invertebrate macrofossil assemblages from the Mesolithic wetland deposits would give a more detailed picture of ecological conditions and the hydroseral succession, although information about the wider landscape would be limited. Samples from some of the deposits would need very careful processing, and sorting and identification of insects would sometimes be laborious. In exploring the wetland deposits further, the assemblages would need to be seen as part of a stratigraphic series, making some of the smaller groups, which would not stand in isolation, more useful.

11.2.4 The macrofossil remains from the medieval ditch deposits have much more potential for reconstruction of local land-use and human activity. The evidence for flax retting is direct evidence for the textile industry and is of high local and regional significance. Accordingly, the samples certainly deserve detailed analysis (via larger sub-samples).

11.3 Stratigraphic Data

11.3.1 A further aim of the Specification was to establish whether there was any lakeside human activity or settlement in the area during prehistory. It was only possible to examine a small area of the lake margins, due to diesel contamination, and this revealed no evidence for human activity. The absence of residual artefactual material, such as worked flint, along with the lack of evidence for human activity in the column samples, broadly indicates that the margins of the wetland area were probably not exploited during the Mesolithic period.

11.3.2 The excavation also sought to establish the nature of the medieval activity within the site and how this related to the development and occupation of the Market Place. A series of NW-SE and NE-SW aligned medieval boundary features were recorded during the excavation. These indicated a rectilinear boundary system that would have defined the boundaries of backlots to medieval burgage plots fronting the Market Place, as well as sub-divisions within them. The plot boundaries essentially remain fossilised in the present day property boundaries. A series of linear boundary features recorded during the excavation are interpreted as the southern boundary of the plot occupied by 34 Market Place, along with sub-divisions. Archaeological investigation of backlot boundary features such as these has been relatively limited in towns within the county. By way of parallel, a similar, but far more extensive, system of backlot boundaries and sub-divisions was recorded in Northallerton (Proctor and Taylor-Wilson, forthcoming).

11.3.3 Structural evidence for the medieval occupation of the site was recorded during the evaluation and the stratigraphic data from the two phases of investigation should be fully integrated into a synthesised publication text.

11.3.4 The medieval stratigraphic data recovered from the investigations at the site, along with the environmental material and pottery from this period, are considered to be of high archaeological significance, in a local and regional context.

11.4 Artefactual Material and Faunal Remains

11.4.1 A small but relatively important assemblage of medieval pottery was recovered from the investigations. A full report on the assemblage material should involve the re-examination of the assemblage from the evaluation and the presentation of a unified report, including a single type series. No further work is required on the 19th and 20th century material but comparison of the medieval material with assemblages from Northallerton and Catterick would be of value in setting the group into its regional context.

11.4.2 The medieval animal bone assemblage was too small to allow any firm conctusions to be drawn regarding economic conditipns and husbandry practices. No further work is therefore recommended on this material.

11.5 Publication Outline

11.5.1 It is recommended that the findings of the investigations are detailed in an illustrated article in a suitable journal. At present, the evidence recovered from the excavations is deemed suitable for a regional journal such as the *Yorkshire Archaeological Journal*. However, it is possible that the further research recommended for the palaeoenvironmental material may provide results which merit publication in a national specialist publication, such as the *Journal of Holocene Studies* or the *Journal of Biogeography*.

11.5.2 An estimation of the length in words of a publication text can only be accurately determined once all the recommendations of this report are discussed and reviewed by all interested parties.

11.5.3 A suggested outline format for the publication report is set out below.

ABSTRACT: This introductory paragraph will summarise the site publication including its location, period, finds and significance.

INTRODUCTION: The introduction will describe the setting of the site, detail the background to the investigations and outline the methodology employed.

GEOLOGICAL AND TOPOGRAPHICAL BACKGROUND: This section will detail the geology and topography of the site.

ARCHAEOLOGICAL BACKGROUND: This section will focus on documentary and cartographic evidence in order to set the results of the investigations in context.

THE ARCHAEOLOGICAL AND PALAEOENVIRONMENTAL EVIDENCE: This will detail the results of the investigations and will include a synthesised description of the evidence from the evaluation and excavation.

DISCUSSION OF THE EVIDENCE: This will propose an interpretation of the archaeological remains based on the excavated features, the environmental evidence, and research into similar sites at a national as well as regional level.

ILLUSTRATIONS: These will include: site location plan; location plan of the excavated area; plans and section drawings along with interpretative plans.

12. ACKNOWLEDGEMENTS

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Report: Jennifer Proctor and Gavin Glover

Project Management: Robin Taylor-Wilson

Post-Excavation Management: Jennifer Proctor

CAD: Adrian Bailey

Other Credits

Pottery Assessment: Chris Cumberpatch

Animal Bone Assessment: Ian Baxter

Biological Remains Assessment: Palaeoecology Research Services

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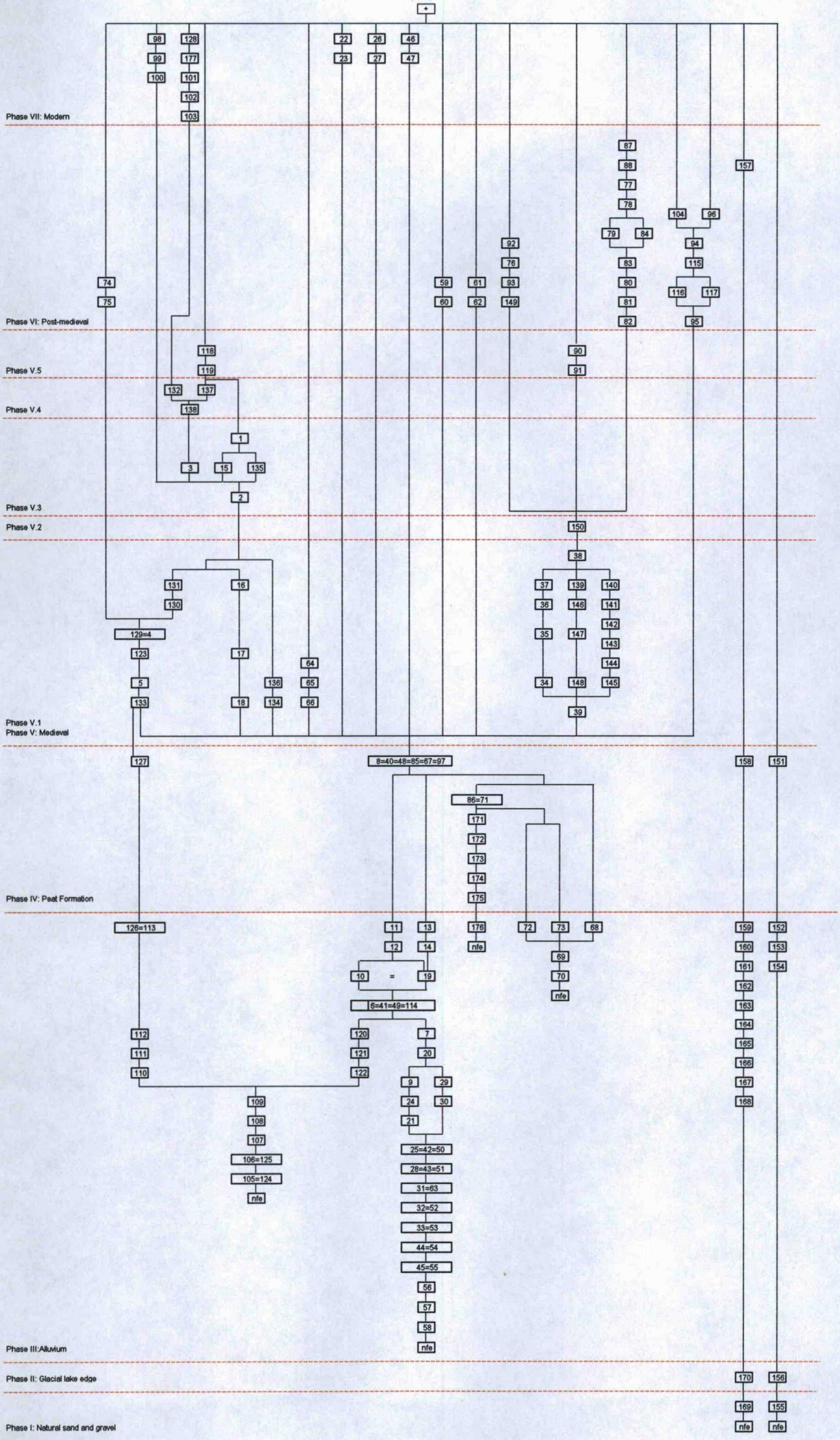
APPENDIX A

STRATIGRAPHIC MATRICES


Phase VII: Modern
Phase VI: Post-medieval
Phase V.5
Phase V.4
Phase V.3
Phase V.2
Phase V.1
Phase V: Medieval
Phase IV: Peat Formation
Phase III:Alluvium
Phase II: Glacial lake edge
Phase I: Natural sand and gravel
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APPENDIX B

CONTEXT INDEX

Context	Type	Phase	Description	Interpretation
1	Fill	V.3	Soft, dark grey, silty clay, frequent organic flecks; 0.43m thick	Fill of ditch [2]
2	Cut	V.3	Linear, steep-sided, flat base; c.8m NW-SE then c.16m NE-SW, up to 1.50m wide and 0.80m deep	Boundary ditch
3	Fill	V.3	Plastic, mid grey with black streaking, silty clay, frequent root disturbance; 0.30m thick	Fill of ditch [2]; possibly same as [1]
4	Fill	V.1	Dark brown, peat with clay patches, frequent small wood fragments; 0.28m thick	Fill of ditch [133]; seen in section 2
5	Fill	V.1	Soft, mid brownish grey, organic silt, frequent mollusc shells, 0.27m thick	Primary fill of ditch [133]; seen in section
6	Fill	III	Soft, very light brown, sandy silt; 0.38m thick	Lake-bed silt
7	Fill	III	Soft, light brown, sandy silt; 0.20m thick	Lake-bed silt
8	Layer	IV	Firm, dark brown, peat; up to 0.17m thick	Uppermost peat formation; see [40]
9	Fill	III	Soft, greenish brown, clayey silt; up to 0.30m thick	Lake-bed silt
10	Fill	III	Soft, mid brown, organic silt with clay patches; 0.17m thick	Lake-bed silt
11	Fill	III	Loose, dark brown, sandy silt; 0.14m thick	Alluvial silt
12	Cut	III	Shape unknown, gradual sides, flat base; N-S: 1.14m, 0.14m deep	?Hollow in alluvial deposits; probably not anthropogenic
13	Fill	III	Firm, dark brown, organic silt, frequent organic flecks; N-S: 0.55m, 0.14m thick	Alluvial silt
14	Cut	III	Gradual sides, concave base. N-S: 0.55, 0.14m deep.	?Hollow in alluvial deposits; probably not anthropogenic
15	Fill	V.3	Soft, dark grey, organic silty clay; 0.56m thick	Primary fill of ditch [2]
16	Fill	V.1	Soft, dark grey brown, silty clay and organic material; 0.52m thick	Secondary fill of ditch [18]
17	Fill	V.1	Soft, dark brown silty clay and orgainc material. 2.94m x 8.36m (as seen), 0.32m thick	Primary fill of ditch [18]
18	Cut	V.1	Linear, steep-sided, concave base; c.8m NW-SE, then bifurcates at right angles, c.16m and c. 1.6m NE-SW, up to 0.90m wide and 0.75m deep	Boundary ditch
19	Fill	III	Soft, mid brown, organic deposit with patches of sand; 0.11m thick	Lake-bed silt
20	Fill	III	Soft, mid browish green, sandy silt; 0.40m thick	Lake-bed silt
21	Fill	III	Soft, mid brown, sandy silt; 0.37m thick	Lake-bed silt
22	Structure	VII	Ceramic drain set in concrete	Modern drain
23	Cut	VII	Linear, N-S orientated; full dimensions not recorded	Service trench for drain [22]
24	Fill	III	Soft, mid grey brown, sandy silt; 0.17m thick	Lake-bed silt
25	Fill	III	Soft, mid greenish brown, sandy silt; 0.45m thick	Lake-bed silt
26	Structure	VII	Plastic drain pipes set in concrete	Modern drain
27	Cut	VII	Sub-square, steep-sided; full dimensions not recorded	Construction cut for drain [26]
28	Fill	III	Soft, very light brown, sandy silt, frequent plant fibres; 0.32m thick	Lake-bed silt
29	Fill	III	Soft, dark grey, sandy silt; 0.14m thick	Lake-bed silt
30	Fill	III	Soft, mid grey, sandy silt, occasional plant fibres; 0.09m thick	Lake-bed silt
31	Fill	III	Soft, very light grey, sandy silt; 0.16m thick	Lake-bed silt
32	Fill	III	Soft, mid grey, clay silt, occasional plant fibres; 0.10m thick	Lake-bed silt
33	Fill	III	Firm, dark grey, silty clay, occasional organic material; 0.63m thick	Lake-bed silt
34	Fill	V.1	Soft, dark greyish brown, silty sand, occasional organic patches; up to 0.15m thick	Primary fill of ditch [39]
35	Fill	V.1	Loose, mid grey, sandy silt, occasional oragnic patches; 0.16m thick	Fill of ditch [39]
36	Fill	V.1	Soft, dark brown, sandy silt, frequent organic material, occasional charcoal flecks; 0.10m thick	Fill of ditch [39]
37	Fill	V.1	Soft, mid grey, sandy silt, occasional plant fibres, occasional charcoal flecks; 0.09m thick	Fill of ditch [39]
38	Fill	V.1	Friable, dark brown, clayey peat; 0.41m thick	Uppermost fill of ditch [39]
39	Cut	V.1	Linear, steep-sided, concave base; c.13.50m NW-SE, up to 1.80m wide and 0.93m deep	Boundary ditch
40	Layer	IV	Friable, dark brown, wood peat; 0.15m thick	Uppermost layer of peat formation; same as [08], [48], [85], [67] & [97]
41	Fill	III	Soft, very light brown, sandy silt; 0.10m thick	Lake-bed silt
42	Fill	III	Soft mid greenish brown sandy silt; 0.11m thick	Lake-bed silt; same as [25] & [50]
43	Fill	III	Soft very light brown sandy silt, frequent plant fibres; 0. 21m thick	Lake-bed silt; same as [28] & [51]
44	Fill	III	Soft. Light grey green silty sand; 0.16m thick	Lake-bed silt; same as [54]
45	Fill	III	Soft, mid brown grey clay silt; 0.09m thick	Lake-bed silt; same as [55]
46	Fill	VII	Compact, mid greyish brown, silty sand and brick rubble; 1.40m thick	Fill of feature [47]

Context	Type	Phase	Description	Interpretation
47	Cut	VII	Vertical sided, base not visible; 0.60m N-S, 1.40m deep (as seen)	Modern intrusion
48	Layer	IV	Friable, dark brown, wood peat; 0.16m thick	Uppermost layer of peat formation; see [40]
49	Fill	III	Soft, very light brown, sandy silt; 0.05m thick	Lake-bed silt; same as [06], [41] & [114]
50	Fill	III	Soft, mid greenish brown, sandy silt, frequent plant fibres; 0.07m thick	Lake-bed silt; same as [25] & [42]
51	Fill	III	Soft, very light brown, sandy silt, frequent plant fibres; 0.17m thick	Lake-bed silt; same as [28] & [43]
52	Fill	III	Soft, mid grey, clay; up to 0.14m thick	Lake-bed silt; same as [32]
53	Fill	III	Firm, dark grey, silty clay; 0.55m thick	Lake-bed silt; same as [33]
54	Fill	III	Soft, light greyish green, silty sand, occasional wood fragments; 0.21m thick	Lake-bed silt; same as [44]
55	Fill	III	Soft, mid brownish green, clayey silt; 0.10m thick	Lake-bed silt; same as [45]
56	Fill	III	Soft, dark brown, organic silt; 0.05m thick	Lake-bed silt
57	Fill	III	Soft, light grey with dark grey bands, very organic silt, 0.05m thick	Lake-bed silt
58	Fill	III	Firm, dark grey, silty clay, occasional plant fibres; 0.12m thick (as seen)	Lake-bed silt
59	Fill	VI	Firm, mid greenish grey, silty clay, frequent small stones and charcoal flecks; 0.18m thick	Fill of construction cut [60]
60	Cut	VI	Linear, east side steep, west side gradual; 10.90m NE-SW, 1.10m wide, 0.18m deep	Construction cut for former building
61	Fill	VI	Firm, mid greenish grey, silty clay, frequent small stones and charcoal flecks; 0.13m thick	Fill of construction cut [62]
62	Cut	VI	Linear, steep side to the west, east side truncated; 12.70m NE-SW, 1.10m wide, 0.13m deep	Construction cut for former building
63	Fill	III	Soft, light grey, sandy silt, occasional plant fibres; 0.20m thick	Lake-bed silt; same as [31]
64	Fill	V.1	Soft, mid grey, silty clay; 0.09m deep	Fill of stakehole [66]
65	Timber	V.1	Wooden stake tip; 33mm x 54mm x 62mm	Tip of a stake in stakehole [66]
66	Cut	V.1	Sub circular, vertical sided, pointed base; 0.07m x 0.08m, 0.15m deep.	Stakehole containing remains of driven stake [65]
67	Layer	IV	Friable, dark brown, peat, occasional plant fragments; up to 0.45m thick	Uppermost peat formation; see [40]
68	Fill	III	Soft, dark grey brown, sandy silt; 0.08m thick	Lake-bed silt
69	Fill	III	Soft, light grey brown, sandy organic silt; 0.50m thick	Lake-bed silt
70	Fill	III	Soft, light yellowish brown, sandy organic silt; 0.30m thick	Lake-bed silt
71	Layer	IV	Soft, mid to dark brown, wood peat; 0.50m thick	Peat formation, probably same as [86]
72	Fill	III	Soft mid greyish brown, sandy organic silt; 0.07m thick	Lake-bed silt
73	Fill	III	Soft mid greyish brown sandy organic silt; 0.10m thick	Lake-bed silt
74	Fill	VI	Firm, mid bluish grey, silty clay; 0.17m thick	Fill of feature [75]
75	Cut	VI	?Corner of a feature, moderate sloping sides and largely flat base; 1.45m x 0.53m, 0.17m deep	Feature of uncertain function
76	Masonry	VI	Wall; sub-rounded cobbles, bonded with a light grey mortar, up to 6 courses high; 12.55m NE-SW, up to 0.75m high (as seen)	Boundary wall
77	Fill	VI	Compact, mid brownish grey, silty sand, moderate small sub-angular stones, charcoal fragments and mortar flecks, occasional slate fragments; 0.21m thick	Fill of feature [80]
78	Fill	VI	Compact, mid yellowish brown, silty clay, moderate sub-angular stones and mortar flecks, occasional charcoal flecks; 0.23m thick	Fill of feature [80]
79	Fill	VI	Compact, mid greyish brown, sandy silt, moderate sub-angular stones, occasional mortar and charcoal flecks; 0.12m thick	Fill of feature [80]
80	Cut	VI	Linear, steep-sided, fairly flat base; 6.50m SE-NW, c.2.50m wide, truncated to SW, 0.40m deep	Construction cut for wall [88]
81	Fill	VI	Compact, mid yellowish green, silty clay, moderate large sub angular stones, occasional charcoal flecks; 0.22m thick	Fill of feature [82]
82	Cut	VI	Curving truncated feature, stepped side to the NW, base not seen; 2.80m NE-SW, truncated by feature [80] to the SE, 0.45m deep.	Uncertain feature, maybe related to feature [80]
83	Fill	VI	Compact, dark grey, clay silt, occasional small sub-angular stones and charcoal flecks; 0.18m thick	Peaty fill of construction/consolidation cut [80]
84	Fill	VI	Compact, mid brownish grey, sandy silt, moderate charcoal and mortar flecks, occasional small sub-angular stones; 0.15m thick	Consolidation fill in cut [80]
85	Layer	IV	Soft, dark brown, peat; 0.36 thick	Uppermost peat formation; see [40]
86	Layer	IV	Soft, dark brown, peat; 0.09m thick (as seen)	Peat formation; same as [71]

Context	Type	Phase	Description	Interpretation
87	Fill	VI	Loose, mid orange brown silty sand and gravel; 0.12m thick	Fill of construction cut [80] for wall [88]
88	Masonry	VI	Wall; degraded limestone or mudstone, roughly-cut elements 250mm x 150mm x 100mm (average), bonded with sandy and chalky mortar, occasional sandstone blocks; c.5.50m SE-NW, returning slightly to SW, 1.18m wide, 0.20m high	Wall with a partial SW return at its NW end; represnts former post-medieval building
89	VOID			
90	Fill	V.5	Soft, mid bluish grey, silty clay; 0.12m thick	Fill of gully [91]
91	Cut	V.5	Linear shallow gully/ditch, although slightly irregular in plan, uneven sides and base; 6.05m NW-SE, 0.35m wide, 0.12m deep	Shallow gully/ditch, probably reinstatement of boundary represented by ditch [39]
92	Fill	VI	Loose, dark grey, clayey silt, frequent large stones; 0.45m thick	Fill of construction cut [76]
93	Cut	VI	Linear, NE-SW orientated, profile not seen; c.15m NE-SW, 0.20m wide, 0.45m deep	Construction cut for post medieval boundary wall [76]
94	Fill	VI	Soft mid bluish grey, silty clay, frequent charcoal flecks, occasional small sub-angular stones; 0.40m thick	Fill of ?footing [95]
95	Cut	VI	E-shaped in plan, gradual sides with a concave base; full NW-SE extent: 10.10m, with three NE extensions, 1.6m-2.4m wide, extending to the limit of excavation, up to 0.40m deep	?Base of footing for former post-medieval building
96	Fill	VI	Friable, dark bluish grey, silty clay and large sub-rounded cobbles; 0.20m thick	Fill of ?footing [95]
97	Layer	IV	Soft, dark brown peat; thickness uncertain	Peat formation; see [40]
98	Fill	VII	Compact, mid grey, silty clay; 0.42m thick	Fill of feature [100]
99	Fill	VII	Compact, dark grey, clayey silt; 0.14m thick	Primary fill of feature [100]
100	Cut	VII	Shape in plan uncertain, steep-sided, flat base; 0.50m wide, 0.55m deep	Modern intrusion
101	Fill	VII	Firm, dark greyish brown, silty clay; 0.40m deep	Fill of feature [103]; diesel contaminated
102	Fill	VII	Firm, mid greyish brown, silty clay; 0.28m deep	Primary fill of feature [103]; diesel contaminated
103	Cut	VII	Shape in plan uncertain, stepped sides, base not visible; 2.90m N-S, 1.15m deep	Modern intrusion; ?related to 19th/20th century gas house
104	Fill	VI	Firm, mid bluish grey, silt, occasional small sub-angular stones; 0.05m thick	Fill of footing [95]
105	Fill	III	Soft, light grey, silty clay; 0.20 thick	Lake-bed silt; same as [124]
106	Fill	III	Soft, light grey, clayey silt, occasional plant fibres; 0.26m thick	Lake-bed silt; same as [125]
107	Fill	III	Soft, mid grey, clayey silt; 0.28m thick	Lake-bed silt
108	Fill	III	Soft, dark grey clay silt, frequent plant fibres; 0.20 thick	Lake-bed silt
109	Fill	III	Soft, mid grey, clayey silt; 0.45m thick	Lake-bed silt
110	Fill	III	Soft, dark grey, clayey silt, frequent plant fibres; 0.27m thick	Lake-bed silt
111	Fill	III	Firm, mid brownish grey, clayey organic silt; 0.18m thick	Lake-bed silt
112	Fill	III	Loose, mid brown, organic silt, occasional plant fibres; 0.20m thick	Lake-bed silt
113	Fill	III	Firm, very dark brown, clayey silty peat; 0.19m thick	Lake-bed silt; same as [126]
114	Fill	III	Soft, very light brown, sandy silt; 0.19m thick	Lake-bed silt; same as [6]
115	Fill	VII	Firm, dark brown, clayey peat; 0.21m thick	Fill of footing [95]
116	Fill	VII	Compact, very dark brown, peat; 0.04m thick	Fill of footing [95]
117	Fill	VII	Firm, dark bluish grey, silty clay, occasional very small stones; 0.14m thick	Fill of footing [95]
118	Fill	V.5	Soft, light grey, clayey silt, occasional small stones; up to 0.25m thick	Fill of feature [119]
119	Cut	V.5	Shallow ditch/gully, NE-SW aligned, gradual sloping sides, concave base; 7.70m long (as seen), up to 0.56m wide, 0.25 deep	Shallow ditch/gully, probably reinstatement of boundary delimited by ditch [2]
120	Fill	III	Soft, very light grey, clayey silt, frequent plant fibres; 0.30m thick	Lake-bed silt
121	Fill	III	Soft, dark grey, clayey silt; 0.05m thick	Lake-bed silt
122	Fill	III	Soft, light grey, clayey silt; 0.20m thick	Lake-bed silt
123	Fill	V	Soft, very dark grey, clayey silt; 0.15m thick	Fill of ditch [133]
124	Fill	III	Diesel contaminated deposit; 0.24m thick	Lake-bed silt; same as [105]
125	Fill	III	Diesel contaminated deposit; 0.30m thick	Lake-bed silt; same as [106]
126	Fill	III	Diesel contaminated deposit; 0.23m thick	Lake-bed silt; same as [113]
127	Layer	IV	Friable, dark brown, wood peat; 0.33m thick	Uppermost peat formation; ?same as [08], [40], [48], [85], [67] & [97]

Context	Type	Phase	Description	Interpretation
128	Layer	VII	Firm, mid grey, silty clay, frequent cbm fragments, frequent charcoal flecks; extends 6.35m in section, 0.60m thick	Demolition layer - diesel contaminated
129	Fill	V.1	Firm, mid brown with black streaking, silty clay, occasional lenses of light brown clay; 0.25m thick	Fill of ditch [133]; seen in section
130	Fill	V.1	Firm, mid brown, silty clay; 0.27m thick	Fill of ditch [133]; seen in section
131	Fill	V.1	Friable, mid brown, clayey organic silt; 0.23m thick	Fill of ditch [133]; seen in section
132	Fill	V.4	Friable, mid grey, clayey silt; 0.30m thick	Fill of ditch [138]; seen in section
133	Cut	V.1	Linear, NE-SW aligned, recorded in section at an oblique angle; extends c.9.90m in section, 0.48m deep	Boundary ditch; same as ditch [18]
134	Cut	V.1	Linear, NE-SW aligned, steep-sided, concave base; extent uncertain, 0.41m wide, 0.34m deep; only seen in section	?Boundary ditch
135	Fill	V.1	Soft, dark brownish grey, silty clay; 0.13m thick	Fill of ditch [2]
136	Fill	V.1	Soft, dark brownish grey, silty clay; 0.22m thick	Fill of ditch [134]
137	Fill	V.4	Firm, mid brownish grey, silty clay; up to 0.20m thick	Fill of ditch [138]; seen in section
138	Cut	V.4	Linear, NE-SW aligned, U-shaped in profile; extends c.12m, 0.45m wide, 0.20m deep	Boundary ditch; seen in section
139	Fill	V.1	Soft, dark green, silty clay, with frequent dark brown patches; 0.24m thick	Fill of ditch [39]; ?same as [37] and [140]
140	Fill	V.1	Soft, very dark grey, silt, organic material and clay; 0.30m thick	Fill of ditch [39]; ?same as [37] and [139]
141	Fill	V.1	Soft, very dark brown, silty clay; 0.04m thick	Fill of ditch [39]; ?same as [36] and [146]
142	Fill	V.1	Soft, mid greyish brown, very mixed silt and organic matter; 0.08m thick	Fill of ditch [39]
143	Fill	V.1	Soft, light brownish grey, organic material and silt with black mottling; 0.11m thick	Fill of ditch [39]
144	Fill	V.1	Soft, mid brownish grey, organic silt with occasional light grey patches; 0.13m thick	Fill of ditch [39]
145	Fill	V.1	Soft, mid greyish brown, organic silt; 0.08m thick	Primary fill of ditch [39]
146	Fill	V.1	Soft, dark brown, silty clay; 0.03m thick	Fill of ditch [39]; ?same as [36] and [141]
147	Fill	V.1	Soft, very dark brown, organic silt; 0.14m thick	Fill of ditch [39]
148	Fill	V.1	Soft, mid greyish brown, organic silt; 0.20m thick	Fill of ditch [39]; ?same as [145]
149	Layer	VI	Soft, mid greyish brown, stoney gravel and clay; extends 4.75m, up to 0.11m thick	Post-medieval accumulation
150	Layer	V.2	Soft, mid bluish grey, clay, occasional sub-rounded pebbles and organic patches, up to 0.20m thick	Alluvial clay observed across much of northern end of site
151	Layer	IV	Soft, dark greyish brown, peat; 0.10m thick	Uppermost peat formation
152	Fill	III	Soft, light bluish grey with yellowish brown mottling; 0.05m thick	Lake-bed silt
153	Fill	III	Soft, mid bluish grey with orange brown mottling, silty clay; 0.20 thick	Lake-bed silt
154	Fill	III	Soft, mid bluish grey, clay; 0.05m thick	Lake-bed silt
155	Layer	I	Loose, mid yellow with orange brown and light grey mottling, coarse sand with fine and medium sub-angular and sub-rounded gravel pebbles, occasional small limestone fragments	Natural sub-stratum
156	Cut	II	Shape in plan not visible, irregular sides, base not known; extends c.14.40m SW-NE, full dimensions not seen,	Prehistoric lake edge
157	Layer	VII	Soft, mid bluish grey, clayey silt, frequent limestone fragments, coal and cbm flecks; 0.32m thick	Dump layer
158	Layer	IV	Soft, dark brown, peat; 0.22m thick	Peat formation; ?same as [08], [40], [48], [67], [85] and [97]
159	Fill	III	Soft, very light brown, fine silt; 0.18m thick	Lake-bed silt
160	Fill	III	Soft, mid bluish grey, silty clay; 0.13m thick	Lake-bed silt
161	Fill	III	Soft, laminated light to mid greyish brown, lenses of fine silt, occasional organic fragments; 0.17m thick	Lake-bed silt
162	Fill	III	Soft, dark brown, laminated silts, occasional wood fragments; 0.03m thick	Lake-bed silt
163	Fill	III	Soft, light brown, laminated fine silts, occasional organic flecks; 0.04m thick	Lake-bed silt
164	Fill	III	Soft, dark greenish brown, silt; 0.01m thick	Lake-bed silt
165	Fill	III	Soft, very light brown, laminated silts, occasional organic material; 0.04m thick	Lake-bed silt
166	Fill	III	Soft, dark brown, very organic silt; 0.08m thick	Lake-bed silt
167	Fill	III	Soft, light brown, laminated silt; 0.03m thick	Lake-bed silt
168	Fill	III	Soft, mid to dark bluish grey, clay silt, occasional fine sub-rounded stones; 0.08m thick	Lake-bed silt
169	Layer	I	Loose, dark bluish grey, coarse sandy clay and fine sub-rounded and sub-angular gravel pebbles	Natural sub-stratum
170	Cut	II	Substantial lake bed; full dimensions and depth not ascertained	Lake-bed
171	Layer	IV	Soft, mid yellowish brown, fibrous peat, frequent plant material; 0.16m thick	Peat formation

Context	Type	Phase	Description	Interpretation
172	Layer	IV	Soft, mid orange brown, woody peat, frequent plant fibres; up to 0.18m thick	Peat formation
173	Layer	IV	Soft, dark brown with orange and yellow lenses, very fibrous peat; 0.11m thick	Peat formation
174	Layer	IV	Soft, light yellow, fibrous peat; 0.02m thick	Peat formation
175	Layer	IV	Soft, mottled yellowish brown and dark brown, silty peat; 0.03m thick	Peat formation
176	Fill	III	Soft, mid yellowish brown, silt, frequent plant material; in excess of 0.75m thick (as seen)	Lake-bed silt
177	Fill	VII	Firm, dark bluish brown (diesel staining?), silty clay peat; 0.32m thick	Fill of modern intrusion [103]; diesel contaminated

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