Longthorpe, an essay in continuity

By John Peter Wild

The area at Longhthorpe scheduled as an Ancient Monument by the Department of the Environment contains in microcosm all Nene Valley archaeology. Within the 100 acres in guardianship lies at least one representative of virtually every class of archaeological feature or site found elsewhere in the valley. Most are unusually good examples of their type, and one monument, the Roman fortress with its attendant pottery kilns, is unique in western Europe.

In 1972 road construction work made serious inroads into the eastern sector of the Scheduled Area. Building development on a further 8 acres is promised for 1973-4. While these threats to a major monument are clearly unwelcome, the Nene Valley Research Committee has nevertheless managed to keep abreast of the problem so far. The western half of the area containing the Roman fortress has now been laid down to golf-links, giving it some measure of protection.

In the light of these developments it seemed appropriate to review the known archaeology of Longthorpe and emphasise those aspects which are important.

The Sites

The Scheduled Area is characterised by a low sandy ridge running E-W and capping deposits of gravel and clay. Most of the sites recognised so far lie at about 40-45 feet OD, just clear of the winter flood-level. Although aerial photography has produced some remarkable results in the area under suitable crop-conditions, excavation shows that this is merely the tip of the iceberg.

The First Settlers

A persistent scatter of flint implements, including a fine leaf-shaped arrowhead and worked flints, on the eastern end of the ridge show that there was a settlement here in the neolithic period (before 3000 B.C.). No structure has been found, but the ridge gives a view across the Nene towards Lynch Farm where there was another neolithic site (see p.22).

Three ring-ditches were detected on the aerial photographs on the south-east slope of the ridge. One, measuring about 25 metres across, was excavated in 1970, but no dating evidence was obtained. In 1712, it is said, the burial-mounds in the centre of the rings were still visible.

The Iron-Age Farms

Aerial photographs revealed clearly the ditched enclosures of a small, but complete, Iron-Age farm (Farm I) at the eastern end of the ridge. This was excavated in 1970-72. Another farm (Farm II) of similar type lies about 250 metres further north-west, but has not yet been examined on the ground.

Farm I comprised two conjoined enclosures, the larger measuring just under ¾ acre. The surrounding ditches were about 3 metres wide and 2.50 metres deep and had an irregular V-shaped profile. From the northern enclosure a droveway led down towards the river. Hand-made calcite-gritted pottery from the site, supported by a few better-quality sherds in Belgic style, suggest a Late Iron-Age date for the establishment.

The enclosures may have been stockyards rather than arable fields; for they seem too small for growing crops. The northern enclosure had a stout palisade set around the *outside* of its ditch. No buildings were found, despite a careful search.

The farm was notable for its burials—at least three crouched burials of young people, and four dogs. The Romans may have been responsible for at least two of the deaths.

The Fortress

An unexpected discovery at Longthorpe, made from the air in 1961, was a 27 acre Roman fortress. It lies in a strong tactical position on the ridge with wide views north and south. Recent excavations by Professor S.S.Frere and Dr J.K.S.St Joseph have revealed something of its defences and internal arrangements.

The dump rampart of the fortress, now ploughed away, was protected externally by a pair of ditches, each 2 metres deep and 4 metres wide. There were four gates, of which the north and east gates have been excavated. They have double portals 4 metres wide and are flanked by guard-chambers 3.30 metres square.

The internal buildings were all of timber and their plans can be recovered from the sleeper-trenches in which the wooden uprights were set. The fortress evidently faced south towards the Nene, although no road is known leaving the fortress in that direction. The headquarters building in the centre, set around a courtyard, measured 53.6 by 48.8 metres. Immediately

west of it there are traces of what may have been the Commandant's House. In the northern sector of the fortress two granaries, a barrack-block and a large courtyard building which may have been a storehouse have been recorded. It has not yet proved possible to dig south of the Headquarters Building where most of the barrack accommodation may have lain.

The fortress was founded soon after the invasion of A.D. 43. It may have held a legionary detachment responsible for keeping a discreet watch on the semi-independent kingdom of the Iceni in East Anglia. If this was the role of the Longhtorpe garrison, it failed. The revolt of Boudicca in A.D. 60 could not be nipped in the bud.

The troop-movements of A.D. 60 and 61 were not without effect at Longthorpe. A single ditch enclosing the central buildings of the fortress and cutting across existing structures may have been dug by a small Roman force on the defensive. However, the defeat of the Iceni and their allies restored peace and allowed the evacuation of Longthorpe in about A.D. 65.

The Military Pottery

Excavation of the Iron-Age Farm I in 1971 and 1972 brought evidence of unexpected Roman activity on the site. Soon after their arrival, the Romans backfilled the western enclosure-ditches of the farm and all along the outer edge built batteries of pottery kilns. They survive today as circular reddened patches of gravel with a scatter of burnt clay, about 1.30 metres across. There is often a slight indication of a shallow, soot-filled, stokehole, but nothing more substantial.

We dismissed these features as ovens on first discovery, but potsherds found in pits and ditches nearby were so uniform—and so different from the known Nene Valley types—that the conclusion was forced upon us that they were pottery kilns, built on the contemporary ground surface. This hypothesis was confirmed by the finds of 1972.

So far over 30 of these surface-built kilns have been excavated. It has been plausibly suggested that their walls were constructed of turves. A mushroom-shaped terracotta object found in 1972 may be a prefabricated pedestal supporting the intermediate floor of firebars. A few fragments of such firebars have been found on the site, but out of context.

A short emergency excavation at Easter 1972 added a great deal of new information. On the line of a proposed contractor's road a group of three pottery kilns was located, linked to a common stokehole (fig.3). Two of the kilns were of a type not encountered at Longthorpe before, but normal elsewhere. They were dug below ground level. The third kiln was much shallower, perhaps intermediate between the dug and surface-built types.

The larger of the two dug kilns was 56 centimetres deep and 110 centimetres in diameter. Its circular firing-chamber was lined with clay, and a central bollard supported the wedge-shaped firebars of the oven floor. The bollard was made of round fire-bricks, luted together with clay.

The sequence of kilns around the stokehole suggests that the dug kilns may be the earlier type, but both dug and surface-built kilns are dated by the associated samian ware to the years A.D. 50-65. The pottery which they were firing was superb. It is characterised by a fine oxydised fabric, pink or pinkish cream on the surface. The range of vessels includes double- and single-handled flagons and small jars with neat cavetto, beaded or everted rims. There are small unstamped mortaria and close copies of the samian dish form 15/17 with a red slip inside and out. Cheese presses throw an interesting sidelight on the soldiers' diet.

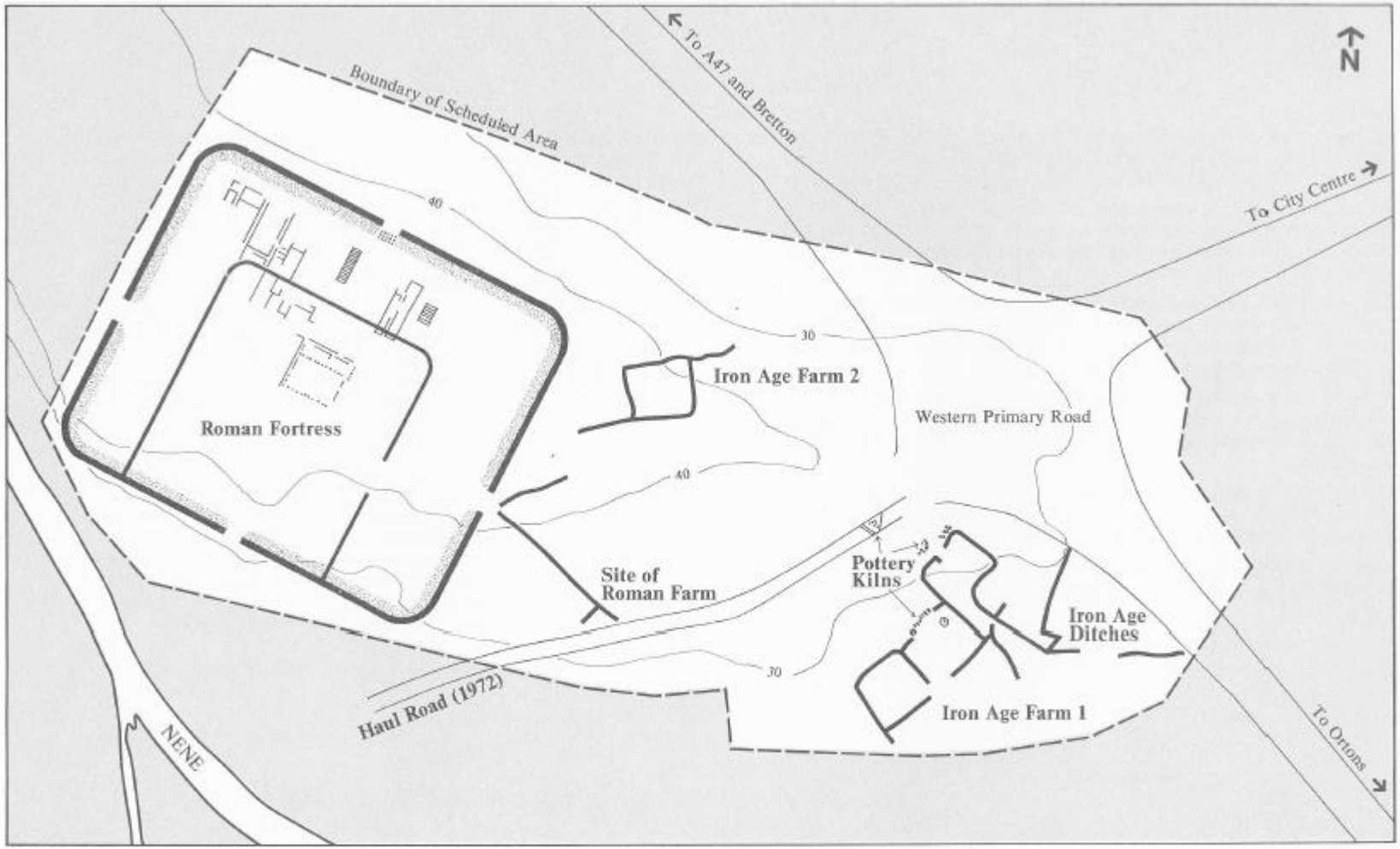
From the pits and ditches came an important series of small bronzes, many of them military equipment. The kilns lie only 500 metres from the south-east corner of the fortress, and the conclusion that they were run by the military is inescapable. The potters, however, may have been civilian, but not British; for their repertoire stems from the Rhineland.

A works-depot of this kind is a rare find in the western Roman provinces. At that date it is so far unique.

The Roman Farm

In the Roman period the Nene Valley presented an unbroken vista of agricultural holdings of all shapes and sizes. Farming paid—and was the main livelihood of the local population, whether they worked on the land or supplied the farmers' needs in the market-town of *Durobrivae* (Chesterton).

When the fortress was evacuated, the land was sold—or let—to a Roman farmer. The main enclosure ditches of the Iron-Age farm had accumulated layers of greeny-grey material, apparently weathered clay from the military potters' activities. They were deliberately filled in; for the small yards of the Iron Age were out of keeping with the needs of more sophisticated farming methods.



The Ancient Monuments at Longthorpe, showing the Roman fortress, the Iron-Age ditches and the military pottery kilns. The modern roads are shown in outline.

Fig 2 Longthorpe: the Scheduled Area

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Before the end of the second century the eastern ditches of the lower enclosure had additionally been capped with limestone to prevent subsidence and allow carts across. There is no sign of any structure here.

Indications that there were substantial farm buildings at Longthorpe dating to the third and fourth centuries came in 1970 and 1971 in the form of debris dumped into the tops of large pits. In 1972 surviving structures were found for the first time.

The contractor's haul-road cut at Easter 1972 passed straight through a later Roman farmyard. In it was a stone-built corn-dryer and a smithing furnace. The whole area was criss-crossed with drainage ditches to carry off the surface water from the hillside.

The corn-dryer measured 3.45 by 3.60 metres overall. A single stone-lined flue-channel passed round three sides of a central masonry platform. Its stokehole, cut into the natural clay, had been reduced in size after an initial period of use.

The smithing furnace was closely similar to those discovered at Lynch Farm in 1972. A small clay-lined chamber was linked to the soot-filled firebox by a long narrow flue.

South of these features at least four burials in a small cemetery were uncovered. They date to the fourth century, and presumably belong to the farm.

There was no sign of a farm-building on the haul-road line, but north of the corn-dryer unplanned stripping by the contractors revealed the well-built walls of a rectangular building. This could not be fully recorded, but must relate to the farm. Surface scatters of pottery, tile and stone in the same area hint that there was an extensive building complex there. Longthorpe, it seems clear, bore a flourishing agricultural holding in the fourth century, similar to the many 'villas' further west up the Nene.

The Anglo-Saxon Cemetery

On the site of the Roman fortress at the western end of the Scheduled Area part of an Anglo-Saxon cemetery was excavated by Professor Frere and Dr. St Joseph in 1968. Dating probably to the sixth century, it has produced so far 22 cremation burials in pots and 2 inhumations. There is no trace of the settlement to which the Anglo-Saxons belonged, but it need not be far away.

Prospect

The monuments in the Longthorpe Scheduled Area illustrate brilliantly the processes of political, social and economic change in antiquity. They are above all impressive proof of the extent to which the fertile land of the Nene Valley attracted and held settlers, with few breaks, for several thousand years. The present destruction of these and similar monuments is the destruction of the Nene Valley's roots; and archaeologists of the future, equipped with new techniques, will regret this more than we do.

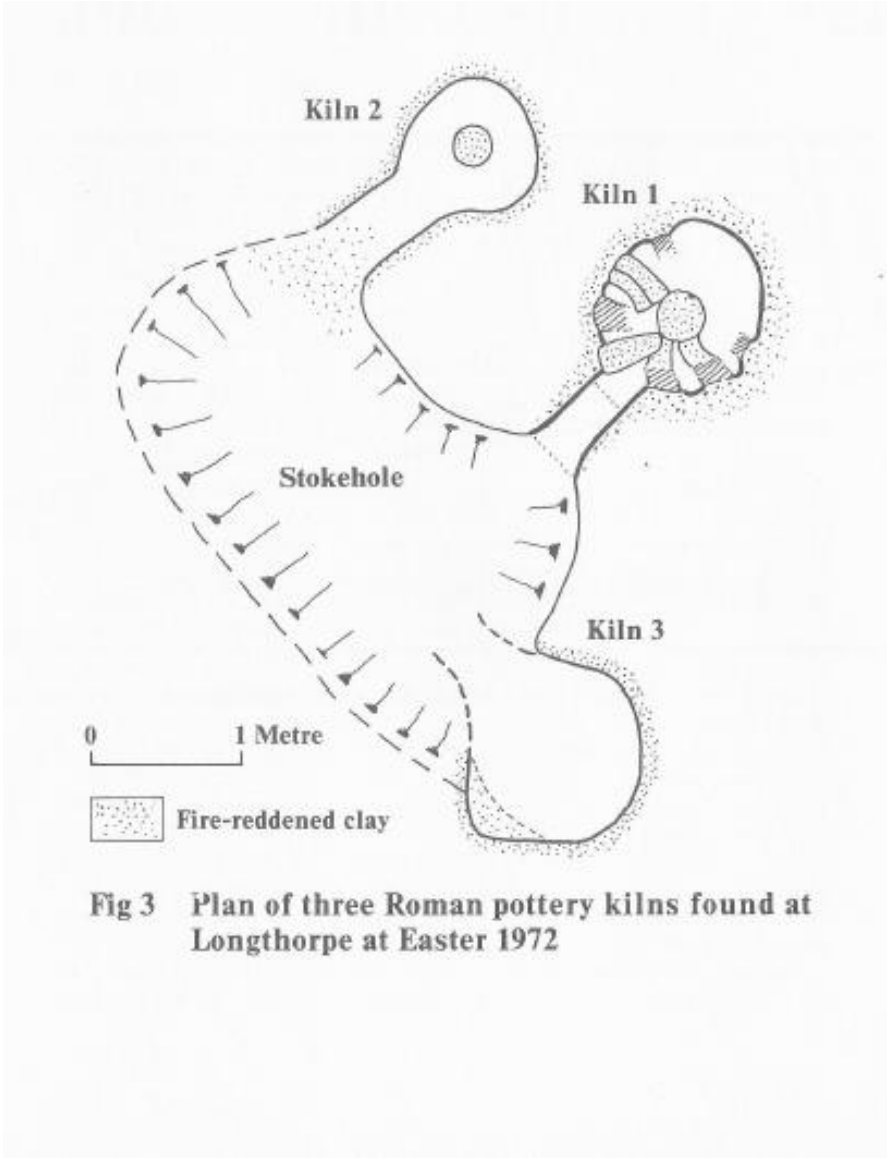

Fig 3 Plan of three Roman pottery kilns found at Longthorpe at Easter 1972

The Longthorpe Roman Fortress, 1973

By Professor Sheppard Frere

An opportunity for a final season at Longthorpe unexpectedly became available at short notice in August during construction of the golf course (for previous work and plan see *Durobrivae* 1 (1973), 7ff., fig. 2). Three weeks digging was done with the aid of volunteers provided by Dr J. P. Wild and Mr G. B. Dannell. An area was examined in the western field, in the *praetentura* of the fortress, in order to see whether the area between the *via principalis* and the south defences, whose dimensions are suitable for legionary barracks, in fact contained any.

Excavation showed (fig 10) that the area beside the *via praetoria* contained two buildings which were not barracks, but whose plans could not be further elucidated in the time available. West of these, one barrack and part of a second were found. Barrack 1 was a building 110.8 metres long, exclusive of the 2.70 metre wide colonnade beside the *via principalis* down to its extremity at the *via sagularis*. There was a centurion's house measuring 35.5 by 16.5 metres adjoining the colonnade, south of which lay a long irregularly laid out building tapering in width from 15 metres to 9.7 metres. It contained 16 sets of rooms, 14 of which were clearly *contubernia* (private soldier's quarters). The verandah was divided by extensions of the partitions, differing in this from Barrack 2 which had posts. At the south end a further room facing the *via sagularis* did not appear to be a *contubernium*, but was perhaps a store. Attached to the east (rear) side of the barrack was a long building differently subdivided.

The length of the barrack, its provision of 14 sets of rooms (as at Inchtuthil), the presence of wall plaster (not found elsewhere at Longthorpe save in the *principia*), a bone *gladius*-handle and other pieces of legionary equipment reasonably suggest that the garrison consisted of a vexillation of Legion IX, together with the auxiliary force (which included cavalry) suggested by previous discoveries in the *retentura*.

The irregular planning, common to most of the Longthorpe buildings, emphasises the contrast with military buildings of the Flavian period, and perhaps suggests the hurried construction with unseasoned timbers of a conquest-period campaign fortress which in the event was held for longer than may have been at first envisaged. There were slight suggestions of alteration at the north end of the mens' quarters, such as might have their context in the reduced fort of Period II.

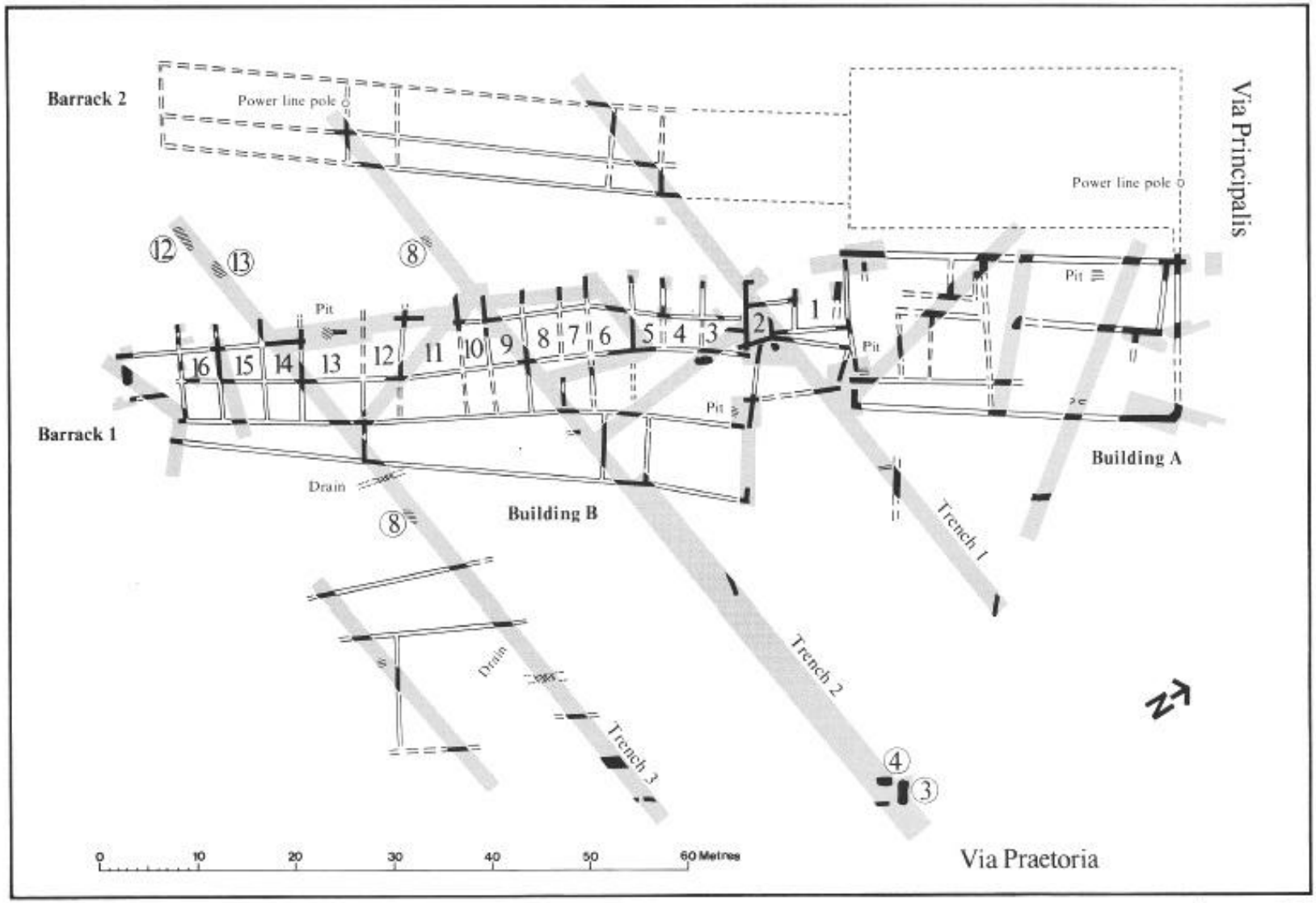

Fig 10 Barracks in the Longthorpe fortress, 1973

Longthorpe, 1974

by Geoffrey Dannell

The final season was spent filling out our knowledge of the kilns fronting the northern stock-yard ditch, linking together the work of 1971 and 1972. There were no surprises, but some useful, new details rounded off a long and tantalisingly broken series of excavations (fig. 8).

A number of sections through the ditch confirmed that it had been filled with the remains of a bank, pushed in from outside. This material subsided to leave hollows which were made up with deposits containing quantities of Iron-Age pottery. By a curious inversion very little pre-Roman pottery came from the lower levels of the ditch, while the upper make-up contained much. Presumably the occupation debris within the stock-yards was sufficiently irregular for the Romans to level it when they cleaned up the site after the end of military activity. A cremation-burial in a grey-ware jar with slashed cordons, buried in the top filling, suggests that the site was free of military control by the late first or early second century.

Five or six kilns were traced, all surface-built with stoke-pits on the edge of, or overlapping, the Iron-Age ditch.

Careful excavation suggested that all belonged to one basic type, although their outlines were variously preserved. The degree of erosion of the furnace chamber and stoke-pit depended on the number of times that individual kilns had been fired. While it is possible to find parallels with Wood's types (*Britannia* V, 1974, 264, fig. 2), the surface-built kilns at Longthorpe seem to show variation only through use or differential preservation and not by design.

The curious bowl-shaped hollows containing soot and charcoal on the inner ditch edge were found again. They look like small 'camp fires' on which those who stoked the kilns through the long firing process heated kettles.

The edge of the large platform which cut away the western ditch-rim was found at the northern end of our site. Its corner was clearly defined. The platform may have been created initially by gravel-digging for roads and pathways inside the fortress. The potters merely made use of it later as a working terrace.

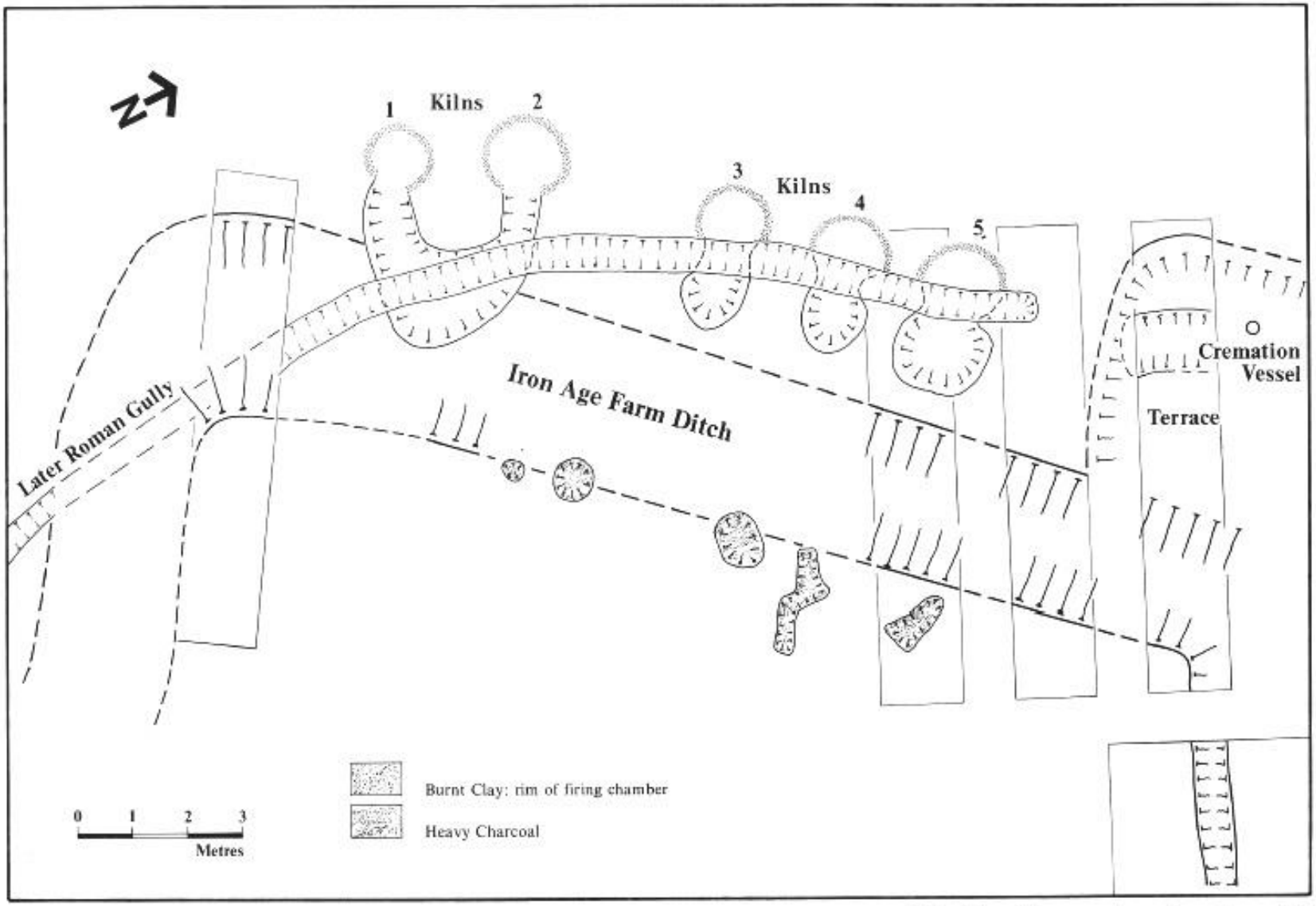

Fig 8 Plan of the excavation at Longthorpe, 1974

Now that our work has finished and the excavation of the fortress itself has been published (*Britannia* V, 1974, lff.), the kiln site can be seen in context. Work in the Upper Nene Valley suggests that the initial movement of ceramic technology was eastwards. No evidence for sophisticated late Belgic wares has yet been found on the Lower Nene in the pre-Roman period, and when the decision was made to plant the vexillation fortress at Longthorpe, it is possible that the army looked towards the Upper Nene for their potters. However, although the kilns there are similar, the wares and forms are different, and there can be no doubt that the work at Longthorpe was directed by army personnel to patterns provided from elsewhere.

The paste is heavily filled with ground-down waste material. Many vessels are extraordinarily thin for such a coarse fabric, and the rims show sharp and distinctive profiles. Copies of old favourites like the rough-cast cups imported from Lyons, 'Hofheim' jugs and samian platters from South Gaul betray the military eye, if not the hand. As yet we have not been able to emulate Mr K. T. Greene and point to the geographical origins of this distinctive ceramic style; but Germania Inferior was not the source. Since the Ninth Legion came from Pannonia, the net will have to be cast more widely.

Two questions still need answering. Where did the potters come from, and what happened to them after the unit moved in *c.*A.D.65? The evidence on the Upper Nene for elaborate painted pots points directly to France, where the pre-Roman potters north of the Somme decorated their wares similarly. A grey-ware industry developed on the Lower Nene before colour-coated wares appeared. In Normangate Field, Castor, wasters and wood-ash are frequently found in pits, but no kilns have been identified. This may represent activity by the Longthorpe potters' successors, who stayed to start a rich commercial industry in the locality.

The stock-yards of the Iron-Age farmstead were not fully excavated, apart from a large clay-pit. However, traces of slag and a crucible from Roman levels suggest that in addition to pottery there may have been military metalworking. Across the Nene at Lynch Farm there is evidence for another military enclosure, and pits containing samian ware and the pottery common on the military sites at Longthorpe were accompanied by briquetage from the saltboiling process.

Such an assemblage of industry under military direction should not surprise us. Professor Frere suggests a garrison of about 2500 men, permanently stationed for 12 years before the Boudiccan revolt led, first to a reduction in the defended area, and later to abandonment under a changed strategic policy. The basic needs of a patrolling army with a large permanent station could not be met from native resources. The industrial activity at Longthorpe gives a hint of what to expect elsewhere.

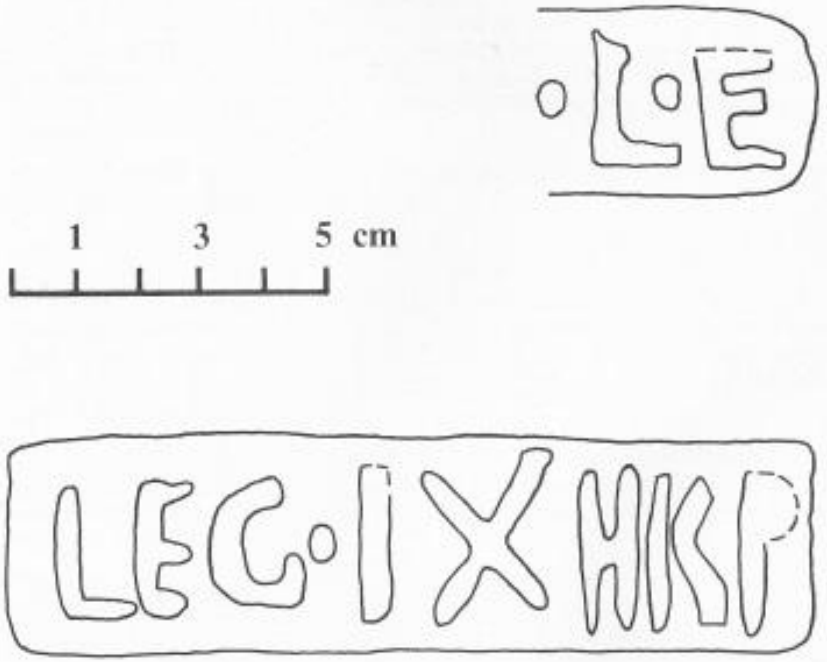

Fig 9 Tile stamps from Sacrewell (top) and Bainton (bottom).

Roman Iron Working at Longthorpe

by Judith Todd and James Cleland

Evidence of iron production from ore-roasting, through smelting, to smithing was found in the works-depot of the vexillation fortress at Longthorpe.

The roasted ore was present in the form of typically magenta-coloured and slightly magnetic nodules of *c.*30mm diameter, which readily broke into 3mm chips. Analysis of this roasted ore showed that the iron oxide content and the distribution of gangue minerals were such as to make this material ideal feedstock for the bloomery process. Calculations on the analyses indicated a low liquidus temperature of *c.*1140°C for the resultant slag, which agreed well with the figure of 1135°C derived from analyses of tap slag found on the site.

The tap slag had the smooth underside, prilled surface, entrapped gas bubbles and the dense amorphous purple structure, representative of a slag which had been tapped from a furnace and solidified in the open by rapid cooling. The presence of roasted ore and tap slag are indisputably diagnostic of iron smelting.

Smelting cinder (the waste formed in the upper zone of the bloomery) was also present. It was characterised by a light-brownish colour, open structure and entrained particles of charcoal, unreduced ore and gangue. Evidence of smithing was provided by samples of slag which, although visually similar to smelting cinder, were recognisable on analysis as smithing slag.

A well-preserved iron nail 102.5mm long with a square tapered shank and a circular head, 20.6mm in diameter and 2.4mm thick, was examined under the microscope. It was seen that both the carbon content and grain size varied in a regular manner across the nail, indicating that the nail had been formed by sequential reheating and forging at *c.*950°C. Additionally, the shape and distribution of entrapped slag stringers indicated that the head had been forged after the shank.

A fuller account of this material will appear with the final report on the excavation of the Longthorpe potters' kilns and works-depot.