

PROCEEDINGS
OF THE
CAMBRIDGE ANTIQUARIAN
SOCIETY

(INCORPORATING THE CAMBS & HUNTS ARCHAEOLOGICAL SOCIETY)



VOLUME LIV

JANUARY 1960 TO DECEMBER 1960

CAMBRIDGE
DEIGHTON BELL

1961

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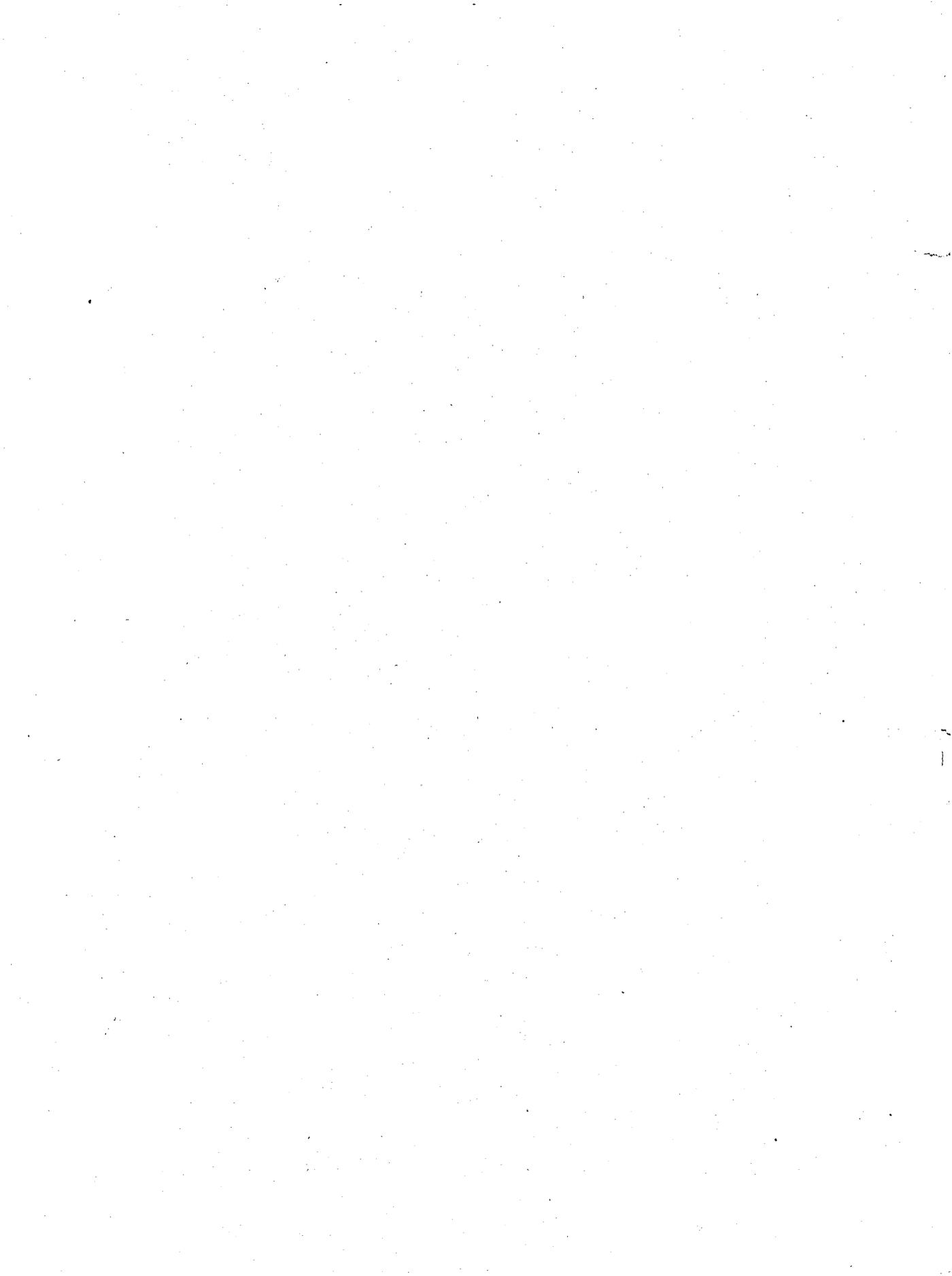
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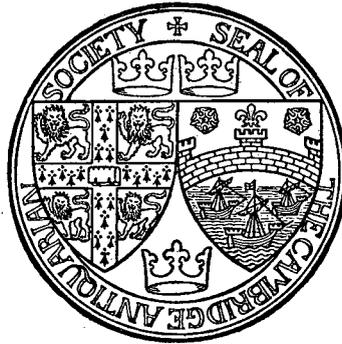
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CAMBRIDGE ANTIQUARIAN SOCIETY

(INCORPORATING THE CAMBS AND HUNTS ARCHAEOLOGICAL SOCIETY)

REPORT OF THE COUNCIL FOR THE YEAR 1959

Adopted at the Annual General Meeting on 7 March 1960.

MEMBERSHIP. The Society gained twenty-one new members and an associate during the year, but lost five members by death, and eight members and two associates by resignation. There are now 308 ordinary members and nineteen associates. There are also thirty-four subscribing institutions. The Society has suffered a sad loss by the deaths of Dr Garrod, a former president, well-known for his work for Huntingdonshire archaeology, and of Mr L. E. Harris, vice-president.

MEETINGS. There were three council meetings and nine ordinary meetings, at which the following communications were made:

- H. M. TAYLOR, M.A., PH.D. *Some Little-known Aspects of English Pre-Conquest Churches.* 26 January.
 H. J. M. GREEN. *The Romano-British Baths at Godmanchester.* 9 February.
 E. CROFT MURRAY, F.S.A. *Italian Decorative Painting in England from the time of Henry VIII to that of Queen Victoria.* 9 March.
 J. ALEXANDER, M.A. *Excavations at Castle Hill, Cambridge.* 4 May.
 J. MORRIS. *Anglo-Saxon Settlements: their Chronology and Significance.* 25 May.
 R. HODSON, M.A., PH.D. *Early Celtic Art in Southern France.* 8 June.
 R. INSKEEP, M.A. *Rock Painting in South Africa.* 19 October.
 P. EDEN, M.A., PH.D., F.S.A. *The Royal Commission on Historical Monuments Inventory of the City of Cambridge.* 2 November.
 B. R. HARTLEY, M.A., F.S.A. *Recent Excavations in the Castor Potteries.* 23 November.

The average attendance at these meetings was seventy-three.

There was a visit to Sidney Sussex College on 16 March. The thanks of the Society are due to the Master, and to Dr Smail, Dr Beales and Dr Salway, who showed members the library, the College plate, some of the medieval glass from the recent excavations and other features of interest. The College kindly entertained the party to tea.

EXCURSIONS. There were two excursions. On 1 June eighty-eight members and their friends visited Warkton, Geddington and Boughton House. On 25 June a party of forty-six visited Gorhambury House, the Verulamium Museum, and the Abbey, St Albans.

PUBLICATIONS. Vol. LII of the *Proceedings* has been published.

REPRESENTATIVES. Dr G. H. S. Bushnell was elected the Society's representative on the Faculty Board of Archaeology and Anthropology for two years. The Secretary was re-elected to the Museum Committee. Lady Briscoe and the Secretary were re-elected representatives on the Council for British Archaeology, and Mr C. F. Tebbutt was re-elected as the representative to Group 7.

SUMMARY OF ACCOUNTS FOR THE YEAR ENDING 31 DECEMBER 1959

CURRENT ACCOUNT

RECEIPTS		£	s.	d.	£	s.	d.
To Balance, 1958					126	3	1
„ Subscriptions:							
Ordinary Members	330	16	6				
Associate Members	15	8	0				
		346	4	6			
„ Investment Interest:							
British Transport Stock	56	3	5				
Defence Bonds	42	13	2				
Australian Stock	4	15	0				
Treasury Stock	4	14	4				
Savings Bonds	3	0	4				
Conversion Stock	4	9	10				
		115	16	1			
„ Sale of Publications	110	8	10				
„ Donations	106	5	10				
„ Income Tax Refund	183	13	5				
„ Miscellaneous	1	10	0				
		401	18	1			
„ Income for 1959		863	18	8			
„ Balance, 1958		126	3	1			
		990	1	9			
Total Receipts		616	5	11			
Total Expenditure 1959		401	18	1			
Balance 1959		£373	15	10			

EXPENDITURE		£	s.	d.	£	s.	d.
By Subscriptions:							
British Records Association	3	0	0				
British Archaeological Association	1	1	0				
Folk Museum	2	2	0				
Council of British Archaeology	3	15	0				
Local History Council	1	1	0				
		10	19	0			
„ Fire Insurance		1	0	0			
„ Custodian Cellarer's Chequer		2	0	0			
„ Office Expenses		9	12	8			
„ Publications		522	15	6			
„ Notices and Circulars		37	8	0			
„ Lecture Expenses		2	9	9			
„ Secretary		30	0	0			
„ Covenants		1	0	0			
		£616	5	11			
Expenditure 1959		£616	5	11			

TRUSTEE SAVINGS BANK ACCOUNT

	£	s.	d.
Balance, 1958	457	12	8
Interest	11	8	6
Balance, 1959	£469	1	2

EXCAVATION FUND

<i>Current Account</i>			
Balance, 1958	66	10	2
Subscriptions	7	1	6
	73	11	8
Expenditure	7	19	3
Balance, 1959	£65	12	5

<i>Deposit Account</i>			
Balance, 1958	145	17	9
Interest	2	18	8
Balance, 1959	£148	16	5

The Capital of the Society consists of the following Securities:
£200 Australian 4 % Stock 1966-68.

£644. 8s. 7d. British Transport 3 % Guaranteed Stock 1978-88.
£425 3 % Defence Bonds.
£585 3½ % Defence Bonds.
£157. 6s. 8d. 3 % Treasury Stock.
£100. 12s. 10d. 3 % Savings Bonds 1965-75.
£128. 10s. 5d. 3½ % Conversion Stock.
£944. 13s. 1d. British Transport 4 % Guaranteed Stock 1972-77.
£5 5 % Defence Bonds.
£230 4 % Defence Bonds.

The Bank Balances are as follows:

	£	s.	d.
Current Account	373	15	10
Excavation Fund, Current Account	65	12	5
Excavation Fund, Deposit Account	148	16	5
Trustee Savings Bank Account	469	1	2
	£1057	5	10

R. B. WHITEHEAD, *Hon. Treasurer*

We have gone through the Bank accounts and the vouchers, and consider that the accounts are correctly drawn up to exhibit the financial position of the Society. We have checked the Society's investments.

E. B. HOWELL
F. PURYER WHITE

2 February 1960

OBITUARY NOTES

G. H. S. BUSHNELL AND G. H. FINDLAY

L. C. G. CLARKE, LL.D., F.S.A.

OUR Ex-President, Dr L. C. G. Clarke died on 13 December 1960 aged 79. We do not generally publish obituary notices, but Dr Clarke was so intimately connected with all our doings over a very fruitful period in the history of the Society, that the Council feel that an account of him would be acceptable to members. It is hoped that some old friends may be persuaded to write reminiscences of him and his work for the Society for our next number.

G. H. S. B.

J. R. GARROOD, M.D., F.S.A.

JESSE ROBERT GARROOD, born in 1874, the son of Jesse Garrood, solicitor of Ledbury in Herefordshire, took his degree at St John's College, Cambridge, and qualified at St Thomas's Hospital in 1899. He married Janet, the daughter of Lancelot Newton, M.R.C.S., of a well-known county family, and joined his father-in-law at Alconbury Hill where he remained in general practice for the remainder of his active life and where he died in April 1959. The place he filled as family doctor and Medical Officer of Health for the district provided a background and a repute which helped him considerably in his archaeological researches.

With many of his friends he joined the Hunts Cyclist Battalion and, on the outbreak of war in 1914, he was posted to the east coast of Yorkshire where George Wyman Abbot first introduced him to field archaeology, which was to remain his abiding interest for the rest of his days.

He was elected to the council of the Cambridgeshire and Huntingdonshire Archaeological Society, together with his father-in-law, in 1922; became its honorary secretary in 1933 and devoted himself to its activities and development until his retirement in 1958.

He took over the curatorship of the collection at the Huntingdon Literary Institution that had been made by Robert Fox, the nineteenth-century historian of Huntingdon and Godmanchester, and which had remained neglected since Fox's death. Garrood catalogued and reorganized it and added much valuable local material.

He was honorary representative of the Ministry of Works for the county and honorary archaeological correspondent for the Northern half. He served for many years on the County Planning Committee as co-opted member representing the Cambs and Hunts Archaeological as well as the Cambridge Antiquarian Societies.

Garrod realized that the time had come when the Cambridge and Huntingdonshire Society should no longer stand alone and he consented, though naturally with reluctance, to the surrender of its independence. The amalgamation with the Cambridge Antiquarian Society in 1952 was the occasion for a presentation by his friends and fellow archaeologists. He was invited to be the first President of the combined Societies and after his term of office continued as a Vice-President.

He took much trouble with the publication of the results of his work in the Societies' *Transactions* and *Proceedings*; his contributions ranged from the Stone Age to medieval times, and their value was acknowledged by the editors of the *Victoria County History*.

His reputation as an archaeologist was widespread, but it was to Huntingdonshire that Garrod was devoted. With his wife Janet he made his house at Alconbury Hill a hospitable and lively centre for gatherings of all those of like curiosity and it was a delight to join with them in the excursions which they planned.

He was among the foremost antiquarians of the county and it is with them that he would wish to remain. His contributions to archaeology were important, but he will be remembered in Huntingdonshire for his good nature, his kindness and for the good companionship with which his work for these Societies will always be associated.

G. H. F.

THE EXCAVATION OF A *BOS PRIMIGENIUS* AT LOWE'S FARM, LITTLEPORT

F. W. SHAWCROSS WITH E. S. HIGGS

THE site is on the northern side of the road by the River Ouse, between Littleport and Ten Mile Bank, National Grid Ref. 599960 (Fig. 1), at less than 5 ft. O.D.

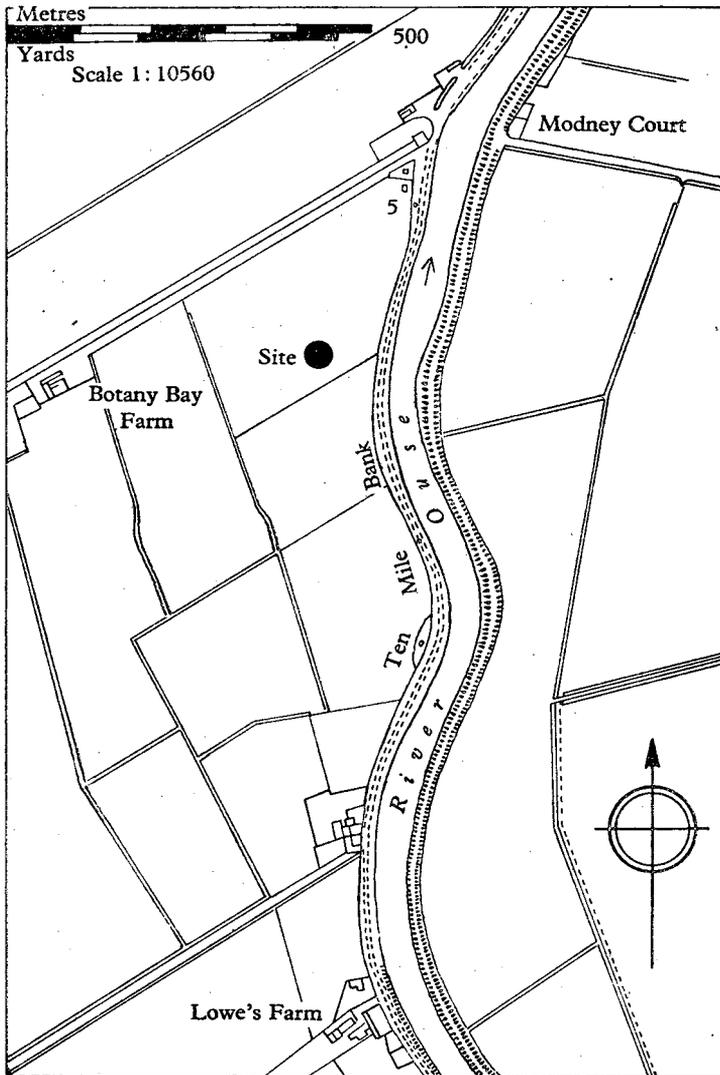


Fig. 1. Plan showing location of site.

On the surface of the field are patches of white shell marl and in the same field within 150 yards runs a rodden. The specimens were discovered while deep-ploughing the field for the first time, the plough bringing to the surface the horns and a large portion of the skull. The ploughman, Mr Walter Cornwell, reported his find to his employers, Messrs Martin Bros. of Littleport, who informed the Cambridge Museum of Archaeology and Ethnology.

An 8 ft. square trench was excavated some $2\frac{1}{2}$ ft. deep in the area marked by the

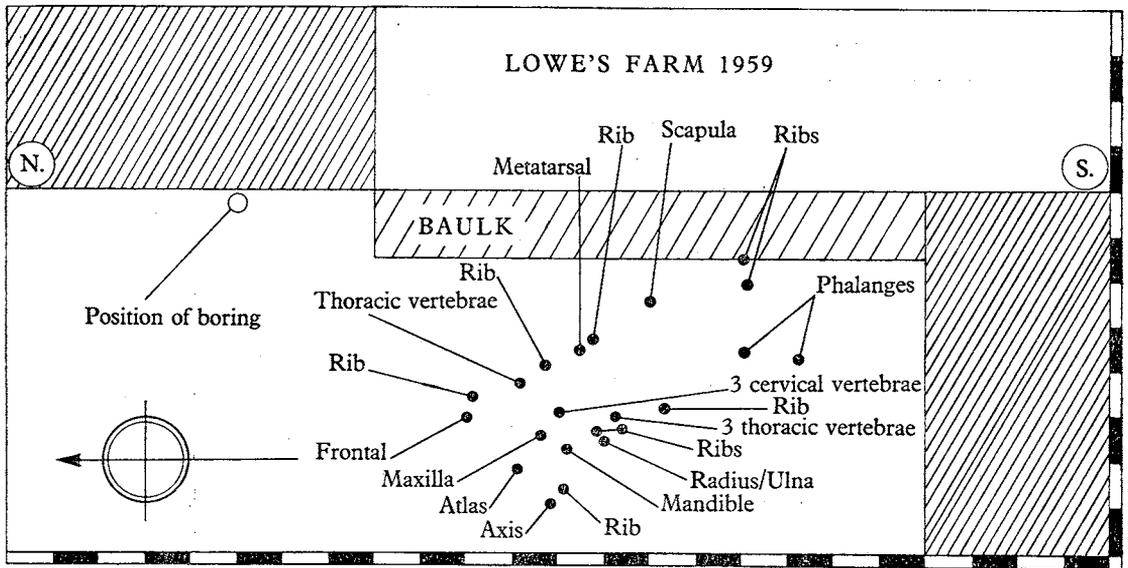


Fig. 2. Plan of excavation, showing trenches, position of boring and plotted scatter of bones. Scale in feet.

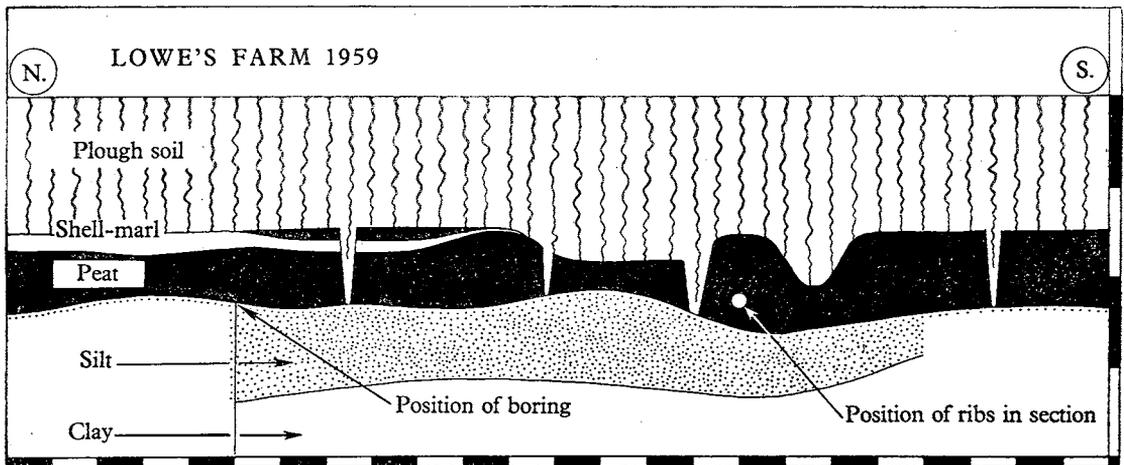


Fig. 3. Section. Vertical scale twice that of the horizontal, both in feet.

ploughman and the spoil passed through a $\frac{1}{2}$ in. mesh sieve. In this way the small fragments of the broken skull were saved for its later reconstruction.

The trench was then extended southwards, where the rest of the parts recovered were found. A further trench, to the east, was dug in the hope that the remainder of the skeleton would be found: it proved to be sterile (Fig. 2).

The stratigraphy (Fig. 3) consists of, uppermost, $1\frac{1}{2}$ ft. of peat ploughsoil, directly overlying undisturbed peat. At the time of the excavation the peat was exceedingly

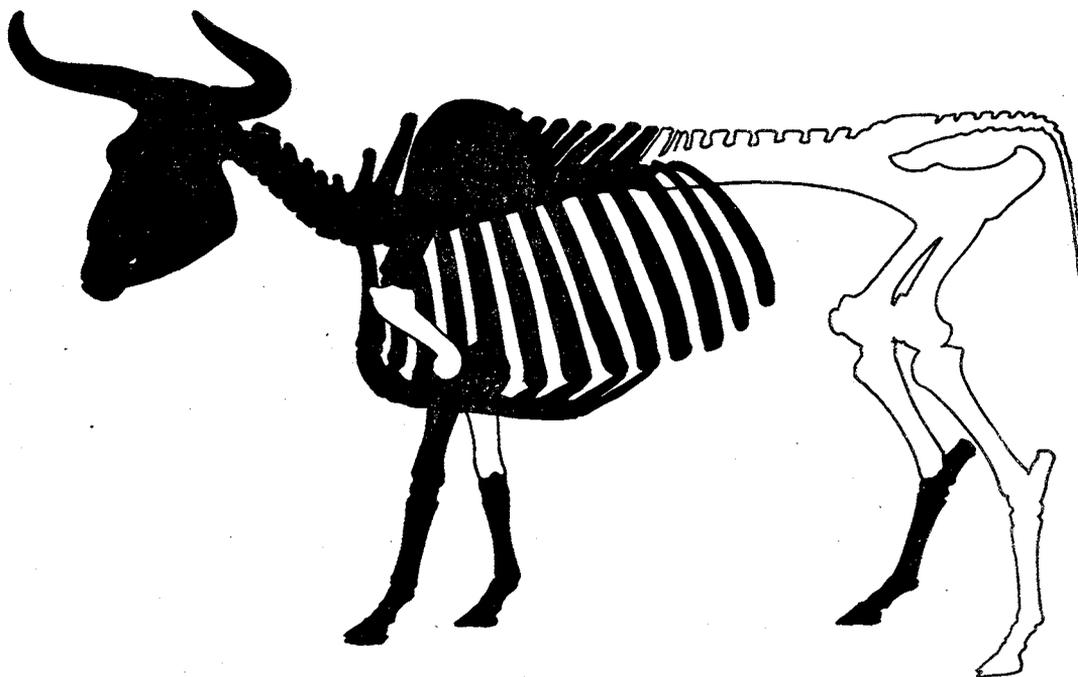


Fig. 4. Diagram showing, in black, parts of skeleton which were recovered at Lowe's Farm. (After Ellenburger-Baum, *Anat. für Künstler.*)

hard, compact, dry and broken up by large cracks, presumably due to dry summer conditions (Pl. I*b*). It was dark brown in colour and contained scattered fragments of fish bones, including a pike jaw. At a well-defined level, lenses of white shell marl occurred which, in places, overlay the bones and which can be seen, in Fig. 3, cut into by the plough at the north end of the section. At a depth of generally $2\frac{1}{2}$ ft. the peat was replaced by a layer of dark brown silt, with lighter coloured lenses and occasional small fragments of rolled flint. The silt was up to a foot deep and overlay a deposit of clay. This was a pale, blue-grey colour and plastic; it also contained fragments of rolled flint. A boring was made to assess the thickness of the clay but at 8 ft. the presence of flint cobbles made further progress impossible.

A sample of the peat was taken from its base to the underside of the scapula and submitted to the University Department of Botany for pollen analysis. This showed that the bones were deposited during Godwin's Zone VII*d*. (See Appendix.)

The bones were at the base of the peat, but separated from the surface of the silt by some 4 in. The horn cores and frontal bone had been brought to the surface by the plough, but the pre-maxilla and palate lay inverted *in situ* and indicated that the head had lain upside down in the deposit. The pre-maxilla had penetrated the peat beneath the bones into the silt and was less well preserved than the remainder of the skull and of a lighter colour. The tips of the horns (Pl. Ia), were also of the lighter colour and indicated that they too had penetrated the silt. The rest of the skeleton was incomplete, but partially in articulation (Fig. 4).

The bones retain all their most delicate features; indeed, parts of the skeleton, such as the costal cartilages, which do not normally survive, are completely preserved. They are stained a dark brown throughout, except the enamel on the teeth.

THE AXIAL SKELETON¹

Skull (Pls. Ia, II)

All measurements are given in millimetres

Length from the frontal eminence to the tip of the anterior point of the pre-maxilla	675
Length from the frontal eminence to the centre of a line joining the upper margins of the orbits	244
Length from the basion to the anterior point of the pre-maxilla	568
Least frontal width between horns and orbits	234
Least parietal width beneath the horns at the back of the skull	225
Maximum width between zygomata	250
Maximum bi-orbital width	305
Greatest height between lower margin of occipital foramen and summit of frontal eminence	222
Total length of cheek teeth	159
Length of 3rd molar	38

The infundibulum is not present in the 3rd molar and the accessory column is incorporated in the wearing surface, so that an age of at least five to six years may be assumed. There is evidence for a large abscess between the 2nd and 3rd premolars. The 2nd premolar had rotated so that its lingual side faces anteriorly (Pl. II).

Mandible

Greatest length from back of condyle to anterior point of mandible	473
Greatest length from summit of coronoid process to lowest point of angle beneath it	287
Least depth of mandible behind molars	89
Least depth of mandible behind incisors	35
Total length of cheek teeth	152
Length of 3rd molar	47

Horn cores

Length along posterior curvature of horn	785
Maximum circumference at base of horn	342
Distance between tips of horns	533

¹ We thank Mr Ian Silver of the Department of Veterinary Anatomy for his observations on the ossification and pathology, which are included here in the descriptions.

Hyoids, Great cornu

One fragmentary, one almost intact, maximum length 189

Vertebrae, total 17. The length measured is the distance between the extremity of the spinous process and the apex of the arch of the vertebral foramen

Atlas, maximum width		254
Axis, length of spinous process		75
Anterior-posterior length of spinous process		114
Width of odontoid process		53
Width of anterior articular surface		127
3rd cervical	length of spinous process	55
4th cervical	"	53
5th cervical	"	72
6th cervical	"	93
7th cervical	"	Incomplete
1st thoracic	"	390
2nd thoracic	"	400
3rd thoracic	"	400
4th thoracic	"	380
5th thoracic	"	365
6th thoracic	"	350
7th thoracic	"	330
8th thoracic	"	315
9th thoracic	"	300
10th thoracic	"	Incomplete

Ribs, total 23. Length measured from head to sternal extremity

Left	Right
365	370
380	385
425	Incomplete
470	475
	520
530	
550	560
560	
595	
600	610
625	
640	645
652	665
665	675

Sternebrae

Total 7, of which the Manubrium, 2nd, 3rd and 4th are unfused.

Costal cartilages, total 11

Left	Right
1st	1st
2nd	
3rd	
4th	4th
	5th
	6th
	—
	8th
	9th
	10th

} Fragmentary

These are evidently ossified, but to an unusual degree, which may be due to external influences.

APPENDICULAR SKELETON

Left scapula

Maximum length including ossified cartilage	606
Maximum length without ossified cartilage	540
Maximum width	312
Anterior-posterior diameter of glenoid cavity	82
Transverse diameter of glenoid cavity	73

The supra-scapula cartilage is certainly ossified, because in places the bone has developed over its surface, and it is a normal feature of large animals. But it is possible that the epiphysis on the coracoid process was unfused. There is an injury on the infraspinous fossa of the scapula, which consists of a small, flake-like exostosis surrounding a depression with thickened edges. This is almost certainly the site of a sequestrum and would have been caused by impact with a sharp pointed object. There is no evidence for a gross fracture and it could have been caused either by hunting or fighting.

Left radius/ulna

Maximum length of ulna	478
Maximum length of radius	390
Proximal width of radius	118
Distal width of radius	114
Distance between processus anconeus and coronoid process	49

Carpals, 8

Left	Right
Cuneiform	Cuneiform
Lunate	Lunate
Scaphoid	Scaphoid
Unciform	Magnum

Metacarpals, 2

	Left	Right
Maximum length	260	260
Proximal width	83	84
Distal width	83	83
Anterior-posterior diameter of distal epiphyses	45	44

Phalanges, 11

Proximal			
Length	82	Maximum anterior-posterior width	44
Length	82	" " "	44
Length	84	" " "	47
Length	84	" " "	45
Middle			
Length	53	Maximum anterior-posterior width	45
Length	57	" " "	48
Length	56	" " "	46
Length	56	" " "	48
Terminal			
Length	Incomplete	Maximum anterior-posterior width	45
Length	90	" " "	50
Length	Incomplete	" " "	55

There are bony growths on the plantar aspect of the proximal and middle phalanges of the right foot; these are due to the spraining of the sesamoid ligaments.

Tarsals, 3

Navicular-cuboid	
Cuneiform	
Calcaneum, maximum length	188
maximum anterior-posterior diameter	71
maximum transverse diameter	54

Right metatarsal

Length	296
Proximal width	61
Distal width	76
Anterior-posterior diameter of distal epiphysis	44

Sesamoid, proximal, articulating with the right distal epiphysis of the metatarsal.

DATING

The section is similar to the upper levels at Plantation Farm (*Ant. J.* XIII) some 7 miles away, where the Upper Peat, which contains shell marl lenses at the top, overlies the Buttery Clay. From the geographical location of the Lowe's Farm site and the position at less than 5 ft. above Datum, it is evident that the Buttery Clay must have been deposited in this area. Short of an unlikely erosional event removing the Buttery Clay completely, the peat at Lowe's Farm must be as late as or later than the Upper Peat at Plantation Farm. Further, a clay similar in colour and consistency to the Buttery Clay underlies the Lowe's Farm peat, but it contains rolled flints,

unlike that at Plantation Farm. On the other hand it is further seawards and closer to the high ground of Hilgay and Southery and was probably laid down by slightly different sea and river action. No artifacts of any antiquity have been found above the shell marl lenses in this area, which indicates a peat of late date. The pollen analysis of the base of the peat supports an Early Bronze Age date.

CONCLUSIONS

From the nature of the remains there appear to be three possible reasons for the incompleteness of the skeleton: butchering, leaving the unwanted remains in the peat; disturbance after incorporation within the peat; or the deposition of a fragmentary carcass, the body breaking up by decomposition and parts being washed away.

In spite of the fact that the best joint bones are virtually all missing, as will be seen in the diagram (Fig. 4), there is no evidence for butchering; there are no traces of human artifacts, nor are there any cut marks upon the bones. The only evidence of recent disturbance was that caused by ploughing. The most likely explanation would appear to be that the carcass was carried by floods along any one of the rivers entering the Fens from the surrounding high ground. Here it was deposited and after partial decomposition some parts became separated and were carried away by further water action. As will be seen in Fig. 4, there is a weak point where the thoracic and lumbar vertebrae join.

A similar occurrence was reported by A. W. Stelfox (*Irish Naturalists' J.* IV, 1933), who noted the remains of an Irish Elk.

The head was lying upside down with some leg bones, a few joints of back-bone and some ribs, the remainder of the animal's body having floated away leaving the head behind. There is plenty of evidence that this was a common occurrence, namely, that the dead body floated about the lake with the head and antlers hanging down; that the antlers were the first part to catch on the bottom and anchor the remains; that as they decayed the neck vertebrae parted, so that the head and antlers, with a few vertebrae and possibly a limb (the last probably having fallen off while the carcass remained anchored by the antlers) are found alone. The other parts of the body floated away and became scattered as the carcass decayed.

In Fig. 5, comparison of size is made with other specimens; namely, the measurements of a sample of the bones of *Bos primigenius* from the Mesolithic site of Star Carr and Pleistocene specimens from the British Museum. In the diagram are also the measurements of a cow of a modern Shorthorn breed. It will be seen that the Lowe's Farm bones fall well within the size range of the measured Pleistocene specimens; indeed, some parts of the body appear to be larger. The Mesolithic animals are substantially smaller and closer in some measurements to modern cattle.

SUMMARY

Only the front half of the skeleton was found, except for the lower part of one hind leg. However, the remaining portion of the animal was almost complete, with the bones partly in articulation. It had possibly lain upside down; the head was certainly inverted. The most probable explanation of the incompleteness of the remains is that the carcass had been carried by floods to its present position; the

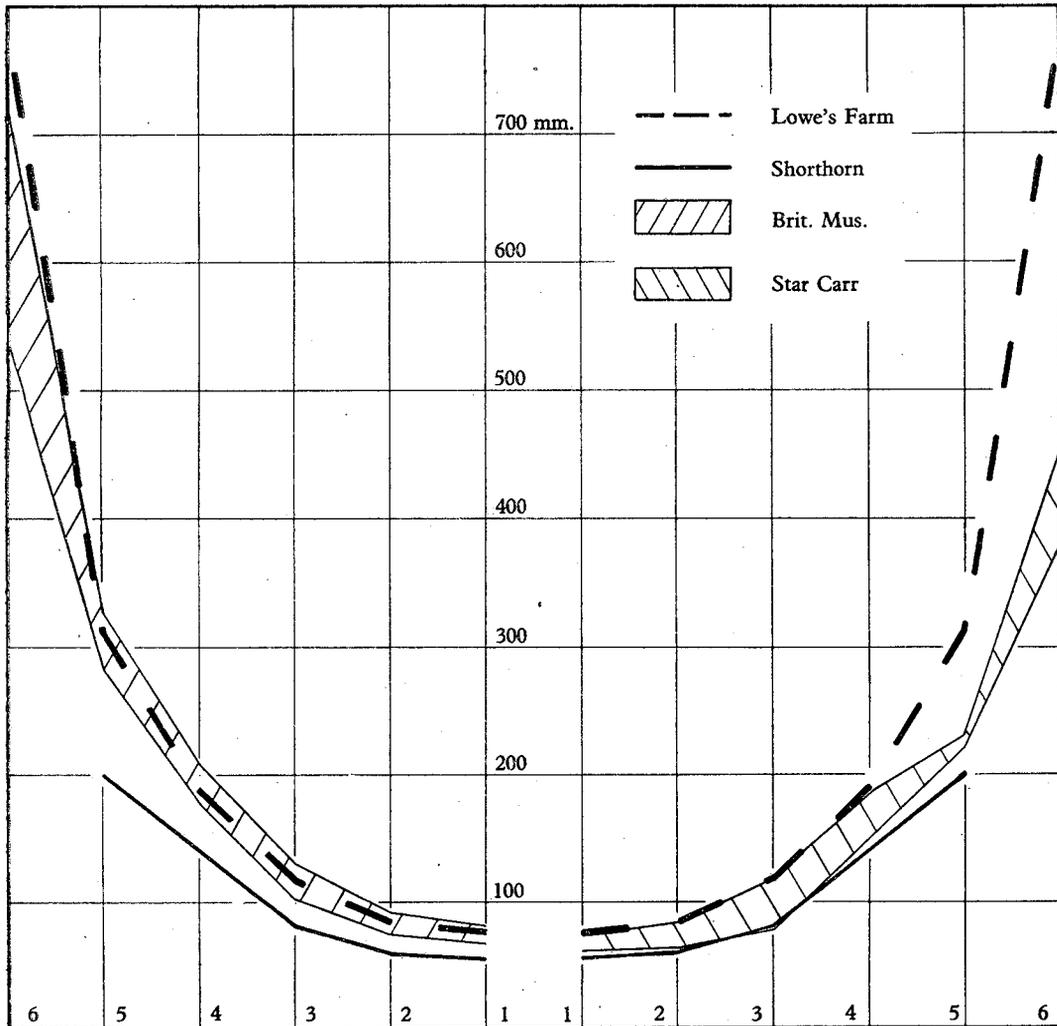


Fig. 5. Diagram showing the comparative measurements of the following bones: (1) Distal width of metatarsal; (2) distal width of metacarpal; (3) proximal width of radius; (4) length of calcaneum; (5) width across posterior point of orbits; (6) length along outer curvature of horns.

On the left the Lowe's Farm *Bos primigenius* and a modern Shorthorn cow are plotted against British Museum specimens and on the right they are plotted against Star Carr specimens.

Table of measurements used in Fig. 5. All are in millimetres.

	Star Carr	Star Carr	British Museum	British Museum	Lowe's Farm	Shorthorn
(1)	73	62	80	67	76	56
(2)	84	63	92	73	83	60
(3)	117	79	130	102	118	82
(4)	186	—	208	175	188	141
(5)	231	220	325	282	310	200
(6)	455	380	724	540	785	—

horns perhaps caught in the bottom, and, as it decayed, the animal's hind-quarters were broken off at the weakest part of the backbone and floated away and were scattered.

The remaining bones are in good condition, such delicate parts as the cartilages of the ribs having been preserved. From the teeth, the animal must have been at least five or six years old; the 2nd premolar had become displaced, and there was a large abscess between it and the 3rd premolar (Pl. II). The left shoulder-blade had been injured, probably by a sharp point; this could have occurred either in fighting or being hunted. The right forefoot has bony growths, resulting from a sprain. The length of the horns is 31 in. (785 mm.), and the span between the tips 21 in. (533 mm.).

Comparative measurements show that this animal falls within the range of size of Palaeolithic specimens in the British Museum, and is substantially larger than either Mesolithic examples from Star Carr, or modern Shorthorn cattle. Nevertheless, its stratigraphic position proves that it is in fact of Bronze Age date. The skeleton lay in the base of a layer of undisturbed peat overlying a silt layer, which itself overlay a thick clay deposit. This section is similar to that at Plantation Farm.

A sample was taken from the peat immediately below the skeleton, and the analysis of the pollen supports the comparison with Plantation Farm. Beech was present, together with large quantities of oak and alder, while lime was decreasing and there were only small amounts of birch, pine and elm. These features are typical of the early formation of the Upper Peat above the Fen Clay, and correspond in date to the Early Bronze Age. This sample is of particular interest, as it records the transition in the local vegetation from salt-marsh to reed-swamp with open pools of brackish water. The peat from immediately above the clay layer contained plants which can grow in the presence of salty water; above this were found plants capable of tolerating either brackish or fresh water, together with plenty of fresh-water species. The plants present include some which are of course now restricted to the coasts, and one (*Najas marina*) which has not previously been recorded from the Fens and at present only grows in a few of the Norfolk Broads. Rather higher summer temperatures are suggested by the presence of seeds of *Lemna* sp. which today fruit only infrequently.

The evidence from the pollen analysis shows that the clay layer was deposited in salt-marsh conditions, and that the overlying peat grew during the development towards fresh-water fen; this clay can probably be equated with the Buttery Clay at Plantation Farm.

Thus the find gives evidence for the survival of *Bos primigenius* into the Bronze Age in the Fenland, or in the area immediately surrounding it. It also indicates that theories associated with the diminution in size of these animals during the Mesolithic need reconsideration.¹

¹ Since this paper was written, the horn cores of a second example of *Bos primigenius* have been found in the same (Early Bronze Age) horizon of the peat. This was at County Farm, Mildenhall Fen (National Grid Ref. 638800). These horn cores are even larger than those of the Lowe's Farm specimen; their circumference at the base is 362 mm. and the length along the posterior curvature 810 mm.

ACKNOWLEDGEMENTS

We thank Messrs Martin Bros. for all their assistance and for kindly presenting the remains to the Cambridge Museum of Archaeology and Ethnology; Professor H. Godwin for his co-operation, and Miss C. A. Lambert for her report on the pollen analysis; Mr Ian Silver of the Department of Veterinary Anatomy, Dr J. C. Trevor and Mr D. Brothwell of the Duckworth Laboratory for their help and advice; Mr Bernard Denston for reconstructing the skull; finally, all those who assisted in the excavation—in particular Miss Janice Aitken, Miss Rona McCalman, Miss Louise Millard and Mrs Sonia Wright.

APPENDIX

REPORT ON THE ANALYSIS OF THE POLLEN AT LOWE'S FARM

C. A. LAMBERT

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The section drawn by Mr F. W. Shawcross showed from the surface downwards:

- 0-38 cm. Plough soil.
- 39-68 cm. Peat, with lens of shell marl at 53 cm.
- 69-98 cm. Dark brown clayey silt.
- 99+ cm. Clay containing flint.

The scapula of the aurochs was found in the middle of the peat, just below where the shell marl lensed out. A column 40 cm. long was cut down under this bone and samples taken from it for C-14, pollen and macroscopic remains. The column was measured downwards in centimetres from immediately below the bone, and the following stratigraphy noted:

- 0-3 cm. Peat for C-14 sample.
- 4-15 cm. Very dark brown homogeneous compacted peat, *Phragmites*, sand, carbon and wood fragments at top.
- 16-26 cm. Peat as above with silt and clay admixture, sandier at the base with *Phragmites*.
- 27-40 cm. Mottled grey-brown clay with flint and decaying wood.

POLLEN ANALYSIS

The low values of *Betula*, *Pinus* and *Ulmus*, with high *Quercus* and *Alnus*, the decrease of *Tilia* and presence of *Fagus* can be correlated with VII d of the Fenland zonation. This corresponds to the Early Bronze Age. These features with the high values of *Tilia cordata* at the transition of Zones VII c and VII d are typical of the early formation of the Upper Peat above the Fen Clay. The pollen spectrum is similar at the Southery Early Bronze Age site (about 2 miles east of Lowe's Farm) and at the Methwold site W. (about 4 miles E.N.E. of Lowe's Farm) which is a marginal one, with *Phragmites* silt replacing the Fen Clay in Zone VII c.

The high Gramineae at 17 cm. is probably due to *Phragmites*, the remains of which were found in the peat. *Artemisia* and *Plantago lanceolata* are both associated with cultivation and therefore must have come from the dry soil of the uplands. *Calluna* and *Empetrum* pollen might originate either from the acid soils of the Breckland, or from acidic *Sphagnum-Calluna* peat such as is known to have been growing nearby at this period.

The remainder of the pollen types reflect the more local vegetation, which is shown in greater detail by the macro-remains. The high values of *Chenopodiaceae* at the base of the peat are indicative of salt-marsh conditions. Their continued presence, with *Armeria*, throughout the peat, suggests that it accumulated quickly. This is borne out by the consistency of the tree pollen percentages.¹

MACROSCOPIC REMAINS

The macroscopic remains are of particular interest in that they prove a transition from salt-marsh to reed-swamp with open brackish water pools. The evidence for the salt-marsh is to be found in the presence of *Juncus gerardi* and *Salicornia* sp. in the clay-peat transitional sample. Above this, all the samples within the peat have a similar flora, characterized as follows: there are *Chenopodium* cf. *botryodes*, *Ruppia* spp. and *Suaeda maritima*, which always grow in the presence of salt. These are found with plants tolerant of brackish or fresh water such as *Najas marina*, *Phragmites communis* and *Zannichellia palustris*. With these are fresh-water species such as *Chara* sp., *Nymphaea alba*, *Potamogeton* spp. and *Utricularia* sp. with *Cladium mariscus* and *Schoenoplectus lacustris*, plants indicative of fresh-water reed-swamp.

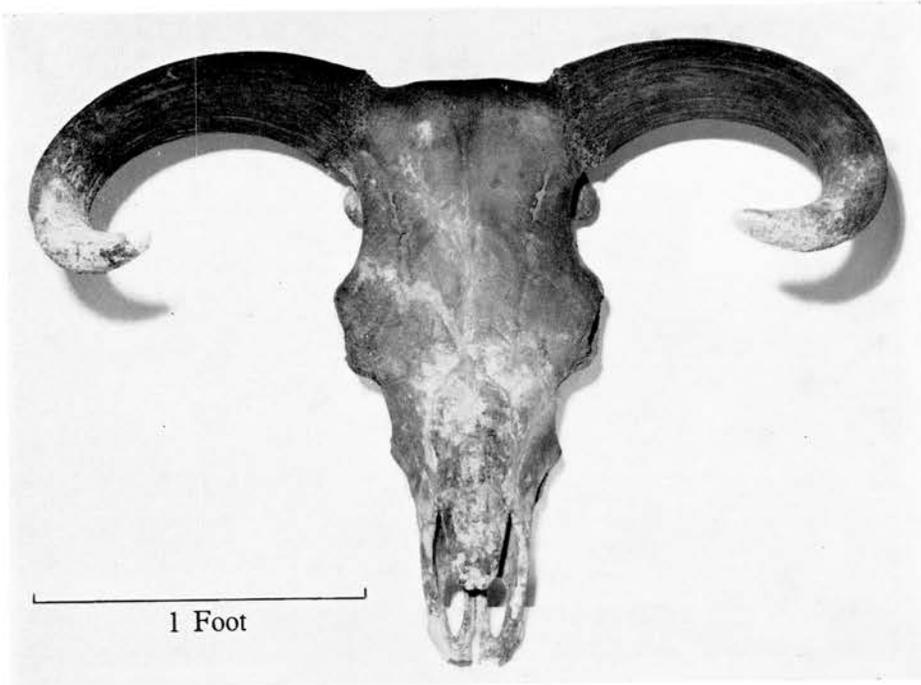
The peat monolith is too short to have recorded the alder fen wood which presumably succeeded the reed-swamp stage.

Apart from the plants which are now naturally restricted to the coasts, the presence of *Najas marina* is of particular interest since it has not previously been recorded from the Fenland and now only grows in a few of the Norfolk Broads. *Lemna* spp. fruit infrequently at the present day; the occurrence of sub-fossil fruit suggests that summer temperatures were as high as, or higher than those now obtaining.

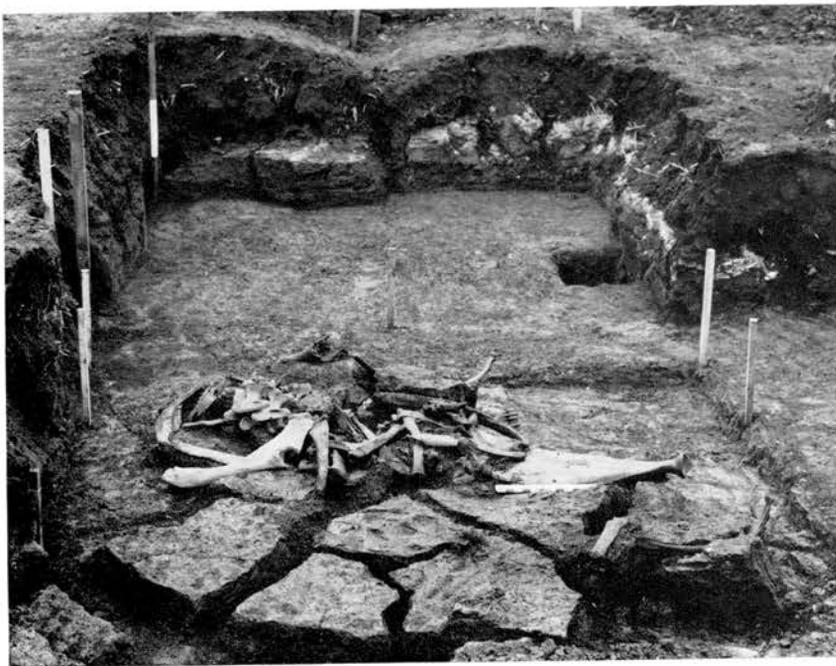
The evidence of the pollen-analyses suggests that the peat column is referable to Sub-zone VII d of the Fenland sequence, that is, the phase that succeeded deposition of the Fen Clay. This seems to accord with the evidence both of macroscopic remains and of locally derived pollen, that the basal clayey samples were deposited in salt-marsh conditions and that afterwards there was development towards fresh-water fen. Thus the basal clay might appear to be the equivalent of the Fen Clay, but there is no available stratigraphic evidence to support this view.

If, nonetheless, this is the correct interpretation of the deposits, the aurochs would appear to be referable to some part of the Bronze Age.

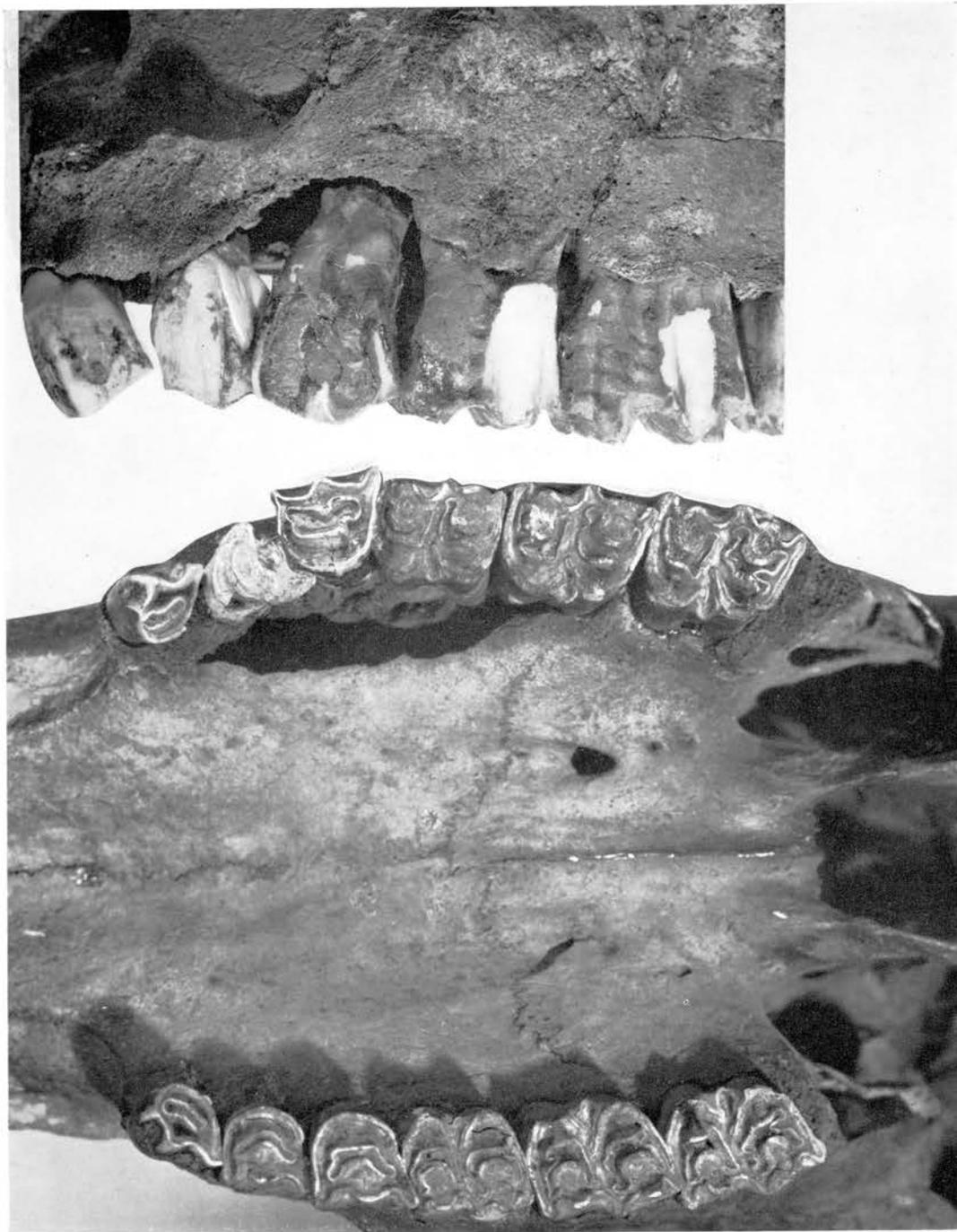
¹ H. Godwin, *Phil. Trans. B*, 230 (1940), 239.



(a) *Bos primigenius*.



(b) The site, Lowe's Farm.



The upper jaw, showing displacement of 2nd pre-molar
due to abscess.

LOWE'S FARM, IO MILE BANK

(Pollen expressed as a percentage of total tree pollen)

Depth in cm. from top of peat	1	5	7	9	13	17	21
No. of tree pollen grains counted	172	164	152	202	156	175	150
<i>Betula</i>	1	7	5	4	5	4	0.6
<i>Pinus</i>	2	1	4	4	2	2	3
<i>Ulmus</i>	2	5	3	3	4	4	1
<i>Quercus</i>	46	46	41	41	42	56	44
<i>Tilia</i>	4	2	5	2	3	10	17
<i>Alnus</i>	39	35	42	47	42	22	32
<i>Fagus</i>	—	*	—	*	—	—	0.6
<i>Fraxinus</i>	3	4	2	4	2	2	0.6
<i>Corylus</i>	57	49	65	60	82	63	25
<i>Salix</i>	2	0.6	2	1	1	1	—
<i>Hedera</i>	0.6	0.6	0.6	—	—	0.6	*
<i>Ilex</i>	—	—	—	*	—	—	—
Gramineae	22	26	16	25	22	76	29
Cyperaceae	11	4	11	7	6	1	2
<i>Cladium</i>	3	4	3	4	3	2	—
<i>Armeria</i>	*	—	—	*	—	*	*
<i>Artemisia</i>	0.6	1	0.6	0.5	0.6	2	2
<i>Bellis</i> type	*	—	*	1	—	1	5
<i>Calluna</i>	—	0.6	*	*	—	—	0.6
Caryophyllaceae	*	—	—	—	—	—	*
Chenopodiaceae	5	5	3	2	3	14	99
<i>Empetrum</i>	—	—	0.6	—	—	—	—
Leguminosae	—	—	—	—	—	—	0.6
<i>Lycopus</i> type	*	—	—	—	—	—	—
<i>Plantago lanceolata</i>	2	*	0.6	2	1	—	—
<i>P. major</i>	—	—	—	0.5	—	—	—
Ranunculaceae	—	—	0.6	—	0.6	—	—
<i>Scabiosa</i> or <i>Succisa</i>	—	—	—	—	—	*	—
<i>Taraxacum</i> type	—	—	*	*	—	*	0.6
Umbelliferae	—	—	*	—	—	—	0.6
<i>Menyanthes</i>	—	—	—	*	—	*	—
<i>Nuphar</i>	*	—	1	*	*	—	—
<i>Nymphaea</i>	2	—	3	3	2	—	—
<i>Sparganium</i>	2	3	1	4	3	0.6	—
<i>Typha latifolia</i>	*	—	0.6	*	0.6	—	—
Filicales	34	20	31	30	77	6	32
<i>Osmunda</i>	—	—	—	—	—	—	0.6
<i>Polypodium</i>	0.6	*	1	*	0.6	0.6	11
<i>Pteridium</i>	—	—	2	0.5	0.6	—	—
<i>Sphagnum</i>	*	0.6	—	—	—	—	0.6

An asterisk indicates presence on slide but not in counted traverses.

LOWE'S FARM, 10 MILE BANK

Macroscopic remains	Type of remains	Depth in cm. from top of peat				
		1 (Pollen sample)	3-9	9-15	15-21	21-26
<i>Alnus glutinosa</i>	Fruit	—	—	—	r	—
<i>Atriplex hastata</i>	Seed	—	r	r	—	—
Cf. <i>Berula erecta</i>	Fruit	—	r	—	—	—
<i>Betula pubescens</i>	Fruit	—	r	—	—	—
<i>Betula</i> sp.	Fruit	—	o	r	—	—
<i>Carduus</i> or <i>Cirsium</i> sp.	Fruit	—	r	—	r	—
<i>Carex</i> cf. <i>paniculata</i>	Nutlet	—	—	r	—	—
<i>C. strigosa</i>	Nutlet + utricle	—	—	r	—	—
<i>Ceratophyllum demersum</i>	Fruit	—	—	r	—	—
<i>Chenopodium</i> cf. <i>botryodes</i>	Seed	—	r	r	—	—
<i>Cladium mariscus</i>	Nut.	r	c	a	o	—
<i>Eupatorium cannabinum</i>	Fruit	r	—	—	r	—
Filicales	Sporangium	—	r	—	—	—
Gramineae	Caryopsis	—	—	—	r	—
<i>Hydrocotyle vulgaris</i>	Fruit	—	—	r	—	—
<i>Juncus gerardi</i>	Seed	—	—	—	—	r
<i>Juncus</i> sp.	Seed	—	—	—	r	—
<i>Lemna</i> sp.	Seed	—	—	—	r	—
<i>Lycopus europaeus</i>	Nut	—	r	—	r	—
<i>Menyanthes trifoliata</i>	Seed	—	r	—	—	—
<i>Najas marina</i>	Fruit	—	a	a	r	—
<i>Nymphaea alba</i>	Seed	—	a	a	—	—
<i>Potamogeton berchtoldii</i>	Fruitstone	—	o	a	a	r
<i>P. pectinatus</i>	Fruitstone	—	—	r	r	—
<i>Ranunculus lingua</i>	Achene	—	—	r	—	—
<i>Rubus fruticosus</i>	Pyrene	—	r	—	—	o
<i>Rubus</i> sp.	Pyrene	—	—	—	r	—
<i>Ruppia maritima</i>	Fruit	—	r	r	—	—
<i>R. spiralis</i>	Fruit	—	r	r	r	—
<i>Salicornia</i> sp.	Seed	—	—	—	—	r
<i>Schoenoplectus lacustris</i>	Fruit	—	c	c	r	—
<i>Sparganium</i> cf. <i>minimum</i>	Fruitstone	—	—	r	—	—
<i>Suaeda maritima</i>	Seed	—	r	—	—	—
<i>Urtica dioica</i>	Fruit	—	c	r	—	—
<i>Utricularia</i> sp.	Seed	r	—	—	—	—
<i>Zannichellia palustris</i>	Fruit	—	o	o	a	—
<i>Chara</i>	Oospore	o	o	o	r	—
<i>Cristatella</i>	Statoblast	—	r	—	—	—
<i>Daphnia</i>	Ephippium	—	r	—	—	—

Frequency: 1-3, r = rare; 4-6, o = occasional; 7-10, c = common; 11+, a = abundant.

NEOLITHIC POTTERY FROM THE GREAT OUSE VALLEY

H. J. M. GREEN

DURING the course of rescue excavations on an Iron Age and Roman site by the Huntingdonshire Archaeological Field Group in 1958,¹ a sherd of Neolithic B pottery was found (Pl. III *a*; Fig. 1 *a*). The site lies in a gravel pit a mile south-east of St Ives on the north side of Meadow Lane (map reference, O.S. 2½ in. to 1 mile 52/327707). The sherd was found unstratified on one of the tip heaps of the pit.

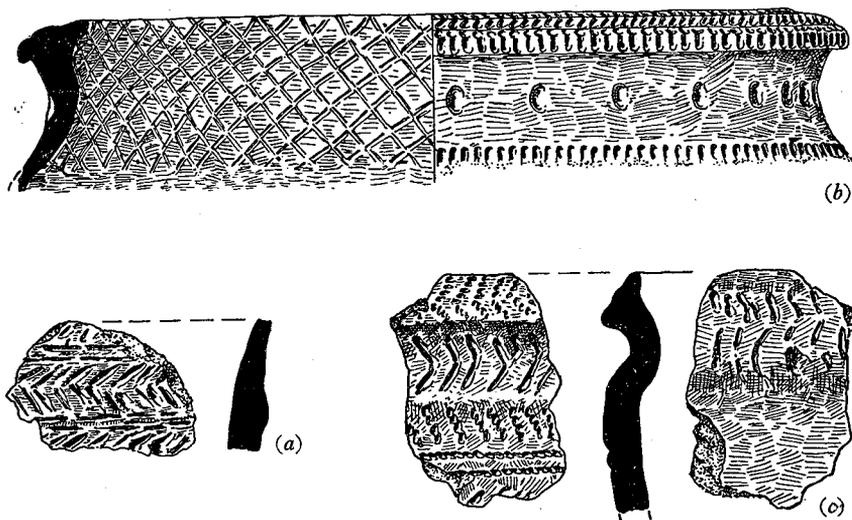


Fig. 1. Neolithic pottery from the Great Ouse valley (half natural size).

In 1959 a fisherman picked up another sherd of the same type of pottery (Pl. III *b* and *c*; Fig. 1 *b*) at Fenstanton, about ½ mile south of the other discovery, on the banks of the River Ouse (map reference, O.S. 2½ in. to 1 mile 52/324700). The sherd apparently came from material dredged out of the river.

Both sherds are of Mortlake ware, a pottery of the Peterborough culture. In East Anglia this Secondary Neolithic culture, derived from a fusion of the Windmill Hill and Mesolithic peoples, belongs to phases II and III of the Neolithic settlement. Phases II and III are believed to have lasted from some time before 1900 B.C. to about 1700 B.C.² No pottery of the Windmill Hill culture has been recorded from the Great Ouse valley.

¹ *J.R.S.* vol. XLIX (1959), p. 118.

² R. R. Clarke, *East Anglia*, p. 49, chart c.

The findspots of these sherds probably indicate that there was Neolithic settlement of the broad belt of valley gravels which lie just north of the river in this area. The lighter soils over the gravels have always made them areas of primary settlement for farmers with primitive agricultural techniques.

Two other groups of pottery in the Mortlake style have been recorded from the Great Ouse valley. One group was found at Kempston,¹ Bedfordshire. Although the pottery has a wide range of decorative motifs, there are no close parallels to the sherds from St Ives and Fenstanton. The Kempston group is in the Bedford Modern School Museum. The other group was excavated by Mr C. F. Tebbutt at Eaton Socon,² Bedfordshire, in 1948. The one decorated sherd found is a much closer parallel to the St Ives and Fenstanton sherds than the pottery from Kempston, and is reproduced (Fig. 1c) and described in this paper for purposes of comparison. The Eaton Socon pottery was given to the Cambridge University Museum of Archaeology and Ethnology.

The St Ives sherd has been deposited at the Norris Museum, St Ives. The Fenstanton sherd is, at time of writing (July 1960), on loan to the London Guildhall Museum, but there is a cast of it in the Norris Museum.

THE POTTERY

1. Body sherd from bowl of Mortlake type (Pl. IIIa; Fig. 1a); externally on wall, two, and possibly three, horizontal bands of oblique incisions in chevron arrangement separated by double lines of twisted cord; internally, rough horizontal grooves. Black flaky core, lightly gritted with unburnt flint; brown or buff surface with black patch externally. From St Ives.

2. Rim sherd from bowl of Mortlake type with internal diameter of about 8 in. (Pl. IIIb and c; Fig. 1b); on rim and shoulder, twisted cord maggots in chevron arrangement; in neck, zone of impressed pits; inside rim, band of incised trellis decoration (Pl. IIIc). Light brown to black flaky fabric heavily gritted with unburnt flint. From Fenstanton.

3. Rim sherd from bowl of Mortlake type (Fig. 1c); on and inside rim, in neck and below shoulder, twisted cord maggots in chevron arrangement; on wall, two continuous lines of twisted cord and trace of another zone of chevrons. Black flaky core heavily gritted with unburnt flint; red to buff surface outside, buff inside. Cambridge University Museum of Archaeology and Ethnology: Reg. no. 48.2528. From Eaton Socon.

ACKNOWLEDGEMENTS

I am indebted to the Guildhall Museum for permission to examine the sherd from Fenstanton, and for photographing the pottery. I am grateful to Mr C. F. Tebbutt for permission to reproduce the sherd from Eaton Socon, and to Mr C. M. Coote and Mr J. G. Wilson for their help.

¹ S. Piggott, 'The Neolithic Pottery of the British Isles', *Arch. J.* vol. LXXXVIII (1931), pp. 122-4.

² C. F. Tebbutt, 'A Neolithic B (Peterborough) Hearth at Eaton Socon', *Bedfordshire Archaeologist*, vol. 1, no. 2 (October 1955), pp. 54-5.

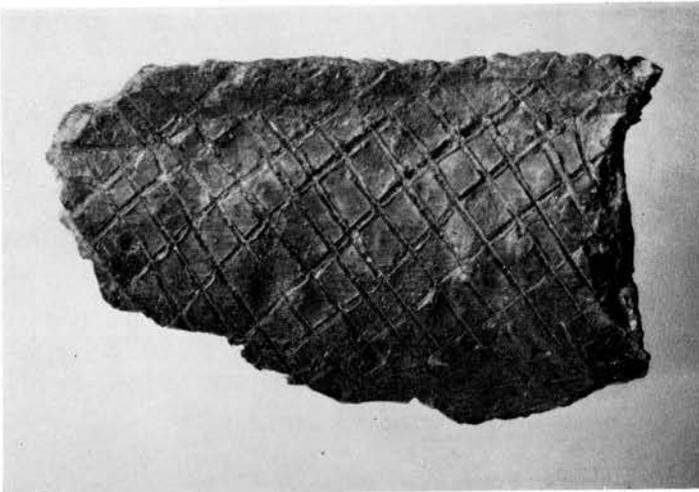
(a)



(b)



(c)



Neolithic pottery from the Great Ouse valley. (a) St Ives: $1\frac{1}{8}$ natural size; (b) Fenstanton (outside of sherd); (c) Fenstanton (inside of sherd): 1/1.

BRONZE AGE CREMATION URN AT RABBIT HILL, LAKENHEATH

GRACE BRISCOE, F.S.A.

ON 20 February 1960 the presence of a very large inverted collared urn was disclosed by ploughing to a depth of 9-10 in. instead of the usual 7 in. The plough had struck the base and smashed about 2 in. of it. It could be seen that the urn contained pieces of bone. The surrounding area was cleared and the pot removed without further damage. Nearly all the broken sherds were recovered and enabled a full restoration of the base. The urn had been placed on solid chalk. There was no discoloration of the soil.

The soil is light and sandy around the findspot (National Grid Ref. 7157 8425), which lies on a slight slope facing the valley of the Little Ouse to the north and within a few yards of black fen soil. The area is rich in archaeological remains, for it lies at the junction of chalk and fen where springs of water from the chalk formed an attraction for early settlers. To the south-east, 330 yards away, a pit has been explored containing sherds of 'giant' beaker and rusticated wares;¹ immediately to the north there is an area, about 300 by 100 yards, dotted with remains of Early Iron Age A settlers; intermingled with these are the remains of three Romano-British kilns and other evidence of Roman habitation. The urn findspot lies directly in the path of the New River to be cut in the near future.

The urn is well proportioned and carefully made. In general shape it resembles closely the urn with primary burial recovered from Sheeplays in Glamorgan,² except that the top of the rim is flattened with an internal bevel decorated in the same manner as the collar and neck. The overhanging collar is slightly concave internally, and externally is occupied with closely set, twisted cord impressions arranged in herringbone fashion. This effect is repeated on the neck. Just below the shoulder a single line of cord impressions is laid horizontally. The shape of the collar suggests a date in the early part of the Middle Bronze Age.

The body is almost conical, the walls about 12 mm. thick. The urn weighs 23 lb., is 19½ in. high, rim diameter 14 in., base 5½ in. The internal surface is not burnt black, and there is only some discoloration in the middle part.

A search of the regional museums and the literature (admittedly not exhaustive) has revealed two cremation urns of slightly larger size. One is in the Norwich Museum (unpublished), approximately 20 in. high, irregular and roughly made, the

¹ G. Briscoe, *Proc. C.A.S.* vol. LIII, p. 1.

² C. Fox, *Life and Death in the Bronze Age*, fig. 67, p. 133.

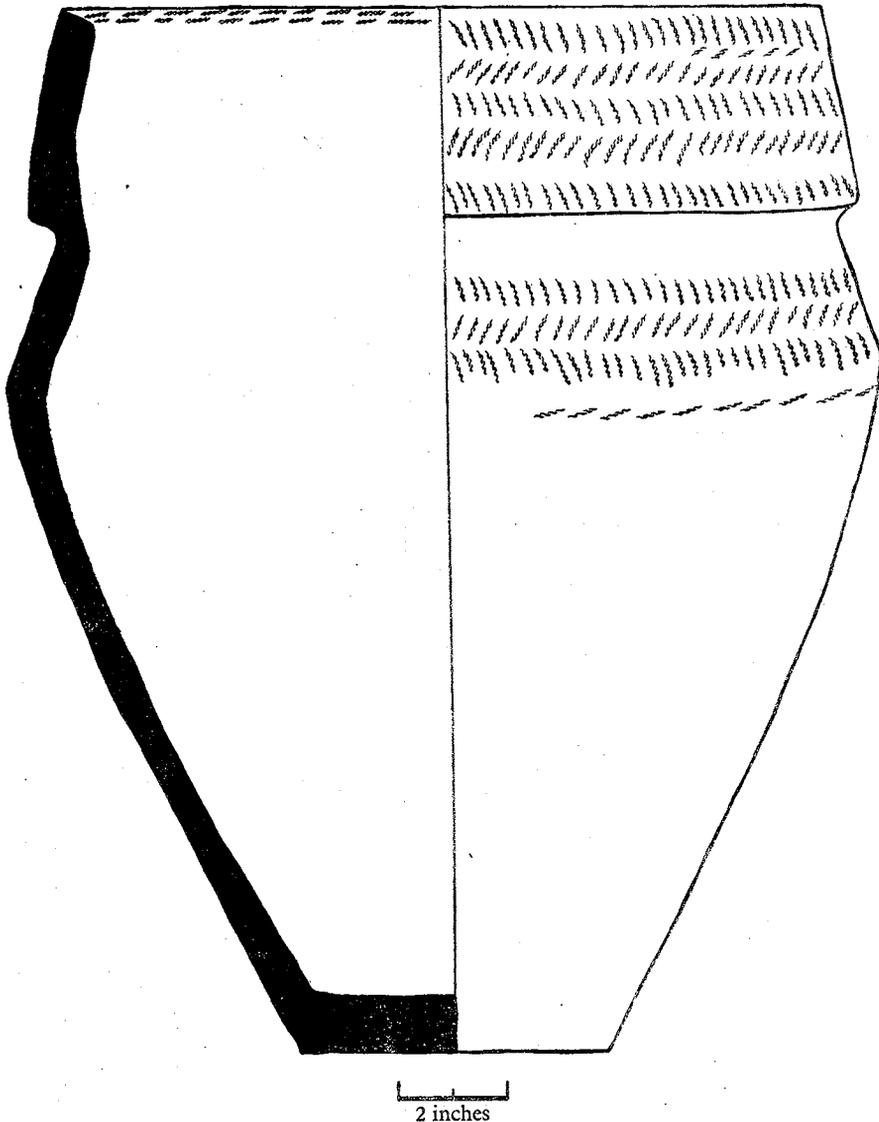


Fig. 1. Cremation urn from Lakenheath.

other is illustrated in Abercromby,¹ *Bronze Age Pottery*, also 20 in. high, from Dorset.²

In 1953 a small cremation urn, 9½ in. high, was found at How Hill, Icklingham.³ In shape and decoration it resembled the Lakenheath urn except that the neck had been left free of ornament. The lower part of the internal surface was burnt hard and black, suggesting a deposit of bones while they were still hot. This urn is in the

¹ Abercromby, II, pl. LXV, no. 49.

² Mr Ian Longworth notes an even taller urn, 22·4 in. in height, from the Black Howes, Stanghow Moor, Skelton, Yorks, N.R. (B.M. Reg. no. 76 4-10 25).

³ G. Briscoe, *Proc. C.A.S.* vol. XLVIII, p. 7.

Elveden Estate Museum. The Lakenheath urn is in Mildenhall Museum, presented by the finders, Mr Dennis Flack, Mr W. Morley and Ron Morley.

Mr Brothwell of the Cambridge Museum of Archaeology kindly examined the cremated bones; his report is appended.

CREMATED REMAINS FROM RABBIT HILL, LAKENHEATH

The bone fragments varied considerably in size from 3-4 mm. to over 50 mm. There was also a considerable difference in the degree of calcination, and some bone fragments were little more than blackened. At the other extreme were fragments of a porcellanous texture, displaying the typical twisting and fissuring of bones submitted to relatively high temperatures. The general impression is that some parts of the body (or bodies) were in close contact with the combustible material while other parts were only charred.

As is usually the case with cremated bone, some fragments were easily identified, while others could only be provisionally assigned to a bone (or group of bones). The following bones of the skeleton were identified: (1) more than twelve phalanges, probably from both the hands and feet; (2) a carpal bone; (3) remains of at least twelve teeth, mainly represented by broken roots: one molar crown, however, is complete; an unusual feature—for the heat commonly strips off the enamel from the underlying dentine; (4) part of the sacrum and the remains of at least three or four other vertebrae including the axis; (5) a number of rib fragments; (6) four metatarsals, including one of the big toe; (7) two or three large pieces of humerus; (8) numerous pelvic fragments; (9) parts of at least one femur; (10) about half of a clavicle; (11) small pieces of scapula; (12) radius and (?) ulna; (13) a talus bone; (14) numerous skull fragments, representing at least both temporals, parietals, a maxilla, occipital, mandible, frontal, and a wormian bone.

In all the material so far noted, there was no evidence for thinking that more than one adult was represented, the degree of development of the linea aspera on a femoral fragment suggesting that the person was a male. Also, the fact that the bones represent various parts of the body suggests that all the body was cremated.

Evidence of an immature individual was, however, present. Two long-bone shaft fragments (? femur and tibia) showed that one individual had been cremated who still possessed separate epiphyses. Also, a number of skull fragments (from various parts of the vault) were very thin and contrasted noticeably with other larger (adult) pieces. The fragmentary nature of this material makes an age estimate very difficult, but it does seem likely that the child was under 10 years of age.

D. R. BROTHWELL

THE ALDWICK IRON AGE SETTLEMENT, BARLEY, HERTFORDSHIRE¹

MARY D. CRA'STER

The site lies $3\frac{1}{2}$ miles south-east of Royston, on the edge of the village of Barley (National Grid Ref. 398388). The field has been known as Aldwick since the

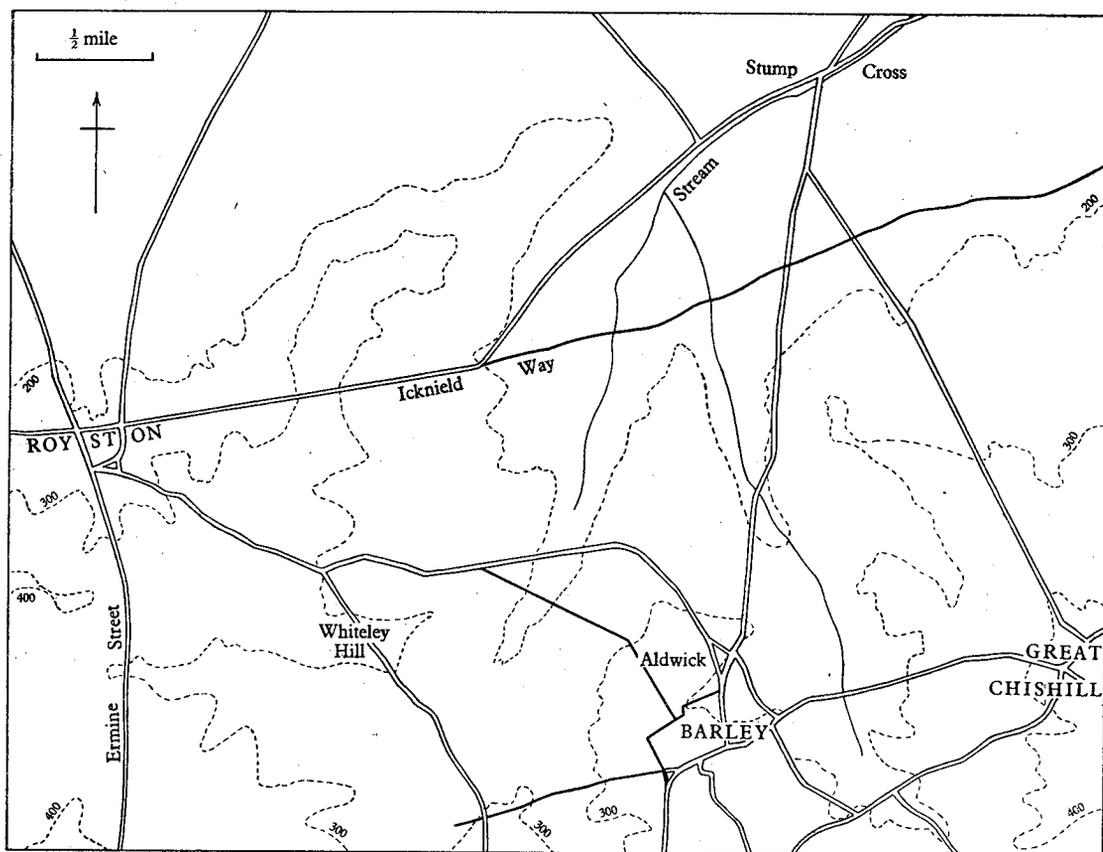


Fig. 1.

sixteenth century, and is owned by Mr J. C. Wilkerson, for whose interest and active co-operation we are deeply grateful.

It was, in fact, through Mr Wilkerson's predilection for archaeology that the site was first discovered by him in the spring of 1959. It lies at the top of a southward-facing slope of the main chalk ridge running north-east from Royston (Fig. 1). The

¹ This paper is published with the aid of a grant from the Council for British Archaeology.

actual site is on clean chalk, but it bears signs of considerable glacial—or periglacial—wear, and the opposite ridge to the south is covered with boulder-clay. No sign of the many features appears on the surface, either as crop or soil markings.

THE PROTON-MAGNETOMETER SURVEY

When Mr Wilkerson first discovered the site, he found that there were a number of pits scattered about the field. On further investigation these turned out to be circular,

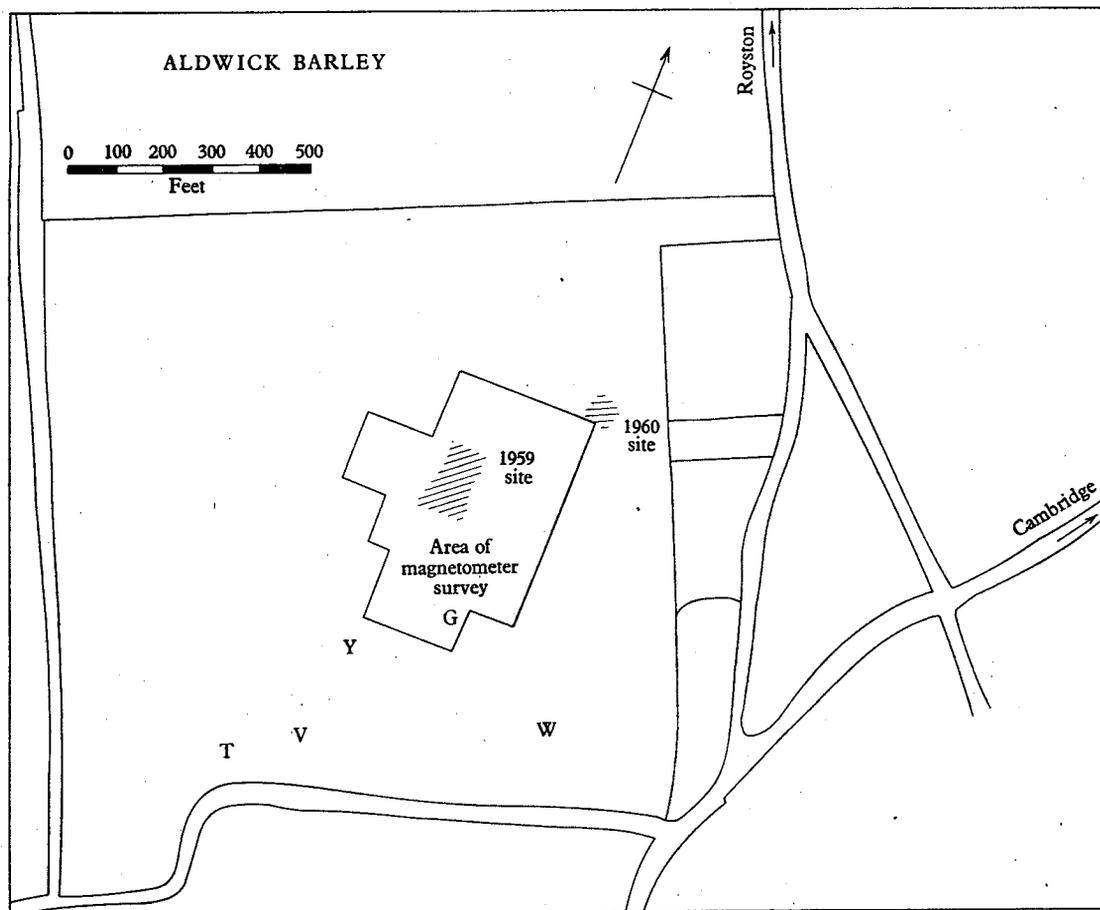


Fig. 2.

flat-bottomed, and neatly cut into the solid chalk; they were filled with humus containing Iron Age A potsherds and numerous bones of domestic animals, including the complete skeleton of a dog. It was at this point that Professor J. G. D. Clark obtained the services of Dr Martin Aitken of the Archaeological Laboratory, Oxford, to carry out a survey with the proton-magnetometer. This was the first occasion upon which the instrument had been used on chalk, and it yielded excellent results.

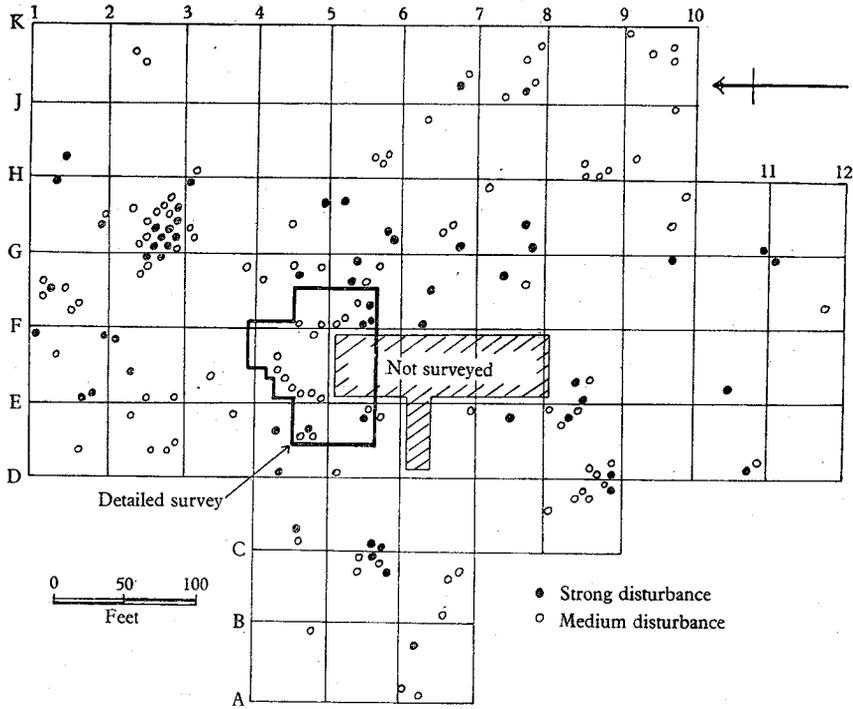


Fig. 3a.

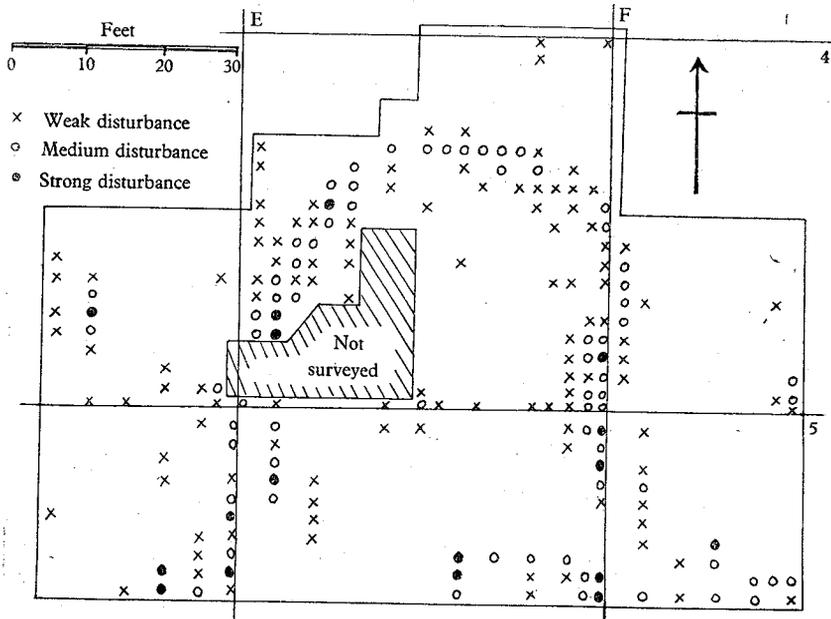


Fig. 3b.

An area of 300 by 600 ft. near the top of the hill, on the eastern edge of the field was chosen (Fig. 2). This proved to be covered with features, most of them probably pits; several test-holes were dug to check what was causing the reactions on the instrument. There was no sign that the edge of the settlement had been reached (Fig. 3*a*).

The horseshoe-shaped pattern of reaction in square E₄ immediately attracted attention, and this area was again surveyed in greater detail; the result is given in Fig. 3*b*.

THE 1959 EXCAVATION

An excavation was now organized by the Department of Archaeology and Anthropology, Cambridge, and undertaken by the present writer.

The area of the horseshoe-shaped feature and as much again down the slope was stripped of topsoil by bulldozer. This revealed a most satisfactory number of pits, and a ditch exactly corresponding to the feature plotted by the proton-magnetometer (Figs. 3*b*, 4; Pl. IV).

THE HORSESHOE DITCH

Two sections, (*d*) and (*e*), were cut across the central section of this ditch (D 1); three others were cut near the ends, to discover the relative age of the ditch and the pits upon which it impinged; (*a*) at the west end, and (*b*) and (*c*) at the east.

The ditch was V-shaped in section and fairly regularly cut in the solid chalk (Pl. VI, *e*). The fill was singularly homogeneous and showed no signs of gradual silting up; on the other hand there was no positive evidence that it had been deliberately filled, and domestic rubbish in the form of bones and potsherds was almost entirely absent (Fig. 6, 1).

At each end, the ditch was found to cut through the fills of earlier pits (Fig. 6, 2-6). At the east end, the situation was complicated by the fact that the ditch had been dug over the top of a pit (P 96) even earlier than P 6, which was itself cut by the ditch (Fig. 6, 2). The existence of P 96 was not suspected until after the first section (*c* 1) had been dug; so another section (*c* 2), was cut in order to confirm the presence of P 96, which had in fact been almost entirely dug away in antiquity.

The area enclosed by D 1 was roughly 40 ft. across—about the right size for a house.¹ The ditch only surrounded the uphill side of the house area, however, and cannot therefore have been integral to the structure, as was probably that at West Harling. The obvious purpose of D 1 would be for drainage, though a subsidiary use could have been collection of surplus rain-water. The necessity for some form of drainage was effectively shown during a brief rainstorm in the summer of 1959. Section (*d*) had been left open, and collected a substantial amount of water; this took some hours to drain away, and nearly 6 in. of silt, which had washed in from the uphill edge, was then seen to have accumulated in the bottom of the ditch.

¹ West Harling: *Proc. Prehist. Soc.* vol. XIX (1953). Little Woodbury: *Proc. Prehist. Soc.* vol. VI (1940).

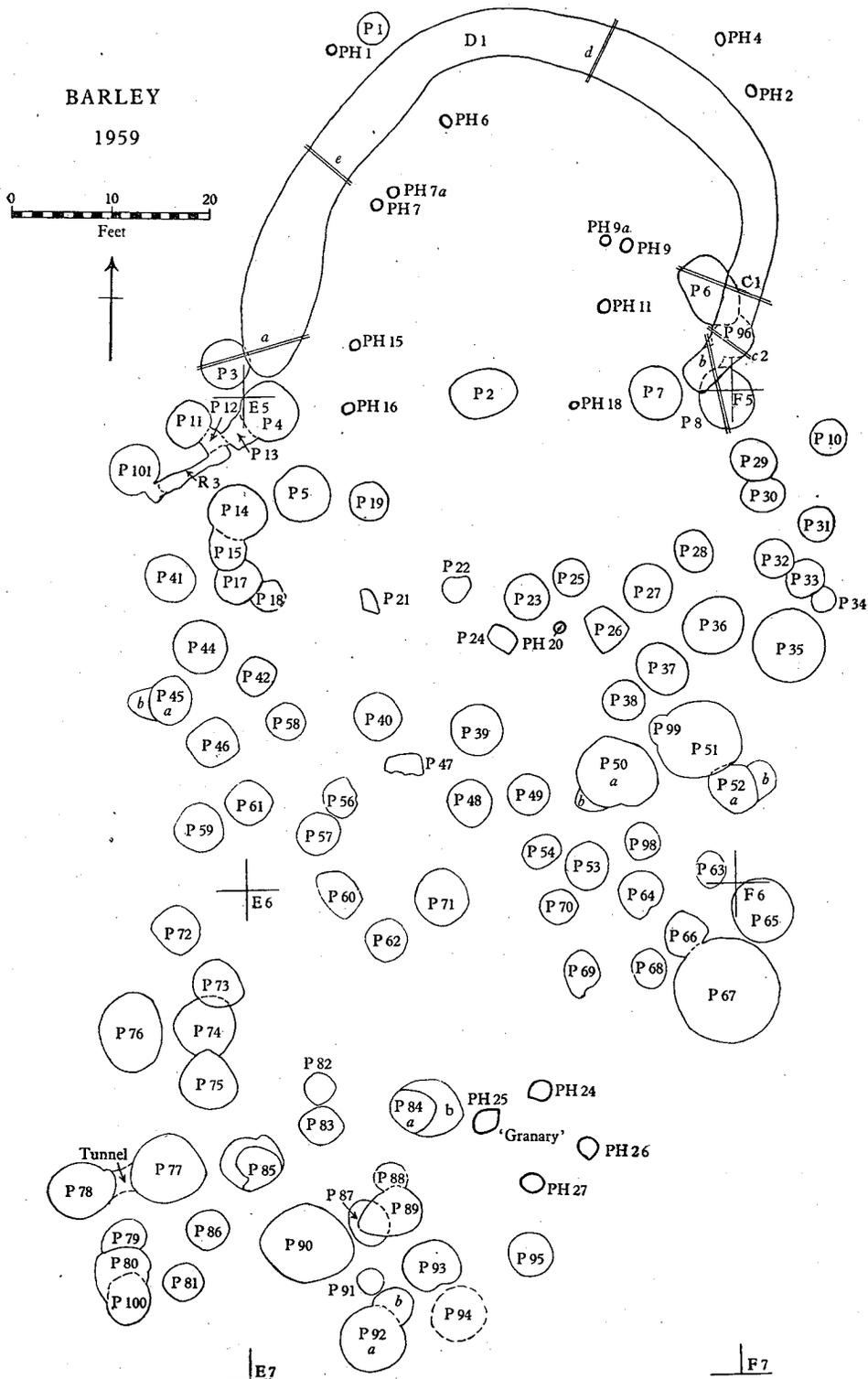


Fig. 4.

The actual form of the house remains a mystery, for no coherent set of postholes or other structural features was discovered. There were several postholes (see Fig. 4), but none was very substantial and all were under 6 in. deep (Fig. 6, 5 and Pl. V, *d*). This need not necessarily disprove the existence of a house. It must be remembered that only the deepest portion of all holes could be seen—that which penetrated the solid chalk subsoil. The field has been under plough for many years: Norden's map of the parish in 1593,¹ shows it to have been cultivated at that date. In the course of the years, the topsoil has crept down the slope, so that now there is a bare 9 in. of soil on the brow of the hill, and lumps of solid chalk are brought to the surface during ploughing; by contrast, at the bottom of the field, soil has in places accumulated to a depth of nearly 3 ft. above the chalk. The 1959 site was just in the area of shallowest topsoil; thus the upper part of postholes had been ploughed away, and it is probable that a considerable part of the top of the chalk itself may have been removed.² It is thus necessary to add at least 1 ft. and probably more on to the depths of all pits and postholes, and quite possible that a number of small postholes may have disappeared altogether. Another possibility is that the material excavated from D 1 may have been used to form a low chalk rubble wall or foundation, into which the uprights supporting the walls were set.

THE PITS

There were a hundred of these in an area of 80 by 110 ft.; in spite of this concentration, there were not many overlapping pits, so that it would appear that the positions of old pits were still known, even when filled in. It was also noticeable that a substantial space was left clear of pits below the house, in front of the open ends of ditch D 1. In addition the area of the house itself had only one pit dug in it, although existing pits on each side were apparently used to save trouble in digging the ends of the horseshoe ditch.

The pits themselves were usually of the same approximate proportions, varying between 2 ft. 6 in. and 10 ft. in diameter and in depth from 6 in. to 4 ft. 6 in., remembering that at least a foot should be added to the depth measurements (see above); they were circular, straight-sided, and with flat bottoms, and most gave the impression of having been carefully cut in the solid chalk (Fig. 6 and Pl. V, *b*).

There were a certain number (9 out of 101) of irregular pits; these were not circular and were usually fairly shallow, with no trouble taken to flatten out sides or bottoms. It is uncertain whether these were unfinished pits, or whether they served a different purpose altogether—possibly as temporary storage-places while a new pit of the more elegant sort was being prepared. At all events, the material with which they had eventually been filled showed the same range of variety as that of the regular pits.

The filling of the pits was everywhere deliberate; none had been left open and

¹ British Museum Add. MS. 42508.

² In this connexion it is interesting to note that on the Wiltshire Downs, the chalk where protected by barrows has been regularly found to be about 1 ft. higher than the modern subsoil surface.

allowed to silt up. In a few cases the pit had apparently been loosely filled, and the hollow caused by the subsidence of this filling left a certain time, although not long enough for any kind of turf-line to be formed. A great quantity of snail shells did accumulate in these shallow hollows, perhaps attracted by the damp. The bulk of these are *Helix (Cepaea) nemoralis*, a species which is fairly ubiquitous¹ (see P 51 and P 67; Fig. 6, 15, 11).

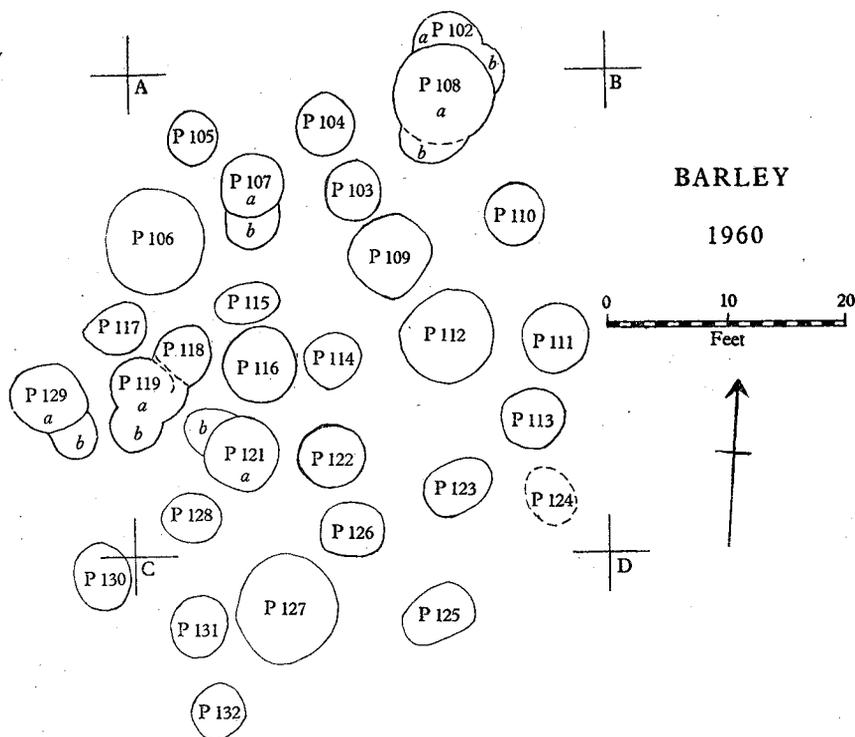


Fig. 5.

In one or two cases, the straight sides of a pit collapsed on to its floor, either because they had been dug through a former pit, previously filled in (P 51—P 99; Fig. 4), or in one case probably because of damage by fire (P 67) (see p. 31, below). Apart from these isolated instances, there was no sign of rapid silt on the pit floors, so that they must have been filled and covered immediately.

The pit-fillings found varied from almost clean chalk rubble to very black humus containing quantities of potsherds and domestic animal bones. In some cases there was a sharp difference visible in the tip lines (P 30; Fig. 6, 16; Pl. V, e), showing that a pit might be filled from different sources, probably by several men working together. The clean chalk was presumably produced in the course of digging new pits; the sherds and bones are obviously domestic rubbish. However, the sequence of events by which this rubbish got into the pits is a bit puzzling. The original idea

¹ Information kindly supplied by Mr B. Sparks of the Department of Geology, Cambridge.

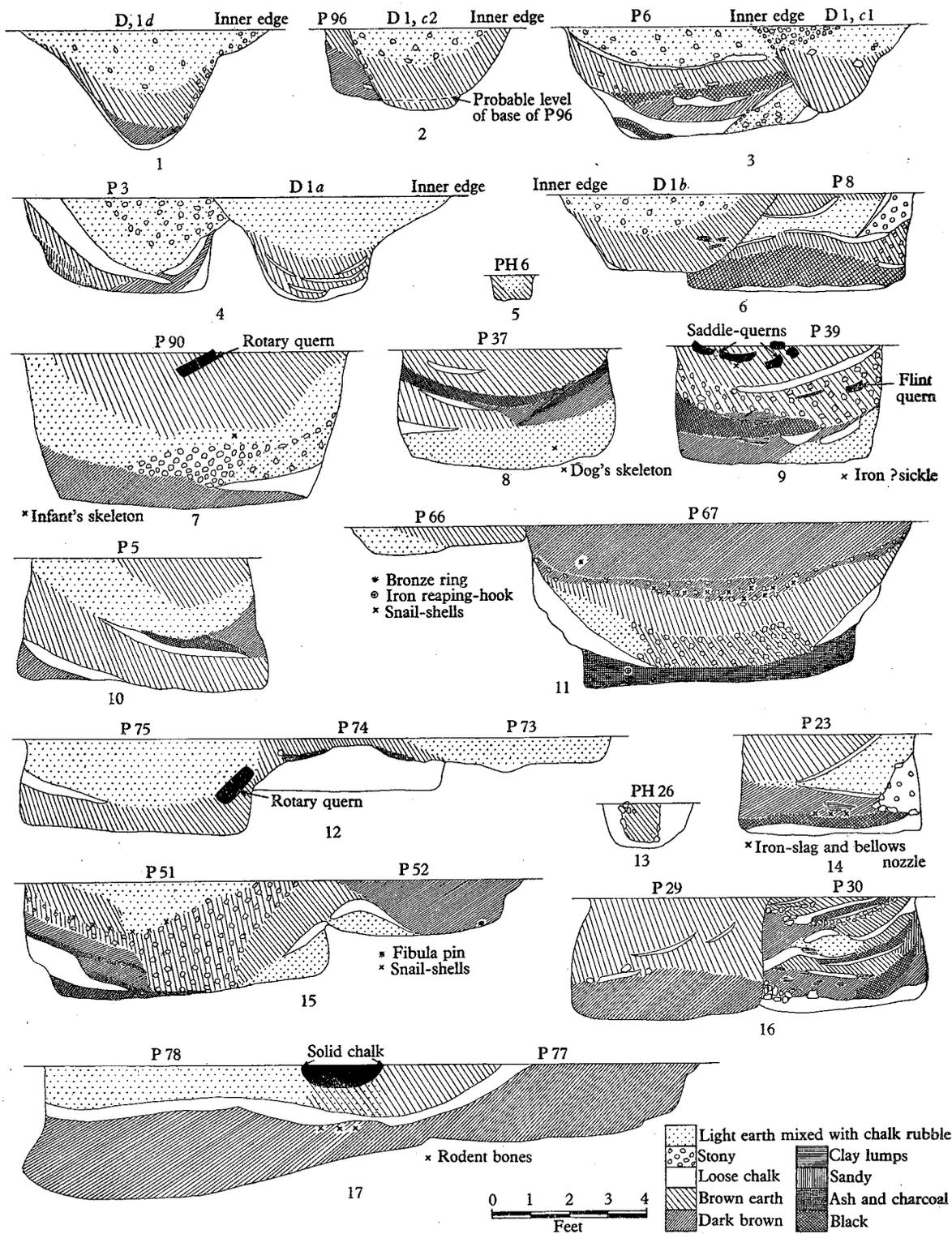


Fig. 6.

suggested by Bersu in his report on Little Woodbury,¹ was that the pits were corn silos, which were filled with whatever rubbish happened to be lying around the settlement, when they became 'sour' or weevilly with age and use.

In this connexion, it is interesting to compare modern primitive underground storage of grain.² In Somaliland and in northern Nigeria, pits of comparable size to our Iron Age ones are used. These are lined with straw, or chaff and grass-matting, and filled with grain to slightly above ground-level. The top is sealed with several layers of the lining material and earth, perhaps alternating, and built up to a shallow dome, so that water runs off it. Dung and clay are also used as sealing materials. Admittedly, these are low rainfall areas, but when it does come, the rain is in heavy showers, on the face of it more likely to damage such pits; but almost no wastage is reported from water penetration. Corn so stored is not parched beforehand, and is reported to keep perfectly well for 3 years or even longer—though 12 months is more usual. However, once a pit has been opened, it is best to empty it immediately, to avoid infestation by insects.

It would thus seem that corn-storage is the most likely explanation of the time and trouble taken by the people of Barley in digging so large a number of pits.

On the other hand there is evidence from the Iron Age that some pits had been intended to hold rubbish from the first;³ indeed domestic refuse of this nature would have been very valuable as manure for the fields. Which purpose was served by the Barley pits is uncertain—but most probably both. No sign of any sort of a fixed lining of wattle could be found in any pit, such as was seen at Conderton; but this does not preclude the possibility that there was a loose lining of brushwood or straw—at least for the corn-storage pits—of which no trace remains. A few of the shallow, irregular pits (never those with a chalk rubble filling) did however have a thin hard skin of dark brown material on the floor and sides; this scraped off in flakes, and could possibly have been a deposit from the rubbish in the pit, when it was fresh. If this is so, it would appear that such pits at least were used for the storage of manure rather than corn.

The rubbish contained many potsherds, but—as might be expected—no unbroken pots (see App. I). Several complete pots could be reconstructed, however, and it was noticeable that the sherds of one pot often came from several different pits. Thus it looks as if some form of midden existed, upon which rubbish could become scattered in the course of a short time, even if on occasion the refuse was put into a pit immediately. Another feature in favour of a midden is that many of the pits had been filled with a mixture of rubbish and chalk-rubble, which would have been useless as manure (e.g. P 30; Fig. 6, 16). Again, there is the case of the dog's skeleton in P 71. Although the complete skeleton was there, and most of it in articulation, the skull and lower jaw were behind the spine and below the breast respectively, and the shoulder-blades were not in position. I can think of no satisfactory explanation for

¹ *Proc. Prehist. Soc.* vol. VI (1940), p. 60.

² *Colonial Research Studies*, no. 21: Underground Storage of Grain.

³ Excavation of Danes Camp, Conderton, Glos., by N. Thomas.

this curious state of affairs, except that the creature had been lying out on the midden long enough to have largely rotted away, so that when finally thrown into the pit the skeleton partially disintegrated.

The conclusion seems to be that the pit fillings fall into three groups. First the clean chalk rubble, presumably dug out in the course of preparing a new pit. This was probably used to fill up an old corn-storage pit, since there seems to be no reason why one for keeping manure should not continue in use as long as required.

Secondly, mixed rubble and rubbish fills; these resulted either from deliberate filling from different sources (P 30), or occasionally from the collapse of the walls of the pit itself, after which the remaining hole was filled with rubbish (P 51). In any case the purpose of filling the pits must have been the same as in the first group, and the pits may thus be disused corn silos.

Thirdly, fillings composed of pure rubbish (e.g. P 29; Fig. 6, 16; Pl. V, *c*, *e*)—although this was rarely homogeneous throughout the pit, but showed traces of having come from different sources. Here again the pits may have been first used for corn-storage, as in groups one and two; on the other hand, they may equally well have been manure pits. A small proportion of this group are stained at the bottom with the dark skin on the surface of the chalk (p. 30); this staining may perhaps be caused by the storage of manure.

One pit (P 67; Fig. 6, 11), although it fell into the second group, deserves a separate description. This was one of the largest pits, being 10 ft. in diameter and 4 ft. 6 in. deep; it had been cut through the previously existing P 66 on one edge. The side-walls of P 67 had fallen in over the bottom layer (of which more below), and the pit had then been filled with mixed chalk and rubbish—in other words, chalky earth containing a good many animal bones. This filling had not been consolidated, so that it soon subsided, leaving a hollow about 2 ft. deep at the centre; there was time for a large number of snails to gather in this hollow, before it was finally filled up to the top with dirty chalk. This later sequence of events is quite usual for many of the Barley pits; what was of interest was the bottom layer and the possible cause of the collapse of the side walls.

The whole of the bottom of the pit was covered with a layer of solid fine ash, between 5 in. and 12 in. thick, varying from black to pinkish-buff; and it was on top of this ash layer that the pit walls had fallen. Moreover, the actual chalk on the floor of the pit was stained a blackish grey—quite unlike the brown skin noted earlier as occurring in some other pits. When one considers what a lot of material is needed to produce a little ash, and how much ash itself can be compressed, it is hard to avoid the conclusion that the whole contents of P 67 must at some point have caught fire. We experimented by burning three large bales of straw (kindly provided by Mr Wilkerson) in one of the other smaller pits—a fire which lasted only half-an-hour or so, and cannot have generated so great a heat; but even this did turn the surface of the chalk a curious pale blue-grey. However, it produced only a very small quantity of ash compared with the amount in P 67.

On closer examination of the ash in P 67, it was found to contain a good many cereal grains together with other seeds. Immediately on the floor of the pit, there were at one spot traces of a burnt log or plank—a possible indication that the corn-storage pits were in fact lined. The cause of the fire was perhaps spontaneous combustion, due to heating of damp corn, which may possibly not have been threshed, but stored in the ear. It is hard to think how else such a fire could have been started. Arguing against this interpretation is the presence in the ash-layer of a reaping-hook and several large potsherds, all showing traces of burning; many of these sherds belonged to one pot (Pl. VII, *b*), but from their different individual colouring had clearly been refired after the pot was broken—presumably in the conflagration which produced the ash-layer.

OTHER FEATURES

The 'granary'. Near the bottom of the site were four large postholes, standing in a square about 8 ft. across (Fig. 4); one showed the line of the post itself in the section (Fig. 6, 13). This little structure is an exact parallel, in type and scale, with the 'granaries' on stilts found at Little Woodbury¹ and at Wandlebury.² However, if the corn could be successfully stored in pits without being first parched to prevent germination—as is apparently possible (see p. 30)—the necessity for seed-corn granaries seems to disappear, and another explanation for these structures should perhaps be sought. If the tentative interpretation suggested above to explain the ash in P 67 is correct, this would seem to confirm that unparched corn was stored underground.

The runnel. This unexplained feature (R 3) joined pits 12 and 101 (Fig. 4). From their chalky earth content, all three appeared to have been filled at one time.

The tunnel. This ran between P 77 and P 78 (Fig. 4), which were otherwise perfectly ordinary pits (Fig. 6, 17 and Pl. V, *a*). No obvious explanation of this feature has occurred to me. The fill of pits and tunnel was similar, except for large quantities of small rodent bones in the tunnel.

THE BONES

A word more should perhaps be said on the animal bones found in the pits. The bulk are discarded food bones and have been much broken up. But there are several cases of large parts of a skeleton—a leg, or most of the spine of an ox, for instance—being found still in articulation. The explanation of these has not yet suggested itself. Two complete dogs were found³ and many cows' skulls. Horn-cores, both of cow and

¹ *Proc. Prehist. Soc.* vol. VI (1940), p. 97.

² *Proc. C.A.S.* vol. L (1957), p. 13.

³ Complete dog skeletons: P 71 and a second in P 37 (Fig. 6, 8 and Pl. VI, *f*). In contrast to the P 71 dog, that from P 37, although lying amongst the general rubbish in the pit, had its entire skeleton in articulation.

sheep, were often seen to have saw-cuts near the base; possibly these were made in the course of cutting off the horn, which could of course be turned to many uses. The chief species were:

Sheep or goat.

Cow (very little below modern size).

Horse.

Pig (a few only).

Red deer (very few examples).

Birds (as yet unidentified, but probably poultry, except one wild duck).

Small rodents (in large numbers).

A metrical and statistical analysis is at present being carried out on these bones by Mr E. S. Higgs of the Museum of Archaeology and Ethnology—all identifiable examples having been kept. It is hoped that eventually they will form a standard sample for the study of Iron Age domestic animals in lowland Britain.

No human remains were found, apart from those of a tiny infant in P 90 (Fig. 6, 7), (see App. II). This was a complete skeleton, but had been put into the pit together with the usual selection of rubbish. It is perhaps interesting to compare this with the curious, often partly dismembered, but obviously deliberate burials found in the Wandlebury pits.¹

OTHER FINDS

The pottery, which formed the bulk of the finds after the bones, is dealt with separately (see App. I).

Iron tools formed the most striking section of the other finds, although there were not many of them. But both the saw and the pruning-hook (Pl. VIII, *a, b*) are useful and efficient tools. Slight traces of iron-working were found on the site, in the shape of a few small lumps of iron-bloom in one or two pits, and a clay tuyère-cap, or bellows-nozzle (P 23; Fig. 6, 14; Pl. IX, *m*), such as was used in simple forging.²

IRON WORK

1. Saw (P 14; Pl. VIII, *a*). This is typical of those used in Britain shortly before the Roman conquest,³ and may be compared with examples from Glastonbury, Hunsbury and other Iron Age sites.⁴

Two features are worth noting: the leading end has finer teeth, and the teeth themselves slope backwards, so that the cut was on the pull—not on the push as in a modern saw; this would be necessary to prevent snapping, when using untempered metal.⁵

¹ *Proc. C.A.S.* vol. L (1957), p. 14.

² Similar objects have been found at Sussex Iron Age sites, e.g. Crowhurst Park, *Sussex Arch. Coll.* vol. LXXIX (1938), p. 226.

³ *Practical Education and School Crafts* (January 1959): W. L. Goodman, 'History of Woodworking Tools; The Saw (2)'.
⁴ *Glastonbury Lake Village*, vol. II, p. 371.

⁵ This saw exactly fits the cut-marks noticed on several horn-cores (see top of page).

2. Pruning or reaping-hook (ash-layer, P 67; Pl. VIII, *b*). This is similar to a Roman hook from the Worlington hoard, Suffolk (Museum of Archaeology and Ethnology 55. 131, *f*) and to modern fenland reed-cutters. Compare also the Iron Age hook from Linton, with an antler handle.¹ A fragment of the wooden handle can be seen attached to the rivets.
3. Fragment, possibly from the tip of a scythe or sickle (P 39; Pl. VIII, *d*).
4. Iron sheath or tip, perhaps off a digging-tool of some kind (P 85; Pl. VIII, *c*).

Flint work appeared to be almost non-existent, but bone was commonly used. This was on the whole not particularly skilfully worked, the most ordinary tools being sharp points or awls made from one end of a long bone (Pl. IX, *e, f, g, k*).

There was also a bone 'gouge' (P 32; Pl. IX, *i*) and a bone 'chisel' (P 37; Pl. IX, *j*) and two bone needles or bodkins (P 71; P 36; Pl. IX, *h, l*).

Two small rectangular plaques, each with three holes irregularly placed, were found; they are made of a piece of rib-bone. Their purpose is unknown, but might conceivably have been archers' wrist-guards (P 67; P 70; Pl. IX, *p, q*).²

One piece was probably a toggle, made from a sheep's metapodial, pierced (P 70; Pl. IX, *o*).

A curiously shaped bone object (P 11; Pl. IX, *n*) might be a 'sleeve' or 'ferrule' used in hafting some metal tool.

Only one ornamental bone piece was found and this was a tiny fragment, unfortunately burnt, with a pattern of neatly incised concentric circles (P 95; Pl. VIII, *i*).

Of objects of adornment there were only three: a dog's canine (P 75; Pl. VIII, *f*) pierced for suspension, a spiral bronze ring and the pin of a bronze fibula.

BRONZE OBJECTS

1. Spiral bronze finger-ring: a typical Iron Age pattern (P 67; Pl. VIII, *e*).
2. Bronze needle, found in PH 27 one of the 'granary' postholes (Pl. VIII, *g*).
3. Bronze fibula pin with iron 'hinge' (P 52; Pl. VIII, *h*).

There are three possible reconstructions of this fibula:³

(i) A penannular brooch with iron hoop; this seems rather unlikely, and in any case, if of mixed metals, it is usually the pin that is of iron.

(ii) A La Tène I or II brooch. There are instances of these with rods through the spring.⁴

(iii) 'Poor man's brooch' of the first century A.D. It is also possible that only half the spring is left and that there should be a couple of coils on the other side of the pin as well; but there is no visible evidence of this.

Cloth, presumably woollen, was evidently made, as one complete and several fragmentary loom-weights were found; these were of the typical Iron Age variety, of daub, heavy and triangular (Pl. IX, *d*). No weaving-combs were found, but several

¹ *Proc. C.A.S.* vol. xxvi (1923-4), p. 132.

² They look like miniature versions of the gadgets used to tighten the guy-ropes of tents.

³ With acknowledgements to Mrs. Elizabeth Fowler.

⁴ *Proc. Prehist. Soc.* vol. xxv (1960), p. 163.

spindle-whorls; these, however, were all extremely crude, being made either of rough lumps of chalk, or old potsherds (Pl. IX, *a, b, c*).

Finally, mention should be made of the querns, of which thirteen were found. Eleven of these were rough saddle-querns, some upper and some lower stones (Pl. VI, *c*); all were made of glacial erratics, except three, of which one was a large septarian nodule, and two were big flint blocks (Pl. VI, *a*). The querns were thrown into the rubbish-pits—in one case there were six in one pit—together with large numbers of burnt stones (Fig. 6, 9). The last two querns were, however, not saddle-, but rotary-querns (Pl. VI, *b, d*; Fig. 6, 12). This is in itself surprising in an Iron Age A context, particularly as they are of the flat, 'Roman' type, rather than beehive-shaped such as were found at Hunsbury. They both appear to be bottom stones, and show definite signs of wear; they are 13 and 14 in. in diameter respectively, the larger being $2\frac{1}{2}$ in. thick, and the other $4\frac{1}{2}$ in.

The only other finds were considerable numbers of small fragments of burnt daub; some of these showed the marks of wattle running through them. What this was used for is uncertain, but there are several possibilities. The walls of the houses may have been wattle and daub. The grain-storage pits might have been sealed with clay, though in this case the wattle seems rather unnecessary. The fragments may be from the temporary covering of pottery kilns; the irregular firing of the pottery suggests that these must have been rather primitive in construction.

THE 1960 SITE

During 1960 Mr Wilkerson cleared and excavated a second area, 50 by 60 ft., nearer the top of the hill (Figs. 2, 5). This revealed thirty-one pits, similar to those already found. The pottery was of the same type, but there was very much less of it, in most pits only a few sherds. The only exception was pit 127, which had an almost complete jar resting on the floor of the pit (Pl. VII, *d*).

The animal bones, on the other hand, turned up in the usual large quantities, and there were several cases of whole joints having been thrown in intact.

PITS G, T, V AND W

In the course of trying to determine the total extent of the site—which appears to extend over a large part of the field—several outlying pits were examined, both on the top of the hill at the northern end of the field, and at the opposite, downhill end.

In four of these (Fig. 2) small sherds of Roman pottery were found, though to all appearances the pits were exactly similar to those in the excavations. Pit G was in fact two intersecting pits, filled with very black earth, near the top of which were two small sherds of coarse-ware.

Pit T was a large circular pit, 8 ft. across by 4 ft. deep, and amongst the bones and other rubbish with which it had been filled, was a sherd of coarse-ware. Pit V, again two intersecting pits, produced a sherd of a folded beaker together with a coarse-ware sherd.

Finally, pit W had a large pile of black earth in its centre, near the bottom of which were many pieces of what appeared to be egg-shell, a triangular clay loom-weight, and a large sherd of 'Samian' form 18; the potter's stamp (OFM—) was a short one but the name was unfortunately broken away; it is probably of the late first century A.D.

SUMMARY AND CONCLUSIONS

The excavation so far has shown that the Aldwick site is an Iron Age agricultural settlement of considerable extent, and apparently unfortified. Its inhabitants were typical farmers of the period, engaged in arable cultivation and stock-raising in quite large quantities.

What dating evidence there is seems to indicate a starting-point somewhere in the second century B.C. and a possible continuation of the same pattern of living until well after the Roman conquest. It is uncertain whether in fact the site was continuously inhabited for as long as this, or whether the initial date should not be lowered.

Contacts with the outside world seem to have been moderately good, at least so far as South-eastern Britain and the East Midlands (see App. I). But Belgic influence is practically non-existent. Except for this, the pottery can be paralleled in other sites in the region.

ACKNOWLEDGEMENTS

Apart from Mr Wilkerson, whose continued and active interest in the excavation is, I hope, apparent from this report, thanks are due to all those who gave freely of their time and energy. In particular I should like to mention Mr Roy Sapsed for his kindness in clearing and filling back the excavation, and Mr E. S. Higgs of the University Museum of Archaeology and Ethnology for his help and advice; also Mr G. E. Connah for assistance with the planning of the site, and Mr P. Ozanne and Mr C. B. Denston for working on the pottery and the human bones. The co-operation of Dr G. H. S. Bushnell and the Museum staff was also invaluable, and essential to the completion of the undertaking.

APPENDIX I

THE POTTERY

P. C. OZANNE

The excavation produced a very large quantity of Iron Age pottery, which would all appear to belong to the final stages of the period. Comparison of pit assemblages failed to reveal any differences which might have a chronological validity, except perhaps in one case, discussed below. Thus although the variety of form is quite wide, there is no reason to assume that the several types and sub-types were not contemporaneous.

These forms are, with a few exceptions, of the same character as the material from the Wandlebury hill-fort.¹ The vast majority are bowls and jars with rounded shoulders; the latter vary between a strongly pronounced curve and a very slight swelling. The necks are upright or slightly everted, and in most cases the rim has been emphasized by rolling, internal thickening, or both; a few simple rims occur in this form, however, like Wandlebury no. 55. The base-forms of this class also vary; many are simple, but the angle of others is coarsely exaggerated laterally into a swelling around the foot. A few fragments of vertical handles (Fig. 7, 29) probably belong to large vessels of this class.

A second major type is represented only in fragments, and seems to have been a wide-mouthed bowl with curved shoulder and plain everted rim, cf. Wandlebury no. 28. This type was disproportionately represented in pit 37, being rare in other pits; the suggestion that it is a comparatively early form is strengthened by its close similarity to 'degenerate' bowls of Maiden Castle 'A' type.²

The fabric is usually of a fairly smooth paste, with finely ground temper consisting mainly of crushed flint or local glacial pebble, but occasionally with a little vegetal temper; the presence of the latter has usually made the pottery very friable, although the majority of the sherds are hard. The colour varies widely even within one pot, most sherds being black but many being oxidized to browns and light red or orange-buff.

Burnishing of the surface is very common, being found on over 40% of the rim-sherds, and equally represented on the various forms; it is, however, rarer on the larger jars, many of which have the surface roughened by scoring or by grass impressions—a technique most typical of Miss Kenyon's³ Trent Basin group, but well represented in our area by vessels from Thriplow,⁴ Wangford,⁵ Chesterford,⁶ and elsewhere.

The treatment of the internal surface varies similarly. Very careful smoothing is more common on, but not restricted to, the smaller bowls; it is not confined to those vessels with burnished outer surface, and does occur on some of the large pots with roughened outer surface. In a few cases a thin layer of very fine red paste is found on the inside, which is difficult to understand; it may be an accidental slip formed by smoothing the interior with the aid of water.

It is interesting to note that several sherds, especially fragments of small brown burnished bowls, have fractured within the core, the two surfaces coming apart; the same feature was noticed on sherds of similar type and finish at Thriplow.⁷ At Barley it seems to be connected with certain rare vessels with tooled decoration, considered below.

With few exceptions, decoration is restricted to the rims of the bowls and jars with vertical or slightly everted necks. Of these, 30% have some form of incision or impression, but in no case does this ornament occur on a burnished pot. The proportions of decorative devices on the rims are approximately:

- (i) Finger-tip impression (Fig. 7, 53): 42 per cent.
- (ii) Radial incision or finger-nail impression (Fig. 7, 50): 26 per cent.
- (iii) Wide-spaced oblique incision (Fig. 7, 48): 11 per cent.
- (iv) Close-spaced oblique incision (Fig. 7, 11): 7 per cent.
- (v) Irregular scoring (Fig. 7, 20): 7 per cent.

¹ *Proc. C.A.S.* vol. L (1957), pp. 16-17.

² *Maiden Castle*, p. 195, fig. 56, 7-11.

³ *Inst. Arch. Rep.* vol. VIII, pp. 67-73. Compare the Lower Thames version, *ibid.* p. 66.

⁴ *Proc. C.A.S.* vol. XLIX (1956), p. 6, fig. 3, 10.

⁵ *Proc. C.A.S.* vol. LI (1958), p. 22, fig. 3, 2.

⁶ C. Fox, *Archaeology of the Cambridge Region*, p. 94.

⁷ *Proc. C.A.S.* vol. XLIX (1956), p. 8.

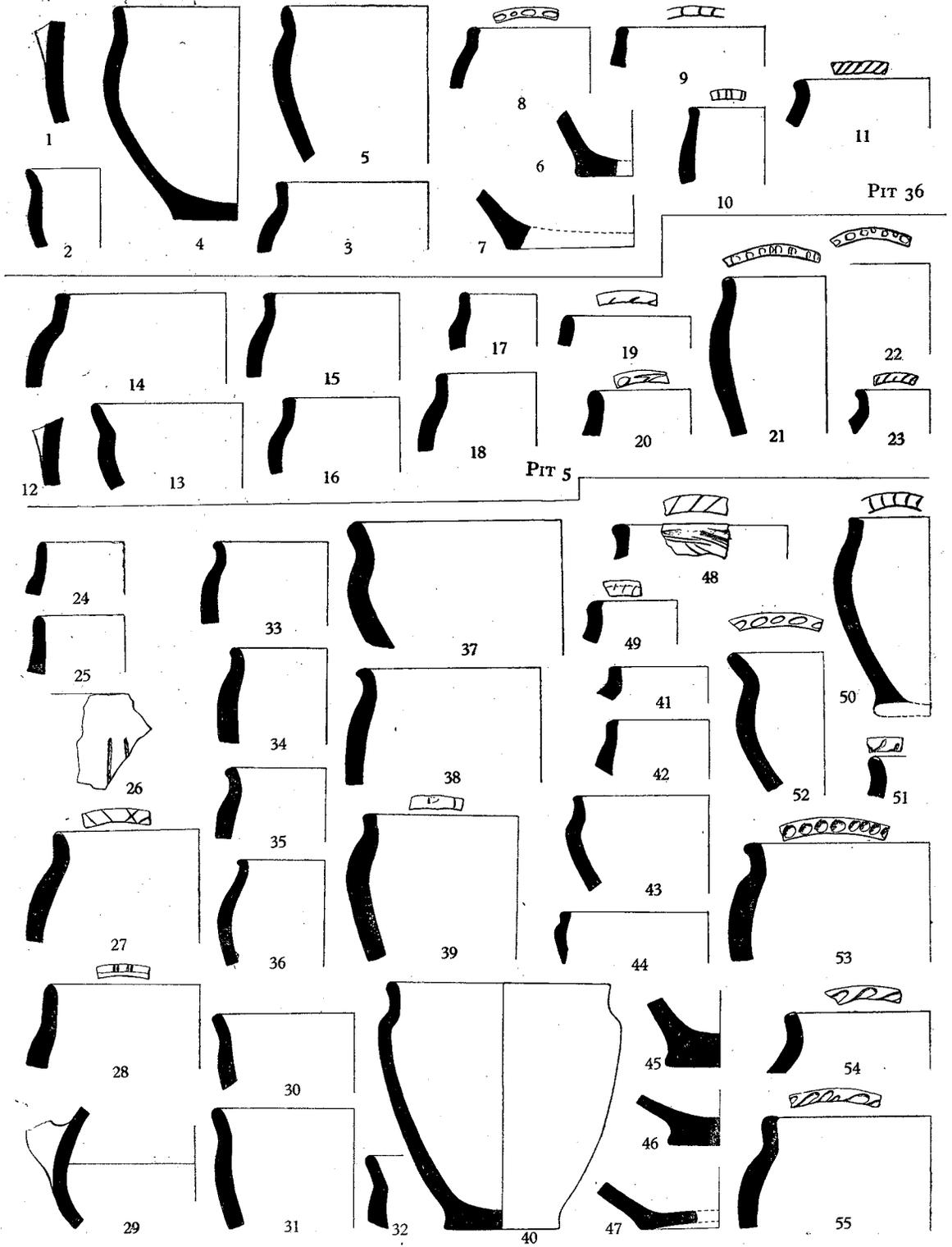


Fig. 7 (quarter natural size).

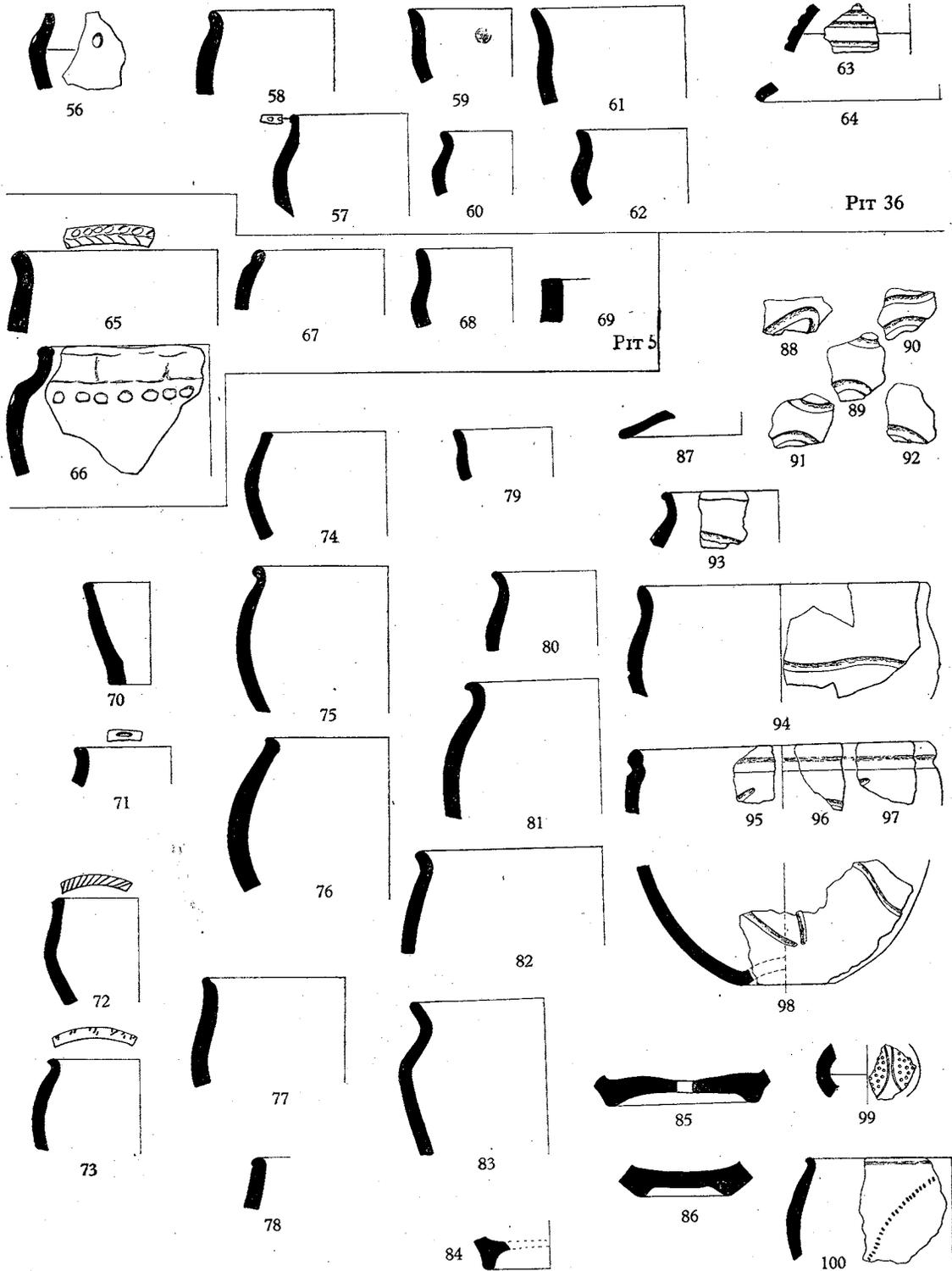


Fig. 8 (quarter natural size).

- (vi) Longitudinal stabs (Fig. 8, 71): 5 per cent.
- (vii) Small pits on the outer face of rolled rim (Fig. 8, 57; only example).
- (viii) The rim of one vessel (Fig. 8, 65) was peaked in section, with a line of finger-tip impressions on both the internal and the external slope.

Finger-tip impressions on the shoulder were found on two sherds, one (Fig. 8, 66) being part of a bowl of irregular shape with rolled rim and very irregular surface; in this case the impressions were deep, forming a continuous line around the maximum circumference.

UNUSUAL FORMS

Apart from the main range of types, a number of more distinctive forms were found:

- (i) A few bowls with sharply everted rims (Fig. 8, 83).
- (ii) A biconical form with everted lip (Fig. 8, 82).
- (iii) A vessel somewhat similar to the last, but with a burnished surface and an internal groove to the rim (Fig. 8, 77).
- (iv) A few globular bowls, whose rims are either thickened into an oval section, gently rolled, slightly everted, or, in one case, 'beaded' by a shallow groove (Fig. 8, 74-6, and 78).
- (v) A low but well-made foot-ring, probably belonging to a globular bowl with everted rim (Fig. 8, 84).
- (vi) A gently dished base from a wide bowl (Fig. 8, 98).
- (vii) A wide, low-bellied bowl with internally thickened and lipped rim, to which the dished base may belong (Fig. 8, 95-7).
- (viii) A few very coarse small 'crucibles' of flower-pot and barrel shapes (Fig. 8, 70).
- (ix) Two rim-sherds which appear to be possibly lids (Fig. 8, 87).

Three forms of body decoration were found in very small quantities, apart from the finger-tip impression described above. First, several of the globular bowls ((iv) and (vii) above) bore tooled decoration, either as a straight line dividing the body into two plain zones (Fig. 8, 63), or forming meander patterns (Fig. 8, 88-98). Secondly, a squat wide-bodied cup was decorated by a scroll-design outlined by incision and filled by punched dots containing chalk, which may be original (Fig. 8, 99). Thirdly, one sherd from the topsoil, a fragment of a well-made 'saucepan'-shaped vessel, was ornamented with a 'rouletted' or 'comb-impressed' design (Fig. 8, 100).

DISCUSSION

Although the similarities between the Barley pottery and the Wandlebury types are very strong, certain general differences can be detected. First, the proportion of decorated rims is much higher at Barley, and the number of vessels with finger-tip impressions on the shoulder very much lower. Secondly, Barley has produced no examples of offset grooves to the shoulder, a feature well represented at Wandlebury,¹ where it seems to be a degenerate version of the grooved shoulder characteristic of the earlier Iron Age of the region, as seen at Linton² and Fengate.³ Thirdly, the Iron Age 'A' incised decoration found at Wandlebury⁴ is not found at Barley. It is thus probable that Barley should be given a later initial date than Wandlebury; conventional schemes would suggest some time in the second century B.C.

¹ *Proc. C.A.S.* vol. L (1957), p. 16, no. 11, and p. 17, no. 45.

² *Proc. C.A.S.* vol. XLVI (1953), p. 36, no. 25.

³ *Arch. J.* vol. C (1943), p. 200.

⁴ *Proc. C.A.S.* vol. L (1957), p. 16, nos. 6, 9.

The presence of a Samian sherd in one pit (pit W, p. 36 above), although not in association with earlier material, suggests that the site was continuously inhabited up to and after the Roman conquest. The absence of wheel-turned pottery of 'Belgic' type is not necessarily a point of objection to this survival. This technique is essentially one of a specialized worker, suitable for mass-production within the new towns, and there is no reason to assume that all outlying farms should, like Abington Pigotts,¹ either adopt the technique or buy their pottery in the towns.

A chronological link with the wheel-turned pottery of Abington Pigotts is provided by the sherd with 'rouletted' ornament.² This sherd is also of interest in that it is one of several which all suggest close connexions with South-eastern England. Although the technique is found at Hengistbury (Class F),³ the best parallels are in late contexts in Ward-Perkins's 'South-eastern B' group⁴—for example, Horsted Keynes,⁵ Crowhurst Park⁶ and Kingston Buc.⁷ The globular bowl with gently S-profiled form, probably provided with a low foot-ring like Wandlebury no. 24, is the same as the typical vessel of Ward-Perkins's 'Wealden Culture';⁸ the two elements—base and body—are found separately in sherds from Linton⁹ and Hunsbury,¹⁰ and indicate a close similarity of tradition between the Weald and our region. The tooled decoration of our globular vessels corresponds in general to that on the scroll-ornamented bowls of Hunsbury,¹¹ especially in the division of the body into two zones (also found at Fengate);¹² but the best comparisons come from the Caburn¹³ and, to a lesser extent, Newhaven,¹⁴ in contexts 'parallel (to the Wealden Culture)'. Newhaven also provides an exact analogy to our squat pot with punctate ornament,¹⁵ regarded by Hawkes as belonging to 'South-eastern B'—and examples from the Caburn closely resemble our sharply everted rims ((i) above)¹⁶ and biconical cup (ii).¹⁷ The low-bellied bowl (vii) with dished base (vi) is similar to a typical vessel of 'South-eastern B'.¹⁸

The similarity between the earliest Iron Age material of the Caburn and of Fengate has recently been mentioned by Dr Hodson¹⁹ and myself,²⁰ and Miss Kenyon has emphasized the Lower Thames—East Anglia connexion in the ensuing period.²¹ It is now clear that throughout the Iron Age this whole region developed along similar lines, sharing many traditions although retaining many local peculiarities. It is certain that in the Cambridge Region there was a continuous development of one culture; the only marked innovations were of rare types, both in pottery and metalwork, and consequently the term 'Iron Age B' can only be applied to such details, without any conception of a definite change in culture.

The parallels between our area and the south-east at the end of the Iron Age are sufficiently strong to question the validity of Ward-Perkins's 'Wealden' and 'South-eastern B' cultures. In defining these, Ward-Perkins restricted his distribution maps to the south-eastern counties; extension of the area studied, however, reduces their significance. The typical glass bead type of the Wealden Culture is found at Weekley²² and Hunsbury²³ in Northamptonshire, and the pottery

¹ *P.P.S.E.A.* vol. IV, pp. 211–33.

³ *Hengistbury Head*, pl. XXI, p. 42.

⁵ *Sussex Arch. Coll.* vol. LXXVIII (1937), p. 258, no. 12.

⁶ *Sussex Arch. Coll.* vol. LXXIX (1938), p. 231, no. 11.

⁷ *Sussex Arch. Coll.* vol. LXXII (1931), p. 196, 25.

⁸ *Arch. Cant.* vol. LI, p. 158, fig. 7.

¹⁰ *Arch. J.* vol. XCIII (1937), p. 90, B1.

¹² *Arch. J.* vol. C (1943), p. 209, R4, R6.

¹⁴ *Ibid.* p. 284, fig. 4a.

¹⁶ *Ibid.* p. 260, no. 25.

¹⁸ *Proc. Prehist. Soc.* vol. IV (1938), p. 163, fig. 9, 8.

¹⁹ *Antiquity* (1960).

²¹ *Inst. Arch. Rep.* vol. VIII, p. 59.

²² *Arch. J.* vol. XCIII (1937), p. 68.

² *P.P.S.E.A.* vol. IV, pl. v, c, d.

⁴ *Proc. Prehist. Soc.* vol. IV (1938), pp. 154–6.

⁹ *Proc. C.A.S.* vol. XLVI (1953), p. 36, nos. 20, 27.

¹¹ *Arch. J.* vol. XCIII (1937), p. 75.

¹³ *Sussex Arch. Coll.* vol. LXXX (1939), p. 253.

¹⁵ *Ibid.* p. 285, fig. 5, 8.

¹⁷ *Ibid.* p. 261, fig. M.

²⁰ *Antiquity* (March 1961).

²³ *Ibid.* p. 68.

types are, as we have seen, widely scattered. The most probable interpretation seems to be that the predominance of various types in different areas was due to the extent of influence upon the underlying culture of either Wessex decorated saucepan traditions (most marked in Sussex), or Kentish wheel-turned pottery (mainly influencing East Kent and West Sussex), whilst in the depths of the Weald and north of the Thames the influence of both was very weak.

Figs. 7 and 8

A complete selection of all pottery forms found in two pits has been illustrated, in order to emphasize that individual pit assemblages seem to have no chronological significance so far as the pottery is concerned.

Pit 36: Fig. 7, 1-11 and Fig. 8, 56-64.

Pit 5: Fig. 7, 12-23 and Fig. 8, 65-9.

A. Bowls or jars with rounded shoulders and simple, more or less upright rims; compare Wandlebury, no. 55.¹ The fabric is usually unburnished:

Fig. 7, 24; coarse fabric: P 62.

25; P 4.

26; vertical grass striations on the body: P 49.

27; oblique incisions on top of the rim: P 33.

28; irregularly spaced incisions on the outer slope of the rim: P 35.

B. Vertical handles, probably belonging to vessels similar to the above:

Fig. 7, 1 and 12.

29; P 6.

C. Wide-mouthed bowls with curved shoulder and plain everted rim: compare Wandlebury, no. 28.² The fabric varies from coarse to burnished:

Fig. 7, 2; coarse fabric.

13; several fragments of similar rims were found in this pit; some were burnished, others not.

30-2; P 59.

D. Jars, often large, with rounded shoulders, either pronounced or very slight; the necks are upright or slightly everted, and the rims vary from everted rolled examples, to flat-topped ones with internal or external thickening, or both. The fabric is generally unburnished, and varies from reddish to dark brown, often irregularly fired. The bodies of these jars often bear heavy irregular scorings or grass brush marks, and the rims are ornamented in many cases:

Fig. 7, 3 and 14-16.

33; P 62.

34; P 14.

35; P 30.

36; P 67.

37; P 49.

38; P 40.

39; finger-tipping on top of rim: P 49.

¹ *Proc. C.A.S.* vol. L (1957), pp. 16-17.

² *Ibid.*

Pl. VII, *a*; vertical grass brushings on body: P 70.

b; P 67: ash-layer; note differential colouring of individual sherds, due to re-firing after breakage. Radial finger-nail incisions on rim (see Fig. 7, 50).

c; sherds of this jar were found both in P 5 and P 6. The rim has slightly oblique, longitudinal finger-nail incisions on top. The body is scored in a rough 'arcading' pattern, perhaps slightly reminiscent of Belgian 'combed' ware.

E. Jars similar to the above, but burnished and undecorated; the ware tends to be blacker, but firing is still ill-regulated:

Fig. 7, 4, 5, and 17, 18.

40; complete jar, reconstructed: P 70.

41; P 59.

42; P 67.

43; P 40.

44; P 48.

Pl. VII, *d*; P 127.

F. Bases from all the foregoing groups: they vary from simple forms, to ones with heavy lateral or basal exaggeration. Most are flat but occasionally they are slightly concave:

Fig. 7, 4, 6, 7.

45; P 59.

46; P 111.

47; burnished and concave: P 29.

G. Examples of decorated rims:

(i) Finger-tip impressions:

Fig. 7, 8 and 21, 22.

52, 53; P 48.

These are sometimes placed so as to give an effect of cabling:

Fig. 7, 54; P 39.

55; P 37.

(ii) Radial incisions, often made with the finger-nails:

Fig. 7, 9, 10.

49; P 40.

50; P 67 (see section D above and Pl. VII, *b*).

(iii) Wide-spaced, oblique incision:

Fig. 7, 19.

48; note also irregular scoring of surface: P 14.

(iv) Close-spaced oblique incision:

Fig. 7, 11 and 23.

This also occurs on a little jar found in Hollow Y (Fig. 2):

Fig. 8, 72.

(v) Irregular scoring:

Fig. 7, 20.

51; P 33.

This is also seen on a small finely made pot from P 117:

Fig. 8, 73.

(vi) Longitudinal stabs:

Fig. 8, 71; P 59.

Pl. VII, *c*; this jar was reconstructed from sherds found in P 5 and P 6 (see section D above).

(vii) Small pits on outside edge of rim:

Fig. 8, 57; the only example.

(viii) Peaked rim with finger-tipping on both slopes:

Fig. 8, 65.

H. Finger-impressions on shoulders; only two examples:

Fig. 8, 56 and 66.

I. Globular bowls with flat S-profile; compare Wandlebury no. 24.¹ These tend to be burnished and fired black; they are undecorated:

Fig. 8, 59-62 and 68.

79; P 59.

J. Unusual forms:

(i) Bowl with pronounced shoulder and sharply everted rim:

Fig. 8, 83; burnished: Hollow Y.

(ii) Biconical bowls with everted lip; these are usually burnished:

Fig. 8, 80; P 119.

81; P 130.

82; P 40.

(iii) Similar to the above, but with an internal groove below the rim:

Fig. 8, 77; P 29.

(iv*a*) Globular bowls with slightly thickened, everted, or rolled rims; generally well burnished:

Fig. 8, 58 and 67.

74; D 1, section (*c* 2), or possibly P 96 (see p. 25).

75; P 40.

76; P 67: ash-layer.

(iv*b*) A similar bowl with 'beaded' rim made by a shallow groove below the rim:

Fig. 8, 78; P 60.

Compare Fig. 8, 67.

¹ *Proc. C.A.S.* vol. L (1957), pp. 16-17.

(v) A low foot-ring, burnished:

Fig. 8, 84; P 130.

(vi) A gently dished base with tooled ornament (see section K below); burnished:

Fig. 8, 98; P 71.

(vii) A wide bowl with internally thickened and lipped rim; some fragments of a similar rim have tooled ornament (see section K below); burnished:

Fig. 8, 95; P 4.

96; P 5.

97; P 3.

(viii) Rough, small 'crucibles', poorly made and of irregular form:

Fig. 8, 70; PH 26: one of the 'granary' postholes.

(ix) Possible lids:

Fig. 8, 64.

87; P 49.

(x) A thick, completely square rim.

Fig. 8, 69.

(xi*a*) Bases with a rough concave centre, possibly a crude attempt to imitate a foot-ring:

Fig. 8, 85; P 39.

86; P 6.

(xi*b*) Pierced bases; (cf. Hunsbury¹ and Glastonbury²):

Fig. 8, 85.

K. Tooled decoration:

(i*a*) Dividing the body into straight horizontal zones:

Fig. 8, 63.

(i*b*) Forming meander patterns on the body:

Fig. 8, 88; P 67.

89; P 24.

90, 91, 92, 95; P 4.

93; P 40.

94; P 35.

96; P 5.

97; P 3.

98; P 71.

(ii) Tiny bowl with tooled and punched decoration; the punched dots show possible signs of having been filled with white and red incrustation:

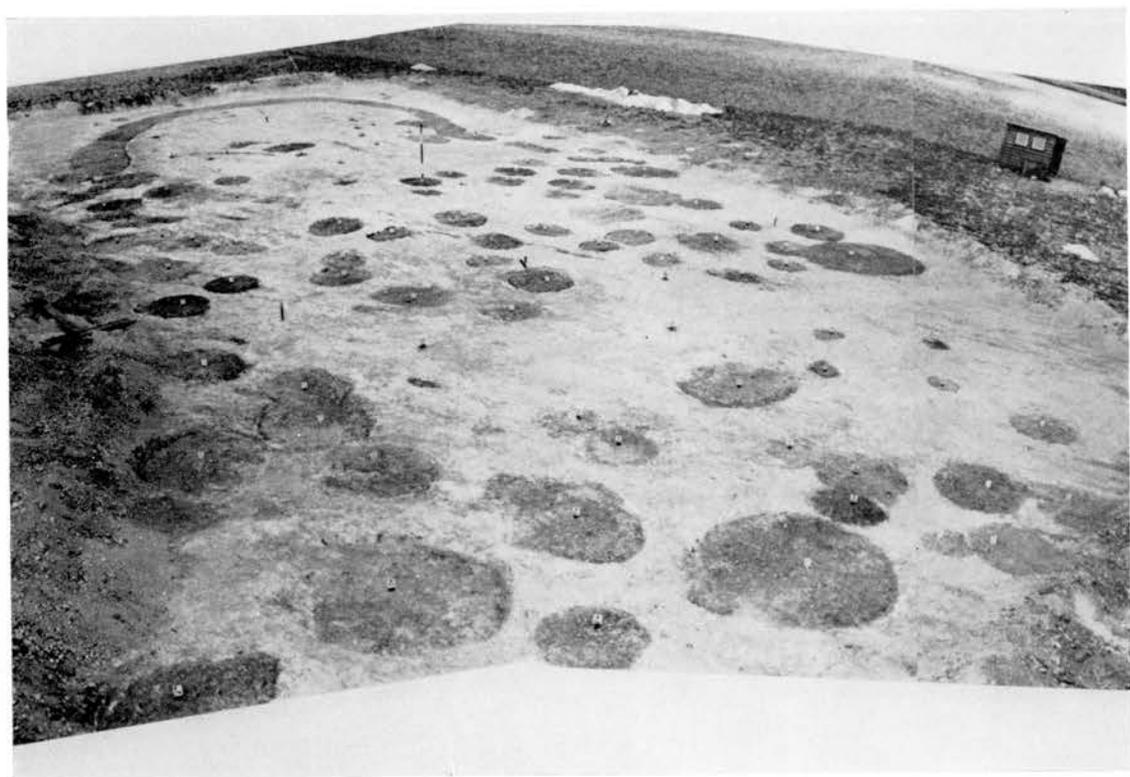
Fig. 8, 99; P 71.

(iii) Burnished black sherd with 'rouletted' ornament; it is doubtful whether this is in fact regular enough to have been made either with a roulette or a comb:

Fig. 8, 100; scraped off the upper surface of one of the pits by the bulldozer.

¹ *Arch. J.* vol. XCIII (1937), pp. 89-90.

² *Glastonbury Lake Village*, vol. II, pp. 516-17.

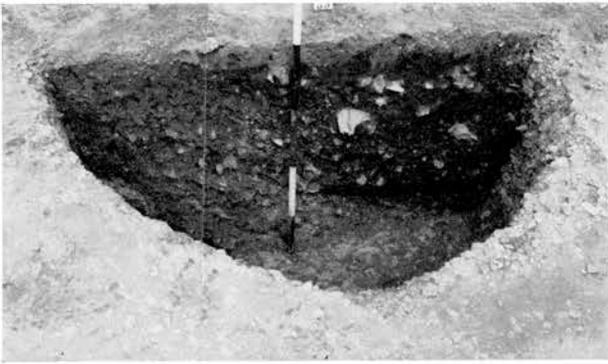




(a)



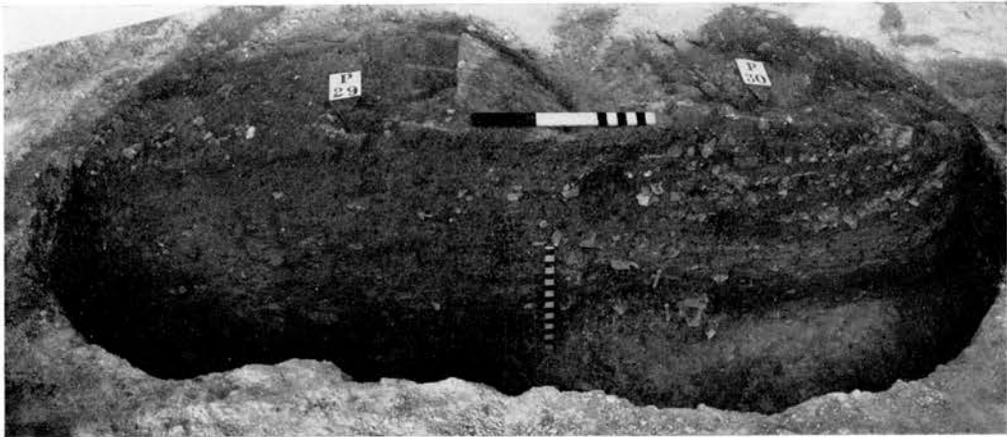
(b)



(c)



(d)



(e)



(a)



(b)



(c)



(d)



(e)



(f)

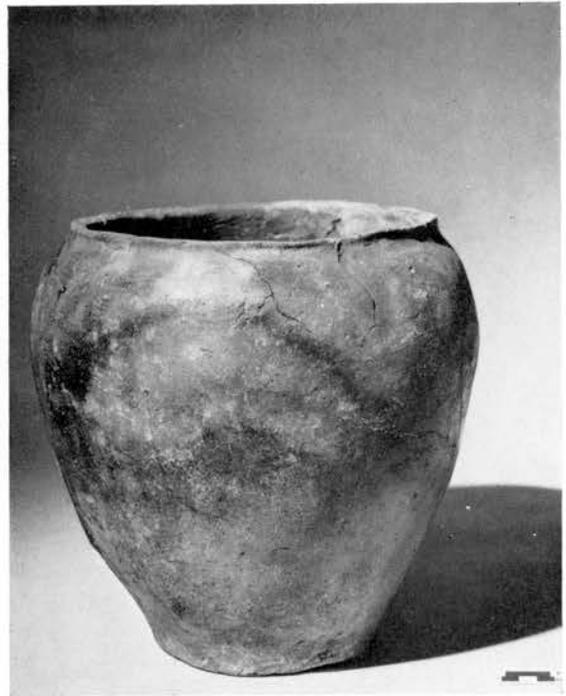


(a)

(b)



(c)



(d)



(a)

(b)

(e)



(c)

(d)



(g)

(h)

(i)

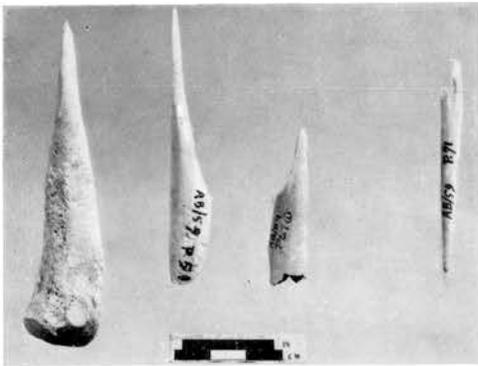
(f)



(a) (b) (c)



(d)



(e) (f) (g) (h)

(m)

(n)



(o)

(p)

(q)



(i) (j) (k) (l)

APPENDIX II

*Iron Age Skeletal Remains from Barley*¹

C. B. DENSTON

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Museum of Archaeology and Anthropology, Cambridge*

The remains submitted for examination are in a good state of preservation, just a few being broken. All are slightly discoloured through earth staining.

The bones examined include a nearly complete skull, all long bones of the arms and legs, clavicles, pelvic bones, scapulae, probably all the vertebrae, metacarpals, metatarsals and phalanges, thirteen complete ribs and fragments of others.

(a) *Age*. The bones are those of an infant whose probable age was not more than a few months, as indicated by the following points:

(1) The mandible is still in two halves, suggesting an age of under 6 months.

(2) The crowns of the milk teeth are only about half formed. Judging by modern standards, this suggests an age of no more than 3-4 months, but the infant could have been newly born.

(3) The tympanic ring of the external auditory meatus has started to fuse with the petrous portion of the temporal bone, thus suggesting an age between birth and 2 months.

(4) The anterior fontanelle is very open and there is a noticeable extension along the frontal in midline (but presumably this comes within normal variations). There is not much sign of a posterior fontanelle, suggesting an age 0-2 months.

Summing up the evidence available, one may conclude that the age of the infant probably falls between birth and 4 months, the younger part of the range being more likely.

(b) *Sex*. At this very early age the sex of a person cannot be distinguished from the skeleton.

(c) *Stature*. By laying the bones out in their normal skeletal positions, the total length of the body would seem to have been about 19 in. Comparing this estimate with the height range for modern whites, which at 3 months is 22-25 in. (♂ and ♀), the calculated length for the Barley infant gives weight to the view that it is about new-born.

(d) *Pathology*. There is no obvious evidence of disease or injury.

¹ Found in P 90 (Fig. 6, 7).

IRON AGE WEAVING COMBS FROM CAMBRIDGESHIRE AND SUFFOLK

NORMAN SMEDLEY, M.A., F.S.A.

DURING the course of excavations for the foundations of the new building for Messrs Fisons Pension Trust in Princes Street, Ipswich (National Grid Ref. TM/1584 4408), a bed of peat was exposed at a depth of 8 ft., and a fine weaving comb of red-deer antler (Fig. 1, 7) was recovered by Mr William Chapman. It has now been presented by Fisons, Ltd to the Ipswich Museum (959-266).

A search for parallels revealed that the only specimens previously found in East Anglia came from Cambridgeshire, and, with one exception (that from Haslingfield, in the British Museum), were in the University Museum of Archaeology and Ethnology. The writer is indebted to Dr Geoffrey Bushnell not only for permission to examine and draw those specimens which had not already been recorded, but for much helpful guidance, including the suggestion that a comparison with the wooden comb of the Pueblo of Zuni, New Mexico (Fig. 1, 8a, b) should not be overlooked, and that the views expressed by H. Ling Roth in his comprehensive 'Studies in Primitive Looms' (*Ling Roth*, pp. 124f.) should be re-examined.

All the combs listed below have been examined by the writer, with the exception of that from Haslingfield. They fall into two groups, type 2 and type 3, of the classification outlined by A. Bulleid and H. St George Gray (*Glastonbury*, pp. 266-9). These authors give an exhaustive account of the eighty-nine combs found on the site of the Lake Village, with references to other examples from this country and abroad.

Type 2. With an oval or rounded enlargement at the handle end. (Bulleid and Gray include under this head combs with a D-shaped handle; as so few of these are known, reference is made below to examples from other sites.)

HAUXTON: A peat-stained comb with nine teeth, worn smooth, was found with a bone needle (Fig. 1, 1).

GOG MAGOG HILLS: Three combs, one with seven smooth teeth, well-spaced (Fig. 1, 2); another specimen with fourteen sharply cut, tapering teeth (Fig. 1, 3); a third comb with perforated head, originally with nine well-spaced, smooth teeth (Fig. 1, 4).

WANDLEBURY: One unfinished specimen, which may have been 'pared down for use as a scoop', has a D-shaped head. Of two other fragments, one had approximately twenty teeth, another with thirteen teeth has incised decoration (*Wandlebury*, fig. 10, 2, 3, 4).

A comb with D-shaped head and zig-zag decoration was found by General Pitt-Rivers at Iwerne in 1897 (*Salisbury*, fig. 8, 2), and another at Maiden Castle has decoration of incised concentric circles (*Maiden Castle*, fig. 102, 10).

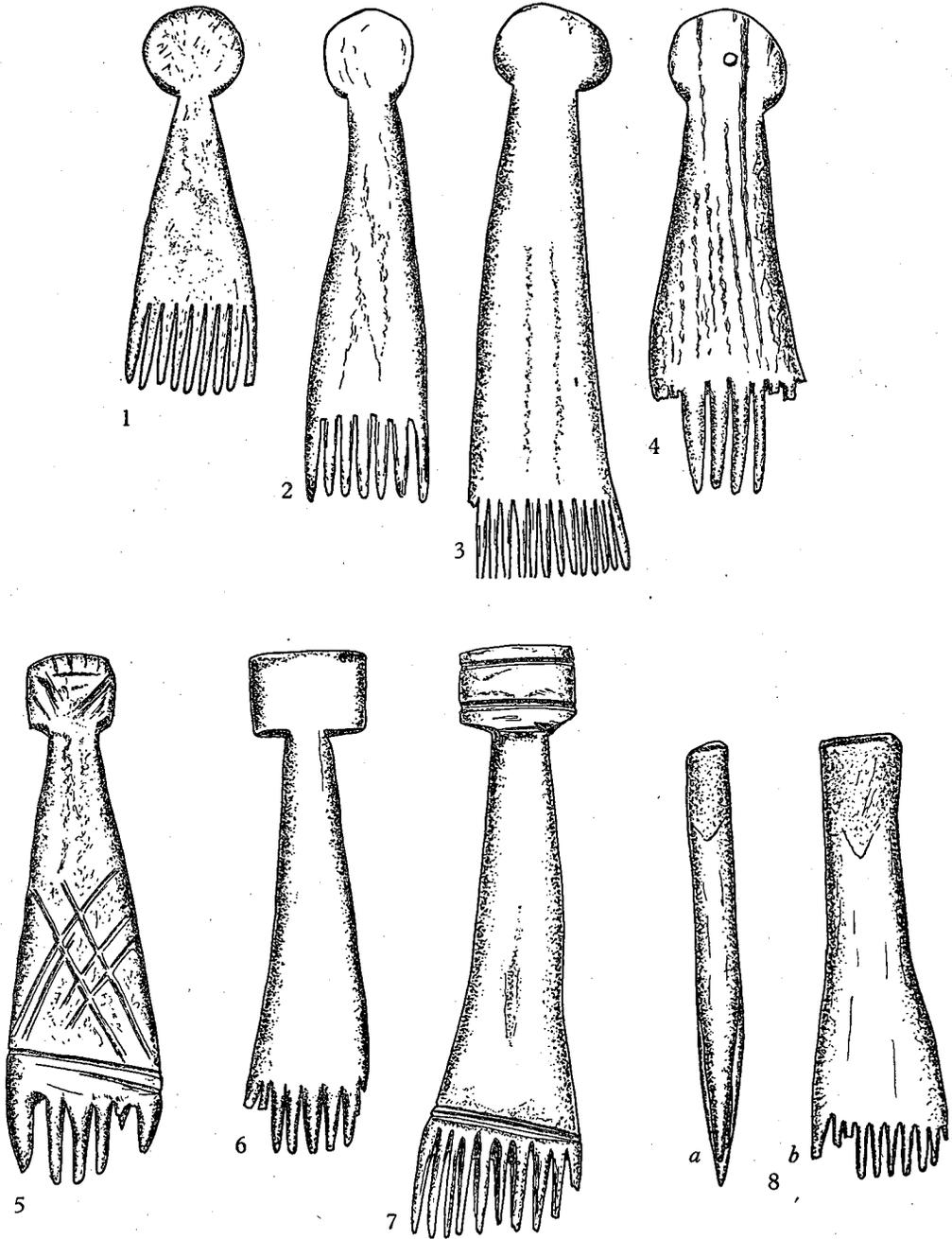


Fig. 1. Weaving combs: 1-6, Cambridgeshire; 7, Suffolk; 8, New Mexico. 1, Hauxton; 2-4, Gog Magog Hills; 5, Malton Farm, Barrington; 6, Linton; 7, Ipswich; 8, Pueblo of Zuni. Scale: 1:2.

HASLINGFIELD: A comb in the British Museum, $5\frac{1}{2}$ in. in length, has a perforated head, eight to ten teeth and zig-zag decoration (British Museum, *Iron Age Guide*, 1925, fig. 181).

ABINGTON PIGOTTS: Fox figures two combs, one with D-shaped head, and incised

decoration on head and above teeth, of which there are sixteen, sharply cut, the other with six rounded well-spaced teeth, and handle of unusual waisted form (*Abington Pigotts*, fig. 1, A and B).

Type 3. With handle having a square or oblong enlargement at the end.

MALTON FARM, BARRINGTON: A comb with six rounded, well-spaced teeth has incised, criss-cross decoration (Fig. 1, 5).

LINTON: Linton is already known as an Iron Age settlement site (*Linton*) and is here represented by a comb with eight well-rounded teeth and no decoration (Fig. 1, 6), found with an Iron Age 'A' sherd.

IPSWICH: The circumstances of the discovery of this comb have already been set out; it has ten teeth, well-rounded, and decoration of incised lines on head and above teeth exactly as in two Glastonbury examples, H 101 and H 170, which however are perforated.

Ling Roth has thrown doubt on the use of these combs for 'beating in' the weft in weaving, basing his views on experiments carried out with a replica of the Mortlake specimen in the British Museum (*Ling Roth*, fig. 184). He considers that the natural curvature of the horn or bone would draw the warp out of position, but surely this would be as quickly corrected by the tension on a warp-weighted loom. The action would be a rapid beat, upwards, as he has noted (p. 129) and not downwards as in Bulleid and Gray's illustration (*Glastonbury*, fig. 57, reproduced by *Ling Roth*, fig. 183). The upward beat may also account for the 'usage marks on what is usually the upper surface of the comb' attributed by Bulleid and Gray to reversal of a comb with an inconveniently left-handed curve (*Glastonbury*, p. 272).

It is, however, difficult to believe that implements so closely resembling the weaving comb, known to have been used for that purpose by the Pueblo Indians of Zuni, New Mexico (Fig. 1, 8), are not closely related in function, even though the latter is employed with a down-beat.

A critical study of form and decoration might reveal cultural affinities, but the material and data at present available are insufficient for this task.

ABBREVIATIONS

- Abington Pigotts*: C. Fox, 'A Settlement of the Early Iron Age at Abington Pigotts, Cambs', *Proc. Prehistoric Soc. of East Anglia*, vol. IV.
- Glastonbury*: A. Bulleid and H. St George Gray, 'The Glastonbury Lake Village', *Glastonbury Ant. Soc.* vol. I (1911).
- Ling Roth*: H. Ling Roth, 'Studies in Primitive Looms, Part IV', *J. Royal Anthropological Inst.* vol. XLVIII (1918).
- Linton*: C. I. Fell, 'An Early Iron Age Settlement at Linton, Cambs', *Proc. C.A.S.* vol. XLVI.
- Maiden Castle*: R. E. M. Wheeler, 'Maiden Castle, Dorset', *Soc. of Antiquaries Research Report*, no. XII.
- Salisbury*: C. F. C. Hawkes, with collaboration by Stuart Piggott, and a note by H. St George Gray, 'Britons, Romans and Saxons round Salisbury and in Cranborne Chase, reviewing the excavations of General Pitt-Rivers, 1881-98', *Arch. J.* vol. CIV (1947).
- Wandlebury*: B. R. Hartley, 'The Wandlebury Iron Age Hill Fort', *Proc. C.A.S.* vol. L (1957).

A ROMANO-BRITISH SITE AT ORTON LONGUEVILLE, HUNTINGDONSHIRE

G. F. DAKIN

INTRODUCTION

WITH the kind permission of Huntingdonshire County Council, the Archaeological Field Section of Peterborough Museum Society was able to carry out an emergency excavation of a Romano-British site at Orton Longueville between September 1959 and April 1960, before it was laid out as a playing field for a new school. Messrs C. F. Tebbutt, F.S.A., and C. M. J. Coote, who are members of the County Council, and the County Architect and his staff all did much to enable the work to be continued as long as possible. To them and to Mr B. R. Hartley, F.S.A., of Leeds University, the Field Section is most grateful for help, guidance and encouragement. Mr E. Standen directed the field-work.

The site is in the Nene valley, about 400 yards south of the Peterborough-Oundle road (Fig. 1: National Grid Ref. TL (52) 164962) and lies on Jurassic rocks 50 ft. above sea-level. Roughly 3 miles to the west is the site of the walled town of Durobrivae, which was the centre of an industrial area, including the well-known Nene valley potteries. Romano-British material has previously been found near the present site. A gravel pit about 150 yards to the north yielded pottery and coins in 1907 (O.S. 6 in. Northants XIV N.W.) while the record of a 'hut village' yielding 'coarse Romano-British potsherds' presumably refers to this too.¹

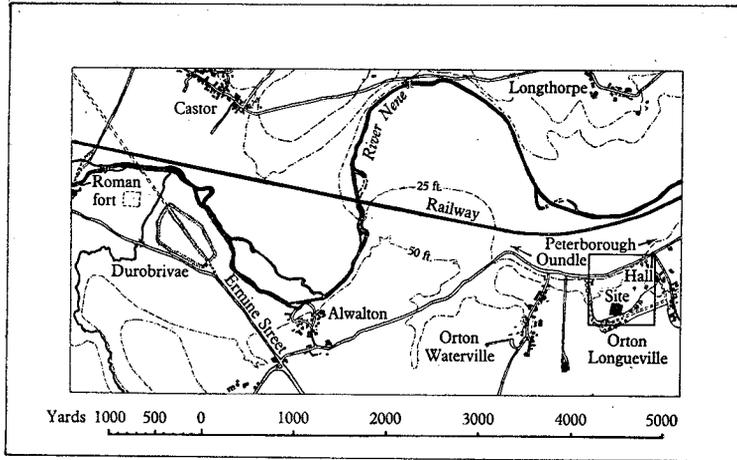
The main features uncovered in the excavations were furnaces, pits, a large rectangular building, a bath-house, and ditches (Fig. 2, site plan). All the finds are in Peterborough Museum.

THE FURNACES

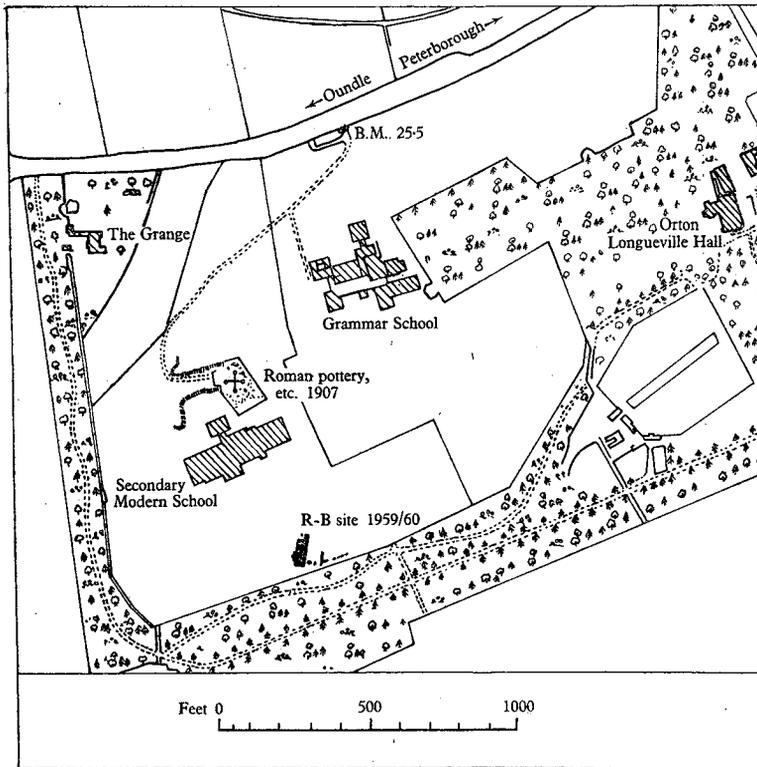
Three furnaces and two pits (Figs. 2, 3 and 4: furnaces A-C, pits 1 and 2) were apparently the earliest features of the site. Although all were within the area of a large rectangular building (p. 54 below) they were almost certainly earlier than it, since the surface contemporary with them was below the level of the building's footings.

Furnace A was 4 ft. long and 2 ft. across at its greatest width (Fig. 3 and Pl. Xa). It was let 18 in. into the subsoil and was lined with limestone blocks set in clay. It had clearly been stoked from a pit at its east end, but the pit was occupied by features belonging to furnace B, which also sealed the mouth of A and so was certainly later.

¹ Miss M. V. Taylor, *V.C.H.* vol. 1, p. 249.



(a)



(b)

Fig. 1 (a). Tracing from 2½ in. O.S. map of the Nene valley between Durobrivae and Orton Longueville. Area shown on 1:2500 scale in (b) lies within rectangle marked round 'Site'. (b) Tracing from Hunts County Council Architect's drawing 146/202, based on O.S. map, scale 1:2500, of the site of the new Secondary Modern School. Shows area inside rectangle marked on (a).

Furnace B was also built of limestone (set in mortar) and lined with clay. It was figure-of-eight-shaped in plan with two roughly cylindrical communicating chambers, each 26 in. across and 20 in. deep. A short flue led into them from a stokehole 6 ft. across (Fig. 3 and Pl. Xa).

Furnace C was 24 ft. south of the others. It was again stone-built with clay lining but was long and narrow and slightly constricted in the middle and at the mouth

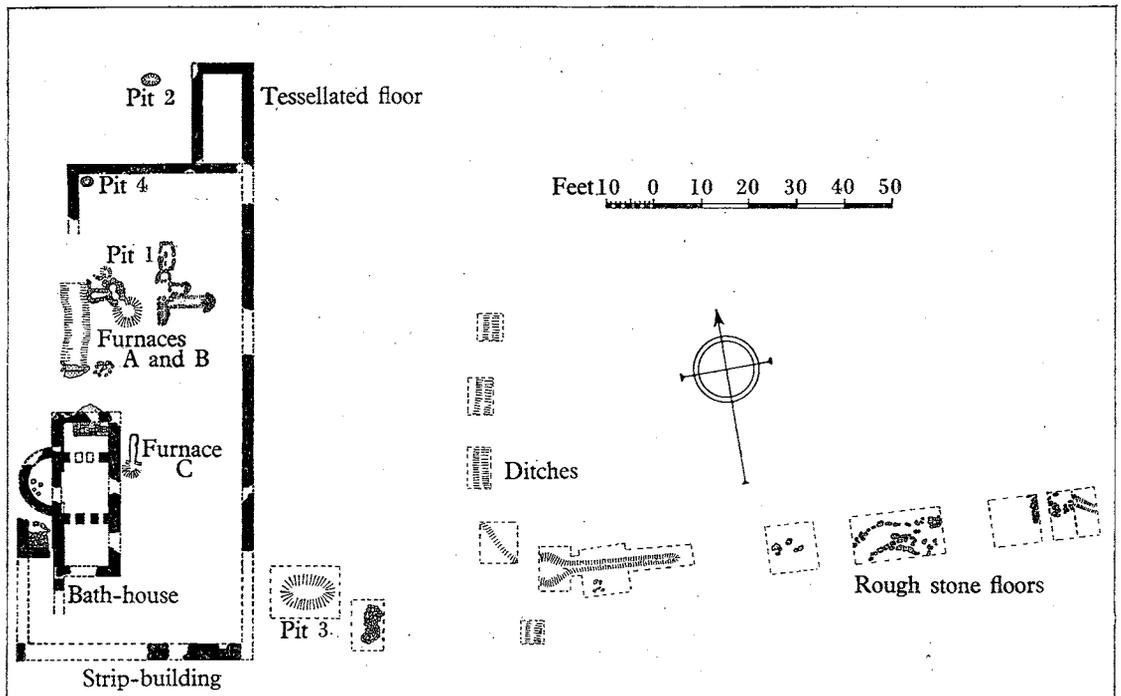


Fig. 2. Orton Longueville. Site plan.

(Fig. 4). Like the others, it was dug into the subsoil, but its floor sloped from a depth of 15 in. at the mouth to 7 in. at the back. There was a low stone retaining wall at the front and a small stokehole.

All three furnaces had wood ash on their floors under rubble fillings, but there was little datable material in them. Such as there was (from A and B only) seems to belong to the first half of the second century (Fig. 6 and p. 58). This is true also of the pottery from pit 1 (alongside furnace A) which yielded a Hadrianic sherd of figured samian (Fig. 6, 4) and a large calcite-gritted jar. Pit 2, 40 ft. further north, also had pottery of similar date in its filling (Fig. 6, 19-26).

What the purpose of the furnaces and pits was remains obscure. An industrial process is probable, as the form of the furnaces excludes the possibility that they were domestic ovens, and there was no sign of either the upper floors or the grain that would be expected in corn dryers. Metal working and pottery manufacture or

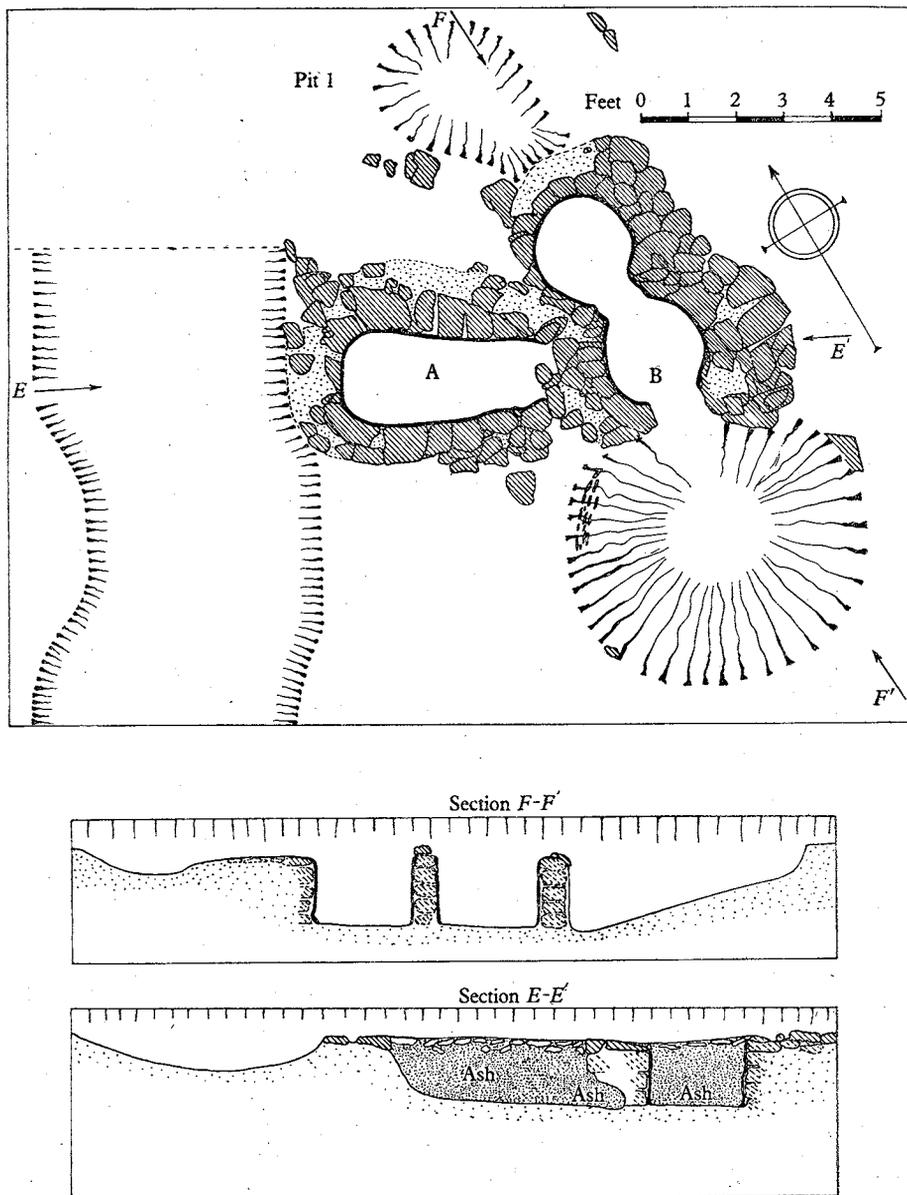


Fig. 3. Furnaces A and B.

drying can almost certainly be excluded, because of the absence of the characteristic debris. However, the form of furnace B invites comparison with two boiler-stands for pottery vats recorded by Artis from the Normangate Field and Wansford.¹ Here presumably two vats were used, but the evidence does not allow us to guess at the process.

¹ *Durobrivae*, pl. xxvi, fig. 4D and pl. xxv, figs. 4 and 5.

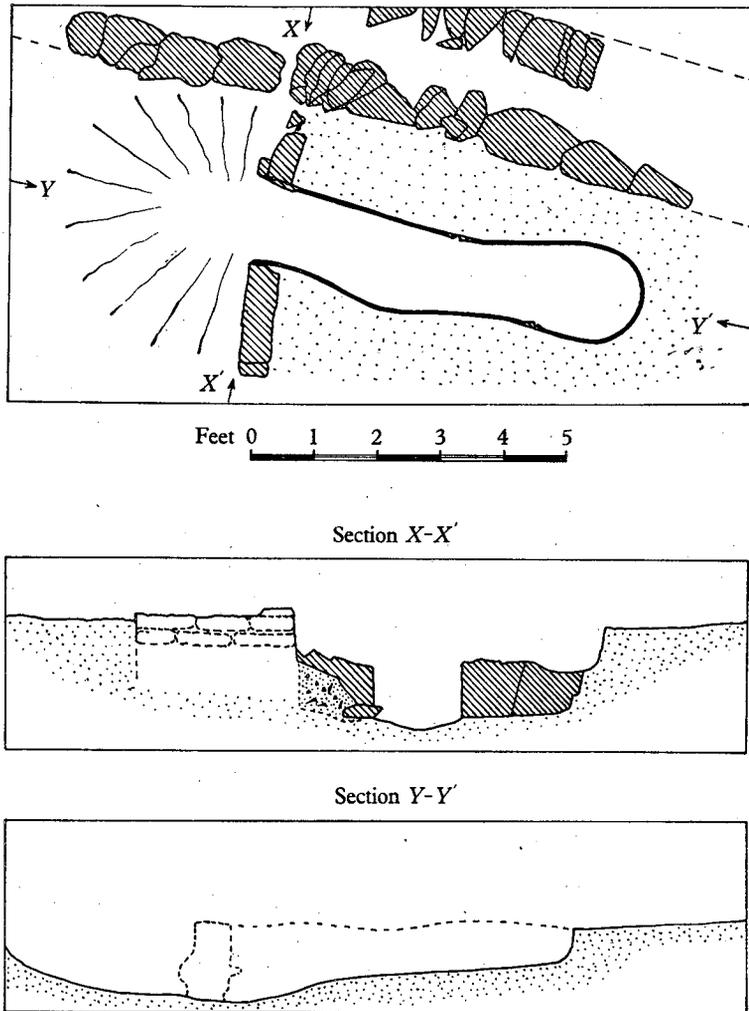


Fig. 4. Furnace C.

THE RECTANGULAR BUILDING

The north and west sides of the large building which apparently covered the furnaces had been severely robbed (Fig. 2). As a result, its arrangement is not entirely clear, and in particular it is uncertain whether it was rectangular with two small rooms divided off at the back, or whether it had a single room projecting from the main structure at its north-east corner. On the whole, the first alternative is the more likely, since division of the back of strip-buildings in this manner is common enough. And, although open fronts are usual in strip-buildings, closing walls are by no means unknown.¹

The walls of the building were over 120 ft. long; its long walls were not precisely parallel and its width varied from 41 ft. at the front (the south end), to 39 ft. at the

¹ R. G. Collingwood, *Archaeology of Roman Britain*, fig. 27c, d.

back. A ratio 3:1 for length and width is not unusual in strip-buildings, though here the great width must have posed problems in roofing.¹ The walls were constructed of roughly dressed slabs of Lincolnshire limestone laid in horizontal courses. The long walls were 26 in. wide, but the front wall was 10 in. wider. This suggests the possibility that the gables may have been carried up to full height in stone with the long walls as sills for timber construction.

Nowhere in the front of the building was there a trace of solid floor, though had it existed it should have survived, at least in part, as the north-east corner room had a relatively intact tessellated floor set in mortar (Pl. X*b*).

The tesserae were about 1 in. square and were cut from local limestone or sandstone or baked clay. The dominant colour was beige, but in the middle of the floor traces remained of a rectangular pattern which had been executed in red, white and beige pieces. Below the floor the packing was limestone rubble in which were third-century potsherds (Fig. 7, 39-41).

Building materials, other than stone, were found outside the walls, in the rubble filling and on the floors. They included floor-tiles, one bearing the imprint of a dog's foot, fragments of flue-tiles, roofing-tiles—*tegulae*, *imbrices* and ridge-tiles and Collyweston slates. A lot of coloured wall-plaster was found; some of it may have provided patterned panels and dados.² These various materials were most plentiful in the bath-house and around the room with the tessellated floor. Although no absolutely secure dating evidence was obtained, the building can scarcely have been earlier than the early or mid third century, as its north wall partly sealed pit 4 containing pottery of that date (Fig. 2).

The whole character of the building, a large open area without solid floor at the front and with living-room(s) at the back, fits the familiar pattern of the strip-building. In towns they are usually held to have been shops, or combined shops, workshops and living-quarters; in the countryside they are not well known. The Heronbridge site near Chester has them in association with industrial activity or storage.³ In the Nene valley itself, some of the larger but inadequately recorded buildings among the potteries in Normangate Field probably belong to this class.⁴ It is all the more unfortunate that no sign of the precise purpose of the Orton building was evident.

THE BATH-HOUSE

Near the south-west corner of the rectangular building, and related to it in such a manner that they are unlikely to have existed contemporaneously, was a small bath-house (Fig. 5, Pl. XI*b*). Owing to the robbing, their relationship is not clear, but, as the bath-house had late fourth-century pottery in its demolition layers, it is likely

¹ An even wider strip-building has, however, been excavated at Wroxeter: J. V. Bushe-Fox, *Excavations at Wroxeter in 1914*, pl. xxix, building labelled 'Site vi'.

² Samples were submitted for examination to Miss Joan Liversidge, Museum of Archaeology and Ethnology, Cambridge, who kindly made many helpful comments on the material.

³ *J. Chester and North Wales Arch. Soc.* vol. xli, p. 16.

⁴ *Durobrivae*, pl. xxxix.

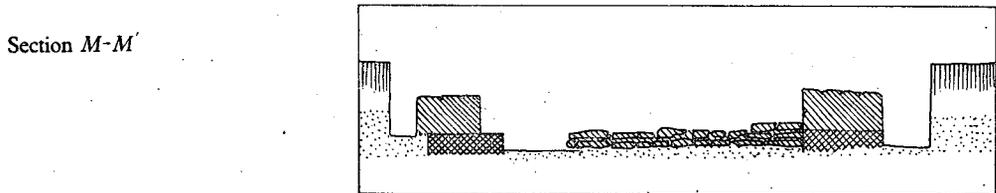
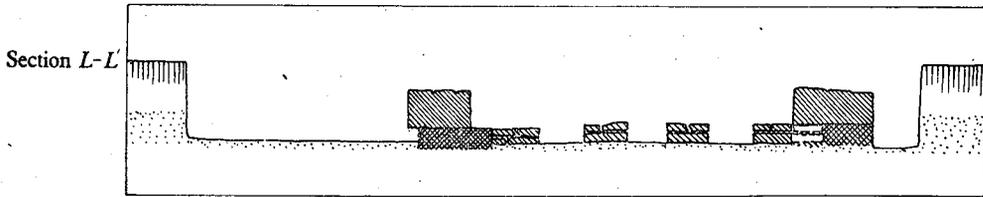
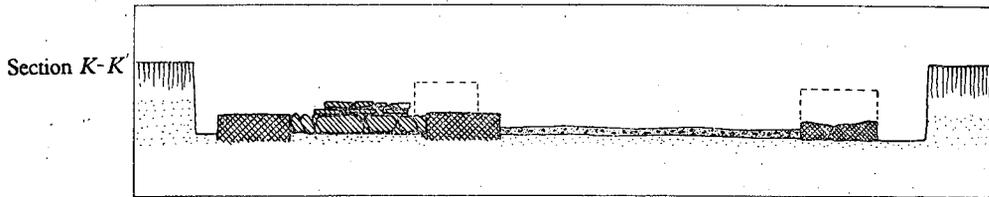
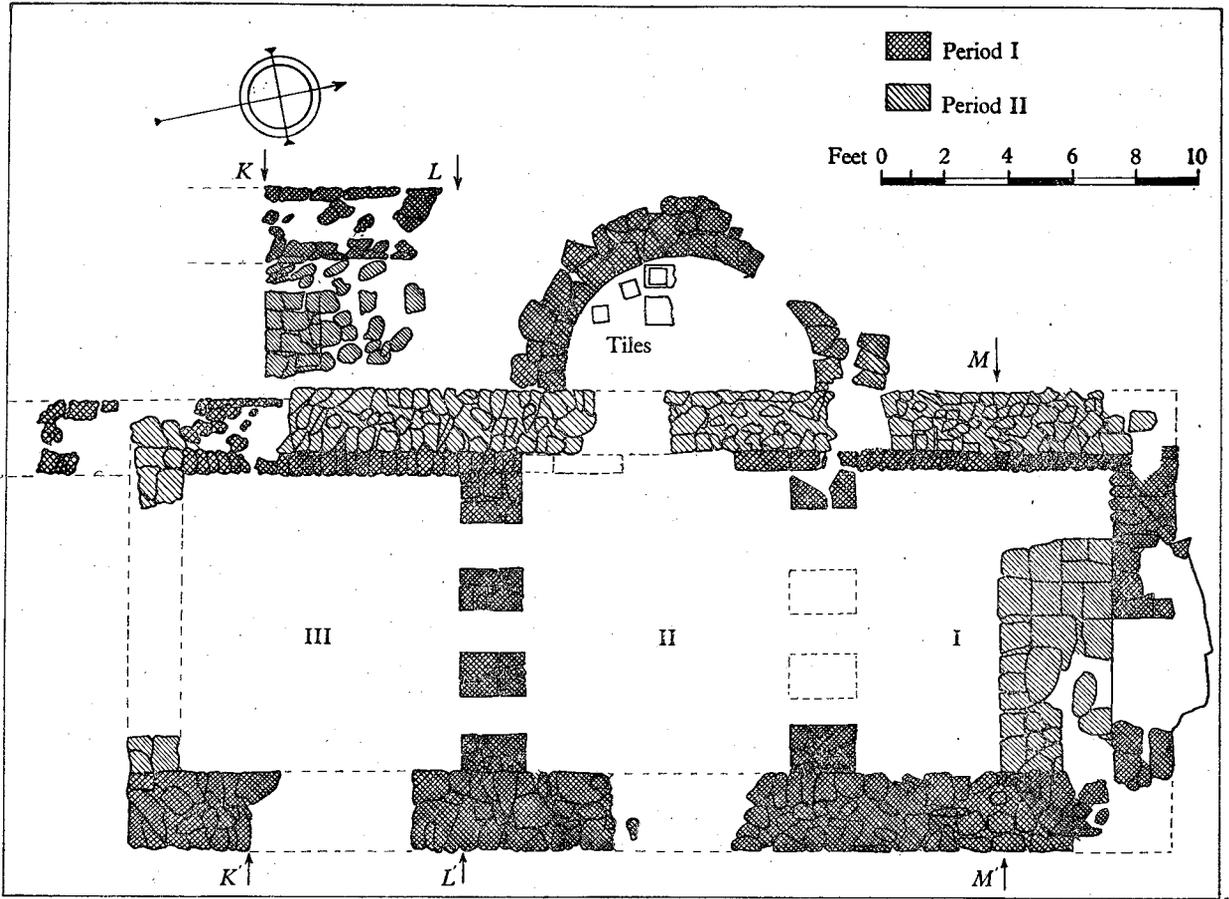


Fig. 5. Bath-house.

to have been the later of the two. Buildings of two periods were involved; of these the first was certainly constructed as baths; the second, involving complete rebuilding of the main walls from foundation level, may not have been.

Period I

The rooms uncovered were all hypocaust basements. Room I had a tolerably well-preserved north wall with no trace of a flue. At a height of 6 in. above the basement level the top of the wall had traces of a threshold. It is clear, therefore, that an unheated room lay to the north. The structure thus emerges as the regular series of three heated rooms belonging to steam-heat baths. The furnace must have been at the southern end of the building, presumably in the axial position, and rooms I-III will have been cool, warm and hot, respectively. An unusual feature was the presence of an apse in the warm room only.¹ The hypocaust basement continued into it and a single *pila* tile was found in position. As the west wall was carried through for the length of the hot-room there cannot have been an apse there, though there were admittedly some unexplained structures immediately to the west. The hot-water bath or shower was presumably at *suspensura* level.

As will be seen from the plan (Fig. 5, Pl. XI*b*) the three rooms were divided at basement level only by piers. Above the *suspensura* there would have been solid walls pierced only by doorways.

No evidence was found to enable a secure date to be given to Period I.

Period II

This involved the complete rebuilding of the two long walls of the building. The apse off room II was demolished in the process, the *pilae* in the main rooms were removed and a mortar floor was laid above the original basement to the level of the tops of the pier bases—8-12 in. (see section across bath-house piers, Fig. 5).

It was probably at this time that a platform was inserted in the north-east corner of room I. As there was no trace of bath-house fittings, it seems probable that the new building was unheated. The platform in room I is then explicable as the base of stairs leading down into what was in effect a semi-basement (Pl. XI*a*).

The pottery scattered in the demolition layer over the floor suggests that the building in its modified form survived to the end of the Roman period.

MINOR FEATURES

The most interesting and productive minor features were those to the east of the buildings already described, and a complicated feature east of furnace B (Fig. 2).

Near the south-east corner of the rectangular building was pit 3; it was approximately 15 by 8 ft. and 4 ft. deep. Well to the east of the strip-building a ditch was traced running parallel with the east wall; it turned eastwards towards the rough

¹ Cf. Artis, *Durobrivae*, pls. xvii and xx for a bath-suite in the Mill Hill field with this same feature—otherwise unparalleled in Roman Britain.

stone floors—which had probably belonged to huts. The feature near furnace B comprised short ditches and stones lying over depressions containing wood ash. It had been so disturbed that its purpose could not be understood.

These minor features yielded fragments of roof-tiles, wall-plaster, pottery and nails; the pottery indicated that they were apparently still in use in the fourth century.

SUMMARY

It is highly probable that occupation of the site began early in the second century and continued until late in the fourth century. Judging by the furnaces and pits it was associated with industrial use. In the third century it is likely that the large rectangular building, provided with simple living-quarters, was erected. The purpose was probably still industrial. This phase was apparently succeeded by the period when the bath-house was in use. Even on the modest scale provided here, this implies a reasonably substantial community.

The open ditches and rough floors were still in use in the fourth century; consequently it can be assumed that the occupation of the buildings and the functioning of the industry continued until then.

Clearly, the excavation was able to reveal only a small part of a substantial site which presumably belonged to the Nene Valley industrial complex. But the true function of the Orton Longueville industrialists within that complex remains irritatingly obscure.

POTTERY

Selections from the considerable quantity of pottery which the site yielded are described and illustrated below in groups related to the features from which they were taken (Figs. 6, 7, 8).

Group A

From the area which includes furnaces A and B, pit 1 and the ditch west of furnace A.

(a) *Furnace A.* 1. Large jar, pale grey fabric, hard: prominent neck grooving: lattice decoration lightly marked: probably second century.

2. Dark grey core: inner and outer edges light grey: hard, 'cut glass' facet decoration: imitation samian, form 30.

(b) *Furnace B.* 3. Grey fabric: wheel-made jar with black burnished coat: probably based on Iron Age type: form unusual: probably second century.

(c) *Pit 1.* Samian, form 33: Central Gaulish: Trajanic or Hadrianic.

4. Figured samian, form 37 in the style of Drusus: panel decoration with lion (Oswald 1450) over four-bladed plant in one panel: small vine scroll in next with bird pecking grapes. The style is precisely that of a signed Drusus bowl from Heronbridge, Chester.¹

5. Dish: pale grey fabric: slightly granular texture.

6. Dish: dark grey fabric: smooth surface.

7. Dish: grey fabric: dark smooth surface: lattice decoration.

¹ *Central Gaulish Potters*, Stanfield and Simpson. Circa A.D. 120-40.

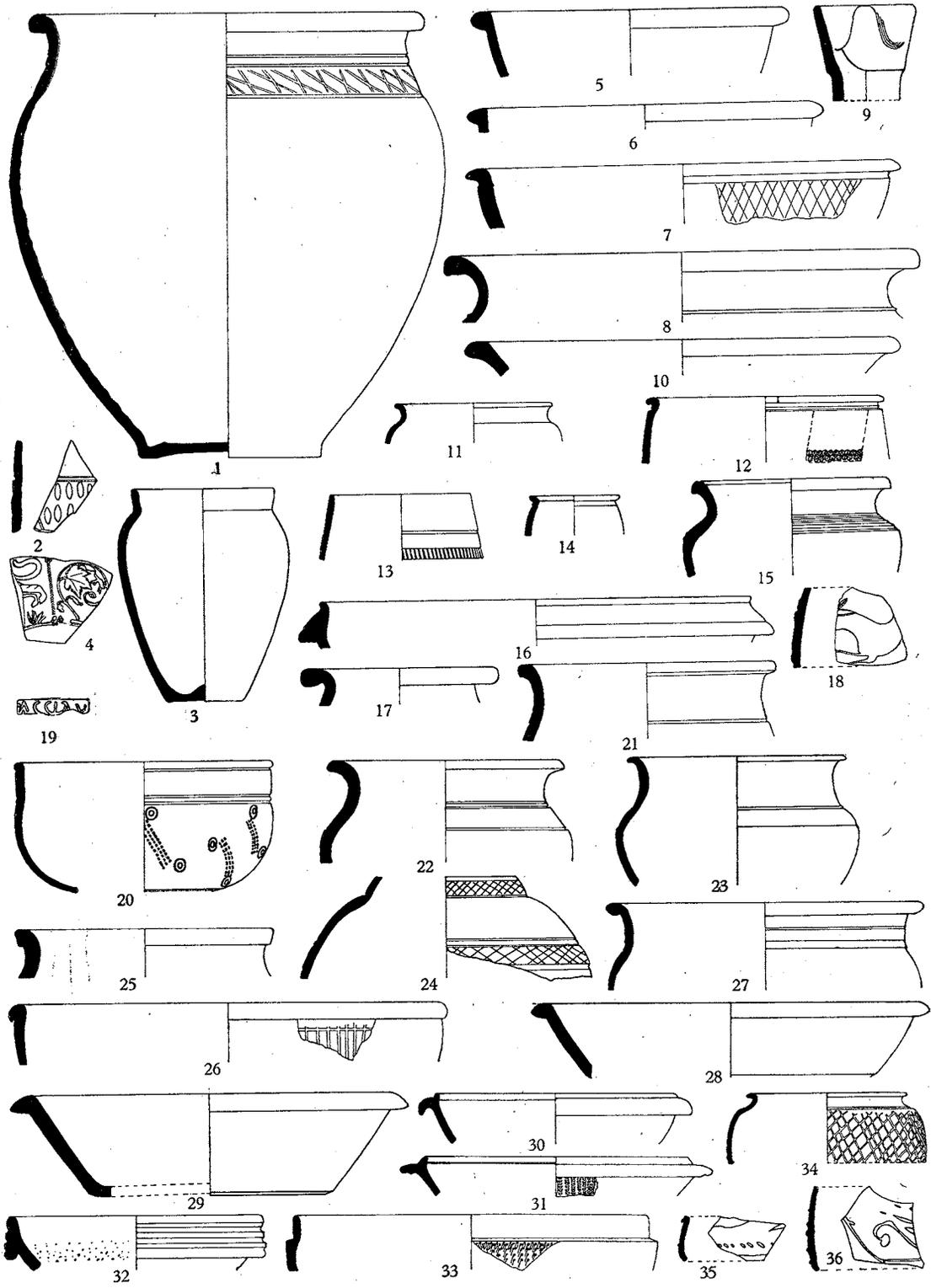


Fig. 6 (quarter natural size).

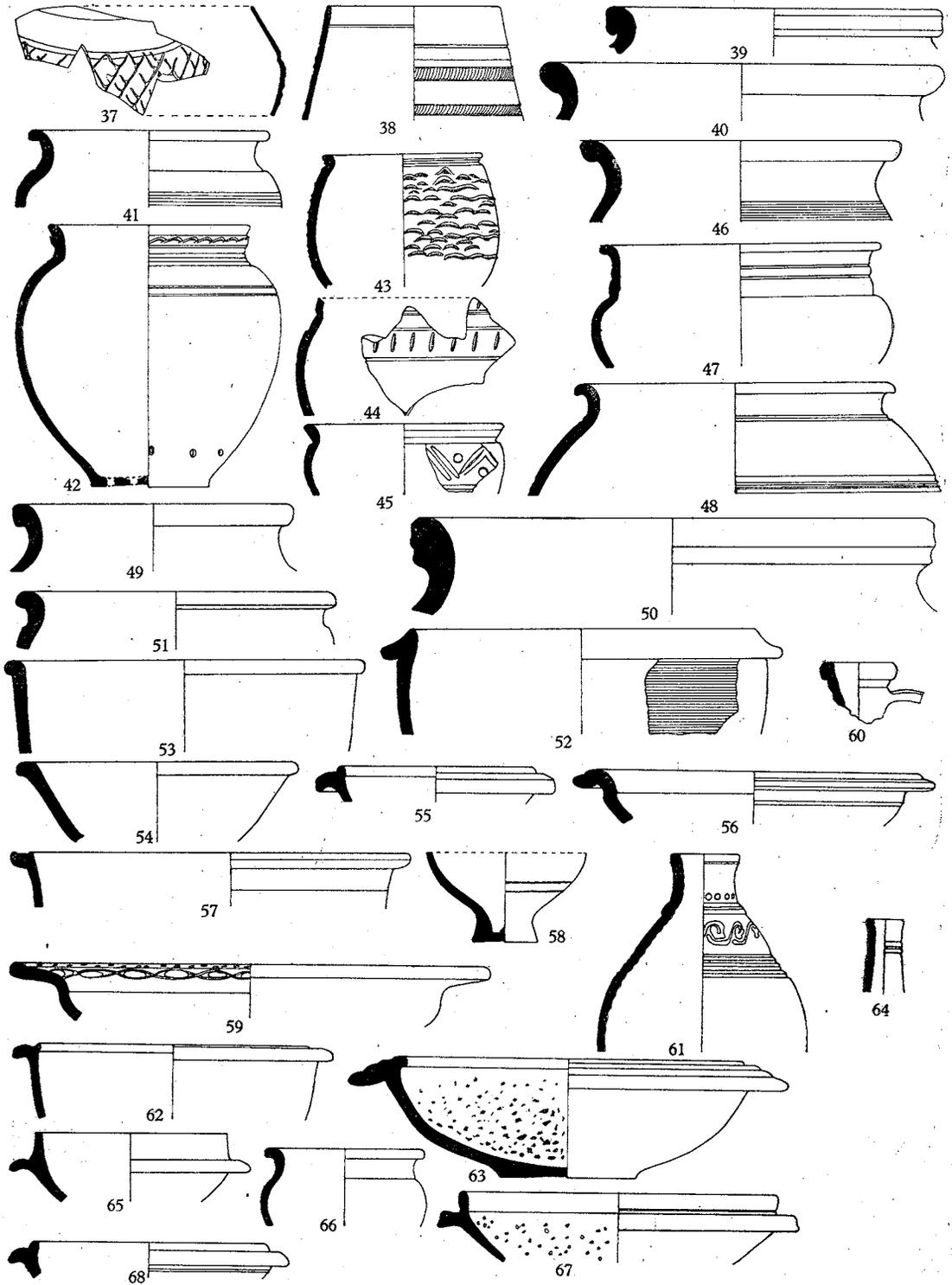


Fig. 7 (quarter natural size).

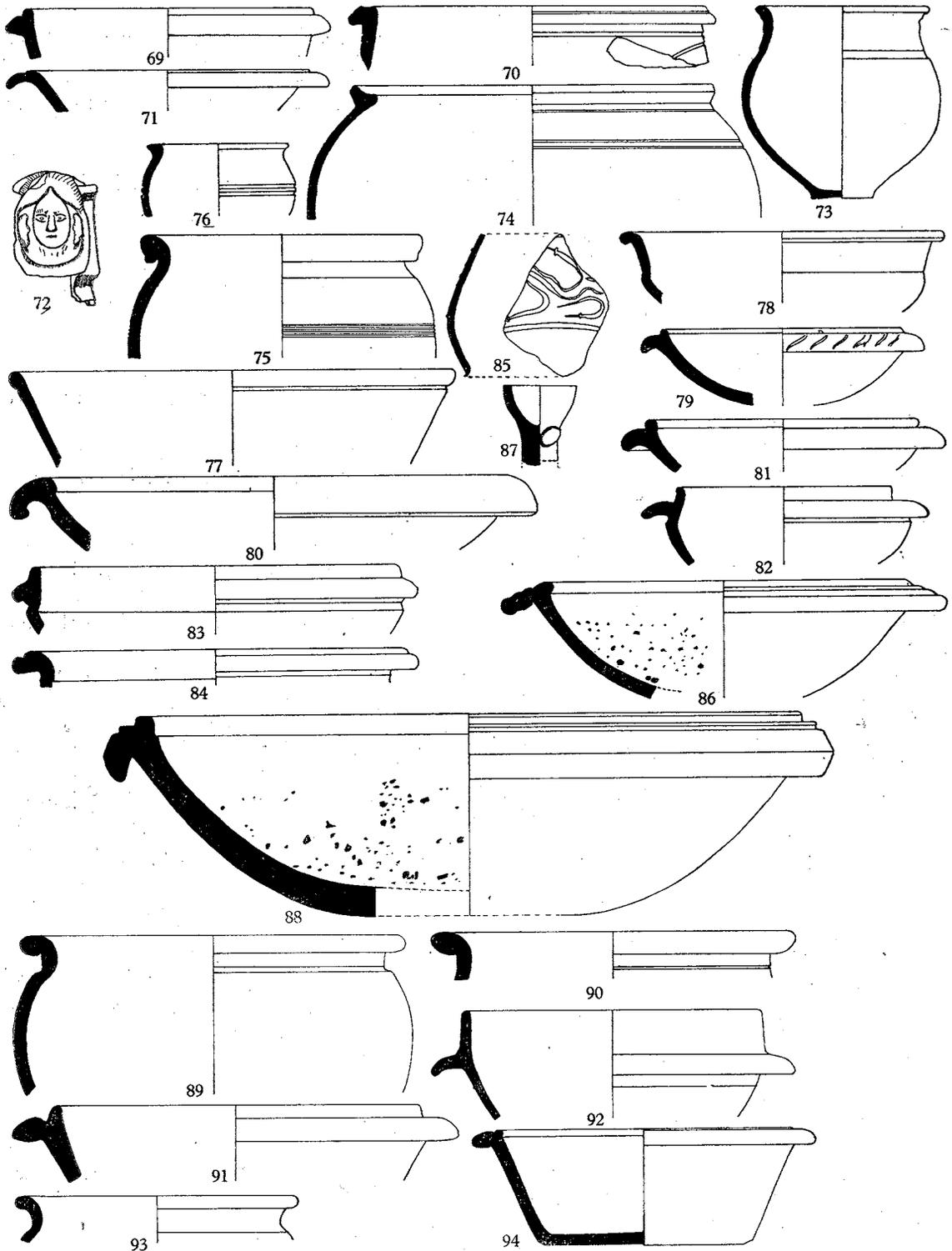


Fig. 8 (quarter natural size).

8. Jar: light grey fabric: granular texture.

In addition to the second-century samples illustrated above, pit 1 yielded fragments of large calcite gritted jars like those from a first-century kiln found at Water Newton in 1959.

(d) *Trench west of furnace A.* This yielded a little second-century and some third-century material.

Nene valley colour-coated ware.

Samian, form 33: Central Gaulish: probably Antonine: an external groove immediately below the lip: perhaps a feature which is usually confined to earlier examples.

Form 18/31 or 31: probably Central Gaulish: Hadrianic.

9. Pinched-neck flagon: pale-grey fabric: colour-coated black: third century.

10. Flat rimmed dish: cream fabric: colour-coated slate-grey: enamel-like appearance: mid third century.

11. Narrow-necked grey jar: mid or late third century.

12. Rouletted beaker: pinkish fabric: colour-coated dark brown, orange flecks.

13. Upper part of a bulbous beaker: thin cream-coloured fabric: colour-coated brown: groove and rouletting: mid third century.

14. Small terra-cotta beaker: hard, smooth surface.

15. Core of fabric grey, changing to light brown at edges: surface black: granular texture.

16. Calcite gritted, grey fabric: black surface.

17. Grey fabric: narrow-necked jar: mid or late third century.

(e) *Around stokehole of furnace B.* Pottery ranged from second to late fourth century. Samian, forms 31/R, 33 and Curle 23: all Antonine.

18. Fragment of hunt-cup: cream fabric: colour-coated brown: part of a deer in barbotine decoration.

Group B

From Pit 2. All the pottery belongs to the early second century.

Samian, form 31: parts of two vessels: Central Gaulish: Antonine.

19. Potter's stamp: form 18/31: Hadrianic: Central Gaulish.

20. Soft buff fabric: black smooth surface: decoration ring and dot, with groups of three lines of stamped markings made by a toothed wheel: lower down another band of dots encircles the bowl. It is very like one described as 'a vessel of Dragendorff shape 37... from Water Newton... probably second half of first century A.D.'¹

21. Grey fabric: granular texture.

22. Brick-coloured fabric, gritty feel: coated black.

23. Grey fabric: granular texture.

24. Thickest part of fabric grey at centre, elsewhere brick-coloured: thin grey skin just below surface: dark grey surface: two bands of lattice decoration so faintly marked as to be hardly discernible.

25. Calcite gritted fabric: black outside, red below rim inside.

26. Dish: hard light grey fabric: smooth surface.

Group C

From the north-east of the strip-building—that is, in, around and under the tessellated floor. Apart from the residual samian ware the group is consistently third century, with the possible exception of the mortarium which may be late third or early fourth century.

¹ *V.C.H.* vol. 1, 'Romano-British Remains', no. 10, pl. VII, and p. 241.

Samian, form 18/31: Central Gaulish, Hadrianic.

Samian, Form 31: Central Gaulish, Antonine.

27. Pale grey fabric: slightly gritty texture.
28. Light grey fabric and surface: granular texture: chamfer just visible at base.
29. Pale grey fabric and exterior: chamfer at junction of side and base.
30. Cream fabric: colour-coated with touches of reddish brown and dark brown.
31. Pinkish fabric: colour-coated dark brown: rouletted.
32. Wall-sided mortarium: cream fabric.
33. Lower part of Castor box: off-white fabric: colour-coated orange and dark brown: rouletted.
- 34, 35, 36, 37. All cream, thin hard fabric: colour-coated brown: each has a different kind of barbotine decoration.
38. Pink-cream fabric: thin and hard: colour-coated dark: rouletted bands.
39. Grey fabric, hard: coarse grained: from under tessellated floor.
40. Coarse calcite gritted fabric: from under tessellated floor.
41. Soft calcite gritted jar: light brown: from under tessellated floor.

Group D

From areas each side of the southern half of the east wall of the rectangular building. The pottery dates from the second to early fourth century.

42. Jar of grey fabric: holes punched in lower part: a colander.
43. Cream fabric: colour-coated orange with dark brown superimposed: scaled decoration gives rustic effect.
44. Hard grey fabric: 'cut glass' facets and grooving.

Group E

From inside and around the bath-house at various levels.

(a) *On the rubble filling.* At occupation level there was residual second- and third-century material, but the bulk was fourth century.

45. Grey fabric with stamped and incised decoration.
46. Calcite gritted jar.

(b) *In the rubble but above mortar floor.* The pottery was almost all consistently early to mid fourth century: the only earlier pieces were the flagon neck and one piece of samian.

47. Light grey fabric: darker outside and smooth.
48. Hard grey fabric: slightly burnished outside: dark grey.
49. Calcite gritted: wide-mouthed jar: reddish brown.
50. Calcite gritted.
51. Cream fabric, thick: colour-coated orange brown.
52. Calcite gritted: rilled, black exterior.
53. Pale grey fabric: hard: slight surface roughness.
54. Dish: light grey fabric: black and slightly burnished.
55. Cream fabric: colour-coated brown to black: smooth.
56. Cream fabric, thick: colour-coated orange and brown: segmental dish with parallel white lines on edge of rim.
57. Pinkish fabric: colour-coated brown.
58. Beaker base: cream fabric, colour-coated brown over orange: faint rouletted lines.

59. Off-white fabric, thick: colour-coated black: floral pattern and dots in thin white barbotine round the broad rim.

60. Cream-coloured fabric: ring neck of single-handled flagon.

(c) *On the mortar floor.* Much of the pottery comprised such vessels as mid third-century colour-coated and fourth-century flanged bowls and flagons; in the apse there were second-century sherds, third-century Rhenish ware—thin, glossy and rouletted—and some mid fourth-century colour-coated vessels.

61. Fourth-century flagon: cream fabric: colour-coated black, white barbotine dots round the neck, a white line round the collar and white scroll round the shoulder.

62. Cream fabric, thick: colour-coated dark brown.

63. Mortarium from floor just outside north wall of bath-house: Stibbington type of the late third and early fourth century.

(d) *Under the mortar floor of bath-house.*

The material ranged from samian, form 33, Antonine, to colour-coated ware of the late third century.

Group F

From ditches and pit 3 east of the strip-building.

(a) *Northern stretch of the trench.* All the pottery was fourth century.

64. Flagon neck: cream fabric, colour-coated black.

65. Flanged bowl: cream fabric, colour-coated chocolate brown: imitation samian, form 38.

66. Cream fabric, colour-coated brown.

(b) *Southern part of ditch running from west to east.*

The ditch could not have been filled in before the middle of the fourth century as it yielded pottery of that date: there was residual material—samian, form 31, Antonine; form 37, Hadrianic; also a little third-century colour-coated ware.

67. Thames valley mortarium: terra-cotta fabric: studded with white and reddish brown grit: the grains of grit are round in contrast to angular ironstone grit usually found in local Stibbington mortaria.

68. Grey fabric: colour-coated brown.

69. Cream fabric: colour-coated dark brown.

70. Light grey fabric: very hard: mottled grey surface: grooved decoration round rim and neck of jar.

71. Dark-brown gritty fabric: burnished black: granular texture inside.

72. Face flagon: moulded mask attached to flagon neck: probably made at Stibbington.

Group G

From Pit 3. The pit yielded mainly fourth-century pottery, but there was a lot of residual material in it. For example, samian, forms 33, 36, 31 and 31/R and colour-coated sherds of the late second century.

73. Grey fabric: black burnished: late third century.

74. Grey fabric: hard smooth surface.

75. Hard grey fabric: granular texture.

76. Pale grey core: whitish coating both sides, slightly gritty texture.

77. Grey fabric: dark grey surface, burnished.

78. Grey fabric: outer and inner coatings pale grey: hard surface.

79. Cream fabric, thick: pale terra-cotta coating: orange-coloured stripes painted diagonally across the rim.
80. Heavy terra-cotta fabric: granular texture.
81. Pale grey fabric: hard, smooth surface.
82. Hard grey fabric: smooth surface.
83. Grey fabric: dark grey surface: slightly burnished.
84. Orange-cream fabric: colour-coated terra-cotta.
85. Grey core: terra-cotta coating: barbotine scrolls.
86. Mortarium: Stibington style: cream fabric and pale terra-cotta surfaces: studded with ironstone grit.
87. Fragment of a triple vase: cream fabric: smooth surface.
88. Large, late fourth-century mortarium: fabric core is grey, changing to cream towards surfaces: buff colour on outside: studded with ironstone grit.
89. Thick cream fabric: colour-coated dark brown: metallic lustre.
90. Thick pinkish fabric: colour-coated brown: metallic lustre.
91. Thick cream-coloured fabric: colour-coated dark brown: glossy surface.
92. Cream fabric: colour-coated brown: imitation samian, form 38.
93. Cream fabric: colour-coated olive green: metallic lustre.

Group H

From the tangle of ditches, depressions and stones a few feet east of furnace B. None of the pottery was earlier than the late third century.

94. Colour-coated flanged bowl of the late third or early fourth century: cream fabric, coloured terra-cotta: chamfer at the junction of the side and base.

COINS

Two coins were found; both came from the area described in group D.¹

1. *Found in the rubble layer 25 ft. east of the strip-building.*

Tetricus I: c. A.D. 270-3.

Obverse: [IMP C TETRI] CVS PF [AVG]

Bust of Tetricus I wearing radiate crown facing left.

Reverse: Nearly illegible; possibly PAX standing to the left. Well worn.

2. *From the top of the occupation layer 20 ft. south-west of the first.*

Constantine I: A.D. 308-37.

Obverse: CONSTANTINOPOLIS

Helmeted bust of Constantinopolis to the left.

Reverse: Victory on prow.

Mint-mark:

P CONST

Minted at Arelate during the first *officina* (A.D. 330-5). Good condition.

¹ Identification of coins and information about them, provided by Adrian Challands, a young member of the Field Section.

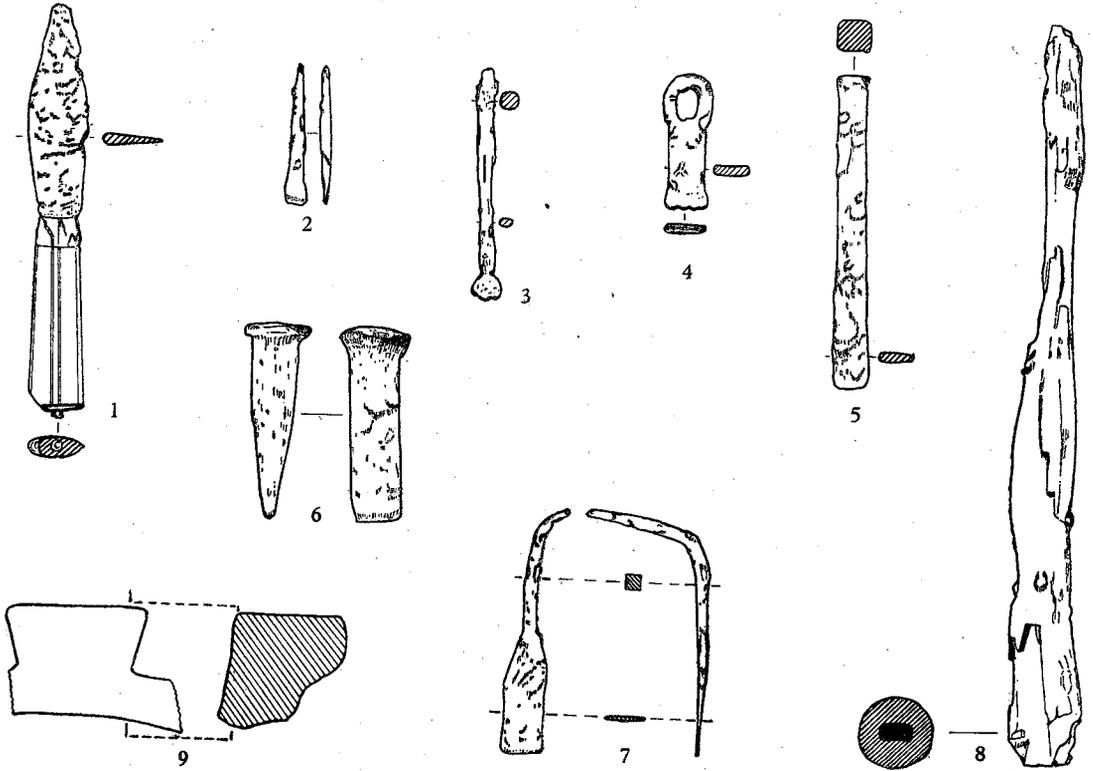


Fig. 9 (third natural size).

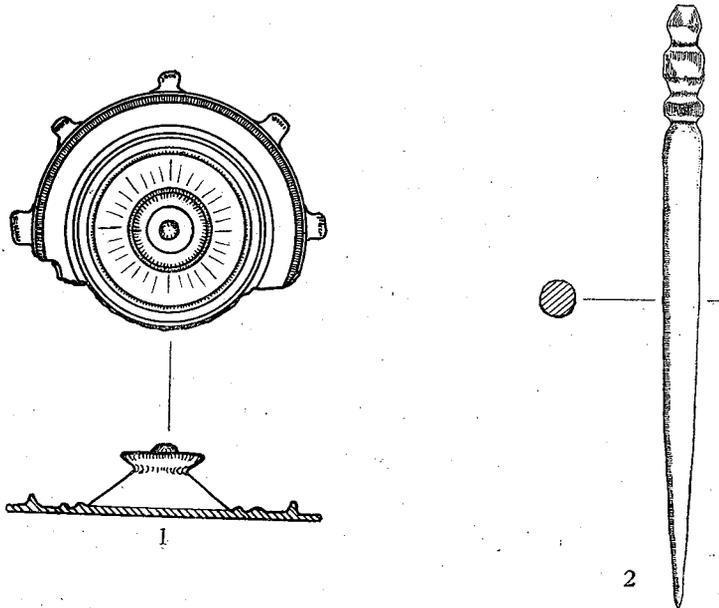


Fig. 10 (natural size).

SMALL OBJECTS

Among the numerous small objects found were bones of pig, sheep and ox; metal implements such as iron chisels and bronze tweezers; portions of several small, lustrous green glass vessels; a few worked flints; a piece of quern, and a fragment of a stone mortar. A small quantity of coal was found in the rubble on the east side of the bath-house.

A few of these finds are illustrated (Figs. 9 and 10).

Fig. 9, 1. Bone-handled iron knife, from the south-east corner of the rectangular building.

2, 3. Iron tools, one with serrated end; the first from the rough stone floor east of the building, the other from the area of furnaces A and B.

4, 5, 6, 7. Iron chisels, from the bath-house area.

8. Iron lance or spearhead, from the ditch west of furnace A.

9. Plan and section of a fragment of a fine-grained stone mortar, from the bath-house area.

Fig. 10, 1. Bronze disc-brooch (probably), from near the stokehole of furnace B.

2. Bone pin, from the area of group D.



(a) Furnace A on left, furnace B on right.



(b) Tessellated floor from the north.

(Photographs by M. Howard.)



(a) The northern end of the bath-house, showing the threshold (above horizontal pole) and the floor laid in Period II.



(b) The bath-house from the north-west, showing the pier-bases of the hypocaust system, the apse, and rooms I, II and III. Traces of the Period I structure can be seen projecting from below the wall on the right. The internal dimensions of the building are 30 x 10 ft. (Photograph by M. Howard.)

ROMAN GODMANCHESTER

H. J. M. GREEN

PART II. THE TOWN DEFENCES

DISCOVERY

FOR many years the lack of any known remains led scholars to believe that the Romano-British settlement at Godmanchester was unwallled.¹ Recently, however, it has become clear that it was normal for road stations such as that at Godman-

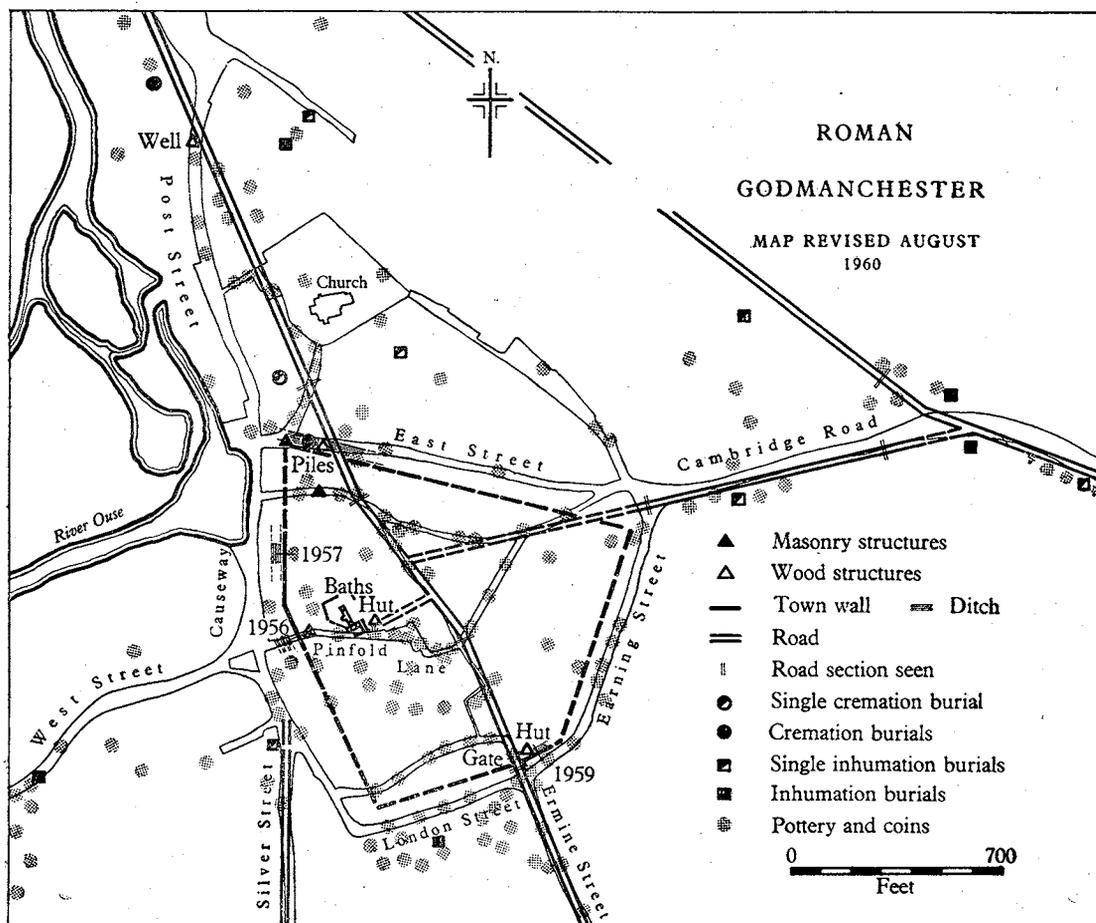


Fig. 1. Town plan.

¹ C. Fox, *The Archaeology of the Cambridge Region* (Cambridge, 1923), p. 177.

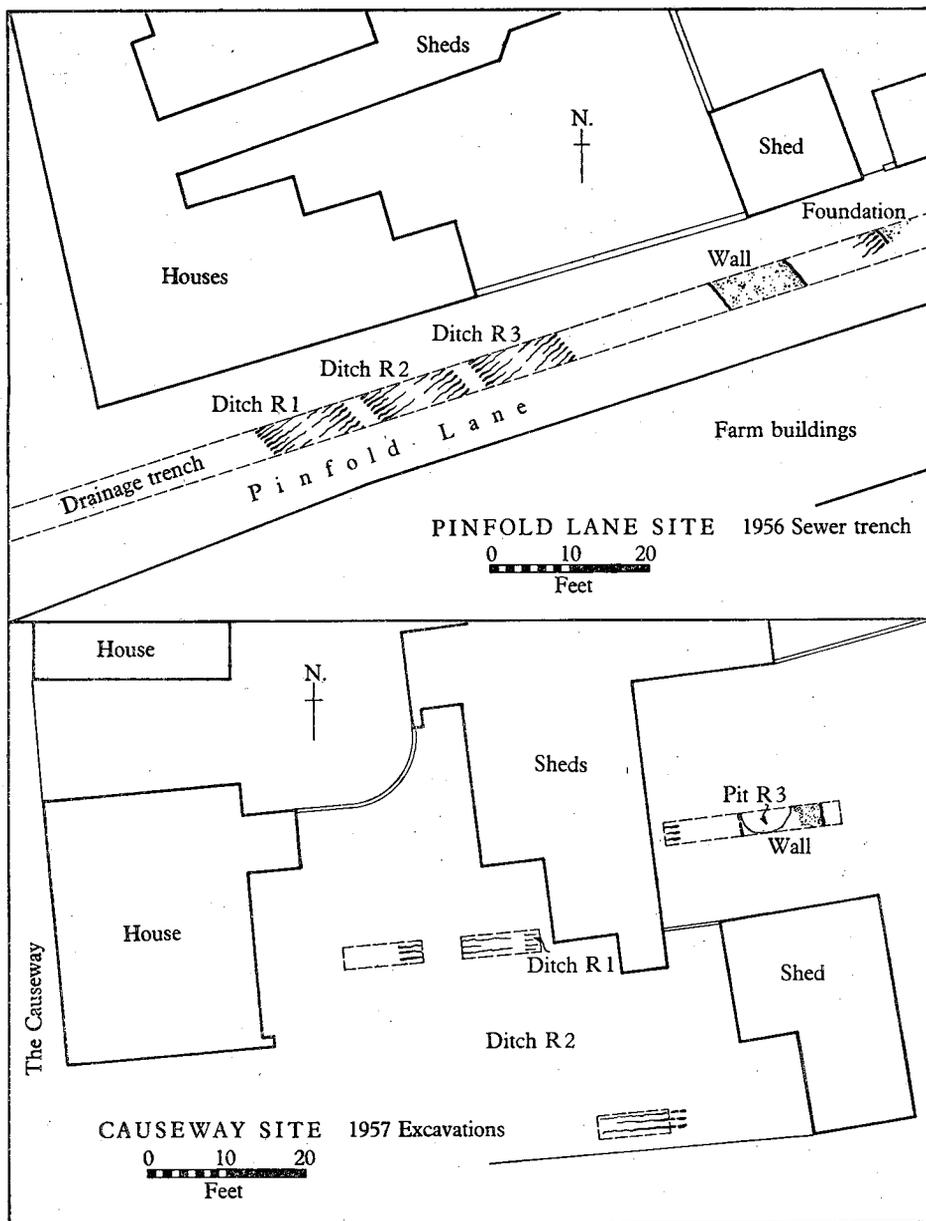


Fig. 2. Site plans.

chester to be fortified during the Roman period. Indeed the Ordnance Survey booklet accompanying the map of Roman Britain (1956 edition) suggested that Godmanchester was a particularly likely candidate for town defences.¹

In 1956 deep sewer trenches were dug around the circuit of the town and at one

¹ O.S., *Map of Roman Britain* (1956), p. 9.

point, in Pinfold Lane, into its centre (Fig. 1; Pl. XIV). The discoveries made during these operations were reported to the late Dr J. R. Garrood who published them in vol. LI (1958), pp. 82-4 of these *Proceedings*. At the time I asked the local newspaper reporter, Mr W. Powell of the *Hunts Post*, to watch the trenches and to record anything of interest. After the work had been completed Mr Powell brought me some Roman pottery and drawings of a complicated series of structures found at the western end of Pinfold Lane. He was uncertain of their significance, but it soon became clear on closer examination that these structures were the footings of a town wall with three ditches in front and a large masonry structure of uncertain character behind (Figs. 1, 2 and 3).

One of the interesting features of the wall footings was their alignment on the rear boundaries of properties facing on to the Courthall and the Causeway. This suggested that excavations across the boundary line elsewhere might reveal further remains of the defences. Accordingly, in the summer of 1957, a small party of volunteers under my direction cut trial trenches across the yard of Mr Mattson and the back garden of Mr R. Boulton. Remains of the wall and a large ditch were discovered, and were briefly reported in various publications¹ (Figs. 1, 2 and 3; Pls. XIV, XV).

In 1959 further excavations were conducted by Mr C. Green on behalf of the Ministry of Works on sites adjoining Piper's Lane and Earning Street. A short stretch of the town wall and part of the Roman south gate were uncovered (Fig. 1). A provisional account of these excavations has appeared in the *Hunts Post* (14 May 1959).

PINFOLD LANE 1956

The site. The drainage trench, 4 ft. wide and about 7 ft. deep, ran down the centre of the road at the western end of Pinfold Lane (Fig. 2). The work of recording the discoveries was done under considerable difficulty, due to the shoring up of the trench sides as the work proceeded. Mr Powell did manage, however, to make sectional drawings at certain points along the trench edge and also to retrieve a few pieces of pottery from the Roman ditches.

At the western end of Pinfold Lane the ground slopes away towards the river with a fall of approximately 1 in. in 10 ft. Beneath the tarmac of the existing street (layer (1)), the metalling of earlier roads (layer (2)) lies in most places directly on the sandy loam of the natural (Fig. 3). At the junction of Pinfold Lane and the Causeway the site is 35 ft. above sea-level (O.S. datum).

The ditches. Unfortunately it was not possible to draw complete sections of the three ditches in front of the wall. Ditch R2 is said to have been about 5 ft. deep and ditch R3 about 12 ft. wide. Both they and the wall foundation are recorded as running parallel to each other and obliquely across the line of the trench. The fillings of the ditches consisted of a dark loam containing pottery and bones. A single piece of pottery was retrieved from the secondary silt of each ditch: a sherd of probably

¹ *Illustrated London News* (16 November 1957), pp. 842-3; *J.R.S.* vol. XLVII (1957), p. 214; and vol. XLVIII (1958), p. 138.

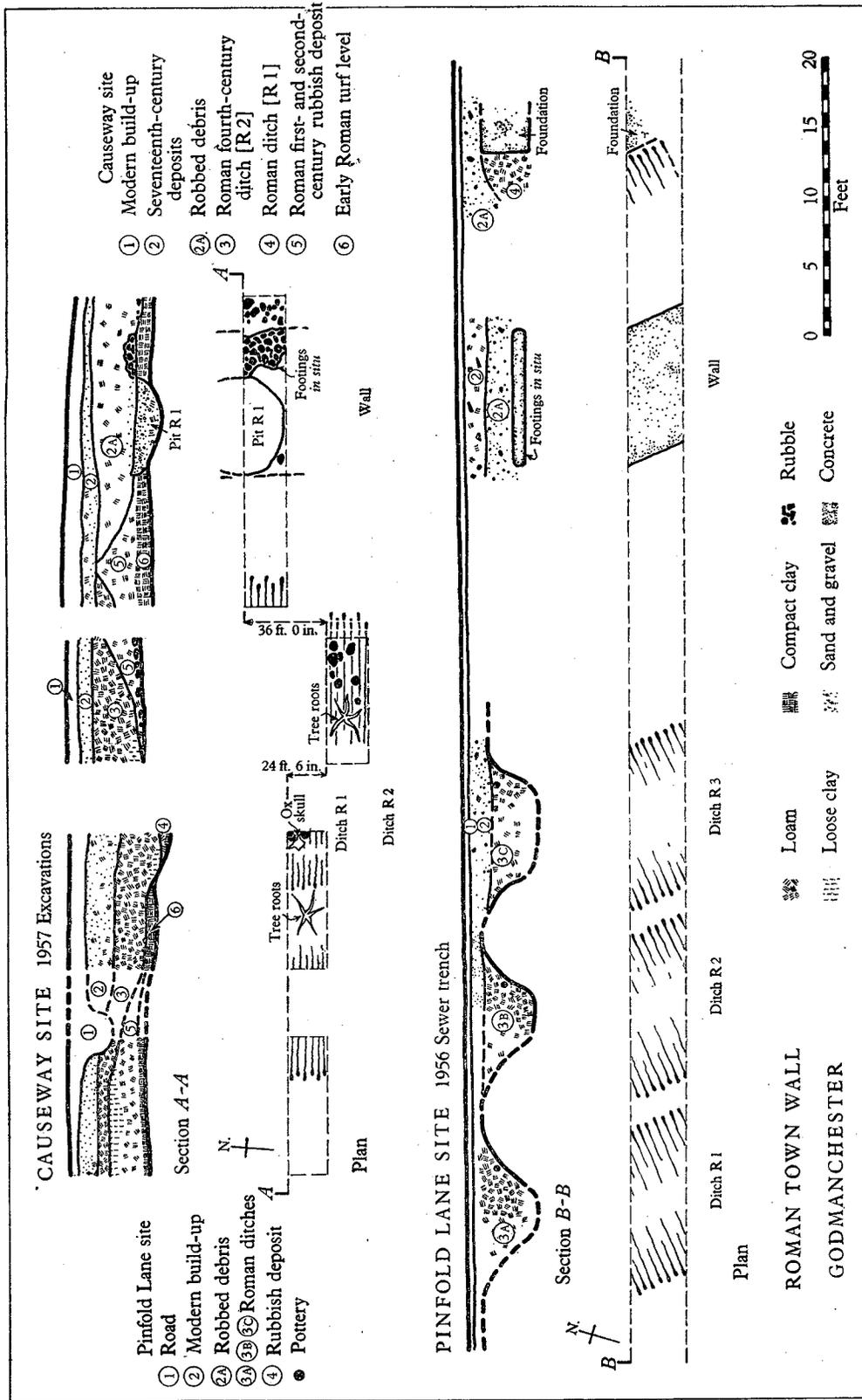


Fig. 3. Plans and sections.

a first or second century A.D. carinated bowl from ditch R 1 (layer (3A), App. II); a second century A.D. jug neck from ditch R 2 (layer (3B), App. II, no. 1); and the colour-coated fragment of a fourth-century jar from ditch R 3 (layer (3C), App. II). The position of sherds nos. 1 and 2 suggests that they were probably derived from adjacent turf and soil which had fallen in from the lip of the ditch. Sherd no. 3 lay near the top of the ditch and may perhaps have been thrown in when the silting process was nearly complete.

The wall. Separated from ditch R 3 by a berm 20 ft. wide were found the footings of the town wall. Dr Garrood described this structure as 'a mass of Roman-type concrete 2 ft. thick at a depth of 5 ft. and 80 ft. from the main road'.¹ Unfortunately, Dr Garrood's information was second-hand, for although the distance from the main road is correct, in other particulars it differs from Mr Powell's description, which is probably the more accurate. Mr Powell described the structure as being of hard concrete, 10 ft. wide, 1 ft. thick and 4 ft. from the surface. Above it lay a deposit of red sandy earth and rubble (layer (2A)) which is probably the filling of the robber trench.

The foundations discovered in 1959 near the south gate consisted of a 10 ft. wide layer of cobble footings capped by mortared flags of Barnack stone to carry the masonry of the wall. Mr C. Green has suggested that the 'concrete' foundation discovered in 1956 is probably the same structure as the flagged platform.

Other structures. Some 12 ft. east of the wall-footings Mr Powell recorded the discovery of a massive concrete structure about 4 ft. 6 in. thick and stretching at least 2 ft. 6 in. along the north side of the trench. On the west side of this structure was a deposit of dark loam (layer (4)) which had been partly removed by the robber trench (layer (2A)). Until the surrounding area can be properly explored, however, it would probably be unwise to speculate about the purpose and character of this structure.

Although the drainage trench continued along Pinfold Lane, no further discoveries were recorded until it reached the site of the Roman bath building, about 150 ft. to the east of the defences.

THE CAUSEWAY 1957

The site. The area chosen for the site of the section across the line of the defences lay on the east side of the Causeway in the backyard of no. 14 and the garden of no. 13. The ground in this vicinity was more open than elsewhere along this side of the town, but even so it was impossible, unfortunately, to make a single cutting through the defences here. A series of staggered trenches was therefore dug approximately at right angles to the supposed line of the defences. The total length of this composite section was 63 ft. 6 in.

At the highest point of the site the ground is about 34 ft. above sea-level (O.S. datum). The gravel subsoil was found at about 6 ft. below the modern surface.

¹ Garrood, *loc. cit.* p. 84.

Phase I

Early Roman turf level. Above the gravel subsoil was a layer of stiff clay (layer (6)), 3–12 in. thick, which probably formed the topsoil during the early Roman period. It contained a large group of pottery, most of which came from the old turf level at the eastern end of the excavation. Nearly all the coarse pottery could be paralleled by forms from the Flavian hut-site in Pinfold Lane. The occurrence of certain early types, however, such as form 12 (App. II, no. 3) and Samian form 24/25 (App. I, no. 1) suggests that the initial occupation of this area of the town may date to the pre-Flavian period.

The rubbish deposits. Over layer (6) was a deposit of dark loam (Pl. XV *c*) varying in thickness between 2 ft. 6 in. and 3 ft. (layer (5)). A pit (R 1) was found beneath the foundation trench of the later town wall (Pl. XV *d*). The date of the pit is uncertain, since nothing was found in it, but it may belong to this phase.

Layer (5) contained pottery and other domestic refuse similar in character to that from layer (6). The Samian ware (App. I, nos. 2–4) belongs to the second half of the first century A.D., with the latest sherd (App. I, no. 4) providing a *terminus post quem* of c. A.D. 100–15 for the whole deposit. The most closely datable forms amongst the coarse pottery were *mortaria* (App. II, no. 4) dated between A.D. 80 and 115 in Northern Britain. Two bronze pins and a bronze slide key (App. III, nos. 1–3) were found near the bottom of the layer. A piece of window glass (type A)¹ was also discovered. The deposit, however, probably continued in use for a much longer period than the *terminus post quem* of A.D. 100–15 might suggest. A very large group of pottery ranging in date from the Flavian to the Antonine period was found in the secondary silting of the fourth-century town ditch (ditch R 2). This pottery was probably derived from the turf and subsoil at the lip of the ditch, and may therefore have come from the upper levels of layer (5).

The character of this deposit suggests that it may have been a rubbish dump, probably situated near the edge of the early town. A somewhat similar dump was found on the perimeter of the early Roman settlement at Verulamium. During the second half of the first century A.D. this part of Godmanchester was probably a lightly wooded area stretching down to the river. It is possible to infer this from the discovery of tree roots and particular types of snails in the vicinity. The snails have been identified as *Cepoea nemoralis* and *Arianta arbustorum*, both of which are normally found in sheltered, damp situations.

Phase II

The town wall. Only a small fragment of the wall was found *in situ*, the rest having been completely robbed during the sixteenth or seventeenth century. This fragment (Pl. XV *b, d*) was the lowest portion of the wall-footings and consisted of Silsoe sandstone and Barnack limestone rubble, tiles and large flints laid in a cream-coloured mortar. The bottom of the foundation trench, which rested on top of

¹ *A.N.L.* vol. VI (1959), p. 228.

layer (6), was clearly traceable and indicated that the footings were about 10 ft. wide here. It is extremely likely that the wall was backed by an earthen rampart, but unfortunately it was not possible to trench this area because of a vegetable garden which lay beyond the eastern end of the excavations.

On the bottom of the foundation trench was found a thin layer of burnt material. A selection of carbon lumps from this layer were collected from beneath the wall-footings and were sent to Mr David Vaughn, who made C-14 tests on them at the laboratories of the Royal Institution. The report of these tests is as follows:

Mr Vaughn has tested the carbon sample and the answer he gets is A.D. 275 with an error (standard deviation) of 45 years. This means there is a 2:1 chance that the true date lies between A.D. 230 and 320, and a 10:1 chance that it lies between A.D. 185 and 365. This of course refers to the counting error only. The effect of other conditions might be to make the apparent age less than the true age, but Mr Vaughn does not think this effect is large enough to worry about.

The ditch. About 26 ft. in front of the wall-footings was found the bottom of a ditch (ditch R 1, layer (4)). Nearly all of it had been destroyed when the fourth-century town ditch was made (Pl. XV a), with the result that only the lowest or primary silting was found. This silting contained a small group of Flavian pottery and one sherd of a late third- or fourth-century colour-coated jar (App. II). If this sherd is not in fact a stray from the layer above (layer (3)), it gives some support for the C-14 date of A.D. 275 for the construction of the defences.

Phase III

The fourth-century ditch. Separated from the town wall by an 8 ft. wide berm was a shallow ditch about 35 ft. wide and, at its deepest point, between 4 ft. and 5 ft. below the late Roman ground level (top of layer (5)). The primary silting consisted of loose loamy clay and above it was a dark homogeneous loam which composed the secondary and later silting.

The ditch silt was full of pottery, which falls chronologically into two distinct groups. As already indicated the earliest of these ranged in date from the Flavian to the Antonine period and may be regarded as rubbish survivals from phase I of the site's occupation (App. I, nos. 5-10, etc. and App. II, nos. 8-16, etc.). The pottery from the second group belongs to the late Roman period (App. II, nos. 17-24, etc.). This late pottery was found at all levels of the ditch and included several sherds from the primary silting (App. II, nos. 18, 20, 21 and 24). Most of these vessels probably belong to the second half of the fourth century A.D., and some of them, no. 20 for example, have close parallels in the late fourth-century deposit at Great Casterton. As a group, therefore, this pottery indicates that the ditch could not have been dug much earlier than the middle of the fourth century.

Phase IV

Robber deposits. The robber trench which had been dug to extract the foundations of the town wall was a wide irregular excavation, backfilled with sandy loam (layer (2A)).

It contained medieval and later pottery. The latest sherds have a dark brown glaze and probably date to the sixteenth or seventeenth century A.D., thus providing an approximate date for the final destruction of the wall in this part of the town.

Later occupation. The top of layer (3) showed evidence of disturbance and contained pottery ranging in date from the twelfth to the nineteenth century A.D. This level was probably the turf-line during this long period. There was a notable absence of Saxo-Norman pottery on this site, which suggests that the early medieval occupation of this area of the town does not date much before the middle of the twelfth century.¹

Sealing both layer (2A) and layer (3) is a thick layer of gravel (layer (2)), and above it a deposit of rubble and earth forming the modern surface (layer (1)). These deposits, and layer (2) in particular, had evidently been put down with the intention of levelling the depression over the fourth-century ditch. It is possible that this may have occurred about 1844 when the level of the Causeway was raised 2 ft. in the vicinity of the town hall.

SUMMARY AND DISCUSSION

On the west side of the town the rear boundaries of properties facing the Causeway appear to have roughly coincided with the line of the Roman town wall, and it seems probable that something similar occurred around the other sides of the pentagon formed by East Street, Earning Street, London Street and Courthall (Fig. 1; Pl. XIV). The Ministry of Works' excavations in 1959 showed that the wall follows this circuit at the south-east corner of the town. The suggested northern limit of the walled area has yet to be confirmed by excavation. In 1956 a ditch which was 10 ft. deep and contained pottery of the first century A.D. was found in East Street.² It ran along the line of the present road between Chadleigh Lane and Orchard Lane, and may therefore have been one of the town ditches. Opposite the entrance drive to Chadleigh House wooden piles 1 ft. square were found in the centre of the ditch³ and may perhaps have supported a bridge where Ermine Street crossed the defences. A mass of concrete was also found opposite Gill's garage at the west end of East Street.⁴ This structure may have formed part of the wall's foundations or perhaps those of a bastion at the north-west corner of the defences.

If the course of the wall as described above may be assumed to be approximately correct, the walls would have enclosed an area of about 20 acres. This is a slightly smaller walled area than that of the Roman settlement at Cambridge which had an acreage of between 25 and 28.⁵ Both towns served predominantly agricultural areas and are in turn considerably smaller than the nearby industrial centre at Water Newton, whose walls enclosed an area of 45 acres.⁶

¹ J. G. Hurst, 'Saxo-Norman Pottery in East Anglia', *Proc. C.A.S.* vol. LI, p. 63.

² Garrod, *loc. cit.* p. 83.

³ Garrod, *ibid.* and information from Mr Barnes.

⁴ Garrod, *ibid.*

⁵ R.C.H.M., *City of Cambridge*, vol. I, p. xxxvi.

⁶ R.C.H.M., *Huntingdonshire*, p. 52.

As in the case of other small towns, the walls were probably built to protect certain important public buildings and installations rather than the occupied area as a whole. Large suburbs did in fact exist along all the roads leading into Godmanchester during the second and third centuries. The extent of these suburbs is probably indicated by cremation burials at Green End,¹ Porch Farm² and Anderson Crescent,³ on the north, south and east sides respectively of the town. In the later Roman period these suburbs tended to shrink and during the fourth century they were replaced by inhumation cemeteries⁴ lying close outside the walls all around the town.

The history of the defences is still uncertain. The discovery of a large early second-century ditch during the 1959 excavations suggests that the walls may have followed the line of earlier defences along at least part of their circuit. The rubbish deposits found in 1957 at the Causeway site indicate that this area was probably used as a garbage dump in the early Roman period. The pottery from these deposits, which antedate the defences, gives only a *terminus post quem* of c. A.D. 100-15 for the construction of the wall. The critical sherd for this dating is a Samian fragment of form 37 (App. I, no. 4). The C-14 date of c. A.D. 275 is more helpful, but it would probably be unwise to accept it as final without further supporting evidence. It seems most likely from analogies elsewhere, however, that the construction of the walled defences probably occurred at the end of the second or early in the third century, when the majority of town walls seem to have been built in Roman Britain.⁵

In Pinfold Lane the wall was accompanied by three steep-sided ditches. The bottom of one of these, probably of that nearest the wall, was also found at the Causeway site. This ditch (and perhaps at least one of the others) was later destroyed when a broad shallow ditch was dug. The pottery evidence indicates that this probably occurred in the middle of the fourth century.

Evidence for a reorganization of town defences at this period is now recognized at many other sites,⁶ and is associated with the construction of projecting bastions to take artillery. A new type of ditch was also required for tactical reasons, and additional berm space for the footings of the bastions. These considerations usually resulted in the filling up of the old ditches and the construction of a new broad shallow ditch some distance in front of them.⁷

It should be stated, however, that no bastions have been recognized so far at Godmanchester and that there are some inconsistent features about the evidence for this fourth-century reorganization, the most notable being the absence of the late ditch in Pinfold Lane. It is clear that these and other related problems can only be solved by further excavation at selected points along the line of the defences.

¹ *Proc. C.A.S.* vol. XIII, p. 282; *Trans. C. and H. Arch. Soc.* vol. v, pp. 446-7.

² *Trans. C. and H. Arch. Soc.* vol. VI, p. 105.

³ Unpublished. Information from Mr C. F. Tebbutt.

⁴ *Ant. J.* vol. VII (1927), pp. 315-19; *Trans. C. and H. Arch. Soc.* vol. v, p. 440; C.B.A. Group 7, *Bulletin* 6, p. 2.

⁵ A. L. F. Rivet, *Town and Country in Roman Britain*, p. 92.

⁶ Rivet, *op. cit.* pp. 94-5.

⁷ P. Corder, 'The Reorganisation of the defences of Romano-British Towns in the Fourth Century', *Arch. J.* vol. CXII (1956), pp. 35 f.

ACKNOWLEDGEMENTS

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APPENDIX I

SAMIAN WARE FROM CAUSEWAY SITE

(Fig. 4)

From the early Roman turf level, layer (6)

1. Form 24/25. South Gaulish. Decorated externally by vertical rouletting. Pre-Flavian.

Other pottery (not illustrated)

Form 18:1.

From rubbish deposits antedating the defences, layer (5)

2. Form 29. South Gaulish. A panel of the upper frieze contains pinnate leaves similar to those used by ARDACUS.¹ C. A.D. 65-75.

3. Form 37. South Gaulish. Upper frieze consists of fan-like plants, similar to those used by L. COSIVS VIRILIS, alternating with animals running over tufts of grass. Cf. with form 37 from Rottweil.² C. A.D. 85-105.

4. Form 37. Style of IOENALIS of Lezouz. Fine beaded border, double bordered ovolo with plain tongue and rosettes. C. A.D. 100-20 (Stanfield and Simpson),³ c. A.D. 115-30 (Mr B. Hartley).

Other pottery (not illustrated)

Form 18/31:2. Form 36:1.

*From ditch R1, layer (4)**Pottery (not illustrated)*

Form 27:1.

From the fourth-century ditch (R 2), layer (3)

5. Form 37. South Gaulish. Cf. no. 3. C. A.D. 85-100.

6. Form 18/31. Central Gaulish. Hadrianic.

¹ Oswald and Pryce, *T.S.* pl. xxxvi, no. 38.

² Knorr, *T.S. from Rottweil* (1912), pl. xxii, no. 3.

³ Stanfield and Simpson, *Central Gaulish Potters* (Oxford, 1958), p. 40.

7. Form 31. Central Gaulish. Hadrianic-Antonine.
 8. Form 31. Central Gaulish. C. A.D. 130-50.
 9. Form 33. Central Gaulish. Mid-second century A.D.
 10. Form 46. Central Gaulish. Median groove on external wall. C. A.D. 140-80.

Other pottery (not illustrated)

Form 27:2. Form 18/31:1. Form 31:5. Form 33:1. Form 46:1.

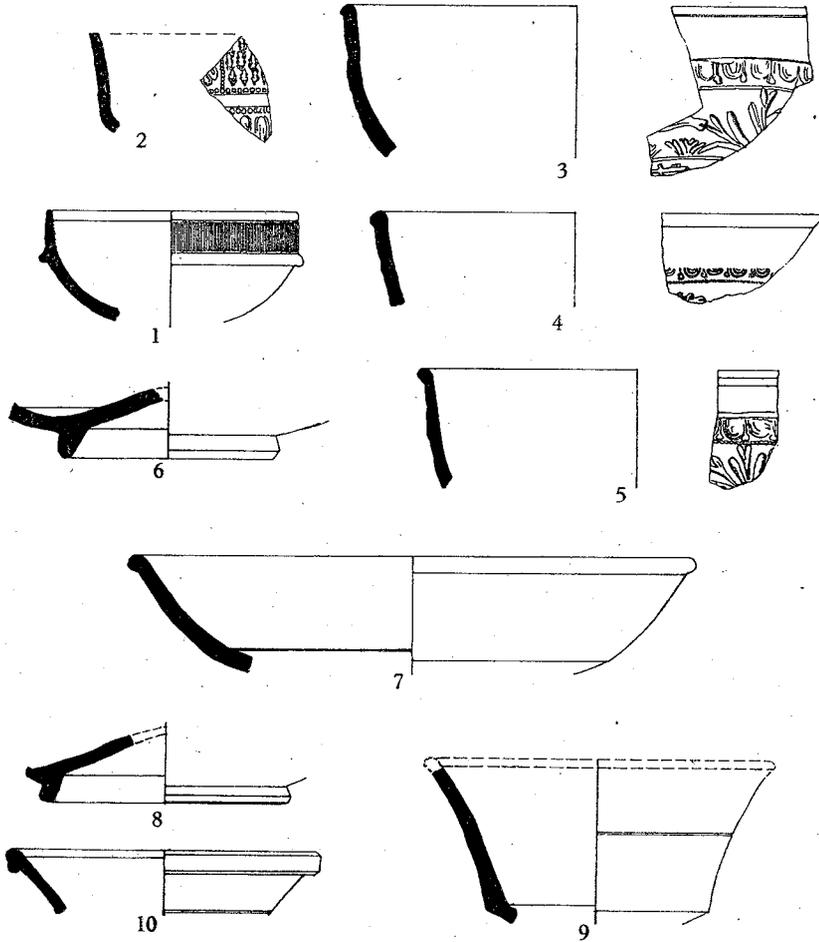


Fig. 4. Samian ware (third natural size).

APPENDIX II

In order to save space, the same form numbers and fabric letters used in part I of this paper to describe the pottery from the Flavian hut-site in Pinfold Lane are also employed here.

COARSE POTTERY FROM PINFOLD LANE SITE

(Fig. 5)

1. Ring-necked jug with top ring more pronounced and flaring than form 32, from which it probably developed during the early second century. F. Cf. Leicester jug type B4 (Trajan-Antonine). From ditch R 2, layer (3B).

Other pottery (not illustrated)

Sherd, perhaps of carinated bowl form 10: E: from ditch R 1, layer (3A). Sherd of jar; greyish pipe-clay with black colour-coat, a fourth-century fabric, cf. nos. 18, 20, 22 and 24; from ditch R 3, layer (3C).

COARSE POTTERY FROM CAUSEWAY SITE

(Fig. 5)

From the early Roman turf level, layer (6)

2. Carinated bowl with cordoned wall, a variant of form 9. Cream core, reddish brown fabric. Cf. with similar bowls from Stocking Close¹ and Salome Lodge.²
3. Bowl, a variant of form 12: D.

Other pottery (not illustrated)

Bowl, form 7c: C. Bowls, form 10: D-1 (small version), E-1. Bowl, form 12 but with cordons instead of grooves on upper part: B. Beakers, form 18a: buff fabric, white slip, brown paint—1, pink fabric, white slip—1. Flask, form 26: B. Cooking pot, form 33c: C. Cooking pot with form 33 decoration: A. Storage jar, form 37: A. Storage jar with form 37 decoration: A. Storage jar with form 33 decoration: A. Storage jars, form 39: B-1, hard pink fabric—1.

From rubbish deposits antedating the defences, layer (5)

4. Mortarium. F-1, brown sandy fabric—1. Cf. Gillam, 240 (A.D. 80-110).
5. Carinated bowl, a variant of form 13: C.
6. 'Poppyhead' beaker: D.
7. Cooking pot, a variant of form 33. Brown fabric.

Other pottery (not illustrated)

Dish, a variant of form 2 with bead rim: E. Dish, form 3: D. Bowl, form 10: B. Bowls, form 13: B-2, D-1. Bowls, form 13a: B-2. Bowl, similar to no. 10: C. Jar, form 22a: E. Beaker, form 25a: D. Cooking pot, form 33c: D. Cooking pots, form 33d: A-1, D-1. Cooking pots, form 33e: C-1, D-2. Cooking pot, smaller version of a form 37 rim: brown fabric. Globular amphorae, 3 handles of round section: F.

¹ *Trans. C and H. Arch. Soc.* vol. v, p. 94, nos. 7 and 8.

² *Trans. C. and H. Arch. Soc.* vol. vi, p. 73, no. 11.

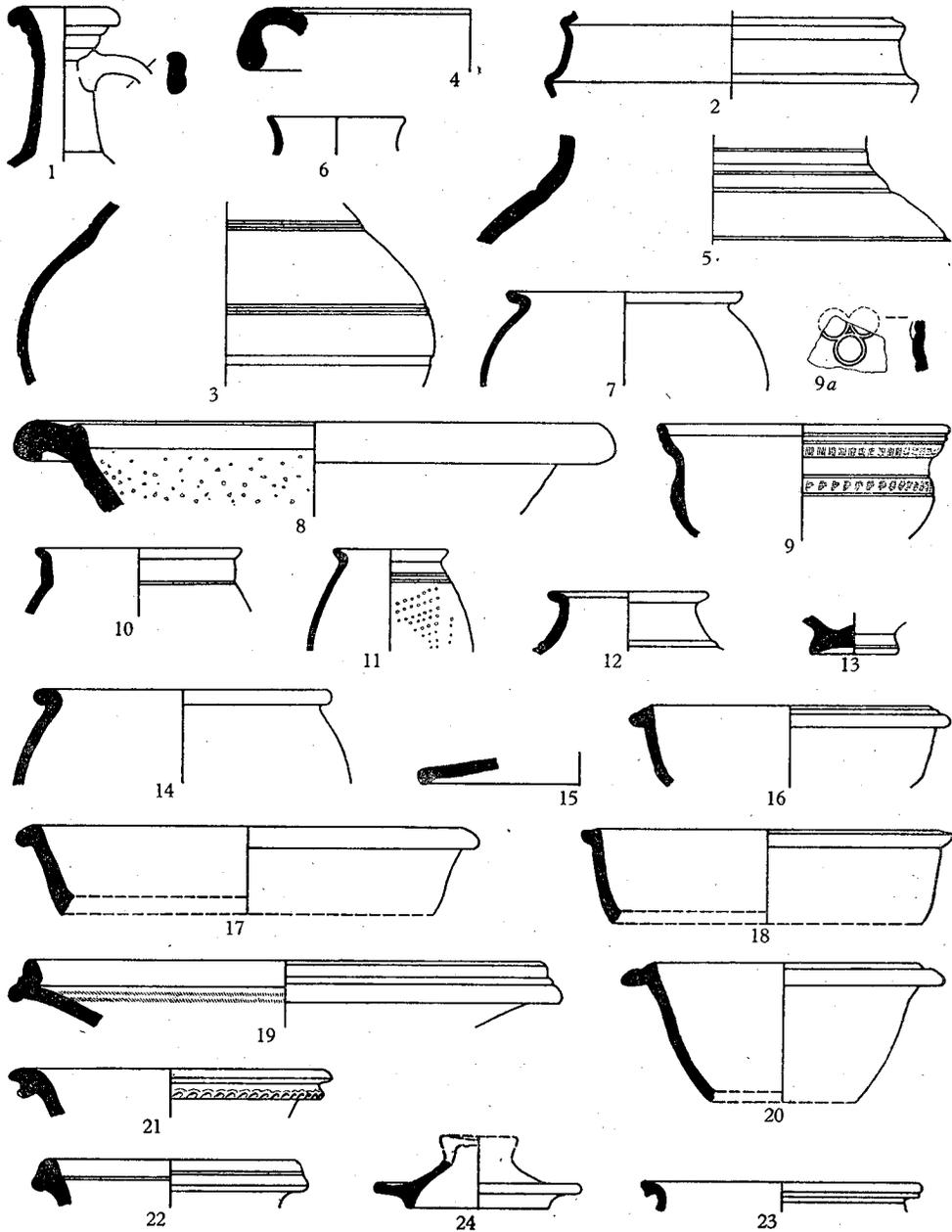


Fig. 5. Coarse pottery (quarter natural size).

From ditch R 1, layer (4)

Pottery (not illustrated)

Bowl, form 13a:D. Flask, form 25 or 26a:B. Jug, form 31:F. Storage jar, form 37:A. Jar base, grey/black core merging to white surface (perhaps badly fired pipe-clay) with a light brown colour-coat: this may be a stray from layer (3).

From the fourth-century ditch R2, layer (3)

EARLY GROUP

8. Mortarium. Buff fabric with white grit. Cf. *Gillam*, 193 (A.D. 130-60), but in different fabric.

9. Bowl imitating Samian form 29. Cf. *Gillam*, 193 (A.D. 70-100). Grey fabric, light brown shelly mica-dusted slip and rouletted decoration. No. 9a (identical fabric) is probably from a similar bowl but with stamped decoration.

10. Bowls with an upright, slightly bulging neck and an everted rim. This is a common local form during the first century A.D., with parallels from the earliest levels at Stocking Close¹ and St Ives² (gully 1). B-1, C-1.

11. 'Poppyhead' beaker. E.

12. Narrow-mouthed jars with cordon at base of neck. A common local type intermediate between forms 13 and 26. B-1, C-1.

13. Pedestal base probably imitating a Samian cup form. B.

14. Cooking pot, a variant of form 34. F.

15. Lids, a variant of form 40b. F-2.

16. Reeded-rim carinated bowl. F. This particular local form, derived from the normal second-century series, may have had a long life in this area. Parallels have been found in second- and fourth-century deposits at the Godmanchester baths³ and at St Ives (hut site).⁴

Other pottery (not illustrated)

Bowl, form 7:C. Bowls, form 13:C-2. Beaker, form 18:C. Beaker, form 21: brown colour-coat. Jugs, similar to no. 1: F-2. Cooking pots, form 33c: B-1 (without ledge), D-1 (with form 34 decoration). Cooking pot, form 33d:A. Cooking pot, form 34:C. Storage jars, form 37b:A-2. Lid, form 40:D.

LATE GROUP

17. Bead-rim dishes. D-2. At Leicester this heavy form of pie dish (type F) was dated to the middle and second half of the fourth century A.D.

18. Dish with 'retroussé' bead rim in greyish pipe-clay with a black colour-coat.

19. Flanged bowl in white pipe-clay with a brown colour-coat. Decorated with rouletting on the inside. Similar bowls were found in the Casterton destruction deposit (after A.D. 375).⁵

20. Flanged bowl in greyish pipe-clay with a black colour-coat. Pieces of this vessel were found scattered over a wide area at all levels of the ditch. This very common form in this area probably belongs to the second half of the fourth century.

21. Bowl with frilled and notched decoration below rim. This type of decoration is found on other fourth-century pottery such as Throlam ware. Buff fabric with a yellow slip.

22. Jar with heavy triangular rim in greyish pipe-clay with a black colour-coat.

23. 'Double' rim jar with grooved neck. D. This common local form (although usually in fabric F) occurred in fourth-century deposits at the Godmanchester baths.

24. Lid in greyish pipe-clay with a black colour-coat. A similar lid of early fourth-century date is recorded from Stibbington.⁶

¹ *Loc. cit.* p. 186, no. 29.

² *Proc. C.A.S.* vol. LII, p. 23.

³ 'Roman Godmanchester', parts III and IV (forthcoming).

⁴ *Loc. cit.* pp. 25-6.

⁵ P. Corder, *The Romano-British Town and Villa at Great Casterton* (1950), p. 36, no. 43.

⁶ B. R. Hartley, *Notes on the Roman Pottery Industry in the Nene Valley*, p. 24, fig. 4, no. 14.

Other pottery (not illustrated)

Flasks in grey fabric, brown slip and white colour-coat decorated with brown paint—3. This is a common form in this area, cf. with complete specimen from Cambridge (Cambridge Museum of Archaeology and Ethnology, no. R 37).¹

APPENDIX III

SMALL FINDS

(Fig. 6)

From Causeway site, bottom of layer (5)

1. T-shaped bronze slide-key with flat perforated handle and round shaft.
2. Bronze pin probably of disc-and-knob head type. The bulbous zone above the existing disc is inlaid with a spiral of silver wire. The pin stem is fluted.
3. Bronze pin with disc-and-knob head. The sides of the square shoulder bear incised crosses.

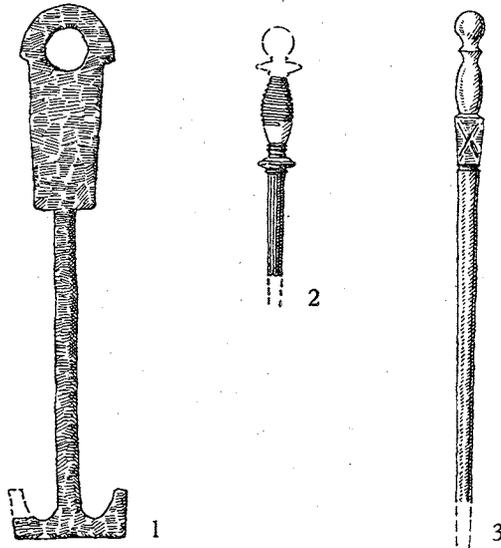


Fig. 6. Small finds (natural size).

¹ *Ant. J.* vol. XXIX (1949), p. 156, no. 21A.

ROMAN CREMATION GROUPS FROM GODMANCHESTER

C. F. TEBBUTT, F.S.A.

ON 27 January 1960 Mr Doherty, Jun., of Godmanchester telephoned me to say that he was finding whole pots while mechanically excavating a trench for a water-main in the back garden of no. 52 Cambridge Villas, Godmanchester. I immediately went over and found this house to be the last council house on the south side of the road to Cambridge, the so-called Via Devana. The actual place in the back garden where the pots were being found was 3-5 ft. from the east boundary hedge, 66½ ft. south of the back wall of no. 52, and 151 ft. north of the end of the garden. The trench was being dug 2 ft. 6 in. deep and the rims of pots could be seen showing on a level with the bottom. One whole pot had already been taken up by Mr Doherty, but all the others subsequently recovered by me were still *in situ* and appeared to be in two groups, 2 ft. apart.

Group 1

This was 3 ft. from the hedge centre and consisted of two vessels. The largest was a badly fired cooking-pot 8 in. high in hard grey ware with black slip and having a lid groove just inside the rim (Pl. XII *a*). This pot contained cremated bones, among which were three nails with burnt wood fused on to them. As there was no sign of the group having been buried in a box the nails probably came from old dry building-timbers used for the pyre. A large stone had been used to prop this pot upright. With this was a 5 in. high Castor-ware beaker set at a higher level so that its rim was on a level with and touching the rim of the larger pot. It was ornamented in grey slip with a pattern of applied dots arranged in the shape of a diamond and repeated four times round the body of the pot (Pl. XII *b*).

Group 2

This was found 2 ft. to the west of group 1. It consisted of a shallow bowl-like pot, 7 in. high, in a central position with three other vessels arranged round it. All had been so placed that their rims were level with and touching that of the central pot, although in the case of the pottery bottle this was lying almost horizontally on its side.

The central pot (Pl. XIII *d*) contained the cremation, that of a child, probably a girl. Among the cremated bones were eight unburnt beads, bluish-green and white. All are of familiar Roman types with the exception of the central double bead (Pl. XIII *a*). Also several pieces of a curious clinker were noticed. These would seem

to be the same as those described by Calvin Wells.¹ In his opinion they resulted from the presence of a thick mass of hair on the head of the cremated body.

To the south was a small white beaker, $3\frac{1}{2}$ in. high (Pl. XIII*c*) which either had never had a slip applied to it or else the slip had been removed by soil action. To the south-east was a small white bowl similarly without slip (Pl. XIII*b*). To the south-west was the handled white bottle $7\frac{1}{2}$ in. high (Pl. XIII*e*).

Group 3

Of this group (if indeed it did consist of more than one vessel), only one pot was recovered (Pl. XII), and this had already been taken out when I arrived. Mr Doherty said that there was another small pot near it completely smashed by the digger. The pot illustrated is $10\frac{3}{8}$ in. high, of coarse ware, light red in colour with no slip, and is of a locally unusual type. It contained a cremation with very thick skull fragments.

Photographs of the pots have been shown to Mr Brian Hartley, F.S.A., who dated groups 1 and 2 to the second half of the second century A.D., but says that the group 3 pot is of a type unknown to him.

All the vessels with their cremations have been returned to Mr Doherty, Jun., but the beads remain in the Norris Museum, St Ives.

I am grateful to Mr Doherty for so promptly telling me of his find, to Dr Bushnell for allowing his museum staff to photograph and where necessary repair the pots, and to Miss Liversidge and Mr Brian Hartley for help and advice in preparing this paper.

¹ 'A Study of Cremation', *Antiquity*, vol. xxxiv, no. 133.

AN EARLY TWELFTH-CENTURY BUILDING AT EYNESBURY, HUNTINGDONSHIRE

C. F. TEBBUTT, F.S.A.

DURING 1960 a range of old buildings at Eynesbury (St Neots), known as the 'skin yard' and once used as a parchment factory, was pulled down by the St Neots U.D.C. to make way for housing development. One right-angled wing of these buildings faced north on to Montague Square and the other west towards the River Ouse. Between this factory and the Ouse is an area known as the Coneygear which was almost entirely dug over for gravel in the nineteenth century or earlier. In the course of this digging finds from the Early Bronze Age to the Saxon period were found,¹ and a small Roman fortified enclosure almost entirely destroyed.²

I thought it worth while, therefore, before the area of demolished factory was again built over, to trench the ground under its floors in the hope that this had escaped gravel digging. Permission readily given by the St Neots U.D.C., and a grant gratefully received from the Ministry of Works, enabled this to be done in the time available.

A single trench was first dug down the centre of the westward-facing wing covering the greater part of its length. Contrary to hopes most of the ground had been disturbed down to or below gravel level before the erection of the demolished building (perhaps about 1820) or its predecessor (perhaps about 1720) of which we found many traces. The only find of note here (in an unstratified context) was the rim of a heavily ornamented St Neots ware pottery bowl with bold thumbprint decoration on applied strips (Fig. 3, no. 4).

The length of the factory wing facing Montague Square was then trenched in similar manner. Here again there had been much deep disturbance by foundations connected with the two building-periods mentioned above. Near the east end, however, these foundations were less numerous and it was here, 2 ft. 6 in. below the skin yard floor-level, that we found enough undisturbed remains of an early building to determine its size and some details of its construction.

Preparation for this building had been made by clearing, down to the top of the natural gravel, a squared area equal to the outside size of the building, in this case about 14 ft. by 9 ft. 6 in. Inside this another squared area 11 ft. by 6 ft. was then dug out a further 9-12 in., leaving on its four sides a step of gravel as foundation for the clay walls.

The remains of these clay walls were nowhere more than 6 in. high, and whereas

¹ *Ant. J.* vol. x, no. 4 (October 1930); Gorham, *History of St Neots* (1820).

² *Camb. and Hunts. Arch. Soc. Trans.* vol. v, part v, p. 266.

those on the south and west sides were about 1 ft. 6 in. thick that on the north was 2 ft. thick. The east wall was very fragmentary, having suffered from later disturbance, and it is not impossible that it was a partition rather than an outside wall (Fig. 1).

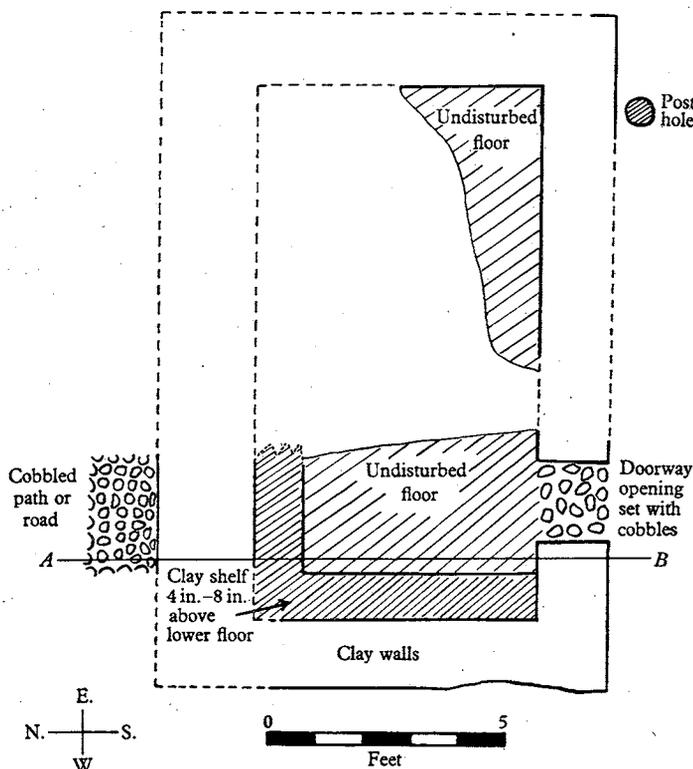


Fig. 1. Plan of the building.

A narrow doorway opening, 1 ft. 7 in. wide, had been left in the south wall and towards the west end of it. In this opening cobble-stones had been set. This threshold was probably about 1 ft. below ground-level and from it a further step down of 9 in. to 1 ft. led to the original floor of the building.

At the east end, where part of the wall remained to a height of 6 in. in places, the higher sections were deeply stained with carbonized wood on the top, perhaps indicating a sleeper beam embedded in the clay wall. The floor had been formed by a thin layer of clay laid over the gravel and tended to sag in the centre of the building. A feature of this floor was a low shelf of solid clay 4-5 in. thick and 12 in. wide running along the edge of the west and at least part of the north walls. On the floor, or a few inches above it, were found bones of pig and sheep and several pottery sherds of St Neots ware dated by J. Hurst, F.S.A., as early twelfth century (Fig. 2).

Above this original floor dirt and dust had accumulated producing a fine stoneless loam 4-9 in. in depth, and at this height a second clay floor had been laid covering the clay shelf mentioned above. This floor was better and more level than the first

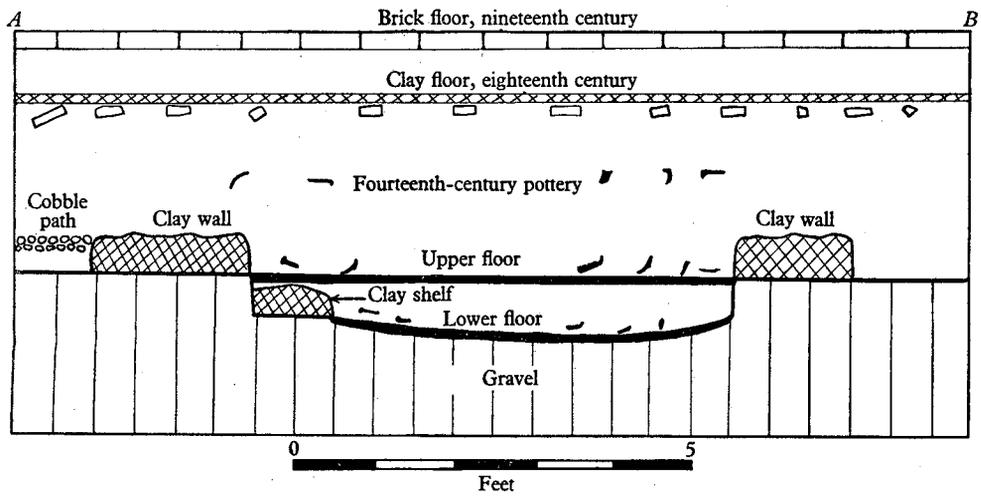


Fig. 2. Section across building.

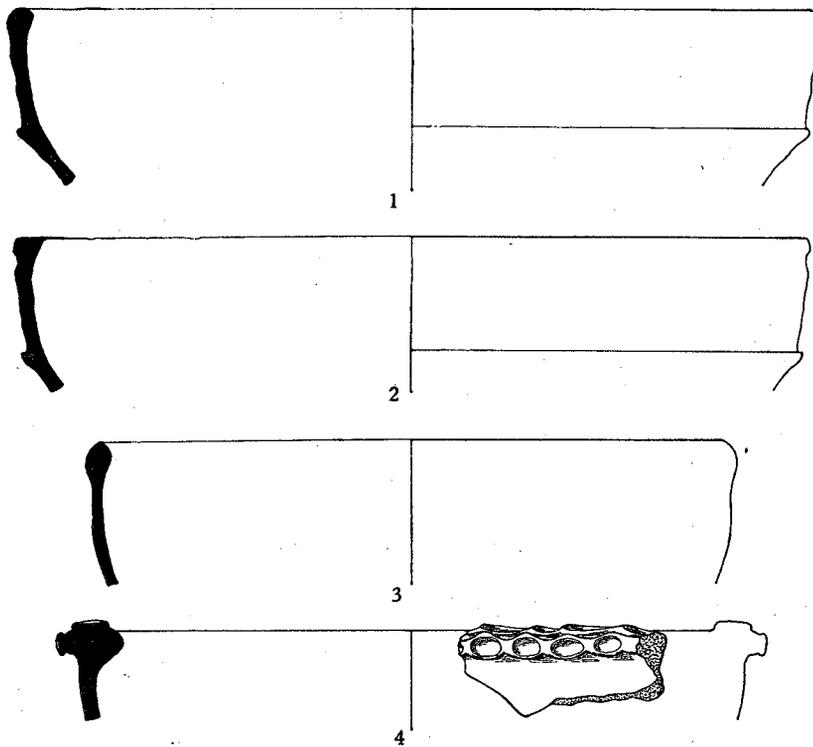


Fig. 3 (quarter natural size).

and parts of it were burnt red and stained with wood ash. On it and in the 4–6 in. of accumulated dirt above it, were more animal bones as well as pottery sherds indistinguishable in date from those of the lower floor (Fig. 3). From this floor came six large rim sherds from three similar and equal-sized cordoned St Neots ware bowls about 20 in. in diameter and of an unpublished type (Fig. 3, nos. 1, 2). An interesting find here was a round ornamental turned bone box-lid, $1\frac{3}{8}$ in. in diameter. The inner side of the lid had been undercut round the rim to form a thread groove which was broken in two opposite places to receive projections on a cylindrical box-rim that could be twisted into the groove to make the lid fast (Fig. 4).

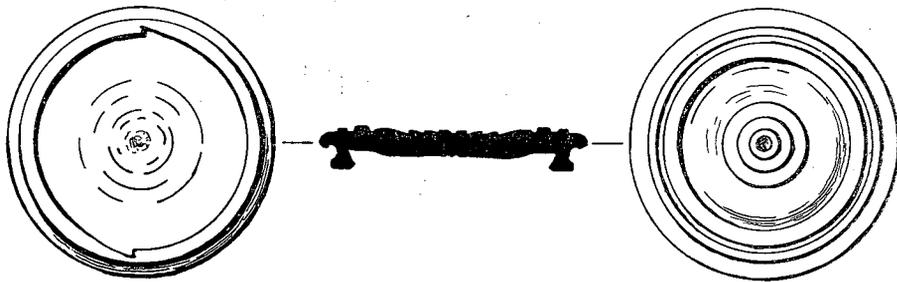


Fig. 4. Bone box-lid (natural size).

At the east end of the building, about 4 in. above the upper floor, were the plainly seen black stain marks of several lengths of squared timber approximately 4 in. wide. Two of these formed an angle and looked as if they had been fastened together rather than had fortuitously fallen in that position. The angle was 54° , exactly that now used for a thatched roof, and it seems probable that the timbers had formed one base angle of a gable end that had fallen when the building became derelict. Only the outside corners at each end of the south wall were available for examination for postholes, and none was found. There was, however, a 6 in. diameter hole along the outside of the south wall 2 ft. from the east corner. Outside the north wall, which faces Montague Square, was a cobble pavement or road running along it at a height of 1 ft. 6 in. above the lower floor-level. It would seem to have been contemporary with the building. Unfortunately its width could not be determined.

Above the upper floor was about 12 in. of soil, all of which, except about 4 in. actually above the floor, was a filling of mixed loam and gravel. In the filling was medieval pottery—some of St Neots ware but also several sherds of hard grey ware similar to that found at Sandon Mount, Herts, and dated by G. C. Dunning, F.S.A., as fourteenth-century.¹

Buildings used by the humble folk of the early twelfth century are almost entirely unknown in this country and therefore any details of their appearance and construction are of great interest. The small interior size of the building (11 by 6 ft.) makes it difficult to believe that it was a dwelling-house, rather than some sort of

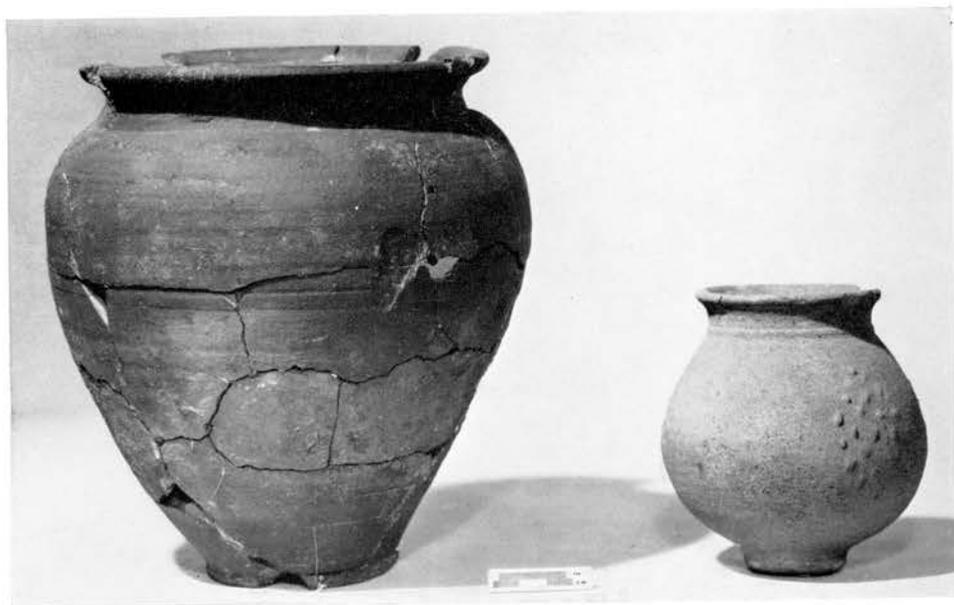
¹ 'Sandon Mount, Hertfordshire', *St Albans and Herts Arch. Soc. Trans.* (1934), fig. 6, nos. 2–4.

store or workshop. I would incline to favour the latter, as there had been a fire and food eaten there, and it was built virtually on the present village building-line facing Montague Square, an ancient open space still called locally the Green. A most interesting feature of its construction is the sinking of the floor into the natural gravel, well below ground-level. This seems to link it with the much more primitive pit huts excavated by me a short distance away at St Neots in 1929,¹ and now thought to be eighth or ninth century. They in their turn can be compared with pit huts of the pagan Saxon period. Indeed it is probable that the fact that part of the building was well below ground-level has ensured its preservation. It would seem that after it became derelict, or at least by the fourteenth century, filling was put in to bring the site up to ground-level. If further building was then carried out on the site all trace of it has disappeared.

The use of clay laid on the top of gravel as a floor surface is common in this district and I have found many examples of it in buildings of St Neots Priory. Indeed the eighteenth-century building on the same site had such a floor. In Eynesbury there still remain two or three thatched cottages with clay walls in which timbers are set at intervals to give stability. In their case, however, the clay walls have as foundation a timber sleeper beam resting on a low foundation wall of bricks and large stones, and the gable ends are supported by corner posts. They would appear to be in the direct line of descent from the twelfth-century building described above, but it would seem likely that soon after that century such buildings were built at ground-level.

Besides those I have already mentioned I should like to thank J. Hurst, F.S.A., for dating the pottery and for other help and advice; also Miss M. D. Cra'ster, M.A., of the Cambridge Museum of Archaeology and Ethnology, for her drawings of finds, all of which will be deposited in that museum.

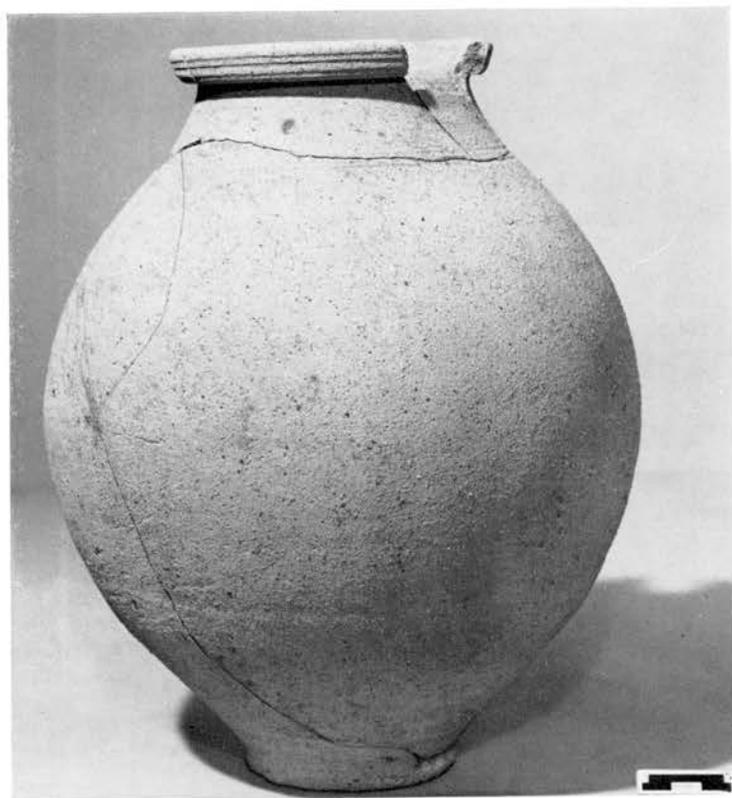
¹ Lethbridge and Tebbutt, 'Huts of the Anglo-Saxon Period', *C.A.S.* vol. xxxiii (1933).



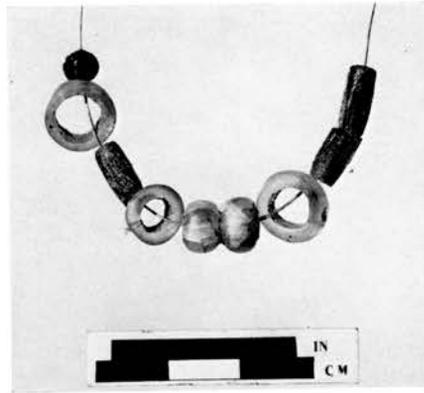
(a)

(b)

Grave group 1.



Grave group 3.

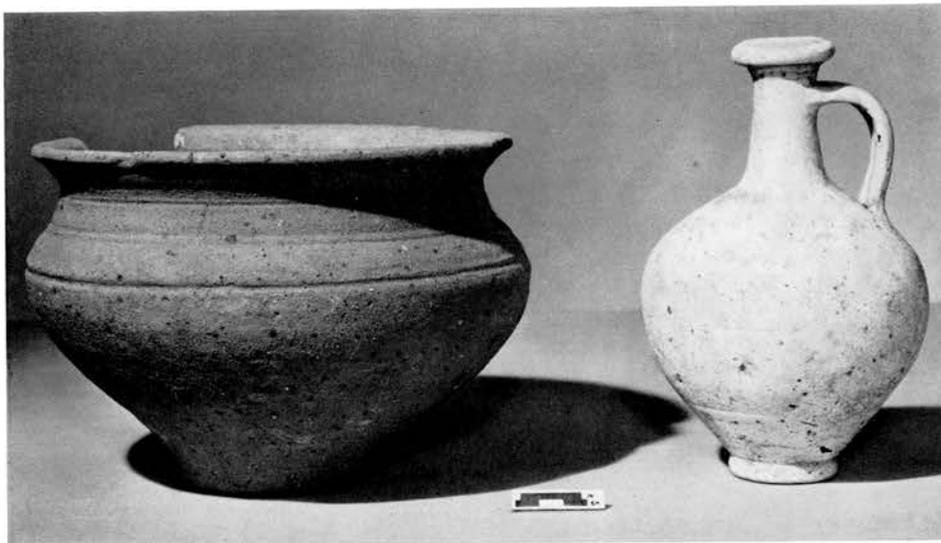


(a)



(b)

(c)



(d)

(e)

Grave group 2.

EARLY MEDIEVAL GODMANCHESTER

H. J. M. GREEN

THE excavations at Godmanchester have produced evidence, both positive and negative, for the topography of the early medieval town. The purpose of this paper is to summarize this evidence and also to publish some further remains of this period found on the site of the Roman baths in Pinfold Lane. The earlier discoveries were reported in these *Proceedings*, vol. LI (1958), pp. 31-4, under the title 'Saxo-Norman Pottery from Godmanchester'.

SAXO-NORMAN OCCUPATION SITES

Saxo-Norman pottery has been recorded from only a few sites in Godmanchester (Fig. 1). The largest group, which was dated to the eleventh and twelfth centuries, was found on the site of the Roman baths. Mr J. G. Hurst has recorded the discovery of St Neots ware in Colney Close.¹ This pottery was in the old Huntingdon Museum collection, which is now at the Norris Museum, St Ives. I have also seen a flanged bowl of St Neots fabric from the medieval town ditch in West Street.

Several flanged bowls, apparently rilled externally, have been found in central Godmanchester, and are published as early medieval by the late Dr J. R. Garrood.² They are very similar, however, to a late Roman bowl form found in this area. The fabric of these Roman bowls is almost identical to St Neots ware, but the latter is never rilled.

Despite extensive trenching, three areas in the town have produced no Saxo-Norman occupation material. The Causeway site, excavated in 1957, was one of these areas;³ another was in the vicinity of the Roman south gate, where excavations were carried out in 1959 by the Ministry of Works.⁴ The third site⁵ was Mr Garner's Paddock, now a private house and garden. Trial trenching carried out here many years ago by Dr Garrood showed that the metalling of the Roman road, Ermine Street, had been dug out prior to the medieval period. Medieval pottery was not found in any quantity nor at any great depth.

The structural remains associated with Saxo-Norman pottery are at present confined to pits, ditches and the robber trenches of the Roman bath building. No early

¹ J. G. Hurst, 'Saxo-Norman Pottery in East Anglia, Part I', *Proc. C.A.S.* vol. XLIX (1956), p. 65.

² J. R. Garrood, 'Late Saxon and Early Medieval Pottery in Huntingdonshire', *Trans. C.H.A.S.* vol. VI, p. 109, nos. 1-3, 8.

³ H. J. M. Green, 'Roman Godmanchester, Part II', *Proc. C.A.S.* vol. LIV, p. 68.

⁴ C. Green, 'The Town Wall of Durovigutum', *Hunts Post*, 14 May 1959. But see postscript to the present article.

⁵ J. R. Garrood, 'Roman Godmanchester', *Trans. C.H.A.S.* vol. V, pp. 441-2.

medieval domestic buildings have so far been recorded. Some twelfth-century masonry was re-used in the parish church of St Mary, but the earliest work *in situ* is dated to the middle or second half of the thirteenth century.¹

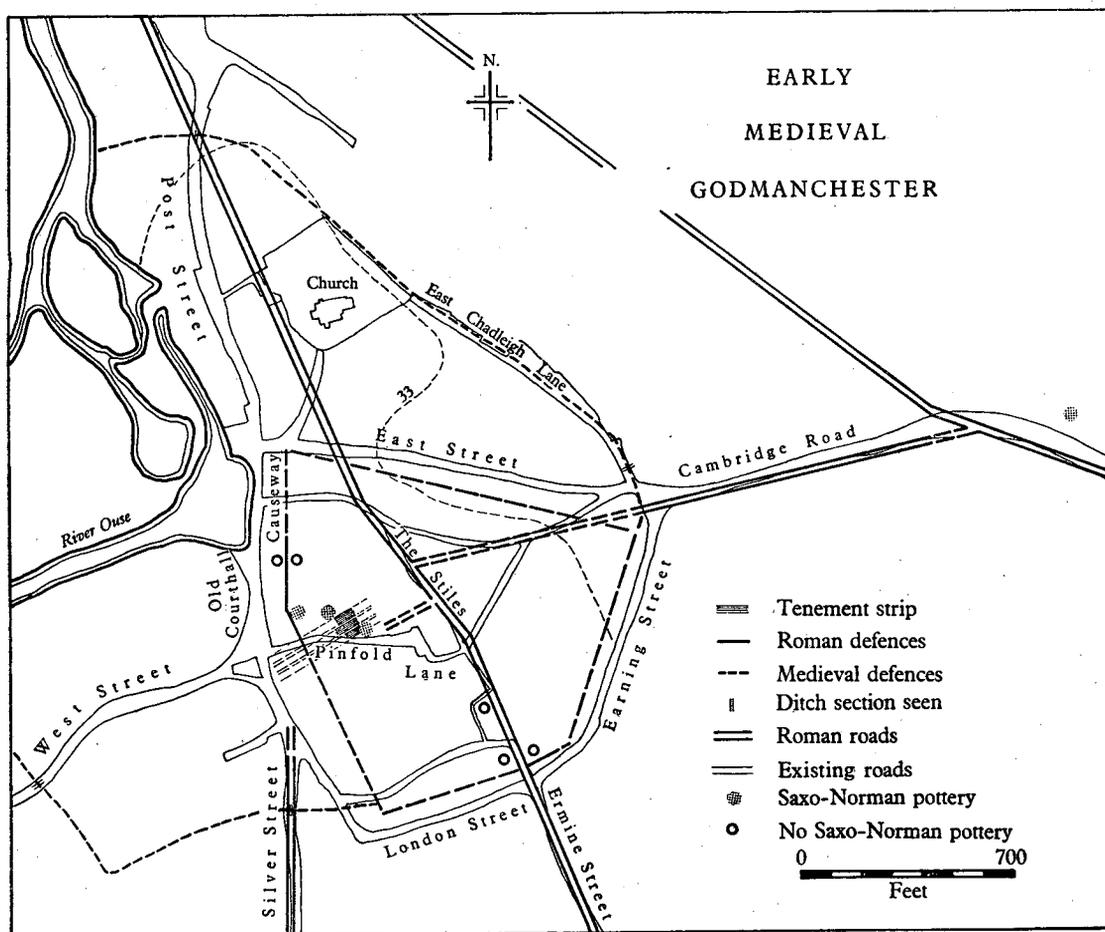


Fig. 1. Town plan.

TENEMENT STRIPS

The character of the Saxo-Norman deposits on the site of the Roman baths is of some interest. The Roman building had been dug out in a series of parallel strips, separated by baulks with an average width of about 5 ft. It seems extremely probable that these strips were tenements and that the baulks lay beneath the boundaries between them. Traces of three strips were found. From the centres of the baulks they were of the following widths: area 1, 25 ft.; area 2, 30 ft.; and area 3, at least 25 ft.

Since the publication of these areas, further pits and deposits containing Saxo-Norman pottery (App. I) have been found. Area 4 (southern section of the drain),

¹ R.C.H.M., *Huntingdonshire* (1926), p. 107.

area 6 (the dry hot room) and pit S 14 all probably lay in the same tenement as area 1. Area 5 (northern section of the drain) and pit S 6 were in the same strip as area 2. Area 7 (part of the eastern boundary wall), area 8 (the changing-room) and pit S 13 may have been in a fourth tenement south of area 6. No boundary strip was found between areas 6 and 8, but it may possibly have been completely dug away on this part of the site. Unfortunately the dating of these various areas and pits, and their relationship to areas 1, 2 and 3 are not clear. The Saxo-Norman pottery from these later excavations is similar to that from other parts of the site, and therefore probably dates mainly to the second half of the eleventh and the first half of the twelfth century.

In most cases the Roman building underneath the boundaries was left untouched, although it is clear that even here the baths had been robbed to foundation level by this period. The weathered condition of the hypocaust *pilae* indicates that these foundations had remained exposed at some period for a long time.

The quantity of early medieval occupation material from this area suggests that dwellings of this period are not far away. The general distribution and density of this material indicates that they probably lay to the west with frontages perhaps along Old Courthall. Pinfold Lane probably did not exist at this period.

THE TOWN BOUNDARY

In 1956 a large ditch, which I believe to have been the medieval town ditch, was located in three places on the outskirts of Godmanchester. On the west side of the town this ditch was found during the drainage operations in West Street.¹ It is said to have been 8 ft. deep and ran towards the river. It contained human and animal bones, together with Roman pottery and the St Neots ware sherd already mentioned. Dr Garrood states that it was discovered west of no. 23, but judging from information supplied by the engineers there seem to be at least two other possible places. The most likely of these is opposite no. 40, where pottery and skeletons are said to have been found. A further ditch section, also 8 ft. deep, was seen in Silver Street.² Dr Garrood does not mention its exact position, but I understand it was found opposite the Baptist Chapel. Both Dr Garrood and the drainage engineers believed that it was the same ditch as that seen in West Street. Connecting these two sites, and running beyond them down to the river, there are a series of field and garden boundaries whose character strongly suggests that they follow the line of the medieval ditch.

Another large ditch, 10 ft. deep, was found at the southern end of East Chadleigh Lane.³ It contained human and animal bones, Roman pottery and glazed sherds. Dr Garrood states that it 'appears to be the old town ditch which still runs across the fields as an open sewer'. It is not clear which of the several field ditches in this area

¹ J. R. Garrood, 'Romano-British Finds at Godmanchester', *Proc. C.A.S.* vol. LI, p. 84.

² Garrood, *ibid.* p. 84.

³ Garrood, *ibid.* p. 83.

Dr Garrood considered to be the old town ditch. I think it probable, however, that it followed an old boundary line curving north-west along East Chadleigh Lane and the north wall of the churchyard, across Post Street and so to the river. At the point where the ditch would have crossed Post Street the drainage engineers said they found dark earth to a considerable depth.¹ They believed it to have been a Roman well, but it may possibly have been the medieval town ditch.

Along its middle section I believe that the medieval defences used the Roman ditch and wall from the northern end of Earning Street round to the west end of London Street. So far there is no evidence of a medieval wall, but it is probable that there was a bank and palisade. The human bones from the medieval ditch may be the disturbed remains of late Roman inhumation burials, of which there were many around the outside of the Roman town.²

THE ORIGIN AND SITING OF THE TOWN

The Roman road from London to York, called in medieval times Ermine or Earning Street, approaches the Great Ouse from the south-east. A low spur of gravel jutting north-westwards from the highland carried a dry route to within about half a mile of the river bend, where fording, and later bridging, was possible. On the slopes of this spur, and confined mostly to within the 33 ft. contour, was built the earliest Roman settlement. Water was supplied by means of an open leat³ brought in from the highland to the south, and probably by shallow wells. It is not certain how closely the river approached the west side of the town during the Roman period. Two other Roman roads joined Ermine Street near the early settlement. The road from Cambridge passed just outside the northern limits of the town, with a branch road to the centre. The other road from Sandy is more difficult to trace, but it probably bounded the west side of the site. During the first and second centuries the town expanded along Ermine Street and these other roads. About A.D. 200, or possibly later, the central area of the town was walled and subsequently, during the fourth century, the town shrank within the defences.²

The general character of the Roman settlement is therefore clear. It grew up at a road intersection, but in order to ensure dry foundations this occurred some distance away from the actual river crossing. This factor probably proved to be a disadvantage later on, and may partly account for the growth of Huntingdon at the expense of Godmanchester during the medieval period.

There is evidence of Romano-British occupation within the walled area until at least the last decade of the fourth century, and there is a strong possibility that some sort of civic life lingered on well into the fifth century. No early Anglo-Saxon cemeteries have been recorded from the immediate vicinity of the town, although a pottery sherd of this period was found on the site of a late Roman inhumation

¹ C.B.A. Group 7, *Bulletin*, no. 3 (1956), p. 2.

² H. J. M. Green, *loc. cit.*, p. 76, fig. 1.

³ H. J. M. Green, 'An Architectural Survey of the Roman Baths at Godmanchester, Part II', *A.N.L.* vol. VI, p. 256.

cemetery along Cambridge Road.¹ Elsewhere in East Anglia early Anglo-Saxon occupation near certain Roman towns has been interpreted as being the result of the settlement of barbarian mercenaries for their protection.² As yet, however, there is no conclusive evidence that this occurred at Godmanchester.

This single sherd of Anglo-Saxon pottery is the only indication of occupation in or around Godmanchester until the late Saxon period. There is a reference to the parish church of St Mary during this period. The church with three hides of land is stated to have been given by King Edgar (c. 969) to the monks of Ramsey.³ This suggests that a small community had already settled at the northern end of the gravel spur, possibly along the future line of Post Street. The other principal nucleus of occupation appears to have been in the area of the Old Courthall, and perhaps extended along the patch of alluvial gravels in the region of West Street. The date of the Saxo-Norman material from Pinfold Lane suggests that this second centre of occupation was in existence at least by the time of the Norman conquest. The absence of Saxo-Norman pottery from the Causeway site may indicate that these two centres were originally two quite separate communities. Both are closer to the river than the nucleus of the Roman settlement and when they eventually joined together the spine of the settlement was formed by the Roman road from Sandy. The evidence from the Causeway site suggests that this occurred not earlier than the middle of the twelfth century.⁴ The expansion of the settlement along this road probably resulted in the final abandonment of the Ermine Street route through the centre of the Roman town, although the line survived as a footpath. The metalling of the Roman road in this area had begun to be robbed before the medieval period. A short branch road (now London Street) ran round the outside of the Roman defences and diverted the Ermine Street traffic through the new centre of the town. East Street probably performed the same function for traffic coming along the Roman road from Cambridge. It has been suggested that these developments were brought about by the presence of an early market at Godmanchester.⁵

The archaeological evidence for town growth towards the end of the twelfth century is supported by documentary sources. Under Edward the Confessor the fee farm was rated at £40, under William at the time of the Domesday survey it was still £40, in 1190 it was £50 and in 1212 it had risen sharply to £120.⁶ In 1212 the growing importance of the town resulted in the grant of a charter by King John, which made the town a self-governing manor or liberty.⁷ It was possibly at this period, as at Cambridge,⁸ that the construction of the medieval town defences took place.

It appears unlikely that there was any continuity of occupation at Godmanchester between the end of the Roman period and the late Saxon period. However, there are, I believe, two clues to the origin of these Late Saxon settlers. The first is the suggestion of a mercantile character about the early medieval town. The second is the

¹ *Ant. J.* vol. VII (1927), pp. 315-19.

³ *V.C.H. Huntingdonshire*, vol. II, p. 294.

⁵ *V.C.H. loc. cit.* p. 286.

⁷ *Ibid.* pp. 287-8.

² R. Rainbird Clarke, *East Anglia*, p. 130.

⁴ H. J. M. Green, *Proc. C.A.S.* vol. LIV, p. 75.

⁶ *Ibid.* p. 287.

⁸ R.C.H.M., *City of Cambridge*, vol. I, p. xiv.

status of the inhabitants, who regarded themselves as free sokemen with no bondmen among them, and in 1279 were officially recognized as such.¹

These factors may indicate that Danish settlers formed an important element in the early population of Late Saxon Godmanchester. In East Anglia the marked development of such towns as Norwich and Thetford during the early medieval period has been attributed to the trading activities of Danish settlers.² It has also been noted that the concentrations of free peasants roughly coincide with the areas of intense Danish settlement.³

ACKNOWLEDGEMENTS

I am indebted to Mrs A. Conington, Mr and Mrs B. Conington and Mr W. Fairy for permission to excavate. I am grateful to Mr Barnes, the Resident Engineer, and Mr W. Powell for reporting discoveries found during the course of the drainage operations; and also to Mr C. Green for information about the 1959 excavations. I am also grateful to Mr J. G. Hurst for examining the pottery. Finally, I wish to thank Miss P. Minter, Mr J. G. Wilson and other members of the Huntingdonshire Archaeological Field Group for helping with the work of excavation.

POSTSCRIPT

An important find was made in Godmanchester after the present paper was completed. During further excavations on the site of the Roman south gate by the Ministry of Works in 1961, Saxo-Norman pottery and a single Middle Saxon sherd were discovered.

APPENDIX I

THE POTTERY

(Fig. 2)

Area 4

1. Spouted pitcher, Stamford ware. Buff fabric with a yellow-green glaze.
2. Jar with everted rim, grey medieval fabric.

Other pottery (not illustrated)

Spouted pitcher, Stamford ware with blue-green glaze. Storage jar, Thetford ware. Jar with everted hollowed rim (cf. no. 17, pit S 5), St Neots ware. Angular shallow dish (cf. no. 19, area 3), St Neots ware. Angular shallow dish (cf. no. 15, area 8), St Neots ware. Bowl, grey medieval fabric.

Area 5

3. Deep bowl with rounded inturned flanged rim, St Neots ware. Cf. with bowl from Cambridge.⁴
4. Jar with everted rim, St Neots ware.
5. Storage jar with applied thumb-strip round the rim and down the sides. Thetford ware.

¹ *V.C.H. loc. cit.* p. 288.

³ Clarke, *ibid.* p. 164.

² Clarke, *op. cit.* pp. 165-6.

⁴ Hurst, *loc. cit.* p. 60, fig. 5, no. 40.

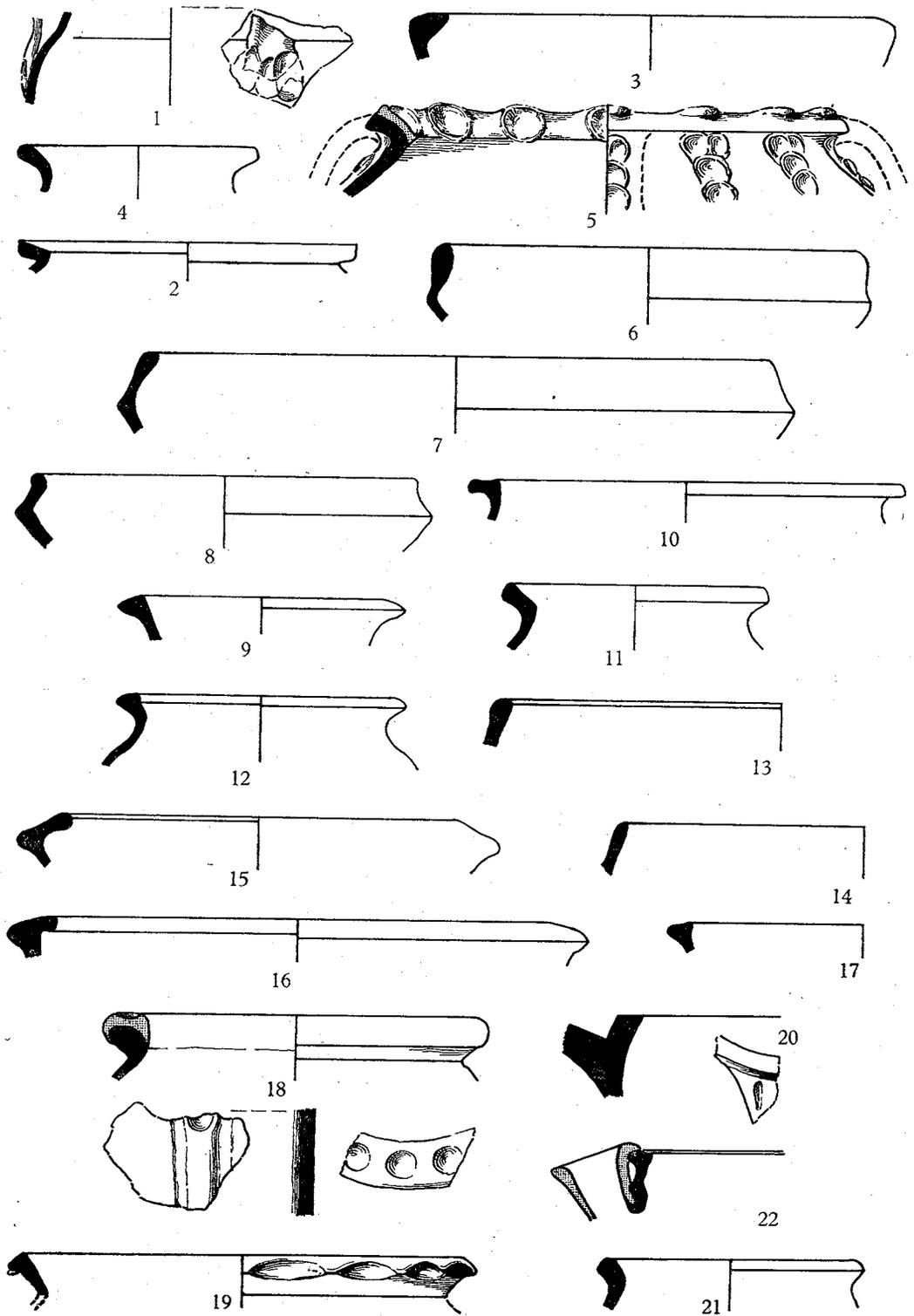


Fig. 2. Saxo-Norman and medieval pottery (third natural size).

Other pottery (not illustrated)

Angular shallow dish (cf. no. 15, pit S 5), St Neots ware. Large jar with everted rim, square outside and hollowed inside (cf. no. 21, area 3), St Neots ware. Large jar with everted hollowed rim (cf. no. 20, area 3), St Neots ware.

Area 6

- 6-8. Angular shallow dishes, St Neots ware.
- 9. Flanged bowl, St Neots ware.

Other pottery (not illustrated)

Angular shallow dish (cf. no. 15, pit S 5), St Neots ware. Large jar (cf. no. 21, area 3), St Neots ware. Jar with everted hollowed rim (cf. no. 1, area 1), St Neots ware. Vessel in red fabric with buff slip and spots of dark green glaze.

The medieval glazed sherd and the nearly upright rims of the dishes (a late feature)¹ indicate a twelfth-century date for this deposit.

Area 7

- 10. Spouted pitcher, Stamford ware. Pink-white fabric with an orange-green glaze.

Other pottery (not illustrated)

Jar with everted rim (cf. no. 1, area 1), St Neots ware.

Area 8

- 11. Jar with everted rim, St Neots ware. Another similar jar was found in this area.
- 12. Jar with everted rim and internal groove, St Neots ware.
- 13, 14. Angular shallow dishes, St Neots ware.
- 15. Angular shallow dish with inturned rim, St Neots ware. Cf. with dish from Paxton² (mid-eleventh century).
- 16. Deep bowl with inturned flange, St Neots ware. Cf. with bowl from St Neots³ (Pre-Conquest).
- 17. Hammer-headed bowl, St Neots ware.
- 18. Storage jar with applied thumb strip round the rim and down the sides, Thetford ware. Cf. with no. 28, area 3.
- 19. Jar with offset at shoulder, hard grey medieval fabric with brown slip.
- 20. Rim and part of handle, possibly from a jug. Hard grey medieval fabric.

Other pottery (not illustrated)

Spouted pitcher, Stamford ware with white fabric, light green glaze and orange spots. Two other glazed vessels, probably spouted pitchers, with pink fabric and an orange and green glaze respectively.

The occurrence of certain early forms in this group (nos. 11, 12, 15 and 16) suggests that this deposit may be Pre-Conquest in date. But nos. 13, 14, 19 and 20 indicate that it was still in use during the twelfth century.

¹ Hurst, *ibid.* p. 53.

² Hurst, *ibid.* p. 66, fig. 7, no. 6.

³ Hurst, *ibid.* p. 67, fig. 8, no. 5.

Pit S 6

21. Jar with everted rim, St Neots ware.

Unstratified

22. Spouted pitcher, Stamford ware. Pink-white fabric with a patchy yellow-green glaze.

Note on pottery fabrics

Stamford ware has a hard thin fabric of a cream colour, often tinted pink. The lead glaze has been applied by dusting galena on the rim and shoulder of the vessel. Thetford ware is hard, sandy and grey. St Neots ware has a black core with pounded shell and a soapy surface. It varies in colour from a light brown to a purple-black.



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Aerial view of Godmanchester looking north-east.
Note excavations in progress on site of Baths (indicated by arrow).



(a)



(b)

(a) Ditch R 2 (3) cutting ditch R 1 (4) containing ox skull and stones (arrow).
 (b) Beneath ditch R 2 (3) lie rubbish deposits (5).



(c)



(d)

(c) Footings of wall and loose rubble in robber trench.
 (d) Pit R 1 (foreground) and footings of wall.

A THIRTEENTH-CENTURY ARCHITECTURAL SKETCH FROM THE HOSPITAL OF ST JOHN THE EVANGELIST, CAMBRIDGE

MARTIN BIDDLE

INTRODUCTION

Medieval architectural drawings, whether detailed designs or merely sketches, are rare in this country. This rarity is certainly due rather to the absence of any contemporary feeling that such drawings should be preserved, than to the inability of medieval builders to make and use such drawings. Formal designs or 'show drawings' were sometimes produced here, but of these very few survive;¹ nor do models of the proposed buildings seem to have been made in this country.² Less formal drawings were however prepared, giving a general idea of the building,³ and sometimes more detailed drawings of single features were produced.⁴ With such, it seems, both mason and client were content at the first stages of the work.

On the site itself the actual laying out of the building on the ground will often have served in place of a drawn plan.⁵ During construction, however, drawings of the various features, from windows⁶ to single sets of mouldings,⁷ were prepared. Frequent references in building accounts to 'tracing houses' confirm the extensive use of such drawings during construction.⁸

These designs and sketches were drawn on a variety of materials: in notebooks⁹ and on sheets of paper,¹⁰ or parchment,¹¹ on specially prepared boards¹² and on convenient stone surfaces in the masons' sheds.¹³ Full-size drawings were worked out on

¹ For an English example cf. the drawing of King's College Chapel tower (see Appendix, p. 107, no. 17). Quite a number still survive on the Continent, see Harvey (1950), ch. II, *passim*. (For abbreviations see p. 106.)

² Salzman (1952), p. 17.

³ None of these seems to exist of an earlier date than c. 1520; but for documentary references to such drawings see Harvey (1950), ch. II, and Salzman (1952), pp. 18-22.

⁴ For example, the pinnacles of the central tower of Canterbury Cathedral (see Appendix, no. 18).

⁵ Salzman (1952), p. 16.

⁶ See Appendix, nos. 2, 4, 5, 7-9, 11-14, 22.

⁷ Pepysian MS. sketch-book (see Appendix, no. 11), f. 20b, 21.

⁸ Salzman (1952), p. 21.

⁹ For example, the continental *Album de Villard de Honnecourt* (ed. H. R. Hahnloser, 1935). No notebooks survive in England, although they are occasionally mentioned in contemporary wills. Cf. Harvey (1954), pp. 46, 187.

¹⁰ The drawing of King's College Chapel tower (see Appendix, no. 17).

¹¹ Pepysian MS. sketch-book (see Appendix, no. 11) has architectural drawings on sheets of parchment cut up to form a sketch-book at a later date.

¹² Glasgow Cathedral (see Appendix, no. 3).

¹³ Byland Abbey (see Appendix, no. 2).

gypsum-plaster tracing-floors in the mason's office.¹ The individual mason kept his more important notes and designs, but after the completion of the building there will have seemed no reason to preserve the great mass of working drawings, and indeed those on wood and stone may already have become part of the building itself.² In a number of cases drawings for an additional feature of a structure were even made on walls and pillars already standing.³

It is worthwhile therefore, in view of the interest and rarity of such drawings, to call attention to a thirteenth-century example from the Hospital of St John the Evangelist, Cambridge.⁴

THE HOSPITAL OF ST JOHN THE EVANGELIST

The site, which is today occupied by the northern part of the First Court of St John's College, was occupied during the Middle Ages by the Hospital of St John the Evangelist. The Hospital was founded about 1200⁵ and appears to have had a chapel or oratory by 1208.⁶ This building is almost certainly that called the Infirmary, the character of which was revealed and recorded only during its destruction in 1863.⁷

About 1267 Bishop Hugh de Balsham granted additional property to the Hospital because of the depreciation of its property, a fire and the 'great confluence of the sick and poor' to the house.⁸ In 1280 the same bishop took the momentous step of introducing into the Hospital 'studious scholars living after the rule of the scholars of Oxford called of Merton'.⁹ Four years later, however, he moved the secular scholars to two hostels outside the Trumpington Gate, adjoining the church of St Peter.¹⁰ It is probably the events of 1267 or 1280 which provide the context for the construction of a large separate chapel for the Hospital. The quire of this new chapel must always have been far larger than was required for the Master and five or six Regular brethren.¹¹ The reason behind the enlargement might therefore be either the 'great confluence' mentioned in 1267 or, perhaps more likely, the influx of 'studious scholars' in 1280, although they were soon to remove to St Peter's.

The chapel thus built consisted of a nave and quire, separated by a central area

¹ None of these is preserved, but see Harvey (1950), p. 30.

² Glasgow and Wells Cathedrals (see Appendix, nos. 3, 10).

³ Castle Acre Priory, etc. (see Appendix, nos. 7-9, 21, 22).

⁴ I am most grateful to the Master and Fellows of St John's College, Cambridge, for permission both to publish this sketch and to quote from Professor C. C. Babington's account of their college chapels; also to Dr G. H. S. Bushnell, Curator of the University Museum of Archaeology and Ethnology (where the stone is now kept, Cat. no. Z.15088), for his permission to illustrate it, and for his help during the preparation of this note. The stone has been illustrated (not very satisfactorily) in C. C. Babington, *History of the Infirmary and Chapel of the Hospital and College of St John the Evangelist at Cambridge* (1874), pl. 9, and in G. G. Coulton, *Art and the Reformation* (1928), at p. 178, where it is incorrectly dated c. 1475, owing to a printing error.

⁵ *V.C.H. Cambridge*, vol. II, p. 304.

⁶ Babington (1874), p. 7.

⁷ C. C. Babington, 'On Some Remains of the Hospital of St John the Evangelist at Cambridge', *Camb. Antiq. Comms.* vol. II, no. 5 (1864).

⁸ *V.C.H. Cambridge*, vol. II, pp. 304-5.

⁹ *Ibid.* p. 305.

¹⁰ *Ibid.*

¹¹ Babington (1874), p. 12.

below a tower.¹ There were seven windows in the quire, three on each side and a large one in the east wall. These windows, those in the nave, the quire arches and several other details were all of early Decorated form of about 1280; only the west window was slightly later in date. All the windows and other details were made of clunch and the walls were 3 ft. thick, except the west wall which was 2 ft. thick.² There is no evidence that the chapel was in any way altered until remodelled and converted to the use of the College in 1516-19.³ At this time all the windows gave place to smaller Perpendicular ones inserted in the original openings.

The chapel as remodelled continued in use by the College until May 1869, by which time Sir George Gilbert Scott had completed the new chapel to the north of the old building. He deliberately chose for his design the Early Decorated style of the old chapel; this he had been careful to verify in the earliest stages of his work by a close examination of the existing remains. Demolition of the old chapel in 1869 revealed far more extensive traces of the thirteenth-century work than had been expected, in particular of the windows. During the demolition of the east wall a block of clunch was recovered bearing on one surface an incised sketch of a window. At the same time the clunch bases of the attached shafts of the east window were found *in situ*, showing that it had been '19½ ft. wide, and certainly not less than 30 ft. high'.⁴

The sketch shows a window of early Geometric type and there seems no reason to disagree with Professor Babington that it represents the east window of the thirteenth-century Chapel, in the east wall of which it was found.⁵ This sketch is indeed the only surviving record of the original window, and must date from before 1516-19 when the windows were replaced. There seems to be no reason why the sketch should have been drawn merely as a record in the fourteenth, fifteenth or early sixteenth century; it can therefore be quite safely regarded as the mason's original design for the construction of the window.

THE SKETCH

(Fig. 1)

The window has been drawn on a block of fine clunch which has been cut down and squared off after the sketch had served its purpose. One edge of the block bears a small part of a moulding, the recesses of which show three layers of colouring: whitewash, black paint and whitewash. The part of the block bearing the left-hand half of the window (as seen in Pl. XVI) has been broken off and lost, possibly in the demolition of 1869. The lower and right-hand sides of the block have, however, been dressed, the latter only roughly; if the lower half of the window was ever drawn on

¹ A full description with plan, *ibid.* pp. 12-28; plan 1; pls. 1-12.

² *Ibid.*

³ Willis and Clark, *Architectural History*, vol. II, p. 291.

⁴ Babington (1874), p. 13.

⁵ *Ibid.*



Fig. 1. The window design redrawn. The spots indicate those surface irregularities which appear to be compass turning-points. Cf. Pl. XVI.

the stone, this dressing has removed it. The back of the block bears traces of mortar, and similar traces can be detected on the face in the incised lines of the sketch. The moulding on the upper edge may be part of a window-jamb; it is, therefore, possible that the block was used in the east window and, if so, the moulding must have been set upright with the drawing thus turned on its side.

If the moulding can be considered as early Decorated, and this seems possible, although there is very little of it left, then the block was clearly incorporated in the *c.* 1280 chapel in such a way as to show that the drawing was already discarded. There is thus little doubt that this sketch dates from the time of the construction of the chapel and that it is a design for the east window. The six lights and three circles indicated by the sketch must have formed the east window, since the north and south windows had only three lights each, while the west window, of which very little remained, seems to have been rather later in style.

The surface used for drawing has been carefully prepared and, though not completely level, it is quite smooth. The sketch has been incised using a pair of mason's compasses; the straight lines were presumably laid off against a mason's square using the compass-point or an iron drawing-needle.

The sketch shows the right half of the head of a six-light window, the centre-line of which would fall just within the surviving area of the drawing. The lower part of the sketch extends just below a line drawn across the window at springing-level: this line is indicated on the drawing by a series of points (A, B, C, D, E, on Fig. 1). It is uncertain whether the lower half of the window was ever shown.

The basic element in the window is a pair of pointed arches carrying a quatrefoil, and covered by a third arch. This basic element is trebled to form the six lights of the window; the heads of the three larger arches thus formed support two circles, one at least, and probably both, containing pointed trefoils. These circles in turn support a circle containing a cinquefoil and the whole is enclosed within the window-arch itself. The spandrels have been left blank on the sketch, but may have been taken out in the finished window, although it is possible at this date (*c.* 1280) that the tracery was cut out of the solid (see p. 106). On the outer edge of the window-arch the mason has sketched in some large, out-of-scale crockets: four on the side and one finial on the point of the arch. These are merely doodles and can have no connexion with the window. The remainder of the surface of the block has on it only a trial for the head of one of the six lights.

A METHOD FOR SETTING OUT THIS DESIGN

Most of the points made by the compasses in setting out the sketch can still be seen and it is therefore possible to deduce a method which may have been used by the mason.

The base-line of the window head at springing-level was apparently laid down first and marked on the stone by points forming eight roughly equal divisions (four are preserved to the centre-line: (A)-B; B-C; C-D; D-(E) on Fig. 1). The arch standing on this base is an equilateral arch,

like all others in the window, and it was therefore described by the compasses from the extremities of the base-line. It is not clear why the base-line was divided into eight divisions; these were not needed to set out the main arch, and although they equal the bases of the arches covering the six lights, they in no way correspond to these in position. It might seem, however, that these divisions were for use when enlarging the sketch for the full-size setting-out of the work. This was sometimes done by proportional means,¹ but it would scarcely have been possible here, where so small a sketch represented such a large feature. They do not seem on the other hand to form a scale, for each division of $13/16$ ths of an inch would represent 2.44 ft.—scarcely a logical system. The scale of the drawing as a whole, however, when compared with the recorded width of $19\frac{1}{2}$ ft. for the window,² works out at exactly 3 ft. to 1 in., a perfectly acceptable ratio.³

The next stage was to divide the base-line into three equal parts (e.g., A'—C'), each to form the base of one of the three equilateral arches covering the pairs of lights. After these had been struck off with the compasses the smaller arches of the light-heads were set out, two within each covering arch, and each on a base equal to one-eighth of the base of the whole window at springing-level. In the remaining space the centre-points of the circles below the intermediate arches were located. This may have been done by setting the mason's square on the centre-line of each arch, and by making the centre-point of each circle equidistant from the light-heads and from the inside of the covering arch. Thereafter the centre-points of the four circles forming the quatrefoils were marked off in positions roughly equidistant from the centre of the larger circles, on the vertical axis of each arch and at right angles to it.

The centre-points of the three large circles in the head of the arch form an equilateral triangle and the circles all have the same diameter. The centre-points of the two lower circles were probably set out from the centre-points of the circles within the intermediate arches. The triangles thus formed are both isosceles and this has the effect of placing the lower of the larger circles in correct relationship to the arches below them. A certain amount of trial and error was probably required to ascertain the correct size of the larger circles.

The lower circles probably both contained pointed trefoils, one of which is preserved. The inner—and incorrect—trefoil has been set out using arcs of the same radius as the inner circle. To construct the trefoil with one lobe vertically upwards, it was only necessary to draw the first arc with its centre at the lowest point of the circle. The outer trefoil was set out using the same radius but from points nearer the centre of the circle.

The cinquefoil in the uppermost circle completed the setting-out of the window. To draw this it was necessary to construct a regular pentagon within the circle, or at least to divide the circumference into five equal segments, which comes to the same thing. The five points on the circumference were then joined to the centre by the five radii marked on the sketch. No trace of the method used to divide the circle into five segments exists on the sketch and this may well have been done to one side on a similar circle using the method in Euclid, Bk IV, Prop. 11. The results thus obtained were transferred to the sketch in such a way that the division between the lowest lobes lay on the vertical axis of the window.

In the five segments points were then selected equidistant from the centre of the circle and lying on the (imaginary) bisector of each segment. From these five points equal arcs were struck off forming lobes in each segment. Finally, the ends of each arc were turned in to form the cusps of the cinquefoil.

Although this method does seem to form a logical sequence and is supported by measurements taken from the stone, it cannot claim to be more than *a* method for

¹ Harvey (1950), p. 32.

² Babington (1874), p. 13.

³ Harvey (1953), p. 100, and see Appendix, no. 18.

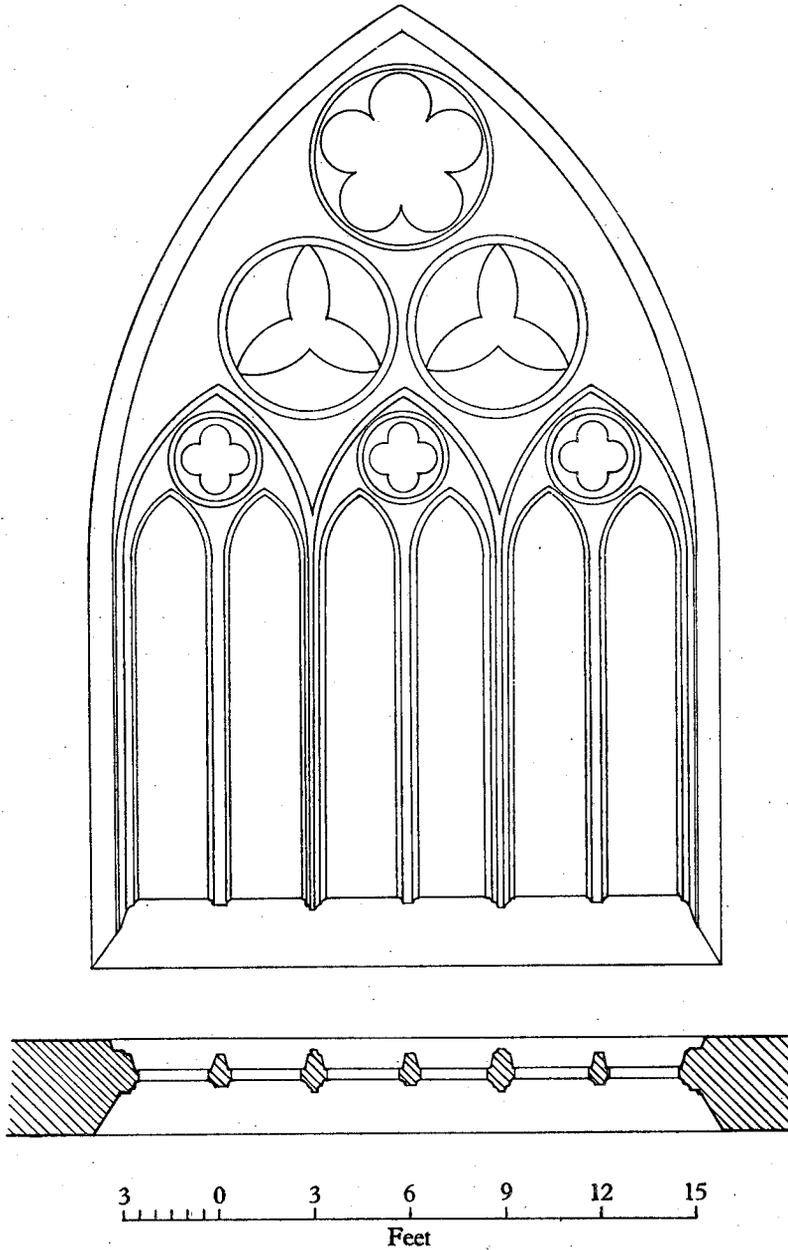


Fig. 2. Outline reconstruction of the east window of the chapel of the Hospital of St John the Evangelist, based on the thirteenth-century design and on measurements taken in 1869. There is no evidence for the treatment of the spandrels and cusps: these have therefore been left blank.

laying out this design. A good deal of trial and error doubtless entered into the mason's work, and, as can be seen from the sketch, he was not always very careful in what he did; in particular his compass did not always maintain the same arc.

OUTLINE RECONSTRUCTION OF THE EAST WINDOW

(Fig. 2)

As a result of this analysis, and because the sketch is the only surviving record of the east window of the chapel, an attempt has been made to reconstruct the whole window using the sketch and the measurements recorded by Professor Babington.¹ No indication of the treatment of the spandrels or cusps is provided by the mason's sketch; indeed at this date, *c.* 1280, the spandrels may not have been pierced or even sunk, though this would seem likely. The reconstruction drawing has not attempted to solve this dilemma and can therefore only be regarded as an outline of the window that once existed.

APPENDIX

A PROVISIONAL LIST OF MEDIEVAL ARCHITECTURAL DRAWINGS IN THIS COUNTRY

This list does not pretend to be exhaustive, in particular many more examples of designs on stone and wood could probably be found. The writer would be glad to hear of further examples so that a definitive list may be compiled. Only drawings that can fairly certainly be connected with the design stage of building works have been included; later views and post-construction plans and drawings have been omitted. An exception has been made in the case of the two water-supply plans (nos. 1; 15) which are probably more or less contemporary with the structures they record, but which should not even so be considered as designs. No examples of a later date than *c.* 1500 have been included; the rich archive of Tudor architectural drawings in the British Museum, Cottonian MSS. (Aug. I, i, ii, Supp.; Aug. II, no. 1; Aug. III), will be dealt with by the writer in detail at a later date. Full-scale drawings set out on the stone actually to be cut (e.g. R. Willis, 'On the Construction of the Vaults of the Middle Ages', *R.I.B.A. Trans.* vol. 1, pt. ii (1842), figs. 6-8) have also been omitted. Two lead templates used for drawing full-scale mouldings, probably of fourteenth-century date, have been found at March, Cambridgeshire (*Proc. C.A.S.* vol. XL (1945), p. 45).

ABBREVIATIONS

- Briggs (1927). M. S. Briggs, *The Architect in History* (1927).
 Coulton (1915). G. G. Coulton, 'Medieval Graffiti, especially in the Eastern Counties', *Medieval Studies*, no. 12 (1915).
 Coulton (1928). G. G. Coulton, *Art and the Reformation* (1928).
 Harvey (1946). J. H. Harvey, *Henry Yevele* (2nd ed. 1946).
 Harvey (1948). J. H. Harvey, *Gothic England* (2nd ed. 1948).
 Harvey (1950). J. H. Harvey, *The Gothic World* (1950).
 Harvey (1953). J. H. Harvey, 'Early Tudor Draughtsmen', *The Connoisseur Coronation Book* (1953), pp. 97-102.
 Harvey (1954). J. H. Harvey, *English Medieval Architects* (1954).
 Salzman (1952). L. F. Salzman, *Building in England down to 1540* (1952).

¹ Babington (1874), p. 13. These are given in a rather more definitive form in Willis and Clark, *Architectural History of the University of Cambridge*, vol. IV, no. 21 (fig. 15 of St John's College).

A THIRTEENTH-CENTURY SKETCH

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No.	Building	Date	Subject	Original ref.	Reproduced
1.	Canterbury Cathedral	c. 1165	Water-supply	Trinity College, Cambridge, MS. R 17. 1, ff. 284b-286	M. R. James, <i>The Canterbury Psalter</i> (1935), pp. 53-6; ff. 284b-286
2.	Byland Abbey	c. 1200	West rose window	Salzman (1952), p. 22, n. 7	—
3.	Glasgow Cathedral	Thirteenth century	Crypt vaulting	Briggs (1927), p. 88	—
4.	Hospital of St John, Cambridge	c. 1280	East window of chapel	Present paper, p. 100, n. 4	Present paper, and see p. 100, n. 4
5.	Leighton Buzzard Church	c. 1300	Window	Harvey (1950), p. 34	Harvey (1950), fig. 15
6.	St Augustine, Canterbury (MS. written at)	c. 1300	Panel with ogee tracery	Christ's College, Cambridge, MS. Dd. I. i. Harvey (1950), p. 31	—
7.	Castle Acre Priory, Norfolk	1300-50	Window	Coulton (1928), pp. 178-9	Destroyed before recorded
8.	Gamlingay, Cambs	1300-50	Window	Coulton (1915), pp. 61-2	Coulton (1915), pl. XVI
9.	Offley, Herts	1300-50	Window	Coulton (1915), pp. 61-2	Coulton (1915), pl. XVI
10.	Wells Cathedral	c. 1340	The 'St Andrew's Arches'	Harvey (1950), p. 31; Briggs (1927), p. 88	—
11.	Pepysian MS. sketch-book	1350-1400	Window; mouldings; an exterior	Magdalene College, Cambridge, Pepysian Library, no. 1916	<i>Walpole Society</i> , vol. XIII (1924-5), 1-17; Harvey (1946), figs. 7, 12-14
12.	Whittlesford, Cambs	1400-1500	Window	Coulton (1915), pp. 61-2	Coulton (1915), pl. XVI
13.	Barrington, Cambs	1400-1500	Window	Coulton (1915), pp. 61-2	Coulton (1915), pl. XVI
14.	Mount Grace Priory, Yorks	c. fifteenth century	Perpendicular window	Information from Mr R. Gilyard-Beer	—
15.	Charterhouse, London	c. 1430	Water-supply	MS. in custody of the Master	<i>Archaeologia</i> , vol. LVIII, pp. 293 ff.
16.	St Michael, Cornhill, London	1421	Tower	Overall, <i>Church Wardens' Accs. of St Michael, Cornhill</i> , pp. ix, 199	Overall, <i>op. cit.</i> pl. facing p. 199
17.	King's College, Chapel, Cambridge	Mid-fifteenth century	Tower	B.M. Cott. MS. Aug. 1, i, 3	Harvey (1953), fig. iii; Harvey (1948), fig. 115
18.	Canterbury Cathedral	c. 1493	Pinnacles of tower	Cant. Cath. MS., Ch. Ch. Letters, no. 39 ² . Harvey (1953), p. 100	—

No.	Building	Date	Subject	Original ref.	Reproduced
19.	Westminster Abbey	c. 1500	Pinnacles and merlons of a parapet	Hatfield Maps, B.M. MSS. Facs. 372, vol. II, 13. Harvey (1954), p. 272	—
20.	Westminster Abbey	c. 1500	Tomb for Henry VI	B.M. Cott. MS. Aug. II, no. I.	Harvey (1953), fig. iv; Harvey (1948), fig. 152
21.	Raunds Church, Northants	Unknown	Mouldings	Coulton (1928), p. 178	—
22.	Christchurch Priory, Hants	c. 1300	Geometric window, etc.	P. T. Jones, <i>The Priory Church of Christchurch</i> , p. 24	—



Thirteenth-century design for a window. From the Chapel of the Hospital of St John the Evangelist, Cambridge.

A MEDIEVAL SQUABBLE

J. F. WILLIAMS

CLOSELY associated with Great St Mary's Church, there was from the end of the thirteenth century a guild known as the 'Gild of St Mary'. Though it is sometimes referred to as the guild of the merchants of St Mary, in all probability it was solely a religious guild.¹ It consisted of an indefinite number of brethren and sisters, and its affairs were controlled by an alderman and three or four 'masters', supported by chaplains, summoners and collectors. In answer to the royal writ issued to all guilds in 1388, the date of its foundation was stated to have been 1379,² though a guild of St Mary is known to have been in existence as far back as 1285 or even earlier. It is possible that the guild, like so many others, fell into abeyance during the period of the Black Death, and was resuscitated later in 1379. It was in good repute and most of the leading burgesses of the town seem to have belonged to it, and it apparently remained in continuous existence until the suppression of all guilds and chantries in 1547.

In connexion with this guild there is in the treasury of Queens' College a curious document which throws an interesting sidelight on life in medieval Cambridge. It is a parchment deed, drawn up in the usual letters patent style, and it records the facts of an incident which at the time seems to have caused a considerable stir in town circles. It takes the form of a certificate addressed by the mayor and burgesses of Cambridge, testifying to the truth of certain statements therein related. It is dated 24 February, 4 Edward IV (1465), and to it no less than forty-six seals were originally attached on fifteen tags. At the present day only fourteen of these seals are intact, and of the rest merely an indication of their presence or a few broken fragments remain. They are all of them quite small except the first (now lost), which was that of the mayoralty of Cambridge. The parchment is mutilated in parts, and being much faded is in places difficult to read.

The document begins by setting out in full the names of thirty burgesses who issue the document and vouch for the truth of the facts which follow. They state the existence of a fraternity or guild in the parish of 'Our Lady-beside-the-market' founded in the worship of God, of our Lady, St James and St Christopher, 'for to fynde wyndyng shetes unto all pore folk, in special unto straungers that beth not of power for to be buried with ther own goods'. This emphasizes the charitable nature of the guild, which as Miss Bateson pointed out was by no means a trade guild.

They go on to state that 'at that tyme' (apparently shortly before 1465 when the

¹ For a full account of the guild see *Cambridge Guild Records*, Mary Bateson: C.A. octavo series, no. xxxix (1903).

² See H. F. Westlake, *Parish Gilds of Mediaeval England* (1919), p. 139.

deed was drawn up), Robert Garland, draper, was the alderman of the guild, and Robert Palmer and Custance his wife were members. This Robert Palmer 'by the help and favoure of his freendes'; had been chosen to be one of the wardens, but unfortunately when the time came for him to present his year's account he was not able 'to deliver his part of the goods of the seid gylde that were in his hands', amounting to the sum of 19s., whereupon Robert Garland, the alderman, and the masters of the guild sued Palmer in the mayor's court. On his appearance there he seems, 'of malice tofore the maier', to have applied for surety of peace from the alderman and all the members of the guild, apparently counterfeiting alarm. The mayor, however, urged him to forgo this, considering that Palmer was in no danger of bodily harm, though possibly of malice, and issued the surety only against Garland, and Palmer found himself in prison for the debt.

His wife then came to the rescue and by laying in pledge with John Say, a fellow member of the guild, 'a gowne of murrey furred with conies grey', obtained the 19s. and Palmer was released from prison. Later on Say naturally wanted the pledge redeemed, but Palmer refused to do this, and after 'many and grete dilayes', Say was forced to take action in the Chancellor's court¹ 'by fore ye Maier and John Parmenter at that tyme beyng the Chaunceller's Commissarye'. The gown was officially valued and sold, and Say received back the sum that he had advanced, and the overplus was delivered to Palmer by the officers of the court. Palmer immediately denied the justice of this and countered by accusing Garland in the King's court of having 'spoyled hym of a gowne with a certein summe of money in the trayne of the same gowne, knytte in a kerchief'. What the result of the case was is not stated, and we are left in the air.

Obviously the document was drawn up in defence of Garland and the guild, and (after the examination of twelve other burgesses, whose names are given) the concluding clauses are as follows:

for the more credence to be given to the present writing, I, Robert Coope, Mayor of the town of Cambridge have...duly examined [12 burgesses, named] and they have deposed upon a book that all writing above rehearsed is good and true. In witness whereof to this our present writing, as well the seal of the office of the mayoralty of the Town of Cambridge as the seal of all other persons above rehearsed severally are set, in witness of the premises and unto the declaration of the truth. Written at Cambridge the 24 day of February, the year of the reign of King Edward the 4th, after the conquest of England the fourth.

It may have been a storm in a teacup, but it certainly seems to have created quite a stir in municipal circles to bring forth such a fully attested document as this. Though why it has been preserved in the Queens' treasury must remain a mystery.

¹ For the Chancellor's court see Arthur Gray, *The Town of Cambridge*, p. 57.

APPENDIX

The names of the thirty burgesses who issue the writ

John Erlyche	Thomas Bradwey
Thomas Blakeman	John Bedford
Thomas Rege, weaver	John Smyth, wexchaundeler
John Sayer	Richard Brightridge
William Herryes	William Tanner
William Snowe	Herry Denyson
Thomas Deben	John Curteys
Robert Melford	William Stanbury
John Wareyner	John Joyner
William Cooke, draper	William Halley
John Cel. (?)	Robert Sexon
William Castelford	Richard Hilderston
John Bere	John Huchinn
Richard Smyth	Richard Squyer
William Smyth, mercer	Thomas Hakelete

The names of the twelve other burgesses examined by the mayor

William Roger	Thomas Diche
John Cooke (?) summoner	William Godfrey
William Lolworth	Robert Gravele
William Tomas	William Rouncy
John Hayward	Robert Essex
Thomas Mast	John Trumpyngton

Seals

Tag

1. A large seal 1 in. diameter, now lost (the town seal)	1
2. Fragment: fragment: lost: complete, but illegible	4
3. Broken (a shield): complete (W): broken: broken	4
4. Nearly complete: half only (T): lost: fragment	4
5. Complete (? pelican): complete (garb): fragment	3
6. Broken (? pelican): complete (I): fragment	3
7. Lost: fragment: fragment (H)	3
8. Fragment: fragment: fragment: fragment	4
9. Half only: broken (I): complete, but indistinct	3
10. Complete: complete (animal): complete (fleur-de-lys)	3
11. Complete (? a cup): complete (W): lost	3
12. Broken (R): fragment: lost	3
13. Lost: fragment: lost: fragment	4
14. Complete (rose): lost	2
15. Complete (° °): broken and indistinct	2

THE VICTORIA COUNTY HISTORY OF CAMBRIDGE

JOHN ROACH, PH.D.

So far four volumes of the Victoria History of Cambridgeshire have been published. The first of these, which deals with natural history, zoology and the activities of early man, was published in 1938; the second, dealing with social, political, and ecclesiastical history of the county generally, was published in 1948; the fourth, a topographical volume on the Isle of Ely, came out in 1953. Volumes I and II were edited by Mr L. F. Salzman, volume IV by Mr R. B. Pugh, the present General Editor of the series. I shall say no more about those volumes. My concern in this paper is exclusively with volume III, on the city, university and colleges of Cambridge, which appeared in 1959. I did much of the editorial work on this volume and wrote the article on the history of the university which it contains.

The Victoria County History is one of the major co-operative ventures of English scholarship. Dr J. H. Plumb, reviewing volume III in the *Sunday Times* (3 May 1959), remarked: 'And how infamous it is that the Victoria County History, an enterprise without parallel in conception or achievement in the Western world, should go struggling on from hand to mouth, decade after decade. In any other country it would have been handsomely endowed long ago either by public or by private benefaction.'

Into the wider questions of financing and perpetuating the whole *V.C.H.* series it is not my province to enter. However, a few facts on the series as a whole may be of interest. It was begun in 1899; by 1957, the latest date for which I have figures, 119 volumes had been published and six more were in the press. Of the total number of published volumes seventeen had come out since 1945. Since 1933 the management of the whole enterprise has been in the hands of the University of London.

V.C.H. III, *Cambridge* has itself had quite a long history. When it was first projected I do not know, but when I was appointed in 1953 to do some of the editorial work, there was handed over to me a box of slips, containing references to Cambridge and Cambridgeshire in the Public Records, which had been put together in 1908. It can be said then that some work had been projected before the First World War. The direct history of volume III begins in 1935 under the editorship of Mr Salzman. A number of the college articles were written before the war of 1939 and in fact several authors saw their work published over twenty years after it had been written. Such are the difficulties to which collective works of scholarship are exposed. The major articles in the volume are those on the borough and city of Cambridge and on the university; both of them are about 90,000 to 100,000 words long and thus the

length of moderately large books. The city article was undertaken by Miss Cam, and was completed by her in 1951. It was a great piece of good fortune that she undertook the task since she is both a distinguished medievalist and an authority on more modern Cambridge history. Some of her work on John Mortlock, the banker and political manager of the borough, was published in the *Proceedings of the Cambridge Antiquarian Society*.¹ By this time it had become clear that the volume would not be completed very rapidly without special financial assistance. This was provided by generous gifts from the City, University and Colleges in 1953 and 1954. When I started work on the history of the university, both the General Editor and myself were thinking in terms of something quite brief which might be written in about a year. In fact I found that this was quite impossible and the university article grew considerably in dimensions; it eventually took me somewhat over three years to write.

The whole volume was handed over by me to the General Editor at Easter 1957. The process of producing a volume of the *V.C.H.*, particularly an unusually large volume of this kind, is inevitably rather cumbrous. It involves a galley-proof, and two page proofs, together with the necessary 'keying-in' of an elaborate set of illustrations. Consequently, the volume did not appear until the spring of 1959. The general editorial problems involved in harmonizing the work of so many authors were of course considerable. Miss Cam's article is arranged topically: that is to say it deals first with the political and constitutional history of the borough, its officers and its courts. It then goes on to deal with economic history and with topography—bridges, public buildings, churches and chapels, schools and almshouses and so on. My own article on the university deals with its subject chronologically and attempts to tell a unified story, weaving together the different strands in the history of each period. In addition it has appendices on some of the principal institutions like the University Library, the Press and the Fitzwilliam Museum. Thus the two major articles present a great contrast in their method of treatment. The college histories present further diverse features both in length and arrangement, many of which arise from the fact that the volume had been so many years in preparation. As volume editor I received most generous help from many more people than I can name here; I must, however, mention the invaluable assistance given to the whole volume—and most particularly in the criticisms of my own article—by Mr John Saltmarsh. When I look again at the pages of comment he typed out on the history of the university, I reflect on how much worse it would have been without the benefit of his wisdom and scholarship. I must also mention the ready help of the city librarians, Mr Munford and Mr Cave, and their staffs, who were particularly helpful over the history of the Nonconformist communities and of the modern parishes, and who were always most ready to lend a hand when asked.

Two editorial problems which might be referred to here are those of overlapping between articles and of a terminal date for information inserted. Some overlapping

¹ H. M. Cam, 'John Mortlock III, "Master of the Town of Cambridge", 1755-1816', *Proc. C.A.S.* vol. XL (1939-42).

is inevitable; as an example, Miss Cam has quite a long section on the relations between Town and Gown in which she deals with such subjects as police, morals, health, trade and finance. Naturally a good deal of this, seen from the other side, came into the article on the university and that article would not have been complete unless these subjects had been considered. The first problem of course is to make sure that an account given in one place in the volume does not contradict that given in another, at least without some explanation. I remember, for instance, that I had to insert a footnote pointing out that Miss Cam and I had taken a rather different view of the dislocation caused to studies at Cambridge by the Civil War.

The problem of fixing a final date for the inclusion of information was also very difficult, both because the volume was so long in making and because changes were constantly going on. We had to settle different terminal dates for the three main segments of the volume—roughly in accordance with the time at which they were completed: 1951 for the city, 1953 for the colleges, 1956 for the university. We were not absolutely consistent; for instance we noted new heads of houses and new buildings as late as we could, but we did in fact decline to add certain new information which ran later than the limits set. One example is that of the move of the Pepys Library to its new quarters at Magdalene which was not, I think, complete when we went to press. We also excluded schemes which were only aspirations and had not yet been actually realized. We took great care to date our illustrations because for historical purposes an undated illustration is practically useless. If the comparison may be permitted, we were much more consistent here than the Historical Monuments Commission which, in their Cambridge inventory, did not provide a terminal date and did not date their photographs. It might also be mentioned here that the simultaneous preparation of the Historical Monuments Commission volumes enabled us to devote but little attention to architectural history.

The next subject to describe is the sources used by the various authors, the scope covered by their articles and the questions which their work raises for further research. Miss Cam's article seems to me to be a model town history, particularly because it is based on a really thorough command of the manuscript sources. She has been kind enough to let me have an account of some of the main sources which she used and I think that it will be clearest to quote her own words.

I wanted particularly to straighten out the Constitutional History and that meant going for the archives at the Guildhall, really burrowing into the Cross Book for points overlooked by Cooper. It seemed to me that Maitland had been unduly sceptical about the account of the town courts in the statement of 1383¹ and I looked at all the Court Rolls to see how they would fit into that account.

But I know that I didn't look at everything that I should have! Notably some of the stuff at Downing left by Bowtell.

Of later sources the Hardwicke papers in the British Museum were a mine of information or rather of colour, and the scraps of notes in Cole's notebooks. Professor Namier produced an

¹ *V.C.H. Cambs*, vol. III, pp. 52-3.

answer more or less complete to my problem as to exactly when Mortlock sold the town to the Rutlands. He got it from the Beaufort-Pitt correspondence, I think, which had a copy of a letter of Mortlock's own which told most of the story.¹ My great disappointment was the failure to get more letters of his own. I think his family must have destroyed a great deal of material. The Common Day Books helped me to correct some of the statements in Mr Gray's invaluable notes on the Mayors of Cambridge; and the deeds at St John's and Jesus produced some data on the earliest Mayors. I should have liked to complete a list of aldermen, which could be done if anyone cares to work through the Common Day Books for quite a long way back but could not do everything.

Of previous books Atkinson was the most useful after Cooper, and of course the great architectural history of Willis and Clark.

I looked up things at the Record Office—Assize Rolls were, I suppose, most useful.

The collections at the Public Library had some nice scraps of early nineteenth century history. The first public librarian was keen on Cambridge history.

I think that Miss Cam's own account gives a very clear picture of the range of her sources. The Corporation records are of great importance naturally and are supplemented by the Bowtell papers at Downing. The reference to deeds at Jesus and St John's reminds us that these two colleges are the heirs of institutions, the Priory of St Radegund and the Hospital of St John, which go back to a very early period of the borough's history before the coming of the scholars to the town. William Cole Milton (1714-82) left his manuscript collections to the British Museum and they form an invaluable storehouse of information about Cambridge history. The reference to John Mortlock recalls the banker whose bank still stands in Bene't Street, the politician who began as a reformer and ended as the controller of a pocket borough of whom C. H. Cooper said: 'I have no doubt that Mr Mortlock could have made his own footman member for this town, if he had thought proper.'² He is the most powerful, most vivid figure in the history of the town of Cambridge since Oliver Cromwell. C. H. Cooper himself did work which is the foundation of all modern study of borough history. His *Annals of Cambridge* make wide use of the manuscript sources—his *Athenae Cantabrigienses* and his *Memorials of Cambridge* are also very important.

Much of the article on the borough and the city deals with very detailed topographical information which can prove extremely complex to straighten out. Miss Cam quotes an example about the Quaker Meeting-House. Today this stands in Jesus Lane and early accounts describe it as 'over against the gate of Sidney College'. This is now a garden gate in Jesus Lane; was there a gate in Restoration times? All the accounts locate the meeting-house in Jesus Lane, whatever the precise site.³ One or two other points of difficulty in the topographical section were worked through when the article was being finally revised. I knew that there is a Methodist Chapel in Castle Street bearing the date '1914' on its foundation stone. The section on

¹ *Ibid.* p. 74.

² *Report of... Commissioners... to inquire into the existence of Corrupt Practices in the Borough of Cambridge; together with the Minutes of Evidence* [1685], p. 418 (1852-3), xlvi.

³ *V.C.H. Cambs*, vol. III, p. 135, n. 70.

Primitive Methodism mentioned only that there was a Primitive Methodist Chapel in St Peter's Street, built in 1863. The two sites seemed to adjoin one another, but I was not at all clear as to the relationship between them. By working through directories I discovered that the Castle Street Chapel appeared in the 1914 directory in which there are no houses between 35 and 17 Castle Street, whereas in 1913 these houses were all there and were occupied. It also appeared that these houses backed on to the chapel in St Peter's Street. Having got so far I got the city librarian to look in the *Cambridge Chronicle* for me, and there for 20 February 1914 was a report which made it clear that the old chapel in St Peter's Street had been pulled down and a new one built on an enlarged site. Another small point which may have some interest concerned the old fish market in Peas Hill. The article originally said that this 'was still kept in 1951 where it was placed in 1579'. I could remember the fish stalls well enough, but I thought that they had disappeared since this sentence had been written, so I wrote to the town clerk to ask for information. He replied as follows: 'These fish stalls which were usually sited outside the Library were hardly used during the war, and this state of affairs continued after the war. Nothing the Corporation did was responsible for this, merely that the stall holders did not require the stalls. A stall was last used on 5th November 1949 by, I believe, a man called Thurston who sold shell fish.'¹

Another point of detail which Mr Saltmarsh cleared up for us was the fate of the old King's College almshouses in Queens' Lane, which are referred to in Atkinson and Clark, *Cambridge Described and Illustrated*. Mr Saltmarsh established that the building disappeared after 1876 and that the last almswoman received her last payment in 1928. Those facts are very simple but it took a great deal of investigation into the college records to get them clear.²

A great feature of recent *V.C.H.* volumes has been the attention given in them to Protestant Nonconformity. Information about dissenting chapels is often difficult to get, though it is valuable because it helps to build up a picture of a very important section of English social and religious life. Another section on religious history is that dealing with Roman Catholicism. The account of the Roman Catholic parish church is fairly straightforward; an interesting appendage to it is the story of the Roman Catholic Chaplains to the University. This appears in the volume merely as a short paragraph³ but the information contained there was not at all easy to get and was collected only through the help and kindness of Monsignor Gilbey and Mr Evennett. There is nothing specifically on the subject in the University Library, which does not contain the Reports of the University Catholic Association. The story of the return of Roman Catholics to the university is a very interesting piece of modern religious history. Though the religious tests were completely removed in 1871, Roman Catholics had been debarred by their own ecclesiastical authorities from

¹ Letter from Mr Alan H. I. Swift, Town Clerk of Cambridge, 23 December 1957.

² T. D. Atkinson and J. W. Clark, *Cambridge Described and Illustrated* (1897), p. 202; *V.C.H. Cambs*, vol. III, p. 146.

³ *V.C.H. Cambs*, vol. III, p. 138.

attending Oxford and Cambridge in 1867 and the prohibition was not removed until 1895 after the death of Cardinal Manning who had favoured it. The story of Roman Catholicism in the modern university deserves a fuller narration than we could give it here.

At this point it would be natural to go on and discuss the articles on the university. Before doing so something should be said about some lines of research in the history of the city which might be pursued. The main theme which to me needs further elucidation—and I think that Miss Cam would agree here—is the political and economic history of the period since the Reform Bill. Not much is really known about the balance of political forces in the borough after the end of the Rutland–Mortlock ascendancy. It is not very clear how far the degree of economic dependence of the town on the university was altered in the nineteenth century. The city has, as the Historical Monuments Commission has pointed out, a large group of early nineteenth-century houses and terraces. Some of these may have been connected with the new needs of a developing university, but not all of them can be explained in that way. It would be interesting to know, if the necessary material exists, who built them, who lived in them and how far they reflect an expansion of economic life in the town. It would be interesting too to work out the history of the later Mortlocks until the bank passed into the hands of Barclays in 1896; they contain at least one remarkable character in John Frederick Mortlock who was transported.¹ Such are some of the questions which deserve attention.

My own article on the university is far more limited in scope than Miss Cam's. When I began I had no expert knowledge. The question of time was very important. For these reasons I had to confine myself to printed sources, which are anyway very abundant. The university statutes and many other early documents have all been printed in collections like the *Commission Documents* of 1852, *Dyer's Privileges*, Grace Books A to Δ, the sixteenth- and seventeenth-century documents collected by John Lamb and by Haywood and Wright. If anything there was *embarras de richesses* in the way of printed material and I do not think that much material of this type was overlooked. A few manuscript sources were used as well: for instance I was introduced, by Mr J. P. T. Bury, to an interesting manuscript account of the teaching at Corpus under Robert Norgate, who was Master of the College from 1573 to 1587.² As I have said earlier, the work grew in scale a good deal as it progressed. The most difficult problem was that of proportion, which arose from the very first. I dealt but briefly with the Middle Ages, partly because of my own deficient knowledge and background and partly because the history of medieval Cambridge is very obscure and uncertain. As will be seen later I might have been able to do more here if I had started in 1963 instead of in 1953. The narrative does not really come alive until the

¹ For his own account of his experiences, see *Experiences of a Convict, transported for Twenty-one Years. An Autobiographical Memoir*. By an ex-military officer (1865). (I owe this reference to Professor Bruce Dickins.)

² *V.C.H. Cambs*, vol. III, p. 190.

sixteenth century is reached. This is perhaps the greatest Cambridge century until the twentieth, it is full of movement and interest and there is plenty of dependable material.

In fact the weight of my article really falls on the last 250 years. There are a number of reasons for this. My own interests lie pre-eminently in the modern period and there is a great abundance of sources. In addition there was more chance here to make an independent contribution. J. B. Mullinger's three volumes go up to the Restoration and they are still invaluable. After his work ends there was no existing coherent account except perhaps his own little book in the *Epochs of Church History* series published in 1888. Winstanley's books are naturally very useful, but they are not a history of the university in the eighteenth and nineteenth centuries and they do not set out to be. His concern is with vignettes or episodes, not with a general story or a complete picture.

His *Later Victorian Cambridge*, which was brought out after his death, goes up to the new statutes of 1882. After that the road was entirely uncharted. There is of course a first-rate printed source in the volumes of the *University Reporter*, though their bulk makes them difficult to use and they are in every way forbidding as source books. But the information is all there; all that is needed is the patience to dig it out. I did look carefully through and read considerable parts of all the volumes from about 1880 down to 1939. One of the most interesting and valuable parts of them is the verbatim reports of discussions. These really bring people and their problems and prejudices alive in a very vivid way. They are a better source for the pre-1918 than for the post-1918 years. In Victorian and Edwardian days people talked more freely and even made jokes! The wittiest speaker was certainly F. W. Maitland telling the university in a discussion on Compulsory Greek that, if there was much more talk about Humanism, he should propose a degree of Bachelor of Humanities or 'Hum.B.'; or remarking that the natural house for a proposed Women's University, of which the existing women's colleges should be members, was the waiting room at Bletchley Station and its name 'the Bletchley Junction Academy': 'You wait there; but you do not wait there always. You change for Oxford and Cambridge.'¹ Nor in modern times is there any equivalent of the eccentric resident M.A. like the Reverend Dr Mayo, that stalwart guardian of economy in university administration, who must have spoken in most discussions for many years.

The great difficulty in handling the post-1882 period was the necessity both to say something about new buildings, professorships, etc., and to preserve some sort of balanced account of Cambridge life as a whole. We wanted to give as much exact information as possible and yet to avoid a catalogue, though I am rather doubtful whether both these aims were achieved. One part of the modern section which I should like to emphasize is the treatment of the agricultural depression of the 1880's and 1890's in relation to the university and colleges. In 1882 new statutes came into force which made considerable financial demands on the colleges. At much the same time agricultural incomes began to fall until they reached bottom in the

¹ *Cambridge University Reporter* (1904-5), p. 373; (1896-7), p. 751.

middle 1890's. In fact at a time when both the university and the colleges were trying to broaden their work and undertake new educational tasks, their real incomes were falling considerably. It was possible for the work to go on, most probably, only because the salaries of the teaching staff were very low, and in some colleges at least an academic career was possible only for men with private means. I believe that this point about university finances between 1880 and 1914 has not been fully emphasized before, and I think that it is an important one.¹ The only other possible source of money was public funds and they, in the light of Victorian views about public money, were not available.

The university article has a number of appendices, dealing with the Library, the Press, the Fitzwilliam Museum, the Botanic Garden, the Archives, the Insignia and Seals, and the Chancellors. In every case very generous help was given by the institutions concerned. I wrote the article on the Schools and the Library which is at the moment the only complete account of its history, dealing with the developments of this century and the move to the new building. I had the benefit of the invaluable help of Mr J. C. T. Oates, invaluable in particular because his work is overturning the conventional picture of a decayed and moribund institution galvanized into activity by the enthusiasm of Henry Bradshaw. My short article owed to him the information that the Cambridge Library has preserved an unusually large number of its fifteenth- and sixteenth-century books and that the manuscripts which came with the Royal Library in 1715 were in fact carefully arranged and not bundled carelessly away as Luard believed. Mr Oates's own researches have thrown, and will throw, a great deal more light on the history of the Library before 1850.

Of the other appendices I should like to mention the article on the Archives and the list of Chancellors. I was very anxious that there should be in the volume an account of the manuscript sources for university history, more especially because I was very conscious of the shortcomings of my own article on the manuscript side. Miss Peek's book on the Archives will of course give a much larger scale account of them, but I think that Mr Elrington's brief account, in close connexion as it stands with the university history, will continue to be very useful to scholars. Dr Venn assisted both here and with the list of Chancellors, which in the earlier names presents many problems. Dr Venn considered that it was not really possible to get beyond the list given by Tanner in the *Historical Register*, with possible additions from Cooper's *Annals* and the *Alumni*; he thought that the manuscript lists in the archives were useless. I know that Dr Emden in his work on Cambridge scholars before 1500 is working on this same problem and it will be interesting to see what his conclusions are.

As I look back on this work on the university, I am very conscious of things which remain to do or which are being done by other scholars. There is, I think, a place for some such work as Sir Charles Mallet's three-volume *History of the University of Oxford* or at least for something which would carry on from 1660 where Mullinger

¹ For an account of the finances of Oxford colleges during these years, see two articles by L. L. Price in *J. Royal Statistical Soc.* vol. LVIII (1895), pp. 36-69, and vol. LXVII (1904), pp. 585-652.

left off. A scholarly book or books written on fairly broad lines would meet a real need here. On medieval Cambridge the picture has changed a lot since I wrote. We were just too early in finishing to be able to use Father Hackett's discovery of a thirteenth-century collection of Cambridge statutes in a library at Rome. This discovery, which is of the greatest importance, is best described in the words of Professor Knowles's letter in *The Times* of 23 December 1957:

The first item concerns the election and office of chancellor, the last deals with the obsequies for deceased members of the university and their benefactors; full university organization is presupposed, and the faculties of theology, philosophy, and canon law are mentioned. Reference is made to the customary academic exercises: incepting, responding, determining, ordinary and extraordinary lectures, *Vesperiae*, and *Principia*. Interesting details are given regarding terms and hours of lectures, and among other matters mentioned are academic dress, university courts, immunity of scholars, hostels, lecture rooms, and convocations.

The majority of these statutes are incorporated in the extant collections of later date, but this collection, which on internal evidence can be assigned to a date between 1235 and 1272, will make it possible to reconstruct the early organization of the University of Cambridge and to appraise the influence of Oxford and Paris on its development.

It may be added that this collection is probably unique. The earliest collection of Oxford statutes is found in a manuscript of the second quarter of the fourteenth century; indeed it is unlikely that any mediaeval university, not excepting Paris, can cite a manuscript collection of statutes as early as that of Cambridge which has now come to light, and which Dr Hackett is preparing for publication by the University Press.

When Father Hackett's edition appears many of the obscurities of early Cambridge history should be cleared up. The same is also true of Dr A. B. Emden's *Biographical Dictionary of Cambridge scholars before 1500*, which will contain the names of many graduates who do not appear in the *Alumni*. Had my article been able to draw on the work of these two scholars, the medieval section would have been far less insufficient. One small detail which has never been clear to me is when the governing body of the university became known as the 'Senate'. In the early Grace Books graces are granted 'in plena congregatione Regentium et non Regentium', though in Grace Book Δ (1542-89) the 'Caput Senatus' appears, the small body which held such a dominant place in university affairs between the Elizabethan statutes and the mid-Victorian reforms. But I do not know when the term 'Senate' became general. And what of that other very Italian-sounding term 'Syndicate'? The earliest minutes of 'Syndicates' in the Archives date from 1737, but I do not know if the term is older.¹

There are gaps in the modern period too which it would be interesting to fill. There are fragments here and there in many books, but I do not think that anyone has undertaken a serious comparison between developments at Cambridge and at Oxford. The two universities are so alike in their history, their traditions and their modern organization and yet so curiously different in their intellectual atmosphere and in some ways in their influence on the national life. The General Editor of the *V.C.H.*,

¹ The Grace of 21 January 1697-8 on the management of the University Press (Grace Book Θ, p. 428), refers to 'Curatores'; the Grace of 23 November 1737, on the same subject, speaks of 'Syndici et Curatores' (Grace Book I, p. 439); the term 'Curators of the Press' is used even later than this.

Mr Pugh, is an Oxford man and, when he read the modern section of my article, he commented on how interesting it would be to try and compare the developments of the last century or so in the two universities. When we discussed this we agreed that it would be desirable to try and get some comments from an Oxford scholar which might afford the basis for some sort of comparison, however brief. It proved in the end rather difficult to find anyone at Oxford who could do this and, although we did get some advice, it did not seem possible to add anything very significant in the way of such a comparison. Had I tried to look into the Oxford story myself it would have taken up a great deal of time and would further have delayed the progress of the volume. I did not at that time know that Mr V. H. H. Green of Lincoln College was working on his admirable book on Mark Pattison and his circle, *Oxford Common Room*. Had I known this I should have tried to enlist his help, and it might have been possible to add an interesting section to my article. When I was writing this paper I came upon the following extract from G. W. E. Russell's *Half-Lengths*, which struck me a good deal:

Cambridge, probably owing to the character of her special studies, has always tended rather to contemplation than to action. It is not for nothing that Cambridge had her school of Platonists while Oxford was fast bound in misery and iron of Aristotle. It was not without reason that, at the crisis of the stormy forties, Cambridge took Plato for the subject of her prize poem and Oxford took Cromwell. When the religious world in general, and Oxford in particular, was distracted by the controversy about the long-forgotten *Essays and Reviews*, Kingsley thus recorded his observation: 'Cambridge lies in magnificent repose, and, shaking lazy ears, stares at her more nervous sister and asks what it is all about. . . . That is the Cambridge danger—cool indifferentism; not to the doctrines, but to the means of fighting them.' That sentence seems to cut much deeper than the surface of a theological controversy. There are 'doctrines' of vastly greater importance than those promulgated by the Essayists and Reviewers. There are doctrines of ethics and politics—of life and conduct and civil duty—doctrines of the relation between the unseen and the seen—which will always stir Oxford to her depths, and 'the means of fighting', whether for them or against, will never rust for disuse. Cambridge has produced great men: Oxford produces great movements.¹

I have, since writing the *V.C.H.* article, done a little preliminary work on this theme in an article on the universities in *Victorian Studies*.² I tried in this to suggest that after 1880 Oxford was primarily concerned with the public service, with politics and administration, while at Cambridge the place of honour was taken by 'the development of organized science and the promotion of fundamental scientific research'. Such a generalization can be true only in very broad outlines, of course, but it does approach in some ways to Russell's judgment in a book published in 1913. There is room for much more extensive research on the role of the English universities in nineteenth- and twentieth-century society.

Another very important question about which comparatively little is known is the schools and social backgrounds of nineteenth-century undergraduates. The Claren-

¹ G. W. E. Russell, *Half-Lengths* (1913), pp. 240-1.

² 'Victorian Universities and the National Intelligentsia', *Victorian Studies*, vol. III, no. 2 (December 1959).

don Commission of the 1860's which dealt with the 'public schools', the nine schools to whom that term was originally applied, thought that about one-third of undergraduates at Oxford and one-fifth at Cambridge came from those schools, and of this total three-quarters came from Eton, Harrow and Rugby.¹ A Cambridge tutor, A. H. Wratislaw, wrote in 1850 that the Cambridge colleges were 'more generally filled by the *alumni* of commercial and other inferior or even professedly Mathematical schools, or of Private Tutors too often of very questionable ability and attainments . . .'.² Where did the students come from? I am not sure how easy the information would be to piece together. The entries in the *Alumni Cantabrigienses* give schools in many, though not in all, cases. For my own college, Corpus, the admission registers give no help as they record merely the man's name, county and tutor, but there are in the college archives three bound volumes of 'Candidates for Admission 1870-1900' which do give the candidates' schools, and which would settle the question for the period which they cover. Of course it would be a very tedious business to put this information together for all the colleges, but it would throw some interesting light on the backgrounds of Victorian undergraduates [and on the rise and fall of the popularity of colleges].³

Quite a lot of research work on Cambridge has been published since the *V.C.H.* volume went to press. Dr H. C. Porter's book, *Reformation and Reaction in Tudor Cambridge* (1958), is of great importance for the Reformation era. On the seventeenth century two recent books by American scholars are William T. Costello's *The Scholastic Curriculum of Early Seventeenth Century Cambridge* (1958) and Mark H. Curtis's *Oxford and Cambridge in Transition, 1558-1642, An Essay on Changing Relations between the English Universities and English Society* (1959). Mr W. J. Harrison's *Life in Clare Hall, Cambridge 1658-1713* (1958) is based on the account books of Dr Samuel Blithe, Master of the College. For this century the development of English studies at Cambridge is examined in Dr Tillyard's *The Muse Unchained* (1958). Captain Hilken, Secretary of the Department of Engineering, is working on the history of that Department, a peculiarly important one in the development of modern Cambridge studies; some of the pre-history of the Department, so to speak, has already appeared in articles by him in the *Cambridge Review*.⁴ Among recent historical articles in the *Review* which may be singled out are Dr Robson's sketch of William Whewell and his extracts from the letters of Thomas Whichcote, who came up to Magdalene as a Fellow Commoner in 1719.⁵

¹ *Report of Her Majesty's Commissioners appointed to inquire into the Revenues and Management of Certain Colleges and Schools*. . . [3288], p. 26 (1864), xx (1).

² *Observations on the Cambridge System partly in reply to, partly suggested by Dr Whewell's Recent Educational Publications* (1850), p. 10.

³ For a recent investigation of this question see Hester Jenkins and D. Caradog Jones, 'Social Class of Cambridge University, Alumni of the Eighteenth and Nineteenth Centuries', *British Journal of Sociology*, vol. 1 (1950).

⁴ T. J. N. Hilken, 'The Ingenious Mr Farish', *Cambridge Rev.* 20 February 1960; 'The Rev. Robert Willis 1800-75', *ibid.* 22 October 1960.

⁵ R. Robson, 'William Whewell', *ibid.* 30 January 1960; 'Magdalene Letters, 1719', *ibid.* 5 March 1960; see also 'A Visit to Cambridge 1822', *ibid.* 11 June 1960.

A copy of an interesting letter in the University Library was sent to me some time ago. It is from Henry Jackson to Maitland (13 November 1905), probably in connexion with Maitland's *Life and Letters of Leslie Stephen*, and throws an interesting light on the mood of mid-Victorian Liberal reformers in the university.

Dear Maitland,

Do you want the history of the republican Club?

In the late sixties, probably 1868, the academic Tories carried everything before them by means of a caucus called 'The Constitutional Club'. I went to Hammond and suggested that we shd organize in like manner. He said *no*, pointing out that a close organization would be ruin to reform, as it would frighten away all the moderates who ought to gravitate to our side. His argument completely convinced me (on the other hand, he thought that we wanted a talking Club on the lines of the London 'Century', at which men of different colleges & of all opinions might meet. So the 'Friday Club' was founded, served its purpose of bringing men of different Colleges together, & in two or three years died).

In 1870 Clifford suggested the establishment of a Liberal Club & gathered some of us to make rules. The party included H. Sidgwick, Fawcett, Crotch, Moulton, C. H. Pearson, Sedley Taylor. I don't remember whether the jerry-mandering of University politics was to be the declared purpose of the Club: I think it was. But anyhow it seemed to me that it would be just what I had learnt from Hammond to dread. Moreover I was afraid of the men: Fawcett, at heart a Conservative; Clifford, paradoxer and mountebank; Crotch, an unpractical Bohemian; C. H. Pearson, an Oxonian globe-trotter; Moulton, an unprincipled sophist; Sedley Taylor, the most injudicious of well-meaning men. And they might do a great deal of harm: for the abolition of tests was at hand, and we proposed, with good hope, to attempt large reforms, the moment that the 100 years' conflict (Feathers Tavern 1771, abolition 1871) was over. In a word, I thought that a Liberal Club run by Clifford and Co. would imperil the practical schemes for wholesale reform which I cared about, and I tried to find some speculative siding into which I could shunt the party. Now in 1868 one day at Ischl—I remember well the place,—I had horrified Joe Prior by saying that I was a Republican; & it had seemed to me that people ought to be taught that Republicanism was not obsolete. So I proposed that we should found, not a Liberal Club, but a Republican Club. Sidgwick and Sedley Taylor objected, but were outvoted: and the rest of us proceeded to make the rules, of which I have a copy. Rule 2 is 'Republicanism shall be taken to mean hostility to the hereditary principle as exemplified in monarchical & aristocratic institutions & to all social and political privileges depending upon difference of sex'. Rule 3 is 'The profession of Republican opinions shall be the only qualification for membership'. We were to dine seven times a year, and after dinner there was to be a discussion 'carried on in a conversational manner', & 'referring to some social or political subject'. I think that Sidgwick and Sedley Taylor, having declined to join, remained with us while we framed the rules. Then Sedley Taylor, off his own bat, sent a paragraph to the *Pall Mall*, announcing the establishment of the club, & naming Fawcett and others among the members. The paragraph went the round of the newspapers, & many republican clubs were founded. At least one of Fawcett's constituents wrote to him, & I was afraid that we would have serious trouble in consequence of S. T.'s indiscretion: but Fawcett got out of the difficulty by explaining that, when he called himself a Republican, he decided to mark his 'hostility to the hereditary principle', and no more. We elected Bonser of Clare—Pearson, Moulton, Fawcett, and I gave dinners, probably in 1870–71. I don't remember that anyone else dined us. Most of the four dinners were good: the discussions were so so. I think that after the long vacation of 1871 some of us forgot, & others remembered not to remind their forgetful

neighbours. In December 1870 when Fawcett, fat Ward and I, non placeted the grace to put the Prince Consort's statue into the Senate House, Munro asked me whether the non-placet was a move on the part of the Republican Club. The Club knew nothing about it. Fawcett & I had arranged it the night before, at a Jesus audit feast.

As you are soaked in these old things, this narrative may possibly amuse you. Don't tear it up. I don't believe that I ever before told any one the true inwardness of the situation. I had been frightfully anxious. As it was, things went well. In the summer of 1870 Trotter & I took copies of the College statutes away with us: & when we returned in October, compared notes, drew up a provisional scheme, & got a Committee appointed to investigate the tenure of fellowships. In 1871, I think, came the demand for reforms formulated under four heads. Excuse this anecdotage.

Yours very truly,

Henry Jackson.¹

It is much more difficult to comment generally on the colleges than on either the city or the university, since each college history forms a separate story complete in itself. Pride of place may be given to Mr Saltmarsh's article on King's which deals very fully both with the foundation and the building of the chapel, and with the nineteenth-century reforms which modified the ancient ties with Eton and ended the privilege of taking the B.A. degree without examination, the origin of which Mr Saltmarsh thinks cannot be determined. The story of the reforms and of the creation of a new King's is very important and interesting, and has not been so clearly worked out before. It may be added, of course, that this article is considerably longer than the other college articles. Mr Bezodis's article on Trinity is the only complete account of the history of the college other than Dr G. M. Trevelyan's brief sketch. Mr Miller's article on St John's has been praised in the *English Historical Review* for 'the sense of momentum and humanity it brings to the standard-pattern article'.² It also includes a very useful section on college endowments based on Sir H. F. Howard's book on the finances of the college. There is room for much more research on the financial history of corporate bodies. Mr Crawley's article on Trinity Hall brings out the connexion of the college with the civil law and its association with Doctors' Commons where the college long controlled the allotment of rooms. Conflicts of opinion, political or religious, are reflected here too; in a collegiate university they are often most vigorous and most profound at the domestic level. Emmanuel was the great stronghold of Puritanism in early Stuart days, as St John's and Christ's had been under Elizabeth. John Caius, master of the college which bears his name, and his successor, Thomas Legge, were, on the other hand, strongly conservative in sentiment. 'Of those who were at the College during the first fifteen years of Legge's rule', wrote Mr Grierson, 'four were afterwards executed by the government for their religious views, and a fifth for complicity in Babington's plot; seven became members of the Society of Jesus, seven others, besides those executed, seminary priests, and over 20 of the remainder suffered by way of fine or imprisonment for

¹ Cambridge University Library, Add. 4251 (13) 713. (I owe this reference to Mr George Clark.)

² *English Historical Rev.* vol. LXXV (1960), p. 682.

their religion.¹ These few examples are taken almost at random from different colleges and from different centuries. All the college articles contain much of interest and value. It is a pity that it was not possible to design them all on a more generous scale, but to have done so would have made an already large volume impossibly bulky. Had I another chance of editing the volume I think I might have asked authors of college articles to include a brief account of the main documents in their college archives, on similar lines to the short article on the University Archives. It would be very valuable to have this information about college records collected in one place.

The illustrations form an important section of the book, and I was primarily responsible for the form which they took, though the detailed work of arranging reproductions, designing plans, and the choice of some of the plates was in the hands of the *V.C.H.* architect, Mrs Tomlinson. I wrote to the General Editor on 28 June 1956 raising some of the points which seemed to me important in making our choice. First of all I wanted a 'detailed plan of the scientific area and laboratories, which have been so important in modern Cambridge and about which there will be a lot in my article'. Secondly, I raised the question of whether there should be illustrations showing the more informal side of university life, including possibly 'a group of early Girtonians or Newnhamites, and a group of the first New Hall girls'. Finally I wrote:

I imagine that you will agree that we should avoid on the whole well-known views and prints, such as many of the Ackermans and Loggans are. I think that in the Oxford volume nearly all, if not all, the Loggans are reproduced. On the other hand we ought, I think, to reproduce Loggans and Ackermans if they show buildings which have now disappeared like the old court of King's or the old chapel of St Johns', or which have been refaced and totally altered since the prints were made. Some designs which were never used would also be interesting, like the Rickman design, which I mentioned to you, for a Gothic Fitzwilliam Museum rather on the lines of Fonthill.

On the whole, the final list did correspond roughly to these initial ideas. We found an abundance of material in the University Library and the Fitzwilliam Museum and in other public collections; we were able to use a number of old photographs; and we were able to include a few unusual items, such as a rare Rowlandson print of the old court of King's, which were kindly lent by private individuals. In selecting illustrations of the city Miss Cam gave valuable help.

I feel myself that we did produce a varied and unusual collection. Where it would have been impossible and undesirable to exclude a well-known building, we generally found some rather unusual representation of it; for instance, an unfamiliar eighteenth-century engraving of the Great Court of Trinity and a modern photograph of the floodlit interior of King's College Chapel. I should particularly like to emphasize the plans. We included a plan of the castle drawn by Miss Cam, a series of plans showing the growth of the central area 1340-1948, taken from the *Cambridge Planning*

¹ *V.C.H. Cambs*, vol. III, p. 360.

Proposals (1950), and a plan of Cambridge in 1958 showing the more important institutions in the city area which lie too far from the centre to appear on a larger scale map of the old town. A particular brainchild of my own was the historical plan of the science area on the New Museum and Downing Sites, showing the buildings in 1865, 1922 and 1950. This appeared to me to be particularly important both because of the great importance of science in modern Cambridge and because I had devoted much space in my article to noting the construction of new laboratories. The idea came from a plan of the science area in the Oxford volume though this is simply a modern plan giving no dates. Most fortunately we were largely spared from the great labour of constructing a historical plan through the fortunate discovery that the Financial Board had a set of historical plans of the science area going up to 1936 and made by Dr G. S. Graham-Smith, which could be supplemented by the more modern plans of the Department of Estate Management. The science-area plan is certainly a very useful supplement to the university article, and a very valuable thing in itself.

On the whole the reviewers of the volume were very kind and all the contributors may think themselves fortunate as a result. One contributor to the volume said to me soon after it came out: 'Well, you have said a lot about the sufferings of the Church during the Civil War. What about Black Bartholomew?' In fact, 'Black Bartholomew', the day when, by the Act of Uniformity of 1662, those clergy who would not accept the Anglican formularies were dispossessed of their livings, hardly appears at all! I had thought very little about it, which perhaps illustrates how easy it is to take sides without consciously considering the matter. One or two reviewers picked on a thought which I used in discussing the Victorian Conservatives. I said that academic history must not be written as if the Liberals were always right, and that the anti-reformers remembered a truth which their opponents often forgot, 'that a university flourishes because of the springs of life within itself and not because of paper constitutions imposed upon it by outside authority'.¹ This point seems to me to be very important, and I hope that the idea gave some coherence to the history of the university of Cambridge. The whole book is so large and complex that there must inevitably be disharmonies and faults in arrangement; at least for myself I am very glad that I had a hand in making it.

¹ *V.C.H. Cambs*, vol. III, p. 265.

ARCHAEOLOGICAL NOTES

M. D. CRA'STER AND C. F. TEBBUTT, F.S.A.

A BRONZE AGE SPEAR FROM MILDENHALL

A socketed spear has recently been found by Mr A. Munns at West Row, Mildenhall. It came out after ploughing, and the National Grid Ref. is 659755.

The socket still contained a small fragment of the shaft in position; the wood was probably oak.

The spear-head itself is of the basal-looped type (Fig. 1). It is usually supposed to date from the latter part of the Middle Bronze Age, say approximately 1100 B.C.

M. D. C.

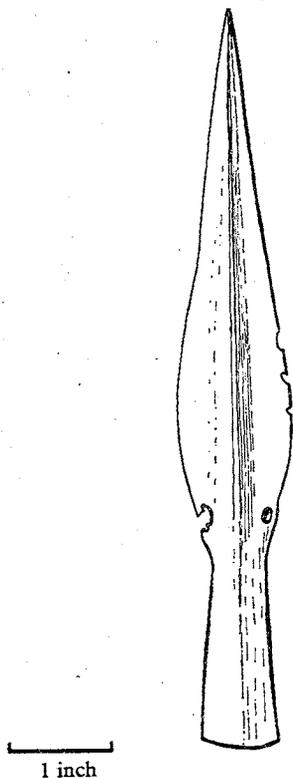


Fig. 1. Spear from Mildenhall.

A MEDIEVAL JUG FROM KIMBOLTON, HUNTINGDONSHIRE

A medieval jug, found whole but slightly damaged by the finders, was unearthed at Kimbolton during sewer pipe excavations in 1959. It came from below the edge of

the roadside footpath outside the Castle back gates and opposite the bridge over the Kym leading to Warren Lane (National Grid Ref. 52/102677). It could be seen that here a filled-in ditch led from the direction of the Castle to the River Kym, and the jug was found in the ditch filling.

The jug is $8\frac{1}{2}$ in. high—of hard, light, soapy shell-filled ware with slightly sagging base. The handle is undecorated but has a shallow groove running down the back. At the neck the handle is pinched in with deep marks on each side and at the lower end spread into the pot by long thumb grooves. The lip was broken off and lost by the finder and that shown in the illustration is a restoration. The outside surface is unglazed, but has a black slip applied as far down as the widest part. There are, however, some blobs of colour on the lower section and other places where the slip, when liquid, has run down from above. The handle and the immediate area where it joins the neck, has no applied colour (Fig. 2).

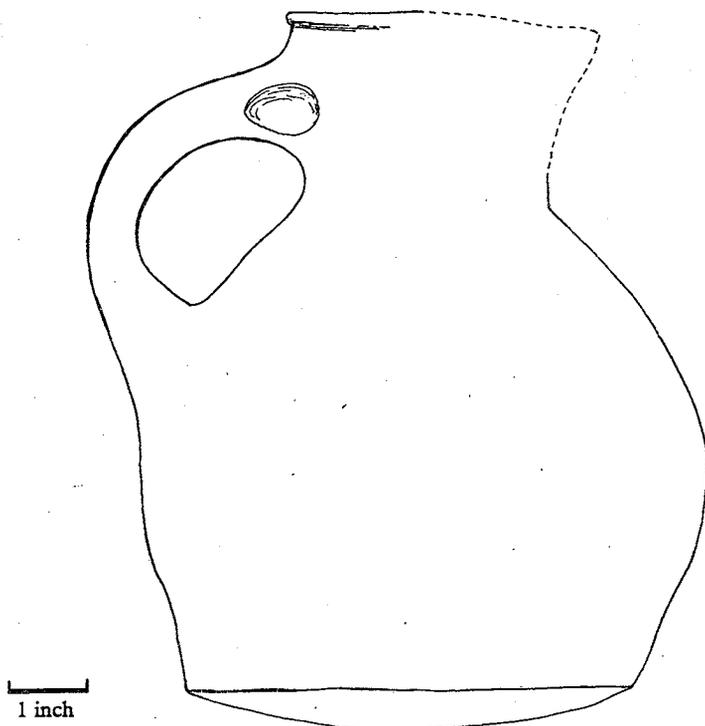


Fig. 2. Jug from Kimbolton.

It would seem to resemble closely a similar jug from Felmersham (10 miles away) dated to the thirteenth century by Jope, and to be another example of the late use of soapy shell-filled ware.¹

I am greatly indebted to Mr Chasney of St Neots who was present when the jug was found and ensured its preservation.

It has been presented to the Norris Museum, St Ives.

C. F. T.

¹ 'Medieval and Saxon Finds from Felmersham, Bedford', *Antiq. J.* (January–April 1951).

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