5 Results: Minor Sites

Ecton

Pollen analysis reported in Castleden (1976) suggests a Late Neolithic open local environment with surrounding woodland.

Earls Barton

Bronze Age barrows (A J Thomasson, in D A Jackson 1984); report on barrow with some pollen work (woodland clearance *c* 2000 cal BC).

Irchester

The Irchester site for gravel extraction, next to Wellingborough (SP 491 267) (Fig 5.1), revealed a vertical exposure of unconsolidated deposits containing infilled palaeochannels over *c* 18ha of the floodplain. The extent of the workings and the excavated areas are shown on Figure 5.1.

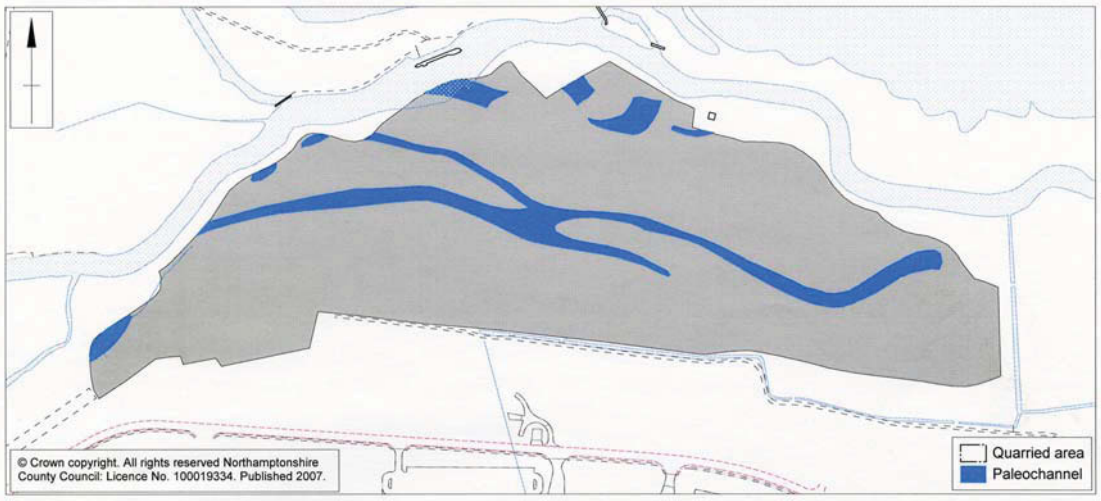

Fig 5.1: The Irchester site for extraction

During extraction of gravels a section cutting through an infilled palaeochannel was exposed. The section consisted of intercalated sands, gravels and layers of organic material. The section was logged and sampled for palaeoenvironmental analysis. The section was logged and is presented in Figure 5.2.

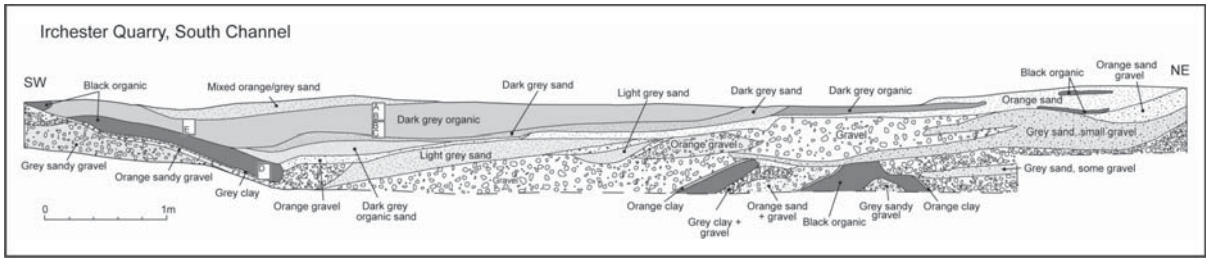

Fig 5.2: The South Channel of Irchester

Two sets of samples were collected for pollen analysis, one monolith was analysed in 1995 and a second set of four monoliths were examined in 1996.

First Series Monolith 1 (1995)

A single monolith was sampled at 1.02m, 1.16m, 1.24m and 1.38m deep below datum. The monolith was taken from a black sandy silt lens sitting on gravels lining the base of a palaeochannel cut into Mercia Mudstone bedrock. All samples contained moderate pollen concentrations and similar spectra. Cyperaceae, Poaceae, Pinus and Artemisia dominated the pollen. One level (1.24m) contained an anther-cluster of Artemisia pollen indicating that the plant was abundant locally. The samples also contained lower levels of *Thalictrum, Filipendula, Betula* and herbs characteristic of open and disturbed ground. The presence of *Artemisia, Thalictrum,* the dominant types and lack of any thermophilous trees clearly indicate that the samples are of early Holocene age. A suggested basal date would lie in the range *c* 12700-8790 cal BC (*c* 12500-9,500 BP) and, given the relatively low levels of *Betula*, probably be between *c* 10600-8790 cal BC (*c* 10500-9500 BP).

The second series monoliths (1996)

Four short monoliths were taken from a south-easterly-facing channel. Samples were taken from the base and tops of each monolith. Monolith D was from a lower black organic unit whilst monoliths, E, B/C and A/B came from the upper dark grey organic unit (Fig 5.2). The samples had moderate to very low pollen concentrations. All samples had similar spectra dominated by Cyperaceae, Poaceae, *Pinus* and *Artemisia*. The samples also contained lower levels of *Thalictrum, Rumex, Galium, Filipendula, Betula* and herbs characteristic of open and disturbed ground. One sample (top 0-1cm of monolith B/C) also contained *Dryas octapetala* which is a lateglacial indicator species. The presence of *Artemisia*, *Thalictrum*, *Dryas*, the dominant types and lack of any thermophilous trees clearly indicate that the samples are of early Holocene age. A suggested basal date would lie in the range *c* 12700-8790 cal BC (*c* 12500-9500 BP) and, given the relatively low levels of *Betula*, probably be between *c* 11390-8790 cal BC (*c* 11000-9500 BP).

Both sets of monoliths indicate the palaeochannel sections are of Late-glacial/very early Holocene age. The most probable date is Late Younger Dryas/early Pre-Boreal (*c* 11000-9500 years uncal. bp). This is not unusual as palaeochannels of similar age have been found at Raunds and Ditchford and several sites on the river Soar (Brown *et al* 1994). It is believed that the cause is the dramatic reduction in discharges that occurred at the boundary between the Younger Dryas Stadial and the pre-Boreal in the Holocene (Brown and Keough 1992). The palaeochannel probably filled rapidly and their archaeological potential is limited to environmental conditions in the Upper Palaeolithic/early Mesolithic.

Higham Ferrers

The Higham Ferrers site (SP 947 685) is situated on the floodplain about 21km downstream of Northampton (Fig 5.3). One section was exposed and a number of levels were sub-sampled for radiocarbon dating (Fig 5.4)

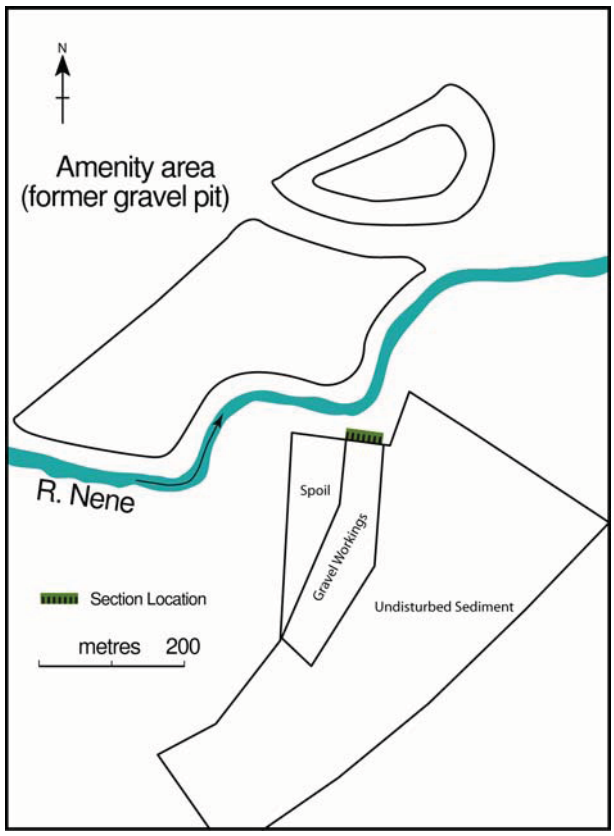

Fig 5.3: Higham Ferrers site

The floodplain deposits are found on bedrock of Upper Lias Clays, the surface of which is between 4.3m to 5.2m deep below ground level. The boundary between the bedrock and the overlying gravels gently undulates and has a slightly scalloped surface. The basal gravels are gently planar-bedded and vary in thickness between 2m to 2.5m, thinning to *c* 1.5m at locations where they have been reworked by the Holocene channel. The reworked gravelly sediments are structurally and sedimentologically different than the basal gravels and only have a local presence. The reworked sediments have a very uneven thickness and in clast size terms, they fine to the west where they are formed largely from interbedded sands and silty-clay bands (Fig 5.4). The contact with the basal gravels is very irregular. An organic rich horizon buries the uneven surface of the gravel units and gradually merges upwards into the 2m thick layer of alluvial clays that blanket the floodplain.

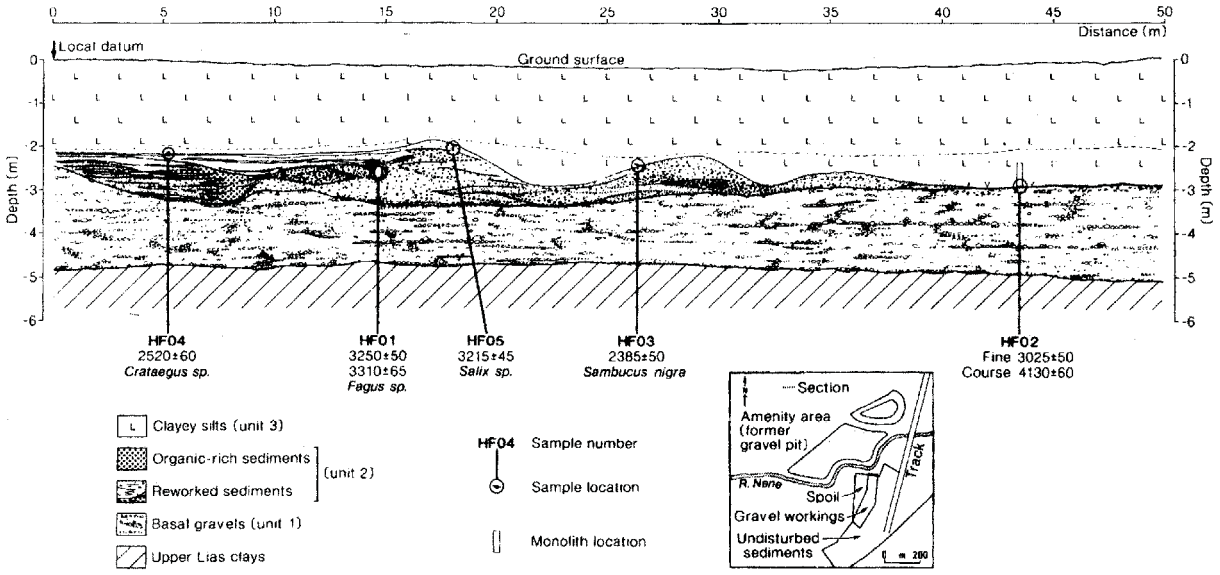

Fig 5.4: The Higham Ferrers section

The section revealed intercalated organics and inorganics. The organic material was sampled for radiocarbon dating with the resultant dates shown in Figure 5.4.

Wood identification

The site was rich in twigs and small timbers, these were sampled and wood identification undertaken (Table 5.1).

Table 5.1: Wood macrofossils at Higham Ferrers

Sample number	Material	Notes
From the section but not *in situ* so not sampled	*Quercus* sp.	Large trunk with roots attached, undermined from floodplain woodland, no bark
HF01	*Fagus* sp.	Fragment of a branch, no bark
HF03	*Sambucus nigra*	Small twig
HF04	*Crataegus monogyna*	Medium stem with bark
HF05	*Salix* sp.	Small branch

Ringstead

Ringstead Grange

Excavated by Northamptonshire Archaeology Unit (NAU 1990) the site consisted of a number of linear ditches, pottery of Early Iron Age date, undated worked flints, a possible cropmark-trackway, Saxon pottery and a windmill mound. No environmental sampling or analyses is known relating to the site.

Denford

Westfield Spinney at Denford is located on the south-east bank of the Nene floodplain between Ringstead and Thrapston. During the initial phases of excavation sandy silt layers were recorded which were regarded as hillwash. In trenches at the base of the slope *c* 0.30m of sandy silt sealed Saxon and 'earlier features' but was itself cut by furrows, perhaps suggesting a medieval date for its accumulation. No environmental analyses are known from the site.

Thrapston-Titchmarsh-Aldwincle

A large area of floodplain north of Thrapston, west of Titchmarsh and south of Aldwincle was excavated for aggregate from 1966-1971. The area was already known to contain two barrows, a Neolithic mortuary enclosure and an Iron Age enclosure. In the 1960s some observations had been made during this aggregate quarrying which had revealed organics at considerable depths within the gravels, including twigs at 5m deep (SP 988 895) which yielded a radiocarbon date of 25780±870 BP (Birm-113) (Shotton *et al* 1969). There was also an 'erratic' of *Carex* peat in the upper part of the gravels (SP 995 802) which gave a date of 8,530-7590 cal BC (8920±160 BP; Birm-87), strongly suggesting early Holocene reworking by the channel.

In 1968 aggregate quarrying at the same pit complex, but cited as Aldwincle by Jackson and Ambrose (1976) revealed a timber bridge believed to be of Roman age and probably on the Leicester to Godmanchester road (Margary Route 57A). Sediment analysis identified primary flood silts over gravels, and molluscan analysis by J G Evans revealed a well-oxygenated, fast-flowing river habitat. Animal bones included cattle, horse, sheep and dog. Radiocarbon dating of some of the bridge timbers made of *Quercus* sp. produced a date of 1960±80 BP (HAR-1186). Due to the lack of sapwood the radiocarbon sample needs to be offset by 30 years to reach the heartwood/sapwood boundary, and then applying the appropriate sapwood estimate this gives a felling date estimate of 170 cal BC-cal AD 240.

Aggregate quarrying was again observed at this pit complex in the 1980s by Holyoak and Seddon (1984) and referred to as Titchmarsh. They observed a channel with an infill of grey organic rich silty clay exposed beneath 2.5m of gravel at TL 010 808. At a nearby location (TL 009 809) they also observed an upper channel cut into the top of the gravels. Pollen analysis of the lower intra-gravel channel indicated an open treeless landscape which, with the presence of a cold molluscan fauna, suggested a Mid-Devensian date. The upper channel had relatively low tree pollen percentages but *Carpinus*, *Fagus* and *Fraxinus*, cereal-type pollen and weeds of cultivation were all present suggesting a post-Neolithic and probably Iron Age period (Holyoak and Seddon 1984).

Tansor crossroads

This site was on a spur of high ground overlooking the valley of the Nene to the south-east of the village (TL 057 901), and included a Neolithic mortuary enclosure within a ring ditch, sealed by a mound of Late Neolithic/Early Bronze Age date (Chapman 1996-97). Charcoal from a Neolithic pit came from *Quercus*, *Corylus* and 40 fragments of hazelnut shell (*Corylus avellana*). A date from oak heartwood of possible mature timbers provides a *terminus post quem* of 2840-2200 cal BC (4720±70 BP; Beta-84660) for the pit and the Mortlake Ware it contained. Later Bronze Age contexts produced *Corylus*, *Rhamnus*, *Prunus* sp., and Pomoidaea. The Neolithic assemblage could have been from 'matured' timbers, with the hazelnut shells indicating an important part of the typical 'muesli' diet of early agriculturalists, while the later charcoal assemblage indicated the use of thickets or woodland margins and a variety of sources including structural wood or artefacts (Pelling 1996-97, 44).

Orton Longueville

Aggregate quarrying in the 1970s was observed by Holyoak and Seddon (1984). They observed sediments infilling a former oxbow lake in 1982 (*c* TL 165 971) which produced pottery and plant macrofossils (Table 5.2).

Table 5.2: Environmental observations at Orton Longueville (adapted from Holyoak and Seddon 1984)

Unit No	Thickness (m)	Stratigraphic description	Inclusions
7	0.7	Grey-brown silty clay with sticky texture (modern soil developed at the surface)	No fossil shells
6	1.2	Blackish-grey silty mud	Many freshwater Mollusca and pottery
5	1.6	Grey-brown silty mud	Many shells of freshwater Mollusca
4	0.5	A small channel infill (*c* 2.5m wide, 0.5m deep) cut into the top of unit 3	- -
3	2.0	Flat-bedded gravels: lithology: flint with much limestone and a few pebbles of quartzite, sandstone etc fluvial bedding structures: sand beds, imbricated gravel, alternations of matrix supported and clast-supported gravel units no involutions or ice-wedge casts seen one of several channel infills of silty organic mud with woody tree roots	Woody tree roots (up to 60mm thickness, 400mm deep) descending from the top of the gravels along a 30m section. Roots truncated by erosion at the upper surface of the gravels Limb bone of (*Megaceros giganteus*)
2	0.7	Whitish medium sand (not well exposed)	- -
1	>1.0	Grey clay with platy fracture (presumably this was Jurassic clay forming the local bedrock but this unit was not well exposed and no fossils were seen)	- -

The pottery in unit 6 consisted of several large pieces that formed the base of a hand-built pot, probably of Iron Age date (maximum range 500 cal BC- cal AD 400).

Pollen and plant macrofossils recorded listed in Table 5.3 from unit 3 showed a typical Late Devensian flora.

Table 5.3: Pollen analyses and plant macrofossils of sedimentary units from Orton Longueville (from Holyoak and Seddon 1984)

Unit	Selected pollen types	Plant macrofossils
3	Cyperaceae, *Juniperus*, *Betula nana*, *Rumex*, *Thalictrum*, *Artemisia*, *Ranunculus*	*Potentilla anserina*, *Aphanes arvensis*, *Campanula rotundifolia*, Poaceae, *Carex* sp., *Juncus* sp. and *Chara* sp. (aquatic charophytes).
5 & 6	Cereals (6.6, 6.9%), Poaceae, Cyperaceae, *Plantago lanceolata*, *Plantago major/media*, *Pteridium*, *Centaurea nigra*, *Rumex obtusifolius*, *Urtica dioica*, Apiaceae, *Alisma, Sparganum erectum, Typha latifolia, Nuphar, Nympheae, Sagittaria, Lemna, Callitriche, Potamogeton*	Open sites: *Aphanes microcarpa, Arabidopsis thaliana, Arenaria leptoclados, Filaginella uliginosa* Waste places: *Rumex conglomeratus, R.* cf. *crispus, R. obtusifolius, Urtica dioica* Weeds of cultivated ground: *Chenopodium album, Stellaria media* *Marsh & waterside: Carex cf. riparia, Scirpus lacustris, Epilobium cf. hirsutum, Lysimachia* cf. *vulgaris, Myosotis scorpioides, Teucrium scordium* Aquatics: *Typha* spp.*, Veronica anagallis-aquatica, Hippuris vulgaris, Apium* spp.*, Callitriche* sp.*, Chara* sp*. Nitella* cf *translucens, Tolypella nidifica, Zannichellia palustris, Nupharlutea, Sagittaria sagittifolia, Lemna*

Botolph Bridge

Botolph Bridge is a multi-period site on the edge of Peterborough. The site has limited Bronze Age and Iron Age activity, a badly plough-damaged Romano-British site, but is predominantly a deserted medieval village (DMV) (Atkins pers comm). The site has six phases from the Late Saxon to the post-medieval. The excavations show that Botolph Bridge was a planned settlement in the early 10th century. The village declined in the medieval period, but was resurgent in the middle 14th century with the construction of a manorial farm, before declining again in the 16th century (Atkins pers comm). A variety of environmental analyses have been undertaken, including marine molluscs (J Light), phosphate (P Middleton), and plant remains by A J Clapham.

Charred wild plant remains were also recovered and these represented cultivated/wild/waste/open/disturbed ground and grassy habitats. In fact these wild remains were more numerous than the cultivars and are almost certainly associated with crop cultivation – both growing and processing. According to the authors, examples of these plants include fairy flax (*Linum catharticum*), corn spurrey (*Spergula arvensis*), cornflower (*Centaurea cyanus*) and darnel (*Lolium temulentum*). There were also a few species common to woodland/scrub/hedgerows, including *Corylus* nutshells in most phases, as well as wild cherry and apple. The second largest category of plant remains were from grassy places, and others from wet places such as the ditches, drains ponds and floodplain (Clapham in Atkins forthcoming). The reason that these results are summarised here is that this is the only medieval and post-medieval site in the study area with significant environmental data.

Table 5.4: Summary of cultivars from Botolph Bridge (from A J Clapham forthcoming)

Plant macrofossil type	1a. Late Saxon	1b. Saxo-Norman	2a. 12th/13th centuries	2b. 14th century	3. 15th century	4. post-medieval
Glume wheats	-	√	-	√	-	-
Free threshing wheats	√	√	√	√	√	√
Bread wheat club wheat	√	√	√	√	√	-
Barley	√	√	√	√	√	√
Rye	√	√	√	√	√	-
Oats (probably cultivated)	√	√	√	√	√	√
Field bean	-	√	√	√	-	-
Lentil	√	√	-	-	-	-
Pea	√	√	√	√	√	√
Common vetch	√	√	√	√	√	√
Flax/ linseed	-	√	√	√	-	-

Bridge Street

An archaeological evaluation was undertaken by Northamptonshire Archaeology of a timber structure alongside the River Nene at 130 Bridge Street, Peterborough in early 2003 (Meadows 2004, 2008). The evaluation recorded wooden posts and planks and medieval pottery. The line of upright timbers were set along the edge of the River Nene and into a palaeochannel, the infill of which contained 13th-century artefacts. The timbers were sealed under sediment containing 15th-century material. The timbers may have been designed to protect the bridgehead from tidal scour or could have formed part of a wharf (Meadows 2008). The orientation of the site suggests channel straightening and bank reclamation in the medieval period. The timbers were of oak, but no other environmental analyses were undertaken.