THE LEFEVRE ROAD CREMATION BURIAL

J. B. Creswell and H. L. Sheldon

THE ARCHAEOLOGICAL CONTEXT

H. L. Sheldon

Two vessels, described on the London Museum Record Card F. 780 as a 'cremation urn with flagon' (Fig. 27), were found early in 1969 on the Lefevre Road development site. Apart from their location (TQ 3697 8372), there is little information concerning the precise circumstances of the find. Presumably both pots lay within a single grave for evidently they were seen together, revealed by the collapse of the side of a drainage trench. The vessels and the bones contained in the jar were then retrieved by the staff of John Laing Construction Ltd. and handed over to the site owner, the London Borough of Tower Hamlets, which arranged for their transfer to the London Museum.

The burial lay *c.* 100m north of the Roman London-Colchester Road and has been referred to as No. 7 in the list of 13 burial sites known in Old Ford, Owen *et al* (1973, 145).

The jar, which contained the cremated remains, was probably a product of the Alice Holt potteries while the flagon, which may have held an offering, appears to be typical of those produced in the Verulamium region.

Jar (Fig. 27, 1) Dull dark grey surfaces on dull brown fabric. Very faint wavy line shoulder decoration. Most of the surface matt, except for smoothed rim and neck, lower shoulder and base. Two burnished lines crudely run around the body, which was scarred by large sand particles in turning. Fairly hard, fairly sandy, a number of quartz grains up to 0.3mm, the remainder 0.1mm or less.

Flagon (Fig. 27, 2) Orange-buff fabric. Surface lightly smoothed but with rough sandy appearance. Fairly soft. Sandy with frequent quartz grains of *c.* 0.1-0.6mm, mainly 0.2-0.3mm.

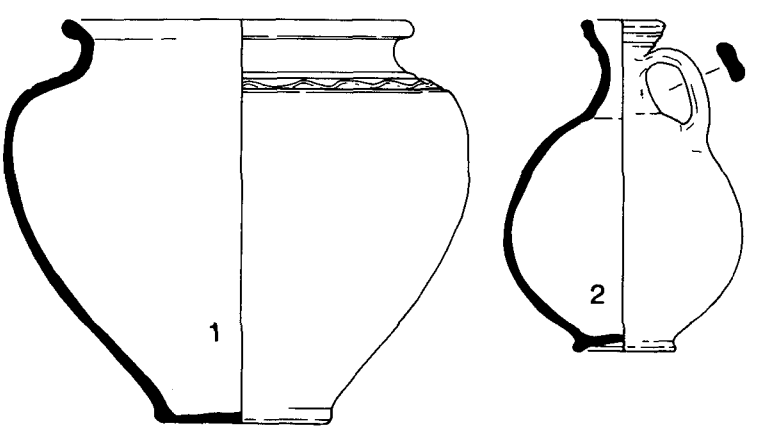

Fig. 27 Lefevre Road cremation burial : Roman pottery. (¼)

In an attempt to date the burial the vessels have been compared with the recently published typology of the Southwark pottery, Marsh and Tyers (1978, 532-82). The jar fits reasonably well with Type IID 1, while the flagon appears close to Types IB 7-9. It has been suggested by Marsh and Tyers (1978, 559) that jars of Type IID 1 were made from the late 1st to the early 3rd century, while IB 7-9 flagons were manufactured in the period *c.* A.D. 130-200. Nevertheless, the Type IID 1 jars in Southwark appear confined to contexts assigned to *c.* A.D. 100-140, while the majority of the IB 7-9 flagons occur in deposits of *c.* A.D. 140-160, Marsh and Tyers (1978, Fig. 243).

Consequently, if the Southwark dating of these types can be regarded both as accurate and adequate for the material found at Old Ford, a date in the middle of the 2nd century or just after might be suggested for the burial. The jar, which might be the earlier type, appeared more worn than the flagon.

Attention has been drawn below (see analysis of cremated remains) to the incorporation in the burial of animal bones, perhaps related to ritual aspects of the cremation. Beneath the shoulder of the jar was a circular hole of 5mm diameter which appeared to have been deliberately made. Other larger and more irregular holes occurred on the shoulder and near to the base of the jar and just below the widest girth of the flagon. Neither these holes nor the breakages which were found on each rim appeared to be of recent origin. The vessels had not shattered, as would have been the case had they been dropped.

Until this discovery only one other cremation had been reported from Old Ford, Owen *et. al.* (1973, 145 No. 1) and this lay less than 200m to the east. All the other recorded burials appear to be inhumations, presumably belonging to the later Roman period, and perhaps suggesting that the settlement was at its maximum in the late 3rd and 4th centuries. There is, however, the possibility of an early Roman cemetery because in 1969 a member of John Laing's staff recalled that he had observed a number of pots unearthed by mechanical excavation during the Lefevre Road development. Scant attention was paid to these because they were thought to be buried rejects from a nearby pottery factory in Old Ford Road.

ANALYSIS OF CREMATED REMAINS

J. B. Cresswell

The methods of studying cremations have been described by Gejvall (1947, 1948 and 1969), Wells (1960) and Lisowski (1955), and these have been followed with certain modifications in the present study.

The cremation bundle had been subjected to a certain amount of breaking up before the writer received it, but it is not thought that much, if anything, had been lost. The bundle consisted of bone fragments encased in a solid mass of earth. The whole bundle was first weighed and then soaked to break it up. The material was washed through a 1mm mesh sieve to remove the finer earth. Each bone fragment was extracted, brushed clean and left to dry.

The size of the bone fragments ranged from 1mm to 110mm with the majority being small and mostly trabecular bone. The persons placing the cremation into the urn would probably not have collected minute fragments, while bones could have been broken down to a size able to be packed into the urn.

The earth in which the bone was contained was a yellowish colour. There were many

stones within it, mostly flint, and a few ceramic fragments, probably tile. Some of the stones were red, indicating that they had been burnt, and perhaps gathered at the site of the funeral pyre. There were also a few minute fragments of charcoal.

When dry, the material was sorted several times and all fragments of bone which would be of value in analysis were picked out, while the larger stones were discarded. This left a residue of minute fragments of bone and small stones. It was felt that nothing could be gained by further separation, but as the overall weight of bone was required, small samples of the residue were examined and an estimate of the proportion of bone to stone by weight was determined, which could then be applied to the remainder.

The total weight of the bundle was 4061gm, of which slightly over a quarter (1017gm) was of bone fragments. There were 932 fragments suitable for examination and a couple of thousand minute pieces which were put aside.

Each fragment of bone was examined in an attempt to identify it. The use of a good anatomical atlas has been recommended by Gejvall and Sahlström (1948), but it was felt that reference to a skeleton would be of greater value, and this method has been used here (Fig. 28). The skeleton, probably of Indian origin, was of a male aged about 40 years. Its stature was estimated to be 165 cm (5 ft 5 in) using the Trotter and Gleser (1952) indices for limb bones of American white males (in the absence of more specific indices).

Each cremated fragment was sorted according to bone and position. Where a bone could not be precisely identified, it was placed among the bones which most closely matched it. Some fragments joined and were stuck together. As each fragment was identified, its position was marked on an outline drawing (Fig. 28).

The majority of the fragments were whitish, although stained with the yellow earth in which they had been packed. Some internal regions of long bones were bluish, showing incomplete combustion. The articular surfaces and underlying trabecular bone were dark brown. A large portion of the frontal region of the skull which was able to be reconstructed showed distortion, but on the whole the bones retained their natural shape.

The determinations of the bone fragments are listed below and their proportional weights are given in Table IV.

SKULL

FRONTAL BONE: series of conjoining fragments extending from nasion to coronal suture.

OCCIPITAL: portion at left asterion; right occipital condyle.

TEMPORAL: inner ear from right side; part of mandibular fossa.

PARIETAL: portion from both right and left asterion.

SPHENOID: fragment from right pterygoid region.

MAXILLA: portion from nasal aperture on left side containing sockets for both incisors and canines; portion of maxillary tuberosity wall; portion of right palate with teeth sockets.

MANDIBLE: portion containing menton with incomplete sockets on left side for second incisor, canine, both premolars and the first molar; portion of inner right horizontal ramus to root of vertical ramus with incomplete sockets for the canine, both premolars and all three molars; portion of outer left horizontal ramus to root of vertical ramus with incomplete sockets for all three molars.

TEETH: a number of teeth fragments were present; complete roots and portion of crowns of lower left canine and first premolar (these fitted into the mandibular fragment); small fragments of roots possibly of upper first premolar, lower premolar, lower first molar and upper second premolar; cervical region of a molar.

AXIAL SKELETON

CERVICAL VERTEBRAE: Atlas, portion of right side with articular facets; portion of posterior arch. Axis, portion from right side with upper articular facet; base of spinous process. Nine other fragments; six portions of bodies, including possible C6 and C7, one very narrow body (?juvenile); three spinous processes.

THORACIC VERTEBRAE: fourteen fragments, including body of T1, spinous process of T3 or T4, and vertebral arch in region of T9.

LUMBAR VERTEBRAE: thirteen fragments, including body of L1, spinous process and left inferior articular process of L2, and spinous process and right inferior articular process of L4.

SACRAL VERTEBRAE: six fragments, including large portion of unfused body of S1 and right superior articular process.

RIB CAGE

MANUBRIUM: portion from sternal angle.

RIBS: right first rib tubercular region; 41 other fragments.

PECTORAL GIRDLE
SCAPULA: fragment of right coracoid process; three other fragments.
CLAVICLE: sternal ends of both left and right; conoid tubercle of left; five other fragments.

PELVIC GIRDLE
PELVES: ischial portion of acetabulum and articular portion of ilium from right pelve; portion of iliac crest, fragment of ilium/ischium near sciatic notch, ischial fragment from acetabulum ischio-pubic ramus from the left pelve.

UPPER LIMB
HUMERUS: 38 fragments, mainly of shafts.
RADIUS: tuberosity from right humerus; twelve other fragments, mainly of shafts.
ULNA: left head; right trochlear notch; 37 other fragments, mainly of shafts.

LOWER LIMB
FEMUR: 37 fragments from all parts of the shafts and articular surfaces, especially the distal ends.
PATELLA: portion of ?left patella.
TIBIA: 41 fragments of shafts and articular surfaces.
FIBULA: seventeen fragments of shafts and articular surfaces.
There were also some 90 fragments of long bones which could not be further determined.

HAND BONES
LUNATE: fragments from both left and right.
SCAPHOID: fragment from right.
TRAPEZIUM: fragment from right.
METACARPAL IV: left distal end.
METACARPAL V: left distal end.

FOOT BONES
TALUS: head and post-calcaneum facet of right; post-calcaneum facet and ?malleolus facet of left.
CALCANEUM: posterior talar facet and cuboid facet of right.
NAVICULAR: fragment of left.
METATARSAL: small fragment of proximal articular suface.

?SECOND INDIVIDUAL
six fragments of skull; fragment of humerus; fragment of vertebra.

NON-HUMAN BONES
SHEEP/GOAT: fragments of ribs; fragment of vertebra.
PIG: Mandible fragments from ?piglet.
?BIRD: fragments of long bones.

TABLE IV
The Weight and Percentage Distribution of Cremated Remains.

Skeletal Material	*Weight gm*	*% of Total*	*% of Identified*
Total	1017.44	100.00	–
Unidentified total	361.56	35.54	–
Identified total	655.88	64.46	100.00
Skull	106.38	10.46	16.22
Teeth	1.60	0.16	0.24
Vertebrae	59.24	5.82	9.03
Rib cage	18.25	1.79	2.78
Pectoral girdle	11.27	1.11	1.72
Pelvic girdle	20.96	2.06	3.20
Upper limbs	176.58	17.35	26.92
Hand bones	4.46	0.44	0.68
Lower limbs	155.96	15.33	23.78
Foot bones	14.07	1.38	2.15
Long bones (unidentified)	57.86	5.68	8.82
Animal bones	29.25	2.87	4.46

The majority of the fragments appear to belong to an adult human. No bones were duplicated, and one may assume there was only one individual present, although a few bones of a second may have been accidentally incorporated.

The human fragments matched in size the reference skeleton, but as far as possible other factors were used to determine the age more exactly.

The distal epiphysis of the left ulna had fused but the evidence suggested that it had not long done so. This fuses at the age of 17 years in the female, Warwick & Williams (1973). The proximal head of the left fibula also showed recent fusion, again at the age of 17 in females, Warwick & Williams (1973). The heads of both metacarpals had fused, which they do by the fifteenth year in female, Warwick & Williams (1973). The first sacral vertebra had not yet united with the second along their adjacent margins. Fusion normally occurs at the age of 23 years, although it can persist unfused until the age of 33, Grant (1972). Several fragments of the skull showed sutures, but because of their small size it was not easy to determine their position. The breaks were along the sutures rather than across, which would indicate that the sutures had not begun to be obliterated. The only suture which could be placed with any accuracy was a portion of the coronal suture in the region of the superior temporal crest. The outer margin was still unfused, but there

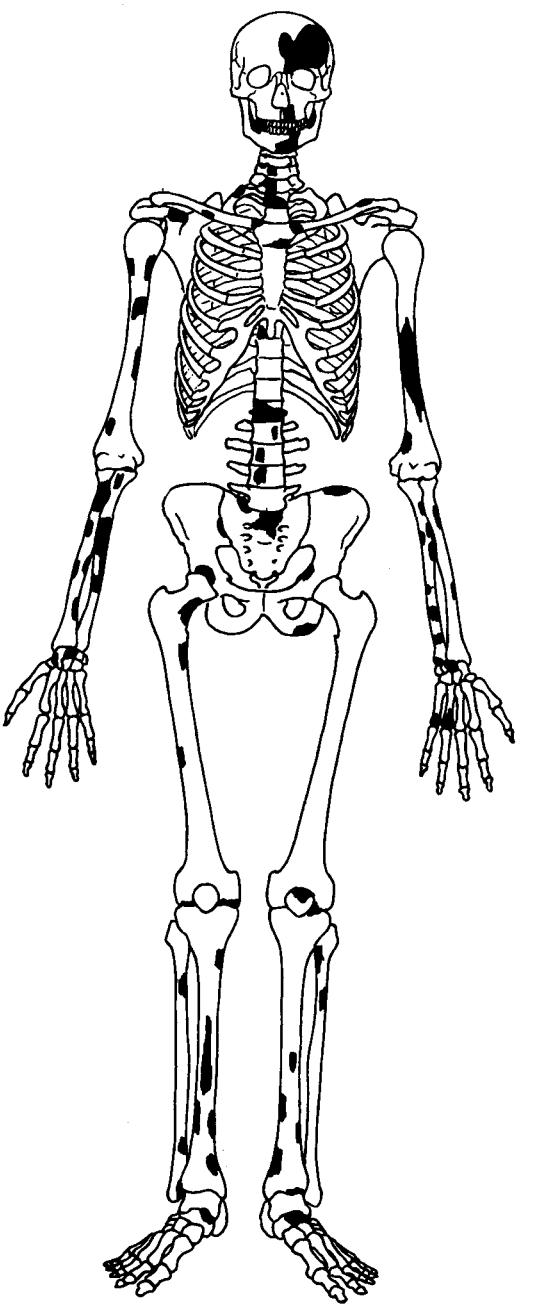

Fig. 28 Lefevre Road cremation burial : Reference skeleton.

was some indication that the endocranial margin had started to fuse. Todd & Lyon (1924) showed that in the white male the complicata region of the coronal suture commences fusion on average at the age of 24 years, reaching total fusion within five years. Although the outer margins had been damaged, there were indications that the posterior intraoccipital synchondrosis had not fully disappeared which they would normally do by six years of age. The frontal sinuses were not present, but this was probably due to sex rather than age.

The teeth also offered clues to ageing. The roots of the lower first premolar and the first molar had completed their growth, which they do at 13 years and 10 years respectively, Downer (1975). The mandible contained a socket for the third molar which erupts normally by 21 years, with the roots completing growth by 25 years, Downer (1975). Only the lower first premolar lent itself to analysis by the method proposed by Gustafson (1950), although solely from its external characteristics. This proved inconclusive. However together with the roots of other teeth, it showed completion of growth at the apices, but little or no resorption. The root orifices were either closed or very nearly so. The teeth were not sectioned for further analysis.

Taking all the above into consideration, the individual appears to have died in its early twenties.

The sexing of the individual was less certain. The most diagnostic feature was the frontal bone fragment with the supra-orbital margin. This region has already been recommended as a useful guide by Gejvall and Sahlström (1948). The margin was sharp and lacked the brow ridges typical of males. The fragment showed no frontal sinuses, which are less developed in females. Gejvall's later and more accessible work (1969) expanded his metrical analysis of sexing from certain bones. Following his method, the present cremation yielded the results given below: (measurements in mm)

Thickness of skull vault	Wall thickness of shafts of			
	Femur	Left humerus	Right humerus	Radius
3.48	5.20	3.00	4.13	2.42
♀	♀	♀	♂	♂

These results are somewhat inconclusive but the human bones may be tentatively ascribed to a female.

The cause of death could not be determined from the bones. The only pathological feature noted was a slight ring of calculus around the lower premolar.

There were six fragments of skull which were probably human but were thinner than those belonging to the main burial. The skull could possibly belong to a juvenile, although there were only a couple of other fragments which could also be ascribed to a juvenile and they may not represent part of the main cremation. Had the pyre been where earlier cremations had taken place then it is possible that remains from these could have been included.

A few fragments were obviously not adult human remains. I am grateful to Dr. Juliet Jewell of the British Museum (Natural History) for looking at these fragments and identifying them. They consisted of eleven fragments of ribs and of vertebra of sheep/goat; a mandible fragment of a young piglet; some possible bird bones and fragments of a humerus and vertebra of a non-human nature. The remains of pig are often

found in Celtic burials, Ross (1967). The variety of animals, however, suggests that the bones either came from a funerary feast, or that the cremation took place near food debris which became accidentally incorporated into the bundle.

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SUMMARY AND CONCLUSIONS

A number of sites in the Old Ford area have now been examined by excavation and observation but our understanding of the origin and development of the Roman settlement is still very limited. The locality had several advantages: its proximity to London; the subsoil, gravel capped in places by sand and brickearth which provided reasonable farmland, particularly in contrast to the marshy low lying ground east of the River Lea; the river and the Roman London-Colchester Road which would have provided the means for good communications.

Evidence for the origin, size, historical development and economy of the Old Ford settlement, together with others in Greater London, has recently been discussed[1], although it is perhaps worth adding a few comments concerning the sites reported on here.

The ditch dating to the late 1st-early 2nd century A.D. found at Morville Street *c.* 300 m south of the Roman London-Colchester Road is the first clear indication of land usage after the highway's construction. This, and the 2nd-century ditches were probably field boundaries and suggest that at least part of the area was being farmed. The ditches did not appear to have been aligned on the road (Fig. 29) and this, together with their distance from it, could indicate that the fields belonged to a farm lying south of the road, perhaps near to the River Lea. It is also possible that their alignment could have derived from an earlier field system, but apart from 3 coins[2], no finds of Iron Age material have been recorded from the area.

Alternatively these fields could have been farmed by inhabitants of a roadside settlement whose dwellings lay nearer to the ford than the sites so far investigated. It

seems likely that a major road crossing a river, which might have been fordable only at certain times, would have possessed at least facilities for travellers. On current evidence it is difficult to assess the nature and extent of the settlement at Old Ford in the 1st and 2nd centuries. Activity in the 2nd century, apart from that attested at Morville Street, is shown by the features found at Lefevre Road[3] and the cremation burial reported on here; obviously more information is needed.

The ditches at Morville Street continued to function until at least the middle of the 2nd century, but evidence for later Roman usage is limited to that provided by the inhumation burials. It may be that the area was still farmed, but if so, the fields appear to have been larger, for no late Roman boundaries were found on the site, although late 3rd/4th-century ditches aligned similarly to those at Morville Street were observed *c.* 200 m further north during construction work in 1976[4].

Evidence for late Roman agriculture was obtained at Usher Road. There, *c.* 25-65 m north of the London-Colchester Road, fields were laid out, probably in the middle of the 3rd century. The ditches at Usher Road lay at a slight angle to the line of the Roman road, and the field alignments were not dissimilar to those found on nearby sites on both sides of the highway (Fig. 29). The lack of mid 4th-century+ ditches on the western part of the site suggests that larger fields were in use, or that the settlement was contracting or moving further to the east.

Much of the Roman settlement in Old Ford has been destroyed unrecorded. Post-Roman agricultural damage, ballast extraction, the 19th-century housing developments and extensive cuttings for the railway were accompanied by minimal recording, predominantly of burials. Post-war rebuilding, mainly involving the clearance of Victorian houses and the erection of blocks of flats has involved further losses, although archaeological work on a limited scale has taken place.

More information is required if the extent of the Roman settlement is to be planned and the various aspects of its history to be understood. This can only be done with more extensive excavations and it is hoped that the Inner London Archaeological Unit will be provided with enough resources to ensure that the necessary work is undertaken as redevelopment proceeds.

NOTES

1. H. L. Sheldon and L. Schaaf 'A Survey of Roman sites in Greater London' *Collectanea Londiniensia* London Middlesex Archaeol. Soc. Special Paper No. 2 (1978) 59-88.
2. One gold coin inscribed TASCIO found in Victoria Park, London Museum Record Card E89. Parts of two tin coins from Lefevre Road, probably 2nd-1st century B.C., information from M. J. Hammerson.
3. H. L. Sheldon 'Excavations at Lefevre Road, Old Ford, E.3' *Trans. London Middlesex Archaeol. Soc.* 23 part i (1971) 64.
4. Inner London Archaeological Unit 'Sites investigated by the Inner London Archaeological Unit 1974-1976' *Trans. London Middlesex Archaeol. Soc.* 28 (1977) 255.

Appendix
TRIAL EXCAVATIONS 1971-1972
M. J. Hammerson and H. L. Sheldon

During late 1971 and early 1972 trial excavations were carried out on three sites in Old Ford where redevelopment was imminent. The aim of the work was to investigate an area of possible Roman settlement, south of the London-Colchester Road, but nearer to the presumed position of the ford across the Lea. The results were disappointing. No Roman features were found, although on two of the sites this may have been because substantial post-medieval quarrying or other disturbances had occurred.

Maverton Road (TQ 3721 8360)

Much of the site was covered by brown silty earth containing material of up to 18th-century date

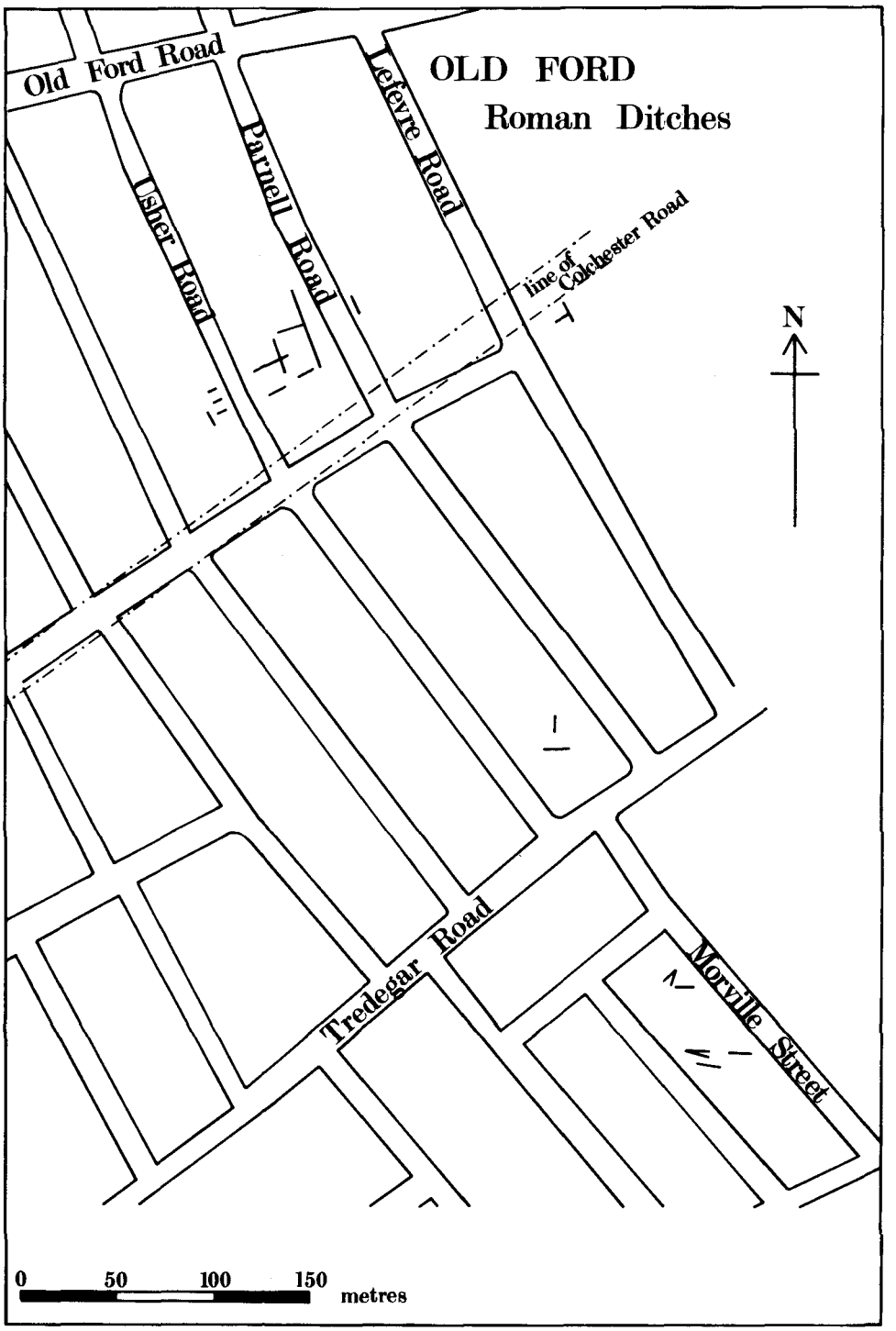

Fig. 29 Map of Old Ford showing recorded Roman ditches in relation to the London-Colchester Road.

including a quantity of Roman pottery. This deposit lay on sands and gravels not investigated but presumed to be the natural subsoil. The only features found were of 19th-century date.

Autumn Street (TQ 3742 8359)

Two trenches were dug on the site of the demolished houses and gardens of 16-20 Autumn Street. In both cases the strata had been completely disturbed, under the houses at least, by a series of interconnected 19th-century pits presumably dug for sand and gravel extraction. Only a few sherds of Roman pottery were found amongst the later material.

423-427 Old Ford Road (TQ 3732 8365)

The investigations suggested that prior to the erection of buildings in the 19th century, the ground level had been cleared down to natural gravel in the west of the site. The gravels had apparently been substantially quarried away to the east. No features earlier than the 18th century were seen, although a few sherds of Roman pottery were found within them.

During the excavations it was learnt that a coin hoard contained in a pot had been found immediately south of the site, at 429-431 Old Ford Road, during the construction of a shelter early in World War II. Evidently most of the coins were immediately dispersed, but one, of A.D. 260-268 had been retained. (Information from Mr. Callow).

(Site Records are lodged in the Museum of London).

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