PROCEEDINGS of the CAMBRIDGE ANTIQUARIAN SOCIETY

(INCORPORATING THE CAMBS & HUNTS ARCHAEOLOGICAL SOCIETY)







LVI-LX 1963 - 67

CAMBRIDGE DEIGHTON BELL 1967

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VOLUME LX

JANUARY 1967 TO DECEMBER 1967

CAMBRIDGE DEIGHTON BELL 1967 Published for the Cambridge Antiquarian Society (incorporating the Cambs and Hunts Archaeological Society) by Deighton Bell, 13 Trinity Street, Cambridge

Printed in Great Britain at the University Printing House, Cambridge

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Proc. Camb. Ant. Soc. Vol. LX (1967), pp. 19-37.

ROMANO-BRITISH PEWTER PLATES AND DISHES

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IT had been considered probable that a survey of all Romano-British pewter plates and dishes known would show a chronological sequence of rim types. Some 70 museums have co-operated in supplying illustrations, associations and references. Nearly all specimens have been inspected.

There are upwards of 200 pieces of Romano-British pewter recorded, including ewers, jugs, cups, bowls, etc., as well as plates and dishes, a few of the latter being oval. It was soon apparent that dating associations are very few indeed. Despite the paucity of dating evidence, it was considered valuable to survey in detail the field of Romano-British circular plates and dishes, omitting the holloware. The writer has notes of some 134 recorded plates and dishes: the majority fall into four main types of rim, and a classification has therefore been drawn up. There are also sufficient examples with decoration to be examined carefully.

PEWTER MANUFACTURE IN BRITAIN

The subject of Romano-British pewter manufacture is discussed by Wedlake;¹ no evidence of pewter in this country can be found earlier than his dating of c. A.D. 250 onwards, which is quite compatible with all other evidence except possibly the two plates at the Guildhall Museum. It is true that it is recorded that Pliny (the Younger) knew of 'pewter', but this was more probably tin. He was born A.D. 61 and was last recorded as Governor of Pontus and Bithynia c. A.D. 111, but the reference was presumably to the Eastern Mediterranean area. Pewter appears not to be known in Gaul under the Roman Empire.

As it is not recorded elsewhere, it seems probable that pewter is a purely Romano-British discovery, evolved from the use of tin to copy the silver wares.

In Read's² description of the Appleshaw hoard, he draws the conclusion that, before the discovery of the stabilizing effect of a lead additive, tin alone was used. Since in this hoard the 'fish' dish is $99 \cdot 18 \%$ tin, a bowl is $94 \cdot 35 \%$ and a dish $90 \cdot 55 \%$, one may conclude that they represent some of the very first items of British 'pewter' ever made, showing the trial and error increase of lead. Perhaps it was at first an accidental, then an intentional debasement, which proved to be a better alloy. The proportion swings to as much as tin 43 %, lead 57 % in a dish from the

¹ Wedlake. (For complete references to works mentioned in footnotes, see Bibliography at end.)

² Read, p. 20.

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Fens. However, the most suitable mixture for flexibility, safety (and no doubt, ease of supply) settled between 62:37 and 79:21.¹ One cannot agree that the evidence supports two clear-cut groups of alloy.² The proportions appear to vary in a hap-hazard way—perhaps initially in finding a suitable alloy, and, subsequently, merely owing to erratic measuring of quantities (Table 6). [English medieval tin pewter was of two grades 85:15 and 80:20.]

Tin had been chiefly obtained from Spain until the likelihood that the mines would soon be worked out;³ then attention turned to Cornwall. At Camerton, the evidence of dating is to mid third-century manufacture. The Cornish mines had been worked previously but there is ample evidence of third-century manufacture here.⁴ Wedlake's chapter on 'The Pewter Industry at Camerton', pp. 82–93, in 'Excavations at Camerton' should be read in full, and can be summarized:

Stone moulds in limestone, obviously for casting pewter dishes of credible detail were found in a clear mid third-century context. The moulds were made to be either clamped, or bound, together (a clamp, and incisions for registering the binding were found, and also two fragmentary plates c. A.D. 300). A coal store-heap was also found, and from this date on, considerable blackening of the floors by coal was evident. Coal is immediately to hand in the neighbourhood, with seams running to the surface. Also, the Mendips provide the necessary lead (the mines having been worked since c. A.D. 70), as well as the stone for the moulds. At the same time, c. A.D. 250, there is a big increase found in the workmen's dwellings and workrooms —all pointing to the establishment of a flourishing pewter industry here.

Other true moulds have come to light, notably at Lansdown, near Bath; Mr Gardiner, of Kingswood School, Bath, reports to the writer that Oatland Down has yielded three moulds-of lias and oolite-which could have been used for pewter. They range in diameter from 9 in. to 2 ft. 6 in. Also some droplets of lead were found in association. Fragments of sixteen different moulds are in Bath Museum. The writer has inspected them carefully, and finds that in none is there any detail which precludes their being moulds; the grooves and decoration can be matched in every case by drawings of dishes made by the writer. This is contrary to Wedlake's impression, but it is possible that he was confused by considering a normal plate upside down (see his drawing 57B opposite p. 253, referred to on p. 84 of the text); he could not fathom the use of this 'object', which is closely comparable with a plate from Northwold (type 1). Decoration is pricked, or cut, into the Lias moulds-and this can be matched by extant specimens of pewter. Brampton, a Romano-British settlement near Norwich, has recently yielded one piece of limestone (not native to Norfolk) with curved grooves, which might (only possibly) be a segment of a large mould for a dish some 30 in. in diameter. Mr Cunstone, of Birmingham Museum, is at present working on stone moulds.

- ¹ Liversidge, pp. 9, 10.
- ² Read, p. 13; Tylecote, p. 68.

³ Davies.

⁴ Collingwood and Myres, p. 231.

SUMMARY OF OTHER DATING EVIDENCE

At this stage, having established the start of the industry to A.D. 250, let us see briefly what other dating evidence is available.

Bucklersbury House, London (Guildhall Museum, 18221, 18220). Two plates. Professor Grimes in a letter to the writer has redated these as 'at least third century'. These two are quite unlike any other known pewter plates. (See drawings, Fig. 4 and Table 1.)

Tallington, Lincolnshire (Lincoln Museum). One dish, c. A.D. 250-400.¹

Appleshaw, Hampshire (British Museum, 97/18-12). Hoard of twenty-nine pieces. Date deduced A.D. 300-350:² 'not earlier than A.D. 284' (dated by plaster), 'not later than A.D. 351' (Decentius coin). The house was destroyed c. A.D. 355.

Manton House, Wiltshire (Devizes Museum, 281). Hoard of twelve dishes (four decorated in central panel); nine dishes not now traceable. 'Not earlier than c. A.D. 395' (associated coins).³ Nearby a biconical jug of c. A.D. 376 was deposited.⁴ See Pls. Vb and VI.

Avebury Down, Wilts (Devizes Museum, 5/60). Two fragments of the centre of a decorated dish. Probably late third to fourth century (F. K. Annable).

Attleborough, Norfolk (Norwich Castle Museum, 286.963). Nine dishes. Pottery, probably fourth century.

Caister-by-Yarmouth, Norfolk. Two plates, mid-fourth century (Charles Green).

Bottisham Lode, Cambridgeshire (Arch. and Eth.). One dish. Pottery of all periods.

St Albans, Hertfordshire. Two saucers, fourth century (S. S. Frere).

Meare, Somerset (Taunton Museum). One dish, fourth century.⁵ c. A.D. 388.

The items above show all the evidence of dating so far available. Most finds have been casual with no excavation expertise. There simply is insufficient evidence to start building a type sequence.

Mention should be made here of the magnificent Anastasius silver dish from the Sutton Hoo treasure. The rim type is exactly as type 4. Although the control stamps are A.D. 491-518, it is considered to have been made c. A.D. $400.^{6}$

It is emphasized that although there is no positive dating evidence on so many of the finds, there is not known to be any evidence contrary to a dating between A.D. 250 and the collapse of the Roman occupation.

THE DISTRIBUTION OF PEWTER FINDS

Since we have conclusive evidence of manufacture in north Somerset the question must immediately occur—was it made elsewhere? Wedlake, p. XIX, shows a distribution map of all pieces then known. This is rather incomplete now (1966). At the outset, it must be borne in mind that distribution maps are not conclusive, for they only show what has been recorded so far; therefore, there may be many enlightening hoards yet to be found, which may alter the overall view—e.g. the very recent fragment of grooved limestone mould near Norwich referred to above (p. 20), and the still more recent find of molten pewter at Hockwold (see p. 23).

¹ Petch, p. 15.

³ V.C.H. *Wilts.* ⁵ Gray (1939), pp. 191–200. ² Read, p. 6.

⁴ Devizes Museum Catalogue, p. 169.

⁶ Sutton Hoo Ship Burial, p. 47.

Wedlake's distribution map of all types shows that the Wessex Somerset, and the Norfolk/Cambridgeshire Fen-and-Breck are the two richest areas. Well behind this come London and Northamptonshire. All are on the lowland zone side of the Fosse Way, except the Somerset group which is very near to it. Finds in the Highland Zone to the north-west of the Fosse are negligible (Fig. 1).



Fig. 1. Main areas of pewter finds.

This pattern sets a problem—was pewter the normal garnish of villas, or was it local to the source of manufacture? In the case of Somerset it could be either. Also Appleshaw and Manton are not very far from Somerset; and again London, as the administrative centre, was in constant communication with Bath. Raw material or finished articles could equally well be transported. This leaves Northamptonshire, and the Norfolk/Cambridgeshire Fen-and-Breck. Northamptonshire shows 12 items, 9 at Duston and 3 elsewhere. Here are coal, and stone, and easy road transport of tin from Cornwall and lead from the Mendips. So there *may* have been a manufacturing centre here. What of East Anglia? The concentration of hoards is roughly in a triangle Peterborough, Attleborough, Royston—the Fen and Breckland —much as the distribution of villas.

But how does this fit the overall villa pattern? The answer is, not very well. The villa pattern shows huge gaps (Cotswold and Oxfordshire for instance) with no pewter finds. So the evidence of pewter being normal villa furnishings is very erratic.

But if the finished articles were not transported from Camerton and Lansdowne, what is the likelihood of local manufacture in Cambridgeshire and Norfolk? Fuel, as peat or wood, was available to the Fen group, and carstone for moulds available between Hunstanton and Downham Market; perhaps chalk too could have been used. We now also have the imported limestone fragment near Norwich. It would have been possible to bring in lead and tin by sea from the Mendips and Cornwall, round southern England, to Colchester or Caister-by-Yarmouth, or round to King's Lynn—perhaps up river to Downham Market or Ely. The overland route, although tedious, would be feasible. It would seem that in the case of the Fen group, the evidence is equally balanced. Fuel and equipment materials are to hand and trade routes reasonable for raw materials, which would make local manufacture practical. Against this—rim types and decoration patterns and techniques are common or compatible with the Somerset group. All rim types are interrelated by association with others. This hints strongly towards a centralized manufacturing locality rather than dispersed factories.

Since writing the accompanying main body of text, two further East Anglian finds relevant to the problem have come to light. A further hoard has been found in the **ri**chly yielding area between Whittlesea and Attleborough—at Hockwold. Three plates have almost exact counterparts in other areas, but two dissimilar cups are apparently unique. A molten ingot of some 3 lb. weight, and some other drops of molten metal, not yet analysed, but obviously a tin/lead alloy, were found in the same field. However, direct association of these metal fragments with the finding of the hoard is not established.

In the summer of 1966, investigation of a Romano-British site at Hacheston near Framlingham, Suffolk, yielded two pieces of waste pewter. These were associated with a workshop floor, and were found in a pit just outside the floor. With them was slag, apparently iron, but slag is so common as to show no correlating significance. Miss Owles of Ipswich Museum, directing, was firmly convinced that they were waste products, and not the result of pillage and fire. She also reports that other manufacture was in progress—iron and bronze, as well as pottery. There was no evidence of coal dust—but charcoal is a feasible fuel. One item, looking like a jet from a mould, weighed 73.5 g., and the other, a thin pool of pewter, weighed 119 g. This certainly appears to be evidence of Suffolk manufacture.

The possibility of imported goods from Gaul has been considered, but there is no mention or suggestion anywhere of the import of pewter in Romano-British times. We know that tin vessels were known to the Romans by c. A.D. 120. We have no

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evidence of the appearance of pewter in England until the undoubted date of its manufacture in this country, c. A.D. 250, apart from the enigmatic Guildhall plates. Furthermore, if imported, it would seem reasonable to expect plenty of finds on our eastern and south-eastern coasts—but Caister-by-Yarmouth, Attleborough, Winston near Eye in Suffolk, and London are the nearest instances, while Kent, Surrey and Sussex are almost completely devoid of any pewter, two jugs and one plate being the recorded total for the three counties. The Rijksmuseum in Holland confirm that they know of no manufacture of Gaulish pewter, as does the Romisch-Germanisches Zentral Museum at Mainz.

Distribution lists of rim types are given below (Tables 2 and 3). These show a density proportion of plates and dishes which differs from Wedlake's overall pattern. Some eighteen dishes and plates occur at Appleshaw and Manton, whereas the Fen and Fen edges of Norfolk, Suffolk and Cambridgeshire show some seventy-five. Localized types do not appear to emerge, except Type 2a (five dishes from four find spots).

RIM TYPES OF PEWTER PLATES

As was originally stated, it was hoped to establish a sequence and dating of rim types, exactly as has been done for seventeenth-century English pewter. This has not yet become possible, but further finds, if well dated, may establish a sequence. If the



Fig. 2. Features of pewter plates and dishes.

suggestion as to the evolution of the alloy had substance, the range and swings of the mixtures would nullify attempts to date by this method.

The method of manufacture was that the plate, rim, and supporting ring underneath were cast. The stone of the moulds was coarse, so the plate was finished off on a primitive turning wheel. The circular 'lathe' marks are often clearly visible. Sometimes some features are not 100% true, or full. Sometimes there are untrimmed 'extras'—e.g. at Bath, one dish has a six-inch arc of extra waste on the rim. This all proves that they were cast and then trimmed up. It also shows that the turning apparatus was crude.

The circular features in most plates and dishes are shown in Fig. 2:

1. The rim.

- 2. The bead of the rim.
- 3. Sometimes a very small shallow groove close under the lee of the bead.
- 4. The bouge, or wall of the plate (Type 4 only).
- 5. Sometimes another very small groove close under the lee of the bouge.

6. Usually two or three concentric light grooves or incised circles, from one-quarter to twothirds of the diameter of the plate. Because of erratic setting up, they are sometimes a little eccentric. 7. The chuck mark. The plate was crudely and firmly held in the centre, bruising the metal. Some observers have detected a 'flower' decoration in the centre of plain plates, but it is more likely to be purely involuntary damage, except in one or two dishes with decorated central panels.



Fig. 3. Main rim types. Type 1, total number 7 (4 in Fen edge); Type 2, total number 17 (12 in Fen edge); Type 3, total number 3 (3 in Fen edge); Type 4, total number 73 (36 in East Anglia).

8. On the reverse, or bottom, invariably the only feature is the support ring or rings. This is most important in readily differentiating some Romano-British plates of type 4 from English eighteenth-century single-rim plates, which never have a support ring. This is so important that it is repeated: Romano-British plates can easily be mistaken for badly corroded eighteenthcentury ones; the presence of the support rings makes Romano-British identification certain.

It will be helpful here to depict the major types (Fig. 3), with subsections of minor variations (see Table 1 and Fig. 4). Demarcation between these arbitrarily given types is sometimes difficult. The types are classified by apparent development and the chronological sequence is not clear, except that since the Bucklersbury House plates appear in an early context and are so unlike any others, they must be assumed early, despite their mature form.

There are two types of vessel which might well have been included but have not, since the present study is primarily of rim types. One is a cross between a cup and a plate and can best be described as like an inverted dustbin lid. Several variants occur.



Fig. 4. Classified rim types of pewter plates and dishes (see Table 1).

Its use, with such a small base to rim proportion, is very doubtful. There is an example from Shapwick,¹ where a saucer was also found, showing the affinity to 'cups'. Flat shallow bowls with no rim are also omitted.

It must be borne in mind that dating evidence, where available, is for date of deposition. As pewter was obviously valued sufficiently to be hidden in separate hoards, one might guess at a period of ownership of perhaps fifteen years. However,

¹ Gray (1937), p. 168.

	Date A.D.	Third century					1		j	350	-]]		1	0.297 c.350	6;	Early fifth century	1	350]	.H.	Early fifth century		minim		Fourth century
	References	Prof. Grimes letter to author		Amount of the second seco			1	menne]]	I	1		I	1	V.C.H. Norfolk, I, p. 310	Read; V.C.H. Hants (1900), I, p	Devizes Mus. Cat. (1934), p. 16	V.C.H. Wilts. (1957), 1, p. 1	1	1		1	Devizes Mus. Cat., (1934); V.C.	Wilts. (1957)		ł		Frere
(Museum	Guildhall 18221		Norwich 489.960(2)	Brit. Mus. 69.7–26.3 and 4	Brit. Mus. 71.7–4.6	Arch. and Eth.	Brit. Mus. 44.2–23.4	Bath R.B. 106	Brit. Mus. 70.12–8.2	Norwich 489.960	Arch. and Eth. $1891-41a$	Arch. and Eth. $1891-41b$	(and Brit. Mus.)	Brit. Mus. 96.3–7.3	Arch. and Eth. 67.181	Brit. Mus. 97.12–18.5	Devizes 281 plain		Brit. Mus. 71.7–4.5	Brit. Mus. 97.12–18.30	London Museum A 19574	(might be $4a \text{ worn}$)	Devizes 281 decorated		Arch. and Eth. 1883–774 <i>a</i>	Private possession	C. A. Peal (priv. poss.)	Inst. Arch
	Provenance	Bucklersbury House, London	Ducklersbury riouse, Lollaoli	Northwold, Nortolk	Southwark, London	Lakenheath, W. Suffolk	Bottisham Lode, Cambs.	Icklinghan, Suffolk	Bath	Coldham, Cambs.	Northwold, Norfolk	Sutton, Cambs.	Sutton, Cambs.		Sutton, Cambs.	Welney, Norfolk	Appleshaw, Hants.	Manton, Wilts.		Lakenheath, W. Suffolk	Appleshaw, Hants.	Isleworth, London		Manton, Wilts.		Whittlesea, Soke of Peterborough	Northwold, Norfolk	Not known	St Albans, Herts.
	$\mathbf{T}_{\mathbf{ype}}$	H	٩	I	1 a	1 b	6	20	2 <i>a</i> (i)	2b	2 b (i)	20	.0		3 <i>a</i>	3 b .	4	4(i)		4a	4b	4 <i>c</i>		4 c (i)		4d	4d(i)	4d(ii)	40

TABLE 1. (Fig. 4). Classified rim types, with examples

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there does not appear to have been much wear in use on plates and dishes—very few show evidence of knife or use marks. Also decorated dishes have no wear on the panels. Therefore, fifteen years is only a guess, and perhaps an average of twentyfive years' ownership before depositing in the hoards would be more accurate. Date of manufacture could be as much as fifty years earlier than deposition.

Distribution of rim types is very interesting—but local types seldom appear to emerge (Table 2). It is also interesting to note the associations of rim types, i.e. which types have been found in the same hoards (Table 3).

DECORATION

The decoration on Romano-British pewter takes seven forms:

- 1. Concentric rings.
- 2. Castellation on rim.
- 3. Dots on rim (on smaller pieces).
- 4. Religious-Chi Rho, etc.
- 5. Names of owners-e.g. 'IVSTINIAE' (Devizes).
- 6. Motif underneath (Bottisham).
- 7. Decorative panels in the centre, and on border of rim.

1. Concentric rings appear on most plates and dishes, except the smallest. They are usually shallow turned grooves, in two pairs, or single pairs, and about one third of the radius of the well.

2. Castellation, or nicking of the rim as in a pie-crust, appears on some eighteen rims of various types. No doubt this was introduced for better gripping, but it does also appear on some of the very smallest plates. On some it is cast in the mould; on others it is filed, or cut with a saw. Distribution is widespread (see Table 5).

3. Dots are occasionally cast in the smallest pieces, on the rim. (Moulds at Bath show dots and castellation.)

4. Religious—Chi Rho, etc. It is not intended to discuss religious decoration in this paper, as it is a subject on its own. Suffice it to say that a few pieces of Romano-British pewter bear a scratched Chi Rho. Two others (not circular) bear a fish, an early Christian emblem.

- 5. Names-owner's name-scratched on the base:
- (a) St Albans: a small plate with VIVENTIA VITORICI scratched on the base.
- (b) Manton: one dish with IVSTINIAE on the base.
- (c) Southwark: one dish with MARTINVS on the base.

6. A dish recently ploughed out at Bottisham bears \bigoplus crudely scratched on the base. The significance, if any, is not yet known. (Fig. 5*a*).

7. Panels (Pl. I–IV). Some twelve known pieces, plus two bowls and three or four more old finds which cannot now be traced, bear a circular panel of decoration within the usual concentric rings. It is, of course, possible that some, or all have some significance. The design is carried out by chisel punching or rouletted wheel. One, from Stamford, is unique. In all others, the chisel cuts are end to end in line astern, but, in the Stamford dish, the cuts are parallel like railway sleepers (Pl. III*d*). It is noteworthy that only two decorated dishes appear in the large Fen/Norfolk group—one from Attleborough and one from Welney, and perhaps eleven in the 'Somerset' group. It is particularly interesting that the only recorded instance of two exactly similar panels of decoration occur at Bath, and Meare, both in Somerset (see Table 5).

St George Gray¹ drew attention to comparable designs in Coptic textiles in the fourth and fifth centuries A.D. The writer can find no exact parallels in any other medium. The silver Anastasius dish from the Sutton Hoo Ship Burial is the nearest, bearing two features seen in pewter dishes—the interlaced squares, and the wave



Fig. 5. Scale $\frac{1}{2}$. (a) Roughly scratched design on back of plate from Bottisham, Cambs. (b) Decorative panel on plate from Avebury Down, Wilts. (Table 6 and cf. Pl. III).

crest decoration. The Appleshaw dish (British Museum, 97.18–12.2) is the closest design in pewter. Silver dishes bearing decorated panels, such as that from Mildenhall, are quite different in conception of design. The examples are therefore presented in their groups of apparent similarity. Perhaps readers, or future research, or further finds, will throw light on this neglected subject.

In presenting these facts, the writer hopes that further evidence will be forthcoming. In particular, he hopes that future finds will be carefully excavated in order to find:

Dateable examples of rim type. Evidence of manufacturing localities. Evidence of date and origin of decoration. Significance of decorative designs.

In the course of research, a considerable quantity of references have been accumulated, relating not only to plates and dishes, but also to the whole range of Romano-British pewter including cups, bowls, ewers and jugs. Should any reader wish for help, the writer would be pleased to co-operate; enquiries should be sent to him, c/o The Norfolk Research Committee, Castle Museum, Norwich.

The writer would like to acknowledge the co-operation of all museums and authorities concerned, in giving help, access, references and photographs, and particularly to Miss B. Green, Norwich Castle Museum, and Miss M. Cra'ster, Museum of Archaeology and Ethnology, Cambridge, for advice in presentation.

¹ Gray (1939), p. 200.

		TABLI	E 2. LIST Of all finas		
	Prefix D, Decorated panel; (C, Castella	tion on rim; X , Rim ty	pe not known, for any reason.	
Group	Museum	Number found	Rim types	References and notes	Date
Fen, etc.					
Abington Pigotts, INr. Roveton (Herte)	Arch. and Eth. 51.344	4	UIA, UIA, U4, A]	
Attleborough (Norfolk)	Norwich 286.963	6	$D_{2c}, 4, 4, 4, 4, 4, X, X, X, X$	Some very fragmentary	Mid fourth century (pottery—C. Green)
Bottisham, Lode (Cambs.)	Arch. and Eth.	I	R	scratched under base	Pottery of all periods
Coldham (Cambs.) Hockwold (Norfolk)	Brit. Mus. 70.12–8 Norwich	3	2b, 4d, 4d		
	34.346.958	I	4 <i>d</i>		and the second
	690.966	ŝ	4b, 4d, 4e		
Icklingham (W.	Brit. Mus. 94.2–24,	12	2a, 2b, 2b, 4a, 4b,	I	Terrer
Suffolk)	44.2-23		${}^{4b,\ 4d,\ X,\ X,\ X,\ X,\ X,\ X,\ X,\ X}_{X.\ X}$		
Isleham (Cambs.)	Arch. and Eth. 22.742, -680	4	2a, 4a, 4a, 4a]	~
Lakenheath (W. Suffolk)	Brit. Mus. 71.7-4	6	${}^{1}b, 4, 4a, 4a, 4a, 4a, 4a, 4d, X, X$		
Northwold (Norfolk)	Norwich				
	489.960	6	I, 2b(i)	-	-
	Private possession	I	4d(i)		
	Not traceable	б	X, X, X		1
St Ives (Hunts.)	St Ives	I	4		
Stamford (Lincs.)	Brit. Mus. 27.1–61	I	D_4	1	
Sutton (Cambs.)	Brit. Mus. 96.3–7	S	3a, 4, 4, X, X	[1
Sutton (Cambs.)	Arch. and Eth. 1891.41	7	2a, 2a, 2c, 3, C4,		1
			4 <i>u</i> , 4 <i>u</i>		
Tallington (Lincs.)	Lincoln	I	4	Petch	Latter part of Koman period
Welney (W. Norfolk)	Arch. and Eth. 67.181	н	CD_{3b}	Skertchley, p. 474; V.C.H. Norfolk, 1, 310; Proc. C.A.S. XLI, 79, pl. XXVI, XXVIIC, XLIV, 18-21. (The drawings are over imaginative and are not	
				accurate—see Pl. Va)	

TABLES List of all finds

West Row, Mildenhall,	Arch. and Eth.	4	2a, 4a, 4c(i), X	ļ	-
(Suffolk) Whittlesea (Soke of Peterborough)	1914.1072/3, 340 Arch. and Eth. 1884.774 <i>a</i>	и	4a, 4d	I	
<i>South-west</i> Appleshaw (Hants.)	Brit. Mus. 97.12–18	II	D2b, D4, C4, 4, 4b, D4d, D4d, 7, 3, 7, 3, 7	Read	<i>c</i> . 350
Avebury Down (Wilts.)	Devizes 5/60	Г	1044, 044, 044, 044, A X	Two decorated fragments	Late third to fourth century (pottery—
Bath (Somerset)	Bath R.B. 106	4	2a(i), 2b, 4b, C4d	Also a decorated bowl (see Table 6)	r. K. Annable) —
Camerton (Somerset) Manton, Preshute (Wilts.)	Som. Arch. Soc. Devizes 281	чю	т 4 (i), <i>D</i> 4с(i), <i>X</i>	Wedlake IVSTINIAE scratched underneath 4(i).	Third century Not earlier than 395
	Not at present traced	6	D?4, CD ?4, CD ?4,	The only evidence at present	
Meare (Somerset) Rushail Down, Pewsey (Wilts.)	Taunton Brit. Mus. 1902.6–16	H H	4 4 4	available is a photograph of a sketch made at the time of the find. By comparison with the three dishes at Devizes Museum, it is obviously unreliable. Devizes Mus. Cat. (1934), p. 169; V.C.H. Wilts. (1957)	
<i>London</i> Bucklersbury House, (London)	Guildhall 18221, 18220	14	A, B	Quite unlike any other type	'At latest, third century' (W. F.
Isleworth (Middlesex) Southwark (London)	London Mus. A 19574 Brit. Mus. 69.7–26	н и	CD4c 1a, 1a	'London in Roman Times' MARTINVS underneath one	
Northamptonshire Duston (Northants.)	Northampton	6	2, 4a, 4b, 4b, C4b, C4b, C4b, X, X, X	Sharp, pp. 118–130; V.C.H. <i>Northants</i> 1	I
Irchester (Northants.)	Northampton	I	4a		l
Newbottle (Northants.)	Northampton	I	6	1	I
Whiston (Northarits.)	Northampton	н	4a	1	

ir Alar

	Date		mana	Mid fourth century (C. Green)	1	Fourth century		Loosely second to	fourth century	1		
	References and notes		Ashby, Hudd and King]	Note cast dots on 1945–31	Frere VIVENTIA	VITORICI underneath (4e)	1		Note cast dots		1
ABLE 2 (cont.)	Rim types		DX	4b, X	4a, 4d	Cadae		4b		C4	4 <i>c</i> (i)	4d(ii)
H	Number found		I	ы	พ	,	ı	I		I	I	I
•	Museum		Nat. Mus. of Wales	Norwich 193.961	Colchester 3807-19,	1945-31 Arch Inst Ilniv of	London	Scunthorpe		Ipswich	R. W. Cooper (priv. poss.)	C. A. Peal (priv. poss.)
	Group	Random	Caerwent (Mon.)	Caister-by-Sea (Norfolk)	Colchester (Essex)	St Alhans (Herts)		Scunthorpe (Lincs.)		Winston, Eye (Suffolk)	Unknown provenance	Unknown provenance

· · ·

Α	B Bucklersbury	3 <i>a</i>	2a)	4 <i>b</i>	2a)
В	A Bucklersbury	-	2.0		2b
I	2b(i) No thread by		3		4a (Icklingham
	$4b(i) \int Northwold$		4 (Sutton		4d
10	4 Abington Pigotts		4 <i>a</i>		2b
1 b	4		4 <i>d</i>)		4 Appleshaw
	4 <i>a</i> Lakenheath	3b	Solo		4 <i>d</i> J
	4 <i>d</i>)	4	4(i) Manton		$\frac{2a(i)}{2a(i)}$
2	$\{a^a\}$ Duston		4 <i>c</i> (1)) ¹		2b Bath
	4 <i>b</i>) Duston		2a Isleham		4 <i>d</i>)
20	4 <i>a</i> Isleham		4 <i>a</i>)		2 Duston
	20				$(4a)^{-1}$
	3		40 Appleshaw		$\{a^{4a}\}$ Hockwold
	4 Sutton		4u	40	4ej Solo
	$\begin{bmatrix} 4a \\ d \end{bmatrix}$		<i>La</i> Abington Pigotts	40 AC(i)	2010
	(a,b)		The Abiligion Figures	40(1)	$\left\{ \mathcal{M}_{a} \right\}$ West Row
	20		4a Lakenbeath		4
	$\left\{ \begin{array}{c} 4 \\ 4 \\ b \end{array} \right\}$ Icklingham		4 d		${}_{4(i)}^{\dagger}$ Manton
	40 A d		(a)	4 d	2a(i)
	4a		20	•	2b Bath
	$\{4c(i)\}$ West Row		3		4b
2a(i)	2b)		3a Sutton		1b)
	4b Bath		4a		4 Lakenheath
	$\left\{ 4d \right\}$		4 <i>d</i>)		4 <i>a</i>)
2b	4 <i>d</i> Coldham	4(i)	4 Wanton		2a
	4		4c(i)		20
	4b Appleshaw	4 <i>a</i>	¹ <i>b</i>)		³ Sutton
	4 <i>d</i>]		4 Lakenheath		3a
	2.0		4 <i>d</i>]		4
	4a		2 <i>a</i> Islenam		(4a)
	40		20		24
	4a		20		Icklingham
	$\frac{2a(1)}{b}$ Beth		$\frac{3}{2a}$ Sutton		44
	40 Bath		34		2h Coldham
ah(i)	4u		4 4		(2b)
20(1)	d(i) Northwold		(a)		4 Appleshaw
20	(a)		20		4 <i>b</i>
-	3		4b		4 <i>a</i> Colchester
	3a		$\left(\frac{d}{d} \right)$		4 e St Albans
	4 Sutton		2a West Down		4b Uselmold
	4 <i>a</i>		$4c(i) \int West Row$		$4e^{110ckwold}$
	4 <i>d</i>)		2 Duston		4 <i>a</i> Whittlesea
	4 Attleborough		46	4d(i)	\mathbf{I}_{L} Bath
3	2 <i>a</i>		4 <i>d</i> Colchester		2 <i>b</i> (1)]
	20		4 <i>d</i> Whittlesea	4e	4a St Albans
	$\frac{3a}{3}$ Sutton				$\left\{ \overset{40}{d} \right\}$ Hockwold
	4				44)
	44				
	44/				

CAS

		4 <i>e</i> Isleworth				otes	interlaced, corners quirls. Note 'wave crest' 1111A)	exactly as Shapwick bowl shape differs	t lines forming a chequer gle corners, panels filled	above, but with the forming triangles flanked nd each side of the main	ng a chequer of small ds of lines run off in ose parallel to them	te no interlaced squares, a simplified forerunner, or 1 of Attleborough the 'flower' in the centre, 1 all of this type
		4 <i>d</i> Appleshaw	Appleshaw	St Albans Bath		Ž	Continuous lines forming multi se	All detail appears above although	Interlaced straigh pattern, right an	As Appleshaw 10 interlacing lines by squirls, beyo	square (F1. 111 c, Interlacing formi squares. The en curves to join th	(Pl. 111 <i>a</i>) Although there ai this seems to be degenerate, form (Pl. 111 <i>c</i>). Note which appears ii (Pl. 17 <i>a</i>)
		4 c(i) Unknown	provenance			Decorated panel size (in.)	1 日本	24	34	34	42	m
4. Castellation	, and find spots.)	4 <i>c</i> Winston	Southwark		Decoration list	erence	oo (1939), p. 200,		.H. Hants. 1 297	1		idd and King
TABLE /	(Rim types	4 <i>b</i> Duston	Duston		TABLE 5.	Ref	Gray, c. 40 n. 36		Read; V.C (1900), p.		Above	Ashby, Hu
		4 Appleshaw	Sutton	Manton Manton Abington Pigotts		seum		5	97.12–18.10	86.963	97.12–18.7	Mon.
		3 <i>b</i> Welney				Mu	Taunton	Bath R.B.9	Brit. Mus.	Norwich 29	Brit. Mus.	Newport, I
		1 a Abington	Piggotts Abington	ngous		Type	Bowl	Bowl	4d	X	4 <i>ď</i>	X
			·			Find spot	Shapwick	Bath	Appleshaw	Attleborough	Appleshaw	Caerwent

Find spot	Type	Museum	Reference	Decorated panel size (in.)	Notes
Avebury Down	X	Devizes 5/60	ļ	c. 4 ³ / ₄	The simplest example of the second square interlacing (Fig. ξb)
Appleshaw	4	Brit. Mus. 97.12–18.9	Above	$3\frac{1}{4}$	As above, but more sophisticated; second square interlacing, and a closer parallel to Attleborouzh $(Pl. IV c)$
Appleshaw	X	Brit. Mus. 97.12–18.2	Above	Ω ∞∣~1	Much more complex interlacing and curved 'ribbon' is added to enrich squares. Note wave crest circle around as Shapwick and Bath (Pl. III <i>b</i>) cf. the silver
		, , ,			Anastasius dish, Sutton Hoo Ship Burial, pl. 12 (Pl. IVb)
Appleshaw	4	Brit. Mus. 97.12–18.4	Above	44	As above, but with slightly simpler pattern in the 'ribbon' and no wave crest border. Note this dish has a decorated band
					around rim, formed by wavy ribbon and souirls (Pl. IV <i>d</i>)
Welney	3b	Arch. and Eth. 67.181	V.C.H. Norfolk, I, 310;	6	The decoration is much more detailed on
			Skertchely, p. 474; Trans. Cambs. Philos. Soc.		this huge dish (28 in. diameter). It has been fancifully drawn in the references
			(1870); Proc. U.A.S. XLIII (1950), p. 19; Proc. C A C VIII (1990) 700		given. Comparison of the excellent photograph by Mr Hallam Ashley, with
			6/ ((0461) 172 .011210		show the extent of the 'enterprise' apparent in the drawings (Pl. Va)
Manton	4 <i>c</i> (i)	Devizes 281	Devizes Mus. Cat. II	$3\frac{1}{2}$	The author has not been able to trace the
			(1934), p. 109; V.C.H. Wilts. (1957); 1, pt. 1 Illus. London News, Feb. 1884		majority of this hoard. I hose extant do not closely resemble the illustration in the <i>Illustrated London News</i> . There appear to be three decorated dishes in this hoard not vet traced (Pls_Vh and VI)
Isleworth	4 <i>c</i>	London Museum A 19574	London in Roman Times, London Mus. Cat., no. 3, p. 120	2.9	An unsophisticated, crude and disjointed effort (Pl. Vc)
Stamford	4	Brit. Mus. 27.1–61.1		4 600	Quite unique, in style and treatment. The decoration is carried out by the incisions being at right angles to the line of progress. The centre shows a 'wheel' arrangement, surrounded by an outer circle containing seven 'trees' (or perhaps branched candelabra), and six 'X s', two of which may incorporate an attempt at Chi Rho (Pl. Vd)

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	Tin (%)
(Items are not confined to plates and dishes)	Museum catalogue numbers

	Find spot	Museum catalog	ue numbers	Tin (%)	Reference	Date
' Fish' dish	Appleshaw (Hants.)	Brit. Mus.	97.18-12	81.66	Wedlake	350 A.D.
Dish	Appleshaw (Hants.)	Brit. Mus.	97.18-12	5.06	1	350 A.D.
Cup	Appleshaw (Hants.)	Brit. Mus.	97.18–12	76	Tylecote, 68	350 A.D.
Small dish	Appleshaw (Hants.)	Brit. Mus.	97.18-12	72	Tylecote, 68	350 A.D.
Flanged cup	Appleshaw (Hants.)	Brit. Mus.	97.18–12	9.02	Tylecote, 68	350 A.D.
Dish	Appleshaw (Hants.)	Brit. Mus.	97.18–12	65	Tylecote, 68	350 A.D.
Plate	Camerton (Somerset)	Som. Arch. Soc.	1	40.5	Wedlake	300 A.D.
Dish	Burwell (or Whittlesea) (Cambs.)	Arch. and Eth.	83.774	43	Liversidge, 6–10	1
Dish	Abington Pigotts (Herts.)	Arch. and Eth.	51.344 <i>a</i>	62	Liversidge, 6–10	
Dish	Abington Pigotts (Herts.)	Arch. and Eth.	51.344 <i>a</i>	70	Liversidge, 6–10	
Tazza	Sutton (Cambs.)	Arch. and Eth.	22.753	62	Liversidge, 6–10	
Dish	Sutton (Cambs.)	Arch. and Eth.	1891.41	68	Liversidge, 6–10	-
Dish	Isleham (Cambs.)	Arch. and Eth.	22.755	72.5	Liversidge, 6–10	
Dish	Isleham (Cambs.)	Arch. and Eth.	22.758	76	Liversidge, 6–10	ļ
Dish	Isleham (Cambs.)	Arch. and Eth.	22.752	69	Liversidge, 6–10	-
Bowl	Icklingham (West Suffolk)	Arch. and Eth.	Н.192а	79	Liversidge, 6–10]
	West Row, Mildenhall (West					
	Suffolk)	Arch. and Eth.	1941.107.9	74.25	Liversidge, 6–10	1
	West Row, Mildenhall (West					
	Suffolk)	Arch. and Eth.	1941.107.2	73	Liversidge, 6–10	

Rim Type 4a is represented by recorded tin compositions of 43, 72.5, 76 and 69%.

Note. Although the Appleshaw hoard items are of presumably similar date, they show a great variety of composition, 99 to 65%.

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ABBREVIATIONS

Arch. and Eth.	Museum of Archaeology and Ethnology, Cambridge
Bath	Roman Baths Museum, Bath
Brit. Mus.	British Museum
Inst. Arch.	Institute of Archaeology, University of London
Nat. Mus. of Wales	National Museum of Wales, Cardiff.
Norwich	Norwich Castle Museum
Som. Arch. Soc.	Somerset Archaeological Society, Taunton



Romano-British pewter dishes with decorative panels. (a) Appleshaw, no. 10, Hants. (b) Shapwick, Somerset. (c) Attleborough, Norfolk. (d) Appleshaw, no. 7.



Romano-British pewter dishes with decorative panels. (a) Caerwent, Mon. (b) Appleshaw, no. 2, Hants. (c) Appleshaw, no. 9. (d) Appleshaw, no. 4.





Romano-British pewter dishes with decorative panels. (a) Welney, Norfolk. (b) Manton, Wilts. (c) Isleworth, Middlesex. (d) Stamford, Lincs.

(a)



Pewter hoard from Manton, Wilts. (*Illust. London News*, 1884.) (Asterisk below pieces stated to be in Devizes Museum; some only of these are recognizable).

EXCAVATIONS AT HOCKWOLD-CUM-WILTON, NORFOLK, 1961-62

PETER SALWAY, F.S.A.

[This paper is published with the aid of a grant from the Ministry of Public Building and Works.]

THIS report describes excavations carried out on behalf of the then Ministry of Works at Grange Farm, Hockwold, for six weeks in 1961 and five weeks in the following year (Fig. 1). A R.A.F. vertical air photograph had revealed an extensive system of rectilinear crop- and relief-marks straddling the intended course of the new Cut-Off Channel,¹ a major fen drain intended to relieve flood-pressure from the rivers entering the Fenland Basin from the east, of which other sections were already under construction for the Great Ouse River Board. The work was therefore planned by the Ministry as a rescue operation. Permission to dig was given in 1961 by Mr O. Peacock and in 1962 by the River Board, to whom the land required for the Channel and its banks had passed. To both of these our thanks are due. To the River Board thanks are also due for supplying large-scale plans of the area and of the projected works and for general co-operation throughout.

Grateful thanks are owed to all who worked on the excavations, particularly the assistant supervisors, Mr Christopher Potter, Mr Aidan Macdonald and Mrs Gillian Salway, to the farmers who provided camping sites, Mr O. Peacock and the late Mr A. W. Simpson, and to the officers and men of the U.S.A.F. stationed at R.A.F. Mildenhall, and especially their base commander Colonel Thomas C. Kelly, for an immense amount of practical assistance of every kind. In addition I am much indebted to the various people who have provided specialist reports and whose names are recorded in the appropriate places, and especially to Mr Leslie Cram who was present on the excavation for the whole of the second season.

THE SITES

Further aerial reconnaissance in 1961 by Dr J. K. St Joseph and by myself revealed that the crop- and relief-marks noticed on the R.A.F. photograph taken during the floods of 1947 (Pl. VII) formed the central elements of a continuous complex stretching for nearly a mile and a half. The excavations were concentrated on the central elements, which seemed likely to produce occupation material: this area is plotted on Fig. 2. The bulk of the marks lay on the lower slopes of the chalk ridge

¹ J.R.S. LII (1962), p. 177. fig. 24, has been rendered obsolete by new photographs and further interpretation, and should be disregarded. The centre of the area is at approximately TL 710883.



Fig. 1. Situation of the Hockwold sites 7088 and 7188. (Reproduced from the 1 in. Ordnance Survey Map, sheet 135, by permission of the Director General.)

forming the north side of the mouth of the Little Ouse valley as it opens out into the fens. These lower slopes are so gentle that they form a sort of shelf or platform about 500 yards wide at between about 10 and 15 ft. O.D., just above the probable ancient limit of peat fen, nowadays represented by pockets of peat in the natural and artificial hollows in and south of the shelf. The probable Roman origin of the marks was suspected both from their similarity to other Fenland sites (though on a larger scale) and by reports of the finding of Roman material in the vicinity (for example a



Fig. 2. Plan of the central part of the Hockwold sites, from the air photographs taken by the R.A.F. and Dr J. K. S. St Joseph. The solid circle marks the approximate point from which a substantial quantity of tiles has been reported. (The base-map is reproduced from the 6 in. Ordnance Survey Map by permission of the Director General.)

cremation, apparently from the western end of the area,¹ and a puddingstone quern from somewhere on Grange Farm (see Small Finds list, under site 7188, area b, no. 15)). Surface finds were not forthcoming because the fields had been little ploughed and were at the time of the investigation under grass over the whole of the central area, but we were to learn from Mrs S. J. Hallam after the excavations were completed that a substantial number of Roman tiles had been found south of Grange Farm at the western end of the central area (see Fig. 2). This is sufficiently unusual in the Fenland to indicate a substantial building, likely in a Fen-Edge context to be a villa or a bath-house (which may, as at Little Oulsham Drove, Feltwell, imply a villa as well).

¹ Information from the late R. R. Clarke.



Fig. 3. Roman occupation at the mouth of the Little Ouse valley. Large circles, occupation sites; small circles, isolated finds; open circles, not definitely of Imperial period. 7088, Hockwold, Peacock's Bridge; 7188, Hockwold, Grange Farm east; V, villas and probable villas; T, Sawbench temple; S, Hockwold Treasure (silver); C, Wilton crowns; K, sites with kilns.

A glance at Fig. 3 will show that such a siting of Roman occupation between the high ground and the peat fen was normal for the district and Mr John Bromwich and I shall be showing in the forthcoming Royal Geographical Society research memoir on the Roman Fenland that this pattern was the regular one around the margins of the Southern Fenland. It emphasizes the *attraction* of the Fens for settlers in the Roman period. There are no actual settlement sites on the peat fen but they cluster close around the edge, more or less ignoring the slightly higher ground behind. In the Little Ouse Valley this higher ground is chalk or breckland and can hardly have been such dense forest as to deter settlement. There must have been a positive pull towards the fen, likely to have been the abundance of wildfowl, eels, fish and rich pasture for cattle, horses and sheep. The settlements *may* have grown corn on the higher ground, but there is no sign of field-systems and at Hockwold the ditch-marks run down towards the fen, not up onto the ridge.

The ditch-marks of the central area at Hockwold seemed to fall into two distinct parts. At the western end there was a complex just east of the find-spot of the tiles, bounded by a road or track winding in a general north-south direction. In the Royal Geographical Society memoir this area is called site 7088 (Grange Farm, Peacock's Bridge) and this number will be used for convenience in this report. This site was separated by an open space, bounded on the south by enclosures, from the main block of crop-marks 250 yards to the east. These latter are roughly rectilinear in the manner of many Fenland Roman settlements and seem to depend upon an east-west road which must surely be a continuation (perhaps the end) of the so-called Drove Road (Margary 332). At the eastern end of the site there is a branch from this road running south in the direction of the river, perhaps a route by which travellers along the Drove Road could pick up water transport for a journey further into the Fens. As visible from the air and—in the summer of 1961—on the ground, this block of cropmarks covered about 40 acres almost entirely south of the east-west road, but there were traces of cross-roads projecting north of it and it seems probable that the site formerly extended further north where heavier ploughing has erased all trace. This site as a whole has been numbered 7188 (Grange Farm east).

The chief tasks which these sites presented were to confirm their suspected Roman date, to discover whether site 7188 was a block of agricultural enclosures ('Celtic fields'?) or a large settlement (if so, the largest yet known in the Fenland), and to ascertain if the whole development was occupied at the same time. In addition it was desirable to learn as much as possible about the nature and standard of the occupation.

THE EXCAVATIONS

In 1961 work was concentrated on large-scale excavation at the eastern end of site 7188 (area b—see Figs. 2 and 10). In 1962 the opposite end of the site (area a—see Figs. 2 and 7) was tested on a smaller scale and extensive area excavation under-taken in the south-eastern part of site 7088 (area 2—see Figs. 4 and 6). Also in 1962, to the north of this latter area, one of the hollows which are a feature of the landscape

PETER SALWAY

was examined by deep trenching (area 1), and also one side of a rectangular enclosure was investigated (the rest lying outside the area available for excavation). The area of the suspected villa was not excavated because the information about the find of tiles did not reach us until after the end of our second season.

SITE 7088, AREA I

SITE 7088, AREA I Before excavation the features of this site were a large, roughly rectangular hollow, represented schematically on Fig. 4, and north-west of it the surface indication of what appeared to be a shallow ditch forming part of a rectangular (probably square) enclosure, the west side of which was obscured by a modern track. Large-scale trenching in the hollow down to the natural chalk proved that it was originally much wider. It was almost certainly irregular in shape and natural in origin, like the many depressions which show up so clearly on the R.A.F. air photo-graph (Pl. VII). The rectangular shape on the surface is probably due to com-paratively recent cleaning out, perhaps as a cattle-pond. On the natural chalk surface at the bottom of the hollow (Fig. 5, layer *B*), and in pits cut into it, were many flint flakes, some rather poor tools and one good tanged and barbed arrowhead, suggesting a Neolithic/Early Bronze Age working site, supported by the discovery of scraps of Secondary Neolithic and Beaker pottery (see *Pottery Report*). Numerous pieces of wooden stakes lying tumbled in the fill of pit VI (Fig. 5) suggested some form of shelter. Molluscs from a depression in the surface of the chalk suggested an environment characterized by thin woodland or bush with some open spaces and there were no signs of marsh life (see p. 71, below). In the *Animal Bone Report* (p. 75 fl.) bones associated with Neolithic material have been kept separate from those associated with the Bronze Age, and this has suggested that the Neolithic woodland may have decreased in the Early Bronze Age, but there is no way of proving any break or change in occu-pation or, for that matter, a very lengthy overall period of life for the site. For Fen-land history the most significant feature is the indication of a comparatively dry period in which such hollows were habitable, doubtless providing a comfortable shelter from the will. shelter from the wind.

This is in sharp contrast to the picture presented by upper layers in the section. Layers 9, 10a, 10b, A and B all represent clayey deposits clearly water-borne. Though this is not the Blue Clay of the Bronze Age Fen marine transgression, it does represent a wet phase or phases stratigraphically comparable to it on this site just represent a wet phase or phases stratigraphically comparable to it on this site just off the edge of the fen proper. Above this, around the rim, is layer 4, a loam deposit perhaps indicating a brief dryer period, followed by the extremely interesting shelly layers 3a and 3b. 3b was not only extremely rich in molluscs indicating wet marshy conditions but also produced fragments of probably fairly late Iron Age pottery. It therefore seems certain that in the Iron Age the hollow was a shallow pond or patch of marsh. The variety of molluscs suggested variations in the degree of marshiness, perhaps due to drying out in summer. It was probably in such a dry period that a ditch was cut through layer 3b. However, instead of this ditch filling with the shelly deposit, it and much of the pond layers were covered by a very heavy grey chalky



Fig. 4. Site 7088: plan of trenches, showing relationship between areas 1 and 2.

silt, indicating considerable erosion of the surrounding chalk and probably of the ridge behind the site as well. This contained a very few scraps of possibly Roman pottery—the pond proper had no Roman material.

Excavation of the shallow ditch marking the only side of the rectangular enclosure within the area available for excavation revealed a flat-bottomed, cleanly cut trench into the chalk, in places no more than 6 in. deep and varying between 18 in. and 2 ft. in width. At the west end there were clear signs that it had subsequently been cleared or robbed out. There seems little doubt that it represents the footings trench



Fig. 5. Site 7088, area 1. Section of north half of natural hollow in chalk, showing relation of Iron Age Pond to earlier and later deposits (right-hand end of section projected from next north-south trench). 1, Light grey chalk-flecked silt, probably wash from hill-slope to north; 3a, dark peaty layer with very large number of shells and some Iron Age pottery; 3b, clayey grey-black layer with shells and flecks of carbonized wood (3a, b, Iron Age pond); 4, clayey brown loam; 9, light grey clay with chalk lumps; 10b, dark grey clay, small chalk lumps and fragments of wood, rather peaty and clearly infiltrated by water from above; 10a, dark grey clay, small chalk lumps and fragments of wood; A, dark grey clay and much chalk rubble; B, medium grey clay, flecked with chalk, *sealing extensive spread of Secondary Neolithic/Beaker occupation debris on chalk surface*; C, heavy grey-black mixture of clay, carbonized wood and flecks of chalk; D, lighter grey-blue mixture of clay, carbonized wood and flecks of chalk; E, dark grey-brown band of clay containing carbonized and uncarbonized wood and chalk; F, light grey chalky clay and chalk rubble; G, main fill of pit VI: grey moist clay and chalk débris (C-G, fill of pit: Secondary Neolithic/Beaker occupation debris).

for a narrow wall of which it is not surprising to find in this Fenland country that every scrap of material has been removed. There was absolutely no dating material, but the temptation is to associate the enclosure with the supposed villa.

SITE 7088, AREA 2

The finds from this area give little assistance in determining the relative dating of the various features. This has to be done chiefly by considering the relation of them one to another. The earliest features seem to be the irregular series of postholes marked A on Fig. 6, overlain by the Roman track or road and cut by its side-ditch, and the three pits marked A 2 and A 3. The postholes formed no recognizable pattern (unless they were part of a palisade much renewed) and were filled with yellow clay and sometimes levelled with sand. There were no finds from the body of the postholes. At the top of some of them there was a little black ashy material, apparently debris from Roman structures. The pits A 2 were similarly filled with yellow clay and


Fig. 6. Site 7088, area 2.

sand, and Pit A_3 with yellow clay containing worked flints similar to those from area 1, including a flint 'saw', probably a Beaker pottery-impressing tool. There is no way of knowing whether these flints have any significance for dating the pit or whether they came in with the filling material. The impression given by the whole series is that the posts were removed from the postholes and they and the pits deliberately filled and levelled, presumably in preparation for Roman occupation. This implies that the pits were open and the posts standing when Roman occupation started, however derelict their condition might have been. Since the beginning of Roman occupation will be shown to be probably in the second century it is difficult to put the features discussed earlier than the first century A.D. If the pottery from the pond in area 1 is connected with the same occupation it follows that that is probably first century as well.

The earliest Roman features on the site seem to be the road or track and its side-

ditch (B) and the curved ditches B and B 2, though their relative dating cannot be discovered. B 3 is perhaps in the same series, having the same fill as the neighbouring ditches B and B 2. The structure of the road was simply beaten earth and chalk, very hard. The next features seem to have been the large double ditch C draining into the road-ditch and the associated gulleys C 2. These gulleys had much wattleand-daub and ash in their fill, clearly debris from Roman buildings which the gulleys had presumably served. There was no sign of walls, postholes or sleeper trenches. This baffling lack of structural remains is not uncommon on Fenland sites, where the former presence of buildings is clearly proven by the presence of wattleand-daub. It is almost certainly to be explained in terms of the unpublished discoveries at Welney Washes (site 5394) and those made by Lady Briscoe at Wangford (site 7583)¹ where the structures were founded on low sill walls of clay. At the latter site timber framework and wattling seems only to have been present in the upper part of the building, so that no postholes or sleeper trenches will have been necessary. Very little disturbance of the surface will have been necessary to destroy such a structure completely and make recovery of its ground-plan impossible.

The latest feature was a fragment of a gutter (D) near the centre of the site overlying the gulley complex C, and possibly of the same phase was a shallow pit also marked D in the south-west corner. About the dating of the Roman occupation as a whole it is not easy to be precise, of particular features impossible. There seems some reason to put the primary fill of the road-ditch into the second century, perhaps the first half (*Pottery Report*, Group D), and the presence of a small quantity of secondcentury samian and three coarse sherds from widely separated spots which can be paralleled in the mid-second-century Group I makes occupation in the second century reasonably certain. The presence of a single sherd of first-century samian seems too slender a foundation on which to build a first-century occupation, particularly as it came from the upper fill of the road-ditch, and the absence of all but a single sherd of Castor ware makes occupation in the late second century or third to any extent unlikely. Occupation probably lasted after A.D. 160 but not very far.

The nature of this area's occupation is obscure. The ditch-system B and B_2 seems to be part of an enclosure (with an entrance) which presumably lay to the west. The road is perhaps contemporary with this. Subsequently gulleys and ditches were dug, leading into the road-ditch and it seems highly likely that a wattle-and-daub building stood between the gulley-system C_2 and the road. If there was a villa to the northwest, this was probably the area of farm buildings and farm workers' cottages.

SITE 7188, AREA a

This area was examined to see whether the centre of the main block of crop-marks was occupied like the eastern end (area b). Excavation was concentrated on a slight rise in the ground which seemed most likely to produce domestic occupation. The earliest feature identified was in fact at the lowest point of the area (Fig. 7). This was

¹ Proc. C.A.S. LI (1957), pp. 19 ff.

EXCAVATIONS AT HOCKWOLD-CUM-WILTON, NORFOLK, 1961–62

a wicker-lined storage pit in trench Q 13/15 containing a large portion of the rear end of a cow and Iron Age pottery (*Pottery Report*, no. F 4). The pot itself suggests a simple forerunner of the Colchester olla type (*Camulodunum*, pp. 271 ff.) and can perhaps be reasonably put into the first century. The possibility that in a Fenland context such a type might have overlapped into the Roman period cannot be ruled out. A single fragment of rough-cast ware (A.D. 80–180 in north Britain) came from this pit, and may or may not have been a stray.



Fig. 7. Site 7188, area a.

All the ditches illustrated (Figs. 7 and 8) contained Roman material which could not be dated sufficiently closely to allow differential dating of the individual features. In trench N II the earliest feature seemed to be the shallow trench A which had traces of a possible sleeper trench down the middle. This was cut by the large ditch B, which also cut a ditch or trench A 2 in the adjacent excavation. This ditch B was clearly intended to improve drainage and was entirely filled with chalky silt, containing fragments of wattle-and-daub. This latter suggests some sort of a structure in the middle period. Subsequent to the ditch B becoming completely choked with silt there was some structural activity over it marked by the soil-marks and streaks of wattle-and-daub C. It is not clear what relation with this was represented by the gulley and postholes C 2 or by the soil-marks (or probable ditch system) D. Besides the streaks of wattle-and-daub there was also a large quantity of the same material in the topsoil over these two trenches N II and N I/2, indicating a structure at a late stage in the occupation. The most remarkable feature of the immediate area

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was the 'hoard' of samian in the depression C_3 , in the baulk north of it, and beyond in trench M 2.

In trench P/Q II the trench found in N II seemed to continue (though no sign of the supposed sleeper trench was detected). This was cut by a deep ditch, which continued in trench P/Q I/3, where it contained a large quantity of coarse pottery, and which perhaps corresponded with ditch B. Parts of other ditches were found in R/S I/2, but they did not obviously correspond to those in the other trenches.



Fig. 8. Site 7188, part of area *a*.

Further possible evidence of an Iron Age occupation were two sherds of native pottery from the ditch in P/Q I/3, but as in the 'Iron Age Pit' there was also Roman material present, this time in large amounts. The group of pottery from the north-east corner of the area, including the remarkable and surely deliberately preserved samian, was largely Antonine despite containing a single 'heirloom' bowl of Flavian-Trajanic date. This group included colour-coated material of the late second or early third century and possibly of the third century proper. Apart from a single first-century fragment from topsoil all the rest of the samian from this area could be of the second half of the second century. The general impression of occupation in the middle and second half of the second century is strengthened by the pots from the ditch which ran through P/Q I/3 and P/Q II (nos J 4, J II and J I4 in the *Pottery Report*). The same ditch also produced Rhenish ware, which cannot be dated before the late second century. In addition, from this ditch and from various other points in the area came pottery which can be paralleled in group I in the *Pottery Report* which appears to be dateable to the Antonine period.

Perhaps the most interesting feature in Area a was the pit in trench N 14 which

seems to have acted as a sump. As the section (Fig. 9) shows, after the pit had already received a considerable deposit the pottery of Group H was dropped into it. This group cannot be dated earlier than A.D. 190 and it should probably be put into the third century. The group was sealed by a deposit apparently representing weathering of the chalk under quiet conditions and containing large quantities of willow leaves (see *Organic Material Report*). Above this was a mixture of peat and silt, topped by a thick deposit of unmixed peat. This gave a radiocarbon date of



Fig. 9. Site 7188, area a, trench N 14. 1, Peat; 2, peat and loose grey clay; 3, grey silt with flecks of chalk; 4, similar to 3, but slightly darker; 5, loose dark grey-brown silty chalk mud, with marsh plants; 6, light sand with flecks of chalk; 7, dark grey clay with chalk; a, dark brown peaty loam; b, dark brown loam.

A.D. 239 ± 145 (Q 713), which indicates that the peat in this pit and probably in the hollows elsewhere at Hockwold formed not later than the end of the fifth century. It is therefore a Late Antique rather than a Medieval feature and may have started as early as the third century.

Summarizing briefly, it is clear that there were structures of more than one date in the Roman period and that Roman occupation was active in the Antonine age, starting about the middle of the second century and probably continuing into the early third. The small finds do not suggest a very high standard of life and the 'hoard' of samian suggest that it was regarded as very precious and kept a long time. It seems, indeed, that the Flavian-Trajanic bowl was kept till the end of the occupation, since the 'hoard', which was mostly just below topsoil, must date from a late stage. Perhaps the most important small find was no. 12, the iron plough coulter, in Roman Britain

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most commonly associated with towns and villas, in other words the more Romanized types of settlement. The only other place in the southern Fenlands producing a coulter is Wimblington, site 4692, where, as at Hockwold, there is some evidence for a more substantial structure than the norm in Fenland settlements, raising suspicion of a villa.



Fig. 10. Site 7188, area b.

SITE 7188, AREA b (Fig. 10)

Early occupation in this area is indicated by the discovery of the long-necked Beaker (*Pottery Report*, F 1) from a small pit in the natural chalk and a scatter of flints (hammer-stones, flakes and tools similar to those found on site 7088) well spread over the area. The small number of flints found (19 stratified and 19 in topsoil) and the fact that there was no concentration indicates that the main focus of occupation was not found. This area, however, seems too far from 7088 for these flints to be merely strays. This part of the Hockwold sites is notable on the surface for being

rather more low-lying than the rest and marked by pockets of peat becoming more pronounced southwards. North of the area excavated the chalk bedrock comes to the surface, but over much of the area itself the chalk is covered by a substantial deposit of clean sand. This sand sealed the pit containing the Beaker and from it came the only other stratified fragment of Beaker pottery (F 2) and a few of the flints. It seems probable that this sand was deposited during or after the Early Bronze Age, while a *terminus ante quem* is provided by the Roman ditches cut into it. No later Bronze Age or Iron Age material was found either in the sand or elsewhere in this area.

In 1961 before excavation started the cropmarks seen on the air photographs (Pls. VII–IX) were clearly visible on the ground as contrasting areas of parched grass and rank weeds. A resistivity survey by the Ministry of Works and a gradiometer survey by the Department of Geodesy and Geophysics of the University of Cambridge both confirmed the evidence of the cropmarks. The marks seemed to indicate a north-south road, broadening at one point, and a series of side-roads joining it from the east. Excavation was aimed at examining these features and determining what lay beside and between them.

The main road may not have been the earliest Roman occupation in this area. An early ditch, displaying two phases, was discovered under the body of the road. This ditch had clearly been open for some time, as it was filled with the chalky silt characteristic of the Hockwold sites. There was, however, no dating evidence. The main road itself was 19 ft. across, well cambered and provided with highly irregular side-ditches varying in their width from 3 to 12 ft. In their original form the ditches were shallow, flat-bottomed cuttings between 1 ft. 9 in. and 2 ft. 3 in. deep, but the eastern ditch had been recut a further 9 in. down to a rather more angular profile. The body of the road consisted of a single layer of very hard rammed chalk and earth laid directly on the natural chalk and a foot thick at the centre. No significant quantity of dating material was recovered from the road material or the ditches. A trench on the western side of the road revealed traces of a fairly lightly built timber structure, roughly but not exactly aligned on the road. This perhaps represents a veranda in front of a more substantial structure (Fig. 11*a*).

Of the side-roads only the northern was examined to its full width. It proved to be 20 ft. wide, and the southern ditch, which was examined in detail, was 4 ft. 6 in. wide and 3 ft. deep with a fairly angular profile. The ditches had probably originally been cut fairly close to a V-shape. The ditches were cut into the clean sand overlying the natural chalk and the material lifted was spread out to form the road surface without any bottoming. These side-roads were thus simply sandy tracks and there was no evidence that they had taken heavy traffic. It was, however, clear from the large quantity of pottery in the ditches that there had been fairly intense occupation alongside these roads. An idea of the date when these roads were constructed can be obtained from the fairly extensive group of pottery from the primary silting of the north ditch of the northern road (*Pottery Report*, group I). This group seems to be Antonine, probably around the middle of the second century. The ditch was later re-cut, but from below the re-cutting and above the primary silt came a barbotine



Fig. 11 a-c. Site 7188, area a. Timber constructions (see Fig. 10 and Pl. X).

jar of about A.D. 150 (J 6), Late Flavian/Antonine samian and a mortarium (J 1) of the second half of the second century (probably fairly late in it). From the southern ditch a peat layer sealing the primary silt produced part of a small rough-cast beaker which in north Britain would be dated between A.D. 110 and 180. No Castor ware came from the road-ditches. It may be surmised that the ditches had completely silted up with their chalky wash by or probably before the end of the second century.

The contents of the silts in the main-road and side-road ditches help to illuminate

settlement conditions. In the *Report on Organic Material* Mr Sparks, commenting on the molluscs from the primary silting of the northern ditch of the southern sideroad, says that 'this could be the deposit of something like a slow-moving peaty fen drain'. Of the grey chalky silt in the east ditch of the main road, which can perhaps be taken as typical of this deposit which is present over much of the Hockwold sites, he says 'this seems to be a deposit of a very small and perhaps rather muddy slow stream, with some marsh adjacent, though this may have been no more than a yardwide strip adjoining the stream'. It is clear that life on this site must have involved a continuous struggle against damp, fen-like conditions. This is underlined by the re-cutting of ditches and the fact that all of them filled up to the top with the grey chalky sediment. No brackish mollusca were found, nor any undoubted Holocene foraminifera, so there is no question of a marine transgression directly affecting the site. As in the pit in area *a* everything points to slow silting in quiet conditions, resulting eventually in the site becoming largely waterlogged.

Structural traces of the occupation of this period are few, but some at least of the postholes shown on Figs. 11b and c are clearly not related to the later timber structures above. It is not possible to isolate any significant patterns, but their position in the presumed open space or 'square' might suggest market stalls. The postholes found at the western edge of the area a little back from the main road may also date from this occupation-period. There were also slight traces of early occupation in the south-west corner south of the point marked 'I' on Fig. 10. Over the rest of the excavation postholes were occasionally found between the later features, but these features were not removed to a sufficient depth to be sure that further postholes did not lie beneath them. Further evidence for structures of this period is provided by the discovery of wattle-and-daub in the primary silt of the northern ditch of the northern side-road and, higher up, in the re-cut part of the same ditch. It was also found under the later timber structures in the same part of the site.

We have already noted that the road-ditches became completely filled with chalky silt. There is some reason to suppose that this marks a period of abandonment, presumably in the late second century, and was either a result or a cause of that abandonment. The gap in occupation is made more probable by the situation in which the human skeleton marked on Fig. 10 was found. This was lying on one side on the lip of the northern ditch of the northern road, completely buried in the silt which had spilled over from the ditch. It was clear that it had not been interred but had lain as an unburied corpse until eventually covered with sediment from the overflowing watercourse. Evidently the later builders were quite unaware of the skeleton which was by then entirely concealed. Presumably at the same time, the main road was covered by a layer of the grey chalky silt, suggesting that at times it was impassable. It is possible that traffic through the settlement ceased temporarily, though perhaps only in the winter.

The resumption of regular traffic seems to be implied by the re-surfacing of the road on top of the silt. It seems likely that this was done at the same time as the reoccupation marked by the remarkable constructions of the final period. Over large

areas of the site were traces of what appeared to be planking. Where the chalk came up to topsoil these were present as dark marks on the chalk surface; where the subsoil up to topson these were present as dark marks on the chalk surface; where the subsoil was sand they appeared as flat-bottomed, vertical-sided trenches filled with dark brown material and varying slightly in size but averaging 9 in. across and 3 in. deep (Pl. X). It was not possible to explore under these features everywhere, and one point where such an investigation was made (Fig. 11*c*) showed only earlier, unrelated postholes, but in at least one area (Fig. 11*b*) there was a corresponding series of narrow battens with some vertical pegs. This seems to confirm the interpretation of the plank-like marks above as a form of timber structure. Over the earlier ditches the 'planking' was not preserved, which is view of subsidence is not preserved. the 'planking' was not preserved—which in view of subsidence is not surprising but it ran over the lip of the excavated ditch of the southern side-road. It seems certain that the ditches were by this time full of silt and no longer in use. It is clear that the 'planking' covered too large an area to represent a single building. It is likely that it represents an attempt to consolidate a large patch of wet ground. There was no direct trace of any buildings which may have stood on this substructure, but was no direct trace of any buildings which may have stood on this substructure, but the presence of wattle-and-daub in the topsoil is a strong indication that they did exist. This cannot be debris from the earlier buildings, as there was no sign of disturbance through the 'planking' to the layers below. The dating of this phase is difficult. The quantity of pottery associated with it was small, suggesting only a brief occupation. There was one sherd of Castor, datable not earlier than A.D. 190, associ-ated with the 'planking'. Moreover, three-quarters of all the colour-coated pottery found came from topsoil, as against only half of the samian. It seems likely that this occupation is to be dated to the very end of the second century or early third, though this is no more than an impression. What is clear is that it only lasted a short time time.

AREA K (Sluice Drove)

South-east of site 7188 and probably dependent on it are a further series of cropmarks, chiefly a large irregular enclosure marked K on Pl. VII. Excavation was carried out here by Colonel Kelly in 1962 without positive results. There was no evidence for habitation and only a few fragments of Iron Age or Roman pottery were recovered. It seemed probable that this was an agricultural area, possibly an enclosure for cattle.

SOME CONCLUSIONS ON THE ROMAN OCCUPATION

The evidence presented in the foregoing sections shows that the large area excavated at the eastern end of site 7188 and the smaller area in the centre were both the site of occupation in the Roman period and at the same time. This makes it reasonably certain that the 40-acre block of crop-marks represents a single settlement and quite clear that this is not a field-system. Although the life of site 7088 is not so well dated it is clear that at least for part of the second century this was occupied at the same time as 7188. It seems worth while making the suggestion that in the Antonine period the relation between these sites was that of villa and vicus, or manor house and village. There is a very strong possibility that on the other side of the valley there was a similar relationship between sites 7486 (Brandon, Fenhouse Farm) and 7386 (Brandon, Hiss Farm). The complete absence of coins from the Hockwold sites suggests an economy based on service and payments in kind and perhaps indicates a village of dependent labourers rather than an independent settlement. This pattern of villa estates was perhaps characteristic of the Little Ouse Valley, but it does not of course preclude the area coming at some time under a wider Fenland Imperial Estate.

The crop-marks show no signs of 'Celtic fields'. West of site 7088 air photographs show some large rectilinear enclosures of more than one period but these do not look like arable field systems except in one part. The presence of grain and of millstones and querns on the site does not, of course, prove that corn was grown here; but the plough coulter indicates some arable farming. The animal bones may give a clue to the economy. These are studied in detail in the Report on Animal Bones below. In summary it is clear that not only were cattle the most numerous but they supplied the bulk of the meat eaten. Sheep or goats became much more common than in previous periods and the object of keeping them was probably wool. Pigs were fewer than had earlier been the case, reflecting a decrease in forest and growth of settled farming land. Horses were numerous and the manner in which their bones were scattered over the sites equally with the other animal bones suggests that they too were killed for food. Some of these animals may have been allowed to range freely on the fen in the summer or been kept in the large enclosures to the west and south-east, others were perhaps penned in the small enclosures which link site 7088 to site 7188. Elsewhere in the Fenland the pattern is normally a cluster of small enclosures like gardens or stockyards around the settlement nucleus, with large open spaces, sometimes delineated by running ditches, between the settlements. The picture is of a pastoral rather than an arable landscape. The conclusions here drawn about the type of agriculture practised would fit the Fenland region as a whole.

This occupation seems to have superseded an Iron Age or 'native' occupation, and from the evidence for demolitions and levelling on site 7088 it seems likely that it followed on fairly closely in time though not necessarily indicating continuous occupation. Although it is not easy to determine a starting date for site 7088 there is nothing inconsistent with a beginning for the two sites together in the middle of the second century. The single sherd of Castor from 7088 suggests that the site survived after about A.D. 160, but probably not very long after. On site 7188, however, there is some evidence for survival into the early third century, with an interruption on at least one part of the site (and probably the whole) due to waterlogging in the later second century. The short life of the site in the third century after the large-scale attempt at restoration remains somewhat of a puzzle, but it seems likely that a renewed onset of waterlogging made the site uninhabitable. Similar abandonment of sites at about this time was happening over much of the southern Fenland and it is therefore not surprising here. There is no evidence that these Hockwold sites were ever occupied again.

APPENDIX

In his discussion of the course of Iter V of the Antonine Itinerary, Mr Margary has indicated that the roads between Icinos (almost certainly Venta Icenorum, Caistor-next-Norwich) and Durolipons (probably Cambridge) need a good deal of supposition.¹ He postulates a road from Tasburgh through New Buckenham to Thetford to provide a link between Caistor and the Icknield way, and places Camboricum or Camboritum, which comes between Icinos and Durolipons in the Itinerary, at Icklingham on the Lark. The Itinerary distances between Icinos and Camboritum and Camboritum and Durolipons are 35 and 25 Roman miles respectively, the actual distances about $35\frac{1}{2}$ and 26. Given the uncertainty about the actual roads, this would seem to be a reasonable identification. Some doubts, however, are raised by the nature of the Roman occupation at Icklingham, which seems at present to have been a villa with a number of kilns. This does not seem very appropriate as a road station, if the Itinerary really represents official tours. In general the points on the Itinerary seem to be rather more substantial settlements. It seems worth raising the possibility that the route in fact went further north, via the 'Drove Road' (Margary 332) and then by water or along the bank of the Little Ouse Roddon to join Akeman Street near Littleport, thence to Cambridge. This would put Camboritum at Hockwold, though the actual distances (about 39 and 29 Roman miles) are rather further from the text. In the early third century, apparently after the supposed villa site was out of action, the main settlement at Hockwold was the subject of extensive, if short-lived, works, and as the largest of the Fenland settlements it may have been a suitable point for an inspecting official to halt. The name itself ('the ford at the bend in the river') gives no help, for although Icklingham is the point at which the Icknield Way crosses the Lark, at Hockwold too there is a road running towards the river (the Little Ouse here), heading close to a crossing of some antiquity. The Iron Age material from Hockwold indicates native occupation in the area and the presence in the immediate neighbourhood of the Joist Fen and Lakenheath finds of Icenian coins and the discovery of the first-century Hockwold Treasure hoard of Roman silver, probably loot in the troubles of A.D. 47, a few hundred yards west of site 7088, all suggest that Hockwold was already a centre of some importance before the Roman settlement was founded. The importance of Hockwold as a centre of population is undoubted, but the name can only remain a very tentative suggestion.

THE FINDS

POTTERY

SITE 7088, AREA I (see Fig. 12)

(i) Neolithic and Bronze Age

From the natural hollow in the chalk, found in pits into the chalk and form the chalk surface (see Fig. 5).

A 1. Large black cooking pot, from pit VII.

A 2. Cream-coloured Beaker pottery, from pit III.

A 3. Secondary Neolithic bowl (?), black, from pit II.

A 4. Very friable cream-coloured pot, from pit VII.

A 5. Grey pot, from pit vI.

A 6. Black pot in a shelly fabric, very thin wall, from pit VII.

A 7. Pot in a gritty black fabric with a creamy-brown surface.

A 8. Heavily-cordoned black pot.

Sherds A 2-8 are too small to estimate the rim diameters accurately.

¹ Roman Roads in Britain, I (1955), pp. 245 f.



Fig. 12. Neolithic, Bronze Age and Iron Age pottery. Scale 4.

- (ii) From layer 4 in the hollow (see Fig. 5)
 - A 9. Grey jar (?) with cord-type decoration on rim-date?
- (iii) Iron Age
 - From layers 2 and 3 in the hollow (see Fig. 5).
 - B 1. Buff-grey dish, shelly fabric, rim diameter c. 12 in., from layer 3.

- B 2. Grey cooking pot, very shelly fabric, rim diameter c. 11 in., from layer 3.
- B 3. Grey jar, rim diameter c. 12 in., from layer 2.
- B 4. Grey jar, rim diameter c. 6 in., from layer 3.
- B 5. Buff pot, thumbnail decoration, from layer 3.
- B 6. Buff pot, impressed decoration, from layer 3.
- B 7. Brown sandy pot, incised decoration, from layer 3.
- B 8. Heavy jar in grey fabric, slightly greasy dark grey surface, from layer 3.
- B 9. Dark grey bowl, from layer 3.
- B 10. Base of a dark grey bowl, from layer 3.

SITE 7088, AREA 2

C. Samian and colour-coated wares

Only a very small quantity of samian came from area 2 (11 sherds). Most of it came from topsoil, or was otherwise unstratified, or from the grey chalky wash present over most of the site and subsequent to the occupation. One sherd of a second-century Dragendorff Form 33 came from the fill of the ditch marked 'B 2' on Fig. 6, from the vicinity of the findspot of the iron blade. The supper fill of the road-ditch produced a single small sherd of what appeared to be a form 29, presumably not dateable after A.D. 85, However, in view of the probably second-century date of the primary fill of this ditch this fragment is perhaps from an 'heirloom'. Decorated samian is extremely rare on all these sites: indeed, except for two fragments of the lip of a barbotinedecorated vessel, probably from the same pot, this is the sole example from area 2.

There was only one unmistakable sherd of colour-coated ware from area 2, a fragment of a Castor vessel of uncertain shape. This came from burnt material near the ditch-complex marked 'C 2' on Fig. 6.

D. Stratified group of Roman coarse pottery (see Fig. 13)

From primary fill at bottom of road ditch (see Fig. 6).

D 1. Buff cooking pot, micaceous sheen on surface.

- D 2. Jar, orange surface, creamy-grey fabric.
- D 3. Wide-mouthed grey cooking pot.
- D 4. Black dish, greasy surface, burnished decoration.
- D 5. Cooking pot in grey fabric, black burnished surface with micaceous sheen.
- D 6. Orange storage jar, grey core, rim diameter 13 in.
- D 7. Grey jar, rim diameter $11\frac{1}{2}$ in.
- D 8. Grey jar, rim diameter 7 in.
- D 9. Small dark grey cooking pot, micaceous sheen on surface.
- D 10. Dark grey lid, diameter 6 in.

D 11. Buff mortarium, similar to a mortarium found at Caistor-next-Norwich in a pit filled in the second century but containing much Flavian material (*Caistor*, ¹ R 2 facing p. 230, and p. 210). A second-century date, perhaps in the first half of the century, seems likely. It is worth noting that the large surviving portion makes it virtually certain that the vessel was unstamped. Two fragments of a similar mortarium came from topsoil on site 7188, area a (K. F. Hartley).

D 12. (Not illustrated.) Base of a jar in pink shell-gritted ware.

It is not possible to be certain about the date of this group. There is no obviously early material and it seems reasonable to follow the dating of D11 and put it into the second century, perhaps the first half.

Caistor = D. Atkinson, 'Roman Pottery from Caistor-next-Norwich', Norfolk Archaeology, XXVI (1938), pp. 197-230.



Fig. 13. Roman pottery from site 7088, area 2, and site 7188, area a. Scale 1/4.

E. Miscellaneous Roman coarse pottery from area 2 (see Fig. 13)

E 1. Very dark grey wide-mouthed jar, from one of the gutters.

E 2. Small bowl in hard grey ware with a micaceous sheen, from chalk wash above Roman occupation level.

E 3. Grey flanged bowl, rim diameter excluding flange $7\frac{1}{2}$ in., from upper part of road ditch fill.

E 4. Wide-mouthed jar in hard dark grey ware with a little mica, from road ditch fill.

E 5. Buff storage jar with pinkish interior and punched decoration, from phase C 2 gutter running north-south in centre of area 2.

site 7188

(i) Bronze Age (see Fig. 12)

F 1. Long-necked beaker, from small pit in natural chalk in area b, see Fig. 10.

F 2. Beaker pottery, from clean sand over chalk in area b.

F 3. Beaker pottery, not securely stratified, from area b.

(ii) Iron Age (see Fig. 12)

F 4. Large black wide-mouthed jar, from Iron Age pit in area a.

F 5. Very friable pottery in black fabric with grey-brown surface and stamped decoration, found (probably as a rubbish survival) with large quantity of Roman pottery in fill of southern east-west ditch in area a, trench P/Q 1/3.

F 6. Base in same fabric and from same place as F 5, but not necessarily the same pot (two other, rougher bases came from the same deposit).

It is possible that this pottery of Iron Age type was manufactured in the Roman period, but the existence of an Iron Age horizon without any mixture of Roman material on site 7088 suggests that site 7188 may also have had a pre-Roman Iron Age occupation.

G. Samian and colour-coated wares

In all the areas excavated on the two sites the largest amount of samian came from 7188 area a, though this (just under 100 sherds) was still infinitesimal compared with the coarse pottery. All the samian except two pieces was certainly of second-century date. Those two pieces were a large part of a Dragendorff Form 37 of Flavian/Trajanic date and a small section of a Dragendorff Form 29, presumably not later than about A.D. 85. The fact that these two pieces comprise about one-third of all the decorated samian found in these excavations suggests that they might well have been preserved as precious pieces from a previous home. Apart from these pieces it would not be impossible to put the samian as a whole into the second half of the second century. An interesting feature was that a considerable proportion of the samian came from a single small area in the north-east corner of M 2 itself). Most of it came from a depression in the chalk, forming a group that included all the best pieces from these excavations, including the Form 37 already mentioned, a large portion of another of Antonine date and an almost complete large Form 33 probably to be similarly dated. This concentration is so unusual on these sites that the possibility of deliberate concealment arises.

The quantity of colour-coated pottery from 7188 area a was very small, being only a third as much as the samian. Of this quantity only a quarter was in Castor white fabric. From the same deposit as the samian in the north-east corner of M 2 (which included fragments of a Form 18) came a sherd of a 'Hunt Cup' in pink fabric, perhaps of the late second century or early third. The area which produced the large deposit of samian also produced eight sherds of colour-coated wares including one which appears to be from a red-fabric version of Gillam Form 89, and therefore perhaps of the first half of the third century, and two of Castor. The wattle-and-daub debris on trench N 1/2 produced a single fragment of red colour-coated and a piece of a small beaker in a finer version of the same ware came from the fill of the ditch in trench P/Q 1/3. Both the ditch

at the north end of Q 13/15 and the east-west ditch in P 11 produced pieces of Rhenish suggesting that they were still open in the late second century or later. Rather oddly there was a single fragment of a rough-cast beaker, which would be somewhere between A.D. 80 and 180 on Hadrian's Wall, from the Iron Age pit. As for the poppy-head beaker from the pit in N 14 seen below, group H, Mr Hartley is slightly inclined to put it into the third century.

The total quantity of samian from 7188 area b, was slightly less than from area a (about 90 sherds) but there were no concentrations and no large portions of vessels. Moreover, the finds were made over a much larger area. Only two decorated sherds were found, both undateable. A high proportion of the recognizable sherds were of the late Flavian/Antonine Form 18/31 (some possibly the mid-second-century 31), with a few definitely second-century Form 33s. Only one sherd came from a well-stratified deposit which can reasonably be associated with the laying-out of the road system (see group I, no. 25): this piece seems to be Hadrianic/Antonine. From the same road-ditch came an 18/31 from the fill which had accumulated before the ditch was partially recut. Other 18/31s came from the ditch marked H on Fig. 10 from above and in the layer containing the carbonized grain (*Small Finds*, 7188 area b, no. 21), and from the large pit marked D.

Unlike area a the colour-coated wares totalled as much as half of the samian, but it is perhaps significant that well over three-quarters of this was from topsoil or otherwise unstratified. Only two sherds (from the same pot) came from a relatively early level, from the bottom of a peaty layer sealing the primary deposit in the south ditch of the northern side-road. These sherds were wall fragments of a small rough-cast beaker, which in North Britain might be any date between A.D. 110 and 180 (cf. group J, no. 1). One sherd of Castor from a late layer (associated with the planking at the western end of the site (I on Fig. 10) is probably from a Gillam Form 93 or possibly Form 53 and would not be dated in the North before A.D. 190. Of the total, Castor sherds made up about a quarter and there was no Rhenish.

H. Stratified group of Roman pottery from pit in area a, trench N 14 (see Figs. 9 and 13)

H 1. Poppy-head beaker in red colour-coated local ware, red paste, not earlier than about A.D. 190, quite likely third-century (B. R. Hartley).

H 2. Black dish, grey fabric.

H 3. Black cooking pot, sandy fabric. This pot had burnt grain adhering to the inner surface. Not accurately datable; on general grounds, third-century rather than second (B. R. Hartley).

I. Stratified group of Roman pottery from primary fill of the ditches of the northern side-road (area b) (see Figs. 14 and 15)

- I 1. Black cooking pot, gritty fabric.
- I 2. Deep dish, black surface with slight micaceous sheen.
- I. 3. Black cooking pot.
- I 4. Large buff jar in gritty fabric.
- I 5. Dark grey wide-mouthed jar.
- I 6. Cooking pot, black surface with slight micaceous sheen.
- I 7. Jar in buff-orange fabric with grey slip.
- I 8. Jar, medium grey surface and buff-grey core, rim diameter 10 in.
- I 9. Jar, medium grey surface, buff-grey core, rim diameter 6 in.
- I 10. Jar, rim diameter 7 in.
- I 11. Grey jar, rim diameter 10 in.
- I 12. Jar, rim diameter 8 in.
- I 13. Buff jar, rim diameter c. 11 in.



Fig. 14. Roman pottery from site 7188, area b. Scale $\frac{1}{4}$.



Fig. 15. Roman pottery from site 7188, areas a and b. Scale $\frac{1}{4}$.

- I 14. Black jar, greasy surface, grey core, rim diameter 8 in.
- I 15. Dark grey jar, buff core, rim diameter 9 in.
- I 16. Dark grey jar, rim diameter $7\frac{1}{2}$ in.
- I 17. Grey storage jar.
- I 18. Large buff flagon.

I 19. Mortarium, cream fabric: rim-forms beaded on the distal end of the flange were much favoured by the potters of Norfolk and perhaps Suffolk in the second century. This can be closely matched in a mortarium by AESVMINVS from Caistor-next-Norwich (*Caistor*, R 29, facing p. 230). One of his mortaria was found (burnt) almost complete, in the destruction deposit believed to be of the late second century at Corbridge (*Archaeologia Aeliana*, 4th ser., XXVIII, fig. 9, no. 61, and p. 192; the stamp has been identified since publication). The life of the form is not necessarily closely fixed by this evidence for AESVMINVS (who almost certainly worked in East Anglia, presumably in the late Antonine period), but it seems likely to have been Antonine (K. F. Hartley).

I 20. Mortarium, cream fabric, stamped RESPEC with s reversed. The stamp may well be complete and is clearly to be expanded to RESPECTVS. His work is unrecorded elsewhere. There is a close parallel to the form from Caistor-next-Norwich (*Caistor*, R 24, facing p. 230, and p. 213) in a deposit dated A.D. 150–190 by Professor Atkinson. The life of this form is not known but the general typology of Norfolk mortaria points to a *floruit* within the period A.D. 130–180 (K. F. Hartley).

I 21. Jug with pinched spout, red fabric with creamy light-brown slip.

I 22. Coarse black jar, in native tradition.

I 23. Small cream flagon.

I 24. Coarse black jar.

I 25. (Not illustrated.) Samian fragment, apparently from a Ludovici Form Tb: Hadrianic/ Antonine?

I 26. (Not illustrated.) Fragments of barbotine spotted grey ware in micaceous fabric.

J. Miscellaneous Roman coarse pottery from site 7188 (see Figs. 15 and 16)

J I. Mortarium, from fill of original cutting of the northern ditch of the northern side-road, area b. Cream fabric with dark-brown surface: the incomplete stamp reads]CCIASAF, with probably not more than one letter missing at the beginning. It is the only example known and the full name of the potter must remain uncertain, though A or U are most likely judging from Holder's records (*Altceltischer Sprachschatz*). In size and type of border the stamp is markedly like one of ABISSO on a very similar mortarium found at Gayton Thorpe villa (*Norfolk Archaeology*, XXIII, pt. ii, pl. XIV, no. 13). Six other similar mortaria were found there (*ibid*. nos. 12 and 15, and p. 200; the incorrect dating given there was later emended in *Caistor*, p. 214, R 31). ACCEPTVS, the Colchester potter who also made colour-coated ware and samian, used this form in the second half of the second century. It is clear from general evidence that the practice of stamping mortaria had ceased entirely by about the end of the second century, and in many places earlier. The Hockwold mortarium may be dated with certainty to A.D. 150-200 and it is likely to belong to the latter half of this period (K. F. Hartley).

J 2. Dark grey cooking pot, distorted in firing but used, from lower fill of northern ditch of northern side-road, area *b*. It is similar to *Caistor*, S 25, dated by Professor Atkinson to A.D. 120-160.

J 3. Grey rusticated cooking pot, found in the southern ditch of the northern side road, area b, in a peat layer and lying on top of the primary silting (cf. notes on colour-coated, p. 62).

J 4. Grey carinated cooking pot, from area a, from the fill of the southern east-west ditch,

P/Q I/3. Its shape is in the general class of *Caistor* group G, dated by Professor Atkinson to A.D. $IIO-I50.^{1}$

J 5. Large grey flask, unstratified, from Area b.

J 6. Barbotine-decorated jar in buff fabric with black polished outer surface and grey inner, from the original cutting of the northern ditch of the northern side-road in area b. The form seems to be a larger version of the beakers number T 9 and T 10 at Caistor and dated in the Caistor pottery report as c. A.D. 150.



Fig. 16. Roman pottery from site 7188, areas a and b. Scale $\frac{1}{4}$.

J 7. Small black dish with black core, rouletted decoration, from the fill of the northern ditch of the northern side-road in area b.

J 8. Small cream flask, from topsoil in the north-east part of area a (trench N 1).

J 9. Grey dish, grey fabric, from the same location as J 4.

J 10. Shell-gritted buff-pink storage jar, from the same location as J 4. Compare D 12.

J 11. Large narrow-mouthed jar with hard dark grey surface and grey fabric, from northsouth ditch in southern part of area a trench P 11. It is in the same general class as *Caistor* S 8 (c. A.D. 120–150) but not a close parallel.

J 12. Black micaceous bowl, in topsoil close to location of J 11.

J 13. Grey dish, from area b, from level of 'planking'.

J 15. Carinated jar in grey micaceous ware. Although it has a longer neck it is in the same general class as *Caistor* S 14 and S 15 (A.D. 120–150) and type G from the Caistor kilns (D. Atkinson, 'Three Caistor Pottery Kilns', *Journal of Roman Studies*, XXII, 1932, pp. 33–46) dated by Atkinson to A.D. 120–150. This piece came from approximately the same location as J 11.

¹ Cf. also Coldham Clamp Fig. 4, C 18 (c. 120/130-c. 200) (T. Potter, 'The Roman Pottery from Coldham Clamp', Proc. C.A.S. LVII (1965), pp. 12 ff.)

SMALL FINDS

The small finds from these sites are relatively few and mostly undistinguished and stratigraphically unimportant. They are listed here by areas to give an impression of the quantity of material found on sites of this kind. For the Roman period it reveals that in the second century the inhabitants could obtain some manufactured articles, but that these were relatively scarce. No coins were found in any of the areas excavated.

SITE 7088, AREA I

From the Wall-trench (?) area-no finds except one nail.

From the Hollow (see Figs. 4 and 5):

1. Piece of polished bone, $4\frac{1}{2}$ in. long, tapering to a blunt point. From layer 9, in north-south trench.

2. Large bone needle, $3\frac{1}{2}$ in. long, for netting (?). From layer 4, in north-south trench.

3. Stone sinker or weight, torpedo shaped. In east-west trench, from shelly layer equivalent to layer 3 in published section.

4. Stone weight, circular, pierced. From same layer as no. 3.

5. Small whetstone. From same layer as no. 3.

6. Tanged and barbed flint arrowhead. From the chalk surface at the bottom of the east-west trench. This arrowhead, of Bronze Age type, was the only well-made flint implement found in area 1. A considerable number of very crude implements, flakes and cores, probably Bronze Age, were found scattered over the chalk surface and in the layer immediately above in both trenches.

SITE 7088, AREA 2

1. Flint 'saw'—flint implement $1\frac{3}{4}$ in. long, serrated along half of one edge, probably used for stamped decoration of Beaker pottery. From Pit A 3, from which came a number of flakes and implements similar to those from area 1.

2. Thin bronze pin, Roman, simple moulded finial, point lost, present length $2\frac{1}{4}$ in. From ditch system B, close to findspot of iron shears marked on Fig. 6.

3. Bronze finger ring, Roman, inner diameter $\frac{5}{8}$ in.: bezel an enamelled and gilt roundel, blue centre; hoop flat internally and rounded externally, no shoulder. First or second century? From south-west corner trench, in layer under topsoil.

4. Curved tapering piece of Bronze, Roman, length 3 in., section flat internally and curved externally; perhaps part of a coil or pennanular bracelet. From a depression in the surface east of south end of forked gulley C 2 (see Fig. 6).

5. Bronze tweezers, Roman, length 2 in. From gulley C 2, cf. Fig. 6.

6. Two fragments of fine sheet bronze, Roman. From upper part of fill of road ditch.

7. Iron shears, Roman, seen as a stain on the bottom of ditch system B (see Fig. 6), photographed, but impossible to preserve.

8. Iron object, presumably Roman, in two fragments—knife blade? From the curved ditch B 2 (see Fig. 6).

9. Thirteen Roman nails of varying size, fairly evenly distributed over site.

10. Spindle whorl, Roman, made from base of a small black pot. From upper part of road ditch fill. 11. Two stone sling stones of uncertain date, from layer under topsoil in trench at south-west

corner of site.

12. Whetstone of uncertain date. From vicinity of pit of series A 2 near to findspot of iron shears (see Fig. 6).

13. Base of coarse black pot, Roman, with hole drilled through centre, perhaps from a cremation. From fill of broad ditch, series B, at south end of site.

14. Base of coarse black pot, Roman, with hole knocked through centre, perhaps from a cremation. From fill of ditch C.

15. Two fragments of a large millstone, unstratified, presumably Roman (cf. 7188, area a, no. 21).

SITE 7188, AREA a

1. Bone pin, Roman, from a ditch in trench R/S I/2.

2. Miniature bronze axe head, Roman. From chalky layer under topsoil in trench M 2. A toy, an amulet or a votive object.

3. Bronze penannular brooch, Roman, diamond section hoop with coiled terminals. From centre of trench Q 13/15, from beneath rammed chalk of ancient track or yard.

4. Rim fragment of dark blue glass, Roman, from chalky layer under topsoil in trench M 2. Perhaps from a pillar-moulded bowl: if so, the deep colour would suggest an early to mid first-century date (D. Charlesworth, 'Roman glass in Northern Britain', *Archaeologia Aeliana*, ser. 4, XXXVII, 1959, p. 38), but the type goes down to Trajan in Britain and to the mid second century in Germany.

5. Four fragments of Roman bottle glass, three blue-green and one yellowish green. From the same layer in trench M 2 as no. 4.

6. Fragment of thin pale green glass of uncertain date. From trench R/S 1/2 from surface of natural chalk.

7. Rim and two other fragments of a large bottle, Roman. Found together with samian in depression in chalk in north-east corner of trench N 1/2.

8. Fragment of green bottle glass, Roman. Unstratified.

9. Fragment of pale green glass, Roman. Unstratified.

10. Blue glass bead, with multicoloured spots, Roman. From topsoil in trench P/Q I/3.

11. Lip of a Roman green glass bottle, fused and abraded after original breakage. From topsoil in trench N 1/2.

12. Part of an iron plough coulter, Roman. From the ditch fill in the middle part of trench $P/Q_{1/3}$.

13. Large iron nail, probably Roman, $5\frac{3}{4}$ in. long. From topsoil in trench PQ/1/3.

14. Five Roman nails widely distributed over site.

15. Spindle whorl, Roman ?, made from a limestone flake. From topsoil in trench P/Q $\frac{1}{3}$.

16. Spindle whorl, Roman ?, made from a pebble. Same provenance as no. 15.

17. Whetstone, Roman ?, from fill of ditch at east end of trench Q 13/15.

18. Fragment of shale. From fill of main ditch in trench N 11.

19. 'Ash-tray'—base of pinkish-buff Roman coarse pot with broken edge deliberately smoothed. From baulk between trenches M 2 and N 1/2, unstratified.

20. Piece of moulded very hard daub, presumably substitute for plaster. From fill of ditch near middle of trench P/Q I/3.

21. Fragment of millstone. From fill of ditch in trench $P/Q_{1/3}$.

7188, AREA b (see Fig. 10)

1. Bone pin, fragmentary, Roman. From the large area of postholes on western side of site, just below peaty topsoil.

2. Bone pin, fragmentary, Roman. From topsoil east of findspot of Beaker.

3. Bronze brooch, Roman, bottom half (pierced catch-plate and thin bow). From the 45° trench in the south-eastern part of the site, beyond eastern end of planking.

 Bronze brooch, Roman (pin missing). From the 45° trench, south-eastern part of site.
Bronze brooch, Roman (pin and half of body). From the 45° trench, from topsoil outside area of planking.

6. Bronze brooch, Roman, 'Langton Down' type (cf. Camulodunum, pl. XCIV, 92; Hod Hill, I, C 29-32): a basically Claudian type, but with the developments in the mid or later first century. From area marked A on Fig. 10.

7. Engraved carnelian from a signet ring, Roman, depicting Abundantia facing right with cornucopia and patera-first or second century (J. M. C. Toynbee). There is a similar stone from Mursa in the Osijek Museum, Yugoslavia. The stone came from the area marked B on Fig. 10, unstratified.

8. Fragment of a green bottle, Roman. From the fill of the eastern ditch of the main road at a depth of about 2 ft. 6 in. in the southern section.

8. Iron bead of uncertain date. From topsoil in the trench marked C on Fig. 10.

9. Nine iron nails of various sizes Roman (widely distributed over site), including one imbedded in daub from topsoil in the area marked A on Fig. 10, suggesting a structure including a nailed timber frame.

10. Fragment of limestone from the large pit marked D on Fig. 10.

11. Slingstone (?), from the trench marked C on Fig. 10, in topsoil.

12. Two fragments of millstone (?), probably Roman. From area of timber structure (Fig. 11a), in topsoil.

13. Fragment of millstone, probably Roman. From fill of west ditch of main road, northern section.

14. Two fragments of millstone, probably Roman, from fill of large pit marked D on Fig. 10.

15. Part of a Hertfordshire Puddingstone quern, Roman. From the area marked E on Fig. 10, unstratified. A complete upper stone in this material was found somewhere on Grange Farm at an earlier date.

16. Fragment of a Hertfordshire Puddingstone quern (?), probably Roman. From the area marked F on Fig. 10, unstratified.

17. Fragment of a Hertfordshire Puddingstone quern, Roman. Unstratified.

18. Part of a whetstone of uncertain date. From the area marked F on Fig. 10, in topsoil.

19. Worn whetstone, presumably Roman. From among planking in area marked F on Fig. 10.

20. Part of a whetstone of uncertain date. From the area marked G on Fig. 10, in topsoil.

21. Quantity of charred grain, not certainly identified but probably spelt. From fill of ditch marked H on Fig. 10.

ORGANIC MATERIAL

Molluscs and Plants

B. W. Sparks, D. M. Churchill and J. R. Haynes

SITE 7088, AREA I

(i) From the hollow, in layer 3a (see Fig. 5)

Molluscs

The shelly sample taken from the excavations in early July, 1962, proved to be extremely rich and contained the following 35 species:

EXCAVATIONS AT HU	CKWOLD-C	10 M-WILTON, NORFOLK, 1901-02	2 /1
Valvata cristata Müller	293	*Pupilla muscorum (Linné)	3
Bithynia tentaculata (Linné)	35	*Vallonia costata (Müller)	17
*Pomatias elegans (Müller)	3	*Vallonia pulchella (Müller)	26
*Carychium minimum Müller	377	*Vallonia excentrica Sterki	3
Lymnaea truncatula (Müller)	124	*Vallonia sp.	55
Lymnaea glabra (Müller)	299	*Clausilia bidentata (Ström)	I
Aplexa hypnorum (Linné)	178	*Helix (Cepaea) sp.	I
Planorbis planorbis (Linné)	42	*Hygromia hispida (Linné)	65
Planorbis leucostoma Millet	967	*Punctum pygmaeum (Draparnaud)	23
Planorbis crista (Linné)	129	*Euconulus fulvus (Müller)	6
Planorbis contortus (Linné)	8	*Retinella radiatula (Alder)	3
Segmentina nitida (Müller)	29	*Zonitoides nitidus (Müller)	80
*Succinea putris (Linné)	8	*Agriolimax sp.	13
*Succinea pfeifferi Rossmässler	14	Sphaerium corneum (Linné)	I
*Succinea sp.	86	Sphaerium lacustre (Müller)	3
*Cochlicopa lubrica (Müller)	18	Pisidium casertanum (Poli)	228
*Vertigo antivertigo (Draparnaud)	53	Pisidium personatum Malm	210
*Vertigo moulinsiana (Dupuy)	I	Pisidium obtusale (Lamarck)	232
*Vertigo angustior Jeffreys	5		3.630
			51.59

The fauna listed above is a mixture of land and fresh-water forms. Of the total number of specimens recorded, 76 % are freshwater and 24 % land. Of the fresh-water total, 80 % are specimens belonging to what might be termed slum species, namely those capable of living in very poor water conditions, i.e. subject to considerable variations in volume, temperature and oxygen content. Of the land species, 90 % are either characteristic of or frequently found in marshes. In fact, the environments required by the slum freshwater species and the marshland species are very similar so that the predominance of these two groups of Mollusca points to little more than a wet marshy patch. Although there are freshwater species which prefer moving water, and land species which prefer drier conditions, both of these are present in such small numbers that they can probably be explained by either accidental introduction or by temporary improvements in the state of the water body concerned. These Mollusca do not of course reveal anything about the date of the deposit.

(ii) From the hollow, from a depression in the natural chalk surface in the east-west trench.

Molluscs, etc.

•			
*Pomatias elegans (Müller)	2	*Discus rotundatus (Müller)	2
*Cochlicopa sp. indet.	2	*Vitrea contracta (Westerlund)	I
*Vallonia costata (Müller)	3	*Oxychilus cellarius (Müller)	I
*Acanthinula aculeata (Müller)	I	*Retinella pura (Alder)	3
*Ena montana (Draparnaud)	I	*Retinella nitidula (Draparnaud)	5
*Clausilia bidentata (Ström)	I	*Zonitoides nitidus (Müller)	2
*Hygromia hispida (Linné)	11		

Probably thin woodland or bush with some dry open spaces. This is supported by frequency of Sambucus nigra (elderberry) seeds in the deposit. B.W.S.

* Land species are asterisked throughout.

(iii) From the hollow, from the chalky clay sealing the chalk surface and containing flints presumably from the occupation on the chalk (layer B):

Pinus sp.

Prunus spinosa

D.M.C.

SITE 7188, AREA *a*

From the pit in trench N 14, layer 5, sealing pottery group H (see Fig. 9).

Plant remains

Seeds Lycopus europaeus L. Urtica dioica L. cf. Baldellia ramunculoides (L.) Parl. Juncus bufonius Juncus sp. Compositae Leaves Salix sp. (very abundant and all deposited in a horizontal

plane)

The habitat which these species have in common is that of ditches, ponds, marshes and fens. Urtica and Juncus bufonius are commonly associated with sites of human disturbance, cultivation or arable land. The leaves indicate that the filling of the pit took place under very quiet conditions.

Foraminifera

A large number of foraminifera was found in this sediment and this led to the speculation that the sediment may be of marine origin. The sample contained *Globotruncana*, *Globigerinella*, *Cibicides*, *Gyroidina*, *Gavellinella* and *Marginulina* which are Upper Cretaceous genera. No undoubted Holocene foraminifera were seen. Thus the possibility of a marine origin for these silts is highly unlikely. It seems far more probable that the sediment resulted from the inwash of weathered chalk. D.M.C. and J.R.H.

SITE 7188, AREA b (see Fig. 10)

(i) From the east ditch of the main road (north section through road), from grey chalky silt fill

Molluscs

Valvata cristata Müller Bithynia tentaculata (Linné) *Carychium minimum Müller Lymnaea peregra (Müller) Aplexa hypnorum (Linné) Planorbis carinatus Müller Planorbis planorbis (Linné) Planorbis vortex (Linné) Planorbis leucostoma Millet *Succinea putris (Linné)

- *Cochlicopa lubrica (Müller)
- *Vallonia costata (Müller)
- *V. pulchella (Müller)
- *Hygromia hispida (Linné)
- *Vitrea contracta (Westerlund)
- *Zonitoides nitidus (Müller) Pisidium casertanum (Poli) Pisidium milium Held Pisidium nitidum Jenyns

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EXCAVATIONS AT HOCKWOLD-CUM-WILTON, NORFOLK, 1961–62 73

All these are present in very small numbers, usually less than 5, except for *P. leucostoma*, which is by far the most abundant, and *H. hispida* which is fairly common.

This seems to be a deposit of a very small and perhaps rather muddy slow stream, with some marsh adjacent, though this may have been no more than a yard wide strip adjoining the stream. There are no brackish Mollusca whatever. B.W.S.

Foraminifera

A number of foraminifera were present in the sediment. No undoubted Holocene forms were present in the sediment and all consisted of reworked Upper Cretaceous foraminifera.

No diatoms were found.

Planorbis planorbis (Linné)

D.M.C. and J.R.H.

B.W.S.

(ii) From north ditch of southern side-road, from the primary silting of the ditch, sealed by peat

Valvata cristata Müller	I	Planorbis leucostoma Millet	6
Bithynia tentaculata (Linné)	8	Planorbis crista (Linné)	I
*Carychium minimum Müller	I	Planorbis contortus (Linné)	4
Lymnaea palustris (Müller)	I	*Succinea putris (Linné)	I
Lymnaea peregra (Müller)	5	*Helix nemoralis Linné	I
Planorbis planorbis (Linné)	18	Pisidium obtusale (Lamarck)	I

This could be the deposit of something like a slow-moving peaty fen drain.

(iii) From the north ditch of the northern side-road, from a sandy level sealed by chalky grey silt.

Planorbis planorbis (Linné) Planorbis leucostoma Millet 4 I (iv) From the same level as (iii), different sample Lymnaea stagnalis (Linné) *Hygromia liberta (Westerlund) I I *Hygromia hispida (Linné) Sphaerium corneum (Linné) I 2 (v) From the same ditch as (iii), but in mud sealed by the sandy silt layer Planorbis planorbis (Linné) 18 (vi) From the same ditch as (iii), not closely stratified *Helix (Cepaea) sp. indet. I (vii) From the ditch marked 7 on Fig. 10, from grey fill *Helix nemoralis Linné Planorbarius corneus (Linné) I Ι

I

A HUMAN SKELETON FROM SITE 7188, AREA b

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> Sex: Male Age: Approx. 35–40 years. Stature: Approx. 5 ft. 6 in.

The cranium is less robust than one would expect of a fully adult male individual, but the mandible is clearly male in character, as also are the post-cranial bones. On the frontal bone of the cranium, above and to the right of the supra-orbital torus, is a small depressed area which suggests a healed fracture. Also on the frontal bone in the centre, is a slightly raised area with osteoporosis, which extends to the parietal eminences, the osteoporosis possibly caused by inflammation due to the fracture. The portion of the maxilla which would have contained the second and third molars is not preserved, but from what is present it can be seen that both left and the second right premolars, and the first right molar were lost ante-mortem, the alveoli having resorbed. The two right incisors have been lost post-mortem, leaving, in situ, two left incisors, both canines, a first right premolar, and a first left molar. From the mandible, it seems likely that the second left molar was lost ante-mortem and the crown of the first left molar also lost ante-mortem, with a diseased root of this tooth left in situ. The left lateral incisor has been lost post-mortem and with the exception of both third molars which an examination of the relevant areas of the mandible suggests these teeth never formed, the rest of the teeth remain in situ. All the teeth of the maxilla display a medium degree of attrition, while those of the mandible, except the two right molars, display a medium degree. The two molars display only a slight degree of attrition and it is feasible to suggest (though the equivalent portion of maxilla is not preserved) that the upper right molars were lost rather early in life, and so precluded a lot of wear on the lower. There is evidence that the first right molar was lost ante-mortem. The buccal and lingual areas of the crown of these two lower molars extend downwards towards the alveolar border of the mandible more than is found normally. A single carious cavity, in each case, can be seen on the mesial crown surface of the upper first right premolar, and on the distal crown area of the lower first right molar: recession of the alveolar borders of the maxilla and mandible indicate a slight to medium degree of periodontal disease, while it is possible that abscesses were present in the apices of the sockets holding the first and second left molars of the mandible. Some of the teeth display a slight degree of enamel hypoplasia. Other non-metrical features recorded on the skull are two small wormian bones in the lambdoid suture, a right parietal notch bone, a slight mandibular torus, and the bilateral occurrence of stellate pterion, which is very uncommon.

The upper teeth, and tooth sockets in the case of missing teeth starting from the first right premolar and proceeding mesially along the front of the maxilla to the left canine, are overcrowded and deviate from the normal positions, some to a greater degree than others. The lower teeth are normal, though the right canine is rather crowded, and rotated slightly in a buccal and distal direction.

Some of the postcranial remains are rather fragmentary, but maximum length measurements could be recorded for some of the long bones, so enabling an approximate stature of the individual to be calculated. Both femora are platymeric (i.e. show marked antero-posterior flattening of the upper portion of the shaft below the trochanters). The right tibia is platycnemic and the left mesocnemic (i.e. marked side to side flattening of the shaft), the former being more pro-

EXCAVATIONS AT HOCKWOLD-CUM-WILTON, NORFOLK, 1961–62 75

nounced than the latter. The tibia are also bowed antero-posteriorly. A slight to medium degree of osteo-arthritis can be observed on vertebrae from the various regions of the vertebral column, the lumbar region being the most affected. The right innominate bone is also affected at the auricular area, and so to a lesser extent is the left innominate bone. There is the possibility that the right innominate bone and sacrum were ankylosed, but the sacrum is nearly non-existent, so one cannot be dogmatic about this. On the anterior surface of the right patella is a raised roughened ossified area, extending a little beyond the superior and inferior borders, the possible cause of this being a chronic strain put on the quadriceps muscle for one reason or other. (The customary biometric measurements have been taken on the skull and long bones, and are recorded in the Duckworth Laboratory.)

REPORT ON THE ANIMAL BONES FROM HOCKWOLD

C. L. Cram

Introduction: the aims of the Report

This report is based on the animal bones excavated at Hockwold in 1961 and 1962. The 1961 assemblage consisted of the more complete bones excavated, all coming from the Roman period. In 1962 a larger collection was made; all the bones found during excavation were kept for examination and they came from the following periods: Late Neolithic, Early Bronze Age, Bronze Age to Iron Age, Iron Age and Roman (mid second century A.D., second century, and late second century).

The bones were studied to compare the information obtained for each period about the species present, their numerical proportions and how they reflect the environment, the ages at death of animals, the measurements of bones and sizes of animals, the amounts of meat available from cattle, and the distribution of bones over the site.

Jewell's measurements of cattle bones from Britain[1]¹ have shown a decrease in the size of cattle from the Neolithic to the Iron Age, and Roman cattle from Corbridge ranged between the sizes of Neolithic and Iron Age cattle. The Hockwold cattle bones were examined to see if they supported Jewell's conclusions.

	NEOLITHIC	BRONZE	BRONZE/ IRON AGE	IRON AGE		RON	1AN	
					Mid second century	Second century	Late second century	%
Cattle	39	85	7	15	8	115	9	4 I
Horse		—	2	I	I	36	2	12
Red deer	4	I		I		2		0 •6
Pig	5	19	3			10	5	3
Sheep/goat	4	6	4	3	3	112	5	40
Dog	2	2				5		1.2

TABLE 1. The number of bones from different animals

The animals present

The numbers of bones from different animals at the various periods are shown in Table 1, together with the percentages of animals from all Roman deposits. Not included in the table are

¹ The figures in square brackets in this section refer to the authorities cited at the end.

specimens from the following periods: Neolithic: roe deer(3), fish tooth(1); Bronze Age: roe deer(1), human tibia shaft(1); Iron Age: bird(1); Roman second century: fish tooth(1) 0.3%, bird(4) 1.2% and many oyster shells. None of the bird bones was from domestic fowl.

A crushed and broken horn core was found from the Neolithic which was 720 + mm. long, measured along its outer curvature, the size suggesting the wild *Bos primigenius*. The same measurement taken on *Bos primigenius* horn cores from Blair Atholl and Kirkcudbright[2] gave lengths of 724 and 540 mm. However, the bones from all periods were below *Bos primigenius* size and so came from domestic cattle, except for the unfused distal end of a radius from the Neolithic which was 189 mm. broad. On a modern shorthorn cow the same bone measured 78.5 mm.

There were three sheep horn cores—no goat—from the Roman sheep/goat category suggesting that the flocks were mainly or entirely sheep.

Discussion

If we look at changes in the numbers of animals during the occupation of the site we can see that cattle are always the most numerous species. The horse is first found between the Bronze and Iron Ages and is the third most frequent animal in Roman times. Sheep/goat are not common before Roman times, then become almost as numerous as cattle. The pig on the other hand becomes less frequent in the Roman period and is missing from the small collection of Iron Age bones. Wild animals are most numerous in the Neolithic but some red deer is found in the Roman period.

In the Neolithic there appears to have been some forest nearby where deer and aurochs were hunted and pigs herded but there would also be open meadows for the cattle to graze. In the Bronze Age there are more cattle, fewer deer, and so perhaps less forest. By Roman times pig and deer are almost absent and the site would be set in farming land where cattle and sheep grazed and crops were grown.

The decrease in pig and increase in sheep has been shown to be a European phenomenon and related to the clearing of forest by prehistoric farmers[3].

	From fu	(a) ision of epip	hyses		From	(b) m eruption and	d wear of te	eth
Months	NEOLITHIC	BRONZE	IRON AGE	ROMAN	Months	NEOLITHIC	BRONZE AGE	ROMAN
					3-5			I
7+	I	3	2	—	6-14	1	4	5
12+	4	8	1	6	9+	4	1	6
18-		I		I	18-	<u> </u>		I
24+	2	9	I	2	18-23		I	
27+	_	I		2	21+	I		1
30 —		I		4	30	_		I
36 -		—	—	3	30-35	—	2	3
36 +		I			33+	2	4	13
42 -	<u> </u>		I		42-	I		5
42+				4	42-47		I	
48	3	I	I	3	45 +	I		4
-				-	48-65	2	I	3
					51+	2	5	5

TABLE 2. Cattle

Ages (in months) at death

Ages at death

All horse, dog and pig remains which gave an indication of age at death were from mature animals, except for an immature pig's mandible each from the Neolithic and Roman periods. The ages at death of cattle and sheep/goat are shown in Tables 2 and 3; they are based upon the fusion of epiphyses of bones and the eruption and wear of teeth as given by Silver[4]. Chauveau's dates are taken for cattle (Silver, p. 262) and semi-wild hill sheep for sheep/goat (Silver, p. 263). Not included in the tables are specimens of the following (ages in months): Neolithic: sheep/goat: bones, 36 + months (1 example); teeth, 9+ (1). Bronze Age: sheep/goat: bones, 24-(1), 42-(1); teeth, 39+(1). Bronze/Iron Age: sheep/goat: teeth, 9+(1), 40-(1); cattle: bones, 7+(1), 12+(2); teeth, 33+(1), 51+(1).

Γ	ABLE	3.	Sheep	Goat
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	Ages (in m	onths) at death		
(a) From fusion	(a) From fusion of epiphyses From eruption			
Months	ROMAN	Months	ROMAN	
6+	I	6-11	3	
18+	4	9+	8	
20+	I	18-23	4	
24 —	2	21+	6	
28 –	2	30	5	
36 —	I	33+	2	
36+	5	40	5	
		39+	12	
		43 +	2	
		36-53	3	

Discussion

Almost all the Neolithic cattle bones come from mature animals of over 4 years of age. Bronze Age cattle were killed over the first 4 years and beyond. There is no evidence for cattle having been killed before 4 years of age between the Bronze and Iron Ages. Iron Age cattle appear to have lived over one year. In the Roman period there are 20 teeth of sheep/goat which died before 53 months of age; of these 20, 3 are aged at 6-11 months, 4 at 18-23 and 3 at 36-53. Fourteen specimens come from animals of over 39 months and another 16 might do so. Nineteen teeth of cattle come from animals which died before 65 months; of these, 1 was aged at 3-5 months, 5 at 6-14, 3 at 30-35 and 3 at 48-65. Five specimens come from animals which definitely died after 51 months and a further 24 might have been over this age (see Table 2).

As has been found elsewhere[5] there is no evidence in any period for killing off livestock in autumn because of lack of sufficient winter fodder.

Measurements

Measurements of cattle, horse and sheep/goat bones from Hockwold are given in Table 4 together with measurements from a modern shorthorn cow.

Discussion

Cattle. The measurements of the distal end of the humerus of cattle at Hockwold decrease from the Neolithic to the Iron Age, then rise in the Roman period to be between the Iron and Bronze Age sizes. Bronze Age tibia and astragalus measurements are as large as those of the

		CAI	<i>LE</i>			SHEEP/ GOAT	ЮН	RSE	SHORT- HORN COW
	NEO-	BRONZE AGE	BRONZE/ IRON AGF	IRON AGE	ROMAN	ROMAN	IRON AGE	ROMAN	MODERN
Scapula, minimum neck width		41-45		I	I	1		1	57
Humerus, breadth distal end	101-114.5	16-06]	62	62-64.5]	1	88
Radius Breadth proximal end Breadth distal end		83-86	72		67				83 78-5
Metacarpal Length Minimum hroodth		186 20		195		120.5	212	188 27	280
Breadth proximal end Breadth distal end				56 50.5	53	50 F	4 5 4 5 7 0	41.5 41.5	60 60 £3
Femur Length Minimum breadth Breadth proximal end Breadth distal end						167 14 38 34			
Tibia, breadth distal end	60-63	60-63		1	56	20.5-26	-	60	63
Astragalus Length Breadth	66–68 45 ^{.5–48}	65:5–68 [.] 5 45–45 [.] 5		59 42	54 43			50-61 53-54	71 48·5
Metatarsal Length		229	I			130		251	231
Minimum breadth Breadth proximal end		25 46	a constantino de la constant			12.5 19		29 45	29
Breadth distal end		52	-	main state	47-50	23		46	00
Proximal phalanx Length Breadth		63 30		52-55 25-27	58–61 26–27	31–38 10–12		74–78 46–50	61.5–65 30–32
Medial phalanx Length Breadth			-	35-36 24-26	36-39 23-29:5	18 10–11			44-45 28-30
Distal phalanx Length Height					32	26 			— 31–33

TABLE 4. Measurements of cattle, horse and sheep/goat bones in mm.

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Neolithic. Iron Age measurements at Hockwold are mainly below those of the Bronze Age—for instance the astragalus and proximal phalanx—but the Iron Age metacarpal is the longer. Roman cattle bones reach the size of the Bronze Age in the distal end of the metacarpal but do not overlap with the Neolithic. Some measurements are smaller than those of the Iron Age, for instance the length of the astragalus, but most lie between Iron and Bronze Age sizes. The measurements of cattle bones from Hockwold are in line with Jewell's conclusions except that the Hockwold Roman cow does not reach the size of the Neolithic.

Horse. The Iron Age metacarpal is larger than the Roman, and the Iron Age horse may have been the larger.

Weights of meat

The weights of meat available from cattle at the different periods in the occupation of the site can be calculated by adding the measurements of bones from (a) one period at Hockwold, and (b) a shorthorn cow of known weight 1184 lb., using measurements common to both in Table 6, and taking the average of a range; then dividing (a) by (b) and, to find the total weight of one animal from a period at Hockwold, multiplying by the known weight of the shorthorn. This figure is halved to find the weight of edible meat which, in modern cattle, is about half the total weight. The results are:

Neolithic: $(472 \div 349 \times 1184) \div 2 = 800$ lb. Bronze Age: $(1102 \cdot 5 \div 1250 \times 1184) \div 2 = 522$ lb. Iron Age: $(635 \cdot 5 \div 808 \times 1184) \div 2 = 466$ lb. Roman: $(566 \div 673 \times 1184) \div 2 = 498$ lb.

The amount of meat available from cattle, sheep and pigs in the Roman period can be estimated by multiplying the known weight of the animal by its percentage as shown in Table 1. The results, taking cattle as providing 498 lb. of edible meat, sheep 60 lb. and pig 100 lb., are, cattle 20,414 lb., sheep 2400 lb. and pig 300 lb. Cattle would then give 88.4% of the total meat supply, sheep 10.3% and pig only 1.3%. This assumes that there is a direct correlation between bone size and body weight. The sizes of bones will obviously not reflect the weight of the animal accurately, but these figures are thought to have some value.

The horse may have been used for meat, as is discussed under the distribution of bones.

Although sheep do not supply any large proportion of meat compared to cattle, they increase in the Roman period. This may be because the Romans were using sheep to supply something other than meat, perhaps wool.

The distribution of bones

No concentration of types of bone or species of animal was found in the Roman ditches and habitation areas. Most of the bones came from ditches; on site 7188, area a, the deep V-shaped ditch in trenches N 11 and Q 13 had many bones in it and a high proportion of teeth and skull fragments. A *Bos* skull was found at the bottom of the road ditch on site 7188 with parts missing from the front and back. The Roman horse, the third most numerous animal, is represented by the same types of bone as the cattle, sheep and pig which are presumed to be food animals, and the horse bones are mixed up with the bones of these animals and scattered uniformly over the site. These horse bones, then, may have come from animals which were killed for food.

In the Iron Age pit in trench Q 15 were found a number of cattle bones (a humerus fragment, 2 pelves, one with 8 articulated vertebrae, a calcaneum, 2 metapodials and 7 phalanges), and some sheep or goat bones (2 teeth and a scapula). There were also pieces of pelvis, vertebra, rib, long bone and skull which came from animals the size of a cow.

In pit III (Beaker), on site 7088, area 1, were found the articulated metapodials and phalanges of the four legs of a young sheep or goat.

Summary

Animal bones were found at Hockwold from the Neolithic, Bronze and Iron Ages and second century A.D. Roman. Cattle were the most numerous animals in all periods; there was a decrease in the size and so in all probability in the amount of meat available from one animal from the Neolithic to the Iron Age. Roman cattle probably gave more meat than those of the Iron Age, less than the Bronze Age, and ranged in size between cattle from these periods, not reaching Neolithic sizes. Sheep or goats were almost as numerous as cattle in Roman times although giving only about 10% of all edible meat (they may have been used for wool); in previous periods they were less numerous. Pigs became less frequent in Roman times than they had been in the Neolithic and Bronze Ages. Wild animals, deer and aurochs, were most common in the Neolithic, perhaps because there was more forest near the site, but some red deer is found in Roman times. The horse first occurs between the Bronze and Iron Ages. In Roman times it was the third most numerous animal and may have been used for food, because its bones are in the same condition as those of the known food animals. No domestic fowl was found. There is no evidence for the autumn killing of any species in any period.

Acknowledgements

I am indebted to Mr E. S. Higgs for providing many ideas for this report and to the Museum of Archaeology and Ethnology, Cambridge, for the use of comparative osteological material.

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Hockwold: vertical air photograph, taken during the 1947 floods. (Royal Air Force photograph, Crown Copyright reserved.) K indicates trial excavations by Colonel Kelly. For other symbols, see text.



Hockwold, site 7188, area *b*, from the north, before excavation. (Copyright, Cambridge University Committee for Aerial Photography.)


Hockwold, site 7188, area *b*, from the east, during excavation. (Copyright, Cambridge University Committee for Aerial Photography.)



Hockwold, site 7188, area b. (a) Soil marks, probably representing planking. (b) Traces of rows of post-holes (clearest above the ranging-pole), after removal of 'planking'.

MEDIEVAL POTTERY ROOF-FITTINGS AND A WATER-PIPE FOUND AT ELY

I. CIRCUMSTANCES OF DISCOVERY

GRACE BRISCOE, F.S.A.

IN 1964 the excavation of street trenches in Ely for new drainage revealed the presence of medieval pottery. Fortunately one of the workmen, Mr P. Buckle, was interested and collected the glazed and decorated sherds, many of them freshly broken. After some repair-work the pottery was given to Mr J. King, who presented the collection to the Mildenhall Museum.

Most of the pottery was thrown up from a depth of 2-3 ft. where Market Hill runs down to Quayside, close to the river bank.

The pottery is mainly of thirteenth-century type. There is nothing earlier than the twelfth century. The two latest pieces are a large brown stoneware handle with decoration, and the upper part of a bellarmine jug with the face intact.

In addition to the domestic pottery, the finds included roof-fittings; large pieces of a louver, a finial, and the crest of a ridge-tile. Pottery water-pipes were found in three places, and one is a complete specimen. These unusual structural fittings deserve publication, and were submitted to Mr Dunning who has written the following notes.

II. DESCRIPTIONS OF THE ROOF-FITTINGS AND WATER-PIPE

G. C. DUNNING, F.S.A.

THE LOUVER

The two pieces of louver are made of very hard and dense black ware speckled with numerous small white particles, apparently finely crushed shell, and a few stone grits. Both surfaces are light red, and the inside is smooth. Almost the whole of the outside of both pieces is covered by green glaze, roughened by protruding grits. The fragments belong to the top and side of the louver, and will be described in that order.

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Fig. 1. Louver. Ely. Scale 1/4.

The top is dome-shaped, $3 \cdot 9$ in. in diameter at the angular bulge, and has processes of two kinds rising from it. At the centre is the lower part of a vertical spike, about $1\frac{1}{4}$ in. in diameter at the base, and probably about 4 in. high when complete. On the side of the dome are three equally-spaced processes which curve outwards and upwards. Each process is attached by means of a dowel or plug which passes through a hole cut in the dome, and is pressed flat on the inside. In shape each process is like a curved horn; only one is nearly complete, the others are broken off nearer the base. Originally they were about 2 in. long. On the outer side near the base each horn is marked by a long thumb impression. The lower part of this fragment widens out to form the side of the louver. At two places on the broken edge the profile turns outwards to become horizontal, though in between it continues downwards. Each turn marks the top of an aperture in the side of the louver. Since in plan these are on two lines at right angles, it follows that there were four apertures and no more, spaced equally round the louver.

The other fragment shows most of the left side of an aperture and its apex, with a baffle-plate or flange projecting about $3\frac{1}{4}-3\frac{1}{2}$ in. beyond the side. The flange covered the apex and extended down both sides of the aperture. The original margin of the flange is present for a length of $2\frac{3}{4}$ in.

In the drawing the two fragments could be brought into relation with one another at the apex of the aperture, and the lower fragment given its approximate slope. Thus it has been possible to determine the shape of most of the aperture, and to complete it by comparison with those on other louvers. The aperture was triangular, about $6\frac{1}{2}$ in. high and $4\frac{1}{2}$ in. wide at the base.

As reconstructed the louver was conical in shape, about 13 in. high to the top of the dome, and about $9\frac{3}{4}$ in. across at the base in one direction. The comparatively small size at the base suggests that the Ely louver was not a separate structure (type 1) but attached to the ridgetile (type 2), like the louver from Goosegate, Nottingham,¹ and another from Southampton.² In that case its base would not be circular but oval, with the shorter axis across the tile. Accordingly a ridge-tile 18 in. long has been added below the louver in the drawing (Fig. 1), giving a total height of about $23\frac{1}{2}$ in. to the top of the terminal spike.

The horns on the dome of the Ely louver are unusual on a structure of this kind. Similar horns are, however, known on different types of roof-fittings of another sort, namely finials:

(1) Attached finials, tall structures consisting of a globular part attached by a cylindrical stem to the ridgetile. These finials are grouped in southern England. An



Fig. 2. Separate finial. Cambridge. Scale $\frac{1}{4}$.

example from New Canal, Salisbury, has groups of three horns above and below the globular body.³

(2) Separate finials, a regional type in south-east England and East Anglia. Horns occur on two finials in London and also on an example found at Cambridge in 1860, in the University Museum of Archaeology and Ethnology (Fig. 2). This finial, green-glazed on the upper part, has a terminal spike surrounded by three horns curled inwards in spirals at the top.

¹ Trans. Thoroton Soc. LXVI, p. 20.

² Southampton Arch. Soc. Quarterly Bulletin, 1 (1962), p. 16.

³ Salisbury Museum 1860–1960, fig. 56.

The novel feature of the Ely louver is the presence of the three horns, which may be regarded as finials, on the domed top. This feature it shares with only two other louvers, both of type 1. These louvers are from Great Easton,¹ near Dunmow, in north-west Essex, and from the More,² near Rickmansworth, Herts. The first has knob finials on the central dome and also attached to the top of each baffle-plate covering the apertures, and the second has spur-shaped finials surmounting the baffleplates. Although louvers are known from about twenty-five sites in various parts of England, mostly in the southern counties and the Midlands, these two louvers and that from Ely are the only ones known for certain to have finials added as decorative elements, either on the central dome or above the baffle-plates, or both. The three louvers at these places, only 40-60 miles from one another, thus form a small sub-group within this category of roof-fitting.

KNOB FINIAL

The finial is made of hard dark grey ware similar to that of the louver, and it also has finely crushed white shell and a few large stone grits in the paste. Glaze covers

the cylindrical lower part of the finial, where it is dark green, thick and lustrous. On the upper part the glaze is light green and thinner, and the spike is unglazed.

The finial is solid and complete, 4 in. high; its base is concave and is a structural join where the finial was attached to the crest of the ridge-tile. In shape the stem is cylindrical, 1.4 in. in diameter, which at the upper end expands into a broad flange or collar, $2\frac{3}{4}$ in. in diameter. The flange has a sharply defined edge and a slightly convex top, which terminates in a conical spike 1.3 in. high.

The shape of the Ely finial is new to the large series of knob finials. These finials are widely though sporadically

distributed over southern England, the Midlands and East Anglia. The majority of the finials in East Anglia are, however, separate structures, like miniature versions of the finial from Cambridge (Fig. 2), but plain. Several examples of this form are in the King's Lynn Museum, and others have been found by Miss Helen Parker in the current excavations at King's Lynn.

The terminal spike on the Ely finial is a feature which it shares with the louver from Ely and the finial from Cambridge. It is uncertain how many of these finials were attached to the ridge-tile; there may have been only one, though a row of two or three similar finials per tile is also possible.

² Originally published in Archaeological Journal, CXVI, p. 175, fig. 15; later reconstruction in Med. Arch. x, p. 79, fig. 28.



Fig. 3. Knob finial. Ely. Scale 1.

¹ Medieval Archaeology, x, p. 74, fig. 26 and pl. II.

CREST OF A RIDGE-TILE

The crest is made of dark grey ware with fine white backing, similar to that of the other roof-fittings. The surface is grey, with a light brown monolayer immediately below the surface. The glaze partly covers one side only and is also splashed on the spikes; it is mottled dark green and lustrous.

The crest was attached to the ridge-tile longitudinally along its concave base, and also by means of a dowel at mid-length which passed through a hole in the tile. When complete the crest was $4\frac{1}{2}$ in. long by about 0.8 in. thick, and it projected 3 in. above the ridge-tile.



Fig. 4. Crest of ridge-tile. Ely. Scale 4.

The decoration consists of three spikes rising from the upper side. One spike is central and vertical, and it is flanked by the others which slope outwards and upwards from the ends of the cresting.

The back of the crest is almost flat, showing that it was made from a slab of clay. The three spikes were probably roughly cut into shape by a knife and then moulded into final shape by hand. In section they are D-shaped, flat on the back and curved in front.

The Ely crest may be compared with a type regional to the Midlands, particularly in Leicestershire.¹ This type is also fixed by a dowel, though the decoration differs in being shaped as a pair of horns or loops, which spring from the middle of the crest and curve outwards, with the ends pressed down on to the top of the ridge-tile. Another version of this type from Coventry has two free-standing horns sloping laterally, and so is closer to the Ely example, though the stem is taller.²

COMMENTS ON THE ROOF-FITTINGS

The three roof-fittings found at Ely introduce several features new to the objects of this kind known in East Anglia. The attached louver is a welcome addition to the very few ventilators found in this region; indeed, the only structure at all comparable is from the recent excavations at King's Lynn. The knob finial is also a new shape outside the range of this type in the region. The terminal spikes on the louver and the finial, and the three horns on the summit of the louver serve to link these structures and roof ornaments with other types of finial in different regions of England. The spikes have analogies on certain types of finial in the Midlands and in south-

¹ Trans. Leics. Arch. and Hist. Soc. xxxv (1959), 24, fig. 17, S 1-3.

² Trans. Birmingham Arch. Soc. LXXXI (1966), p. 117, fig. 10, F.

east Wales, and the horns occur on other types of finial in the south and south-east of the country, of which the nearest examples geographically are at London and Cambridge. The spikes on the ridge-tile link this ornament with the louver and finial from Ely, and have a more remote connexion with the looped crests of the Midlands.

The close similarity of the ware and glaze of the three rooffittings from Ely, combined with the motifs forming stylistic links between them, imply certain technical and artistic aspects in common. These links strongly suggest that all three objects, together with the water-pipe described next, are products of the same pottery, presumably located at Ely or in the locality.

The objects found at Ely are not closely dated on internal evidence, since it is not known if any of them were found in association with the pottery. However, the analogies quoted above serve to relate the Ely finds to others of the same nature elsewhere, and these suggest that a date in the late thirteenth century or c. 1300 would suit all the objects.

WATER-PIPE

The water-pipe is made of the same kind of ware as the rooffittings. It is wheel-thrown, and the inside shows broad wheelmarks running spirally. The outside shows evidence of further work by hand after the pipe was thrown on the wheel; for lengths of $7\frac{1}{2}$ in. from the smaller end and $3\frac{1}{2}$ in. from the larger end the surface is faceted longitudinally, made by trimming with a knife. Glaze covers the entire outside and both ends, but not the inside of the pipe. The glaze is dark green with brown flecks, lustrous and even in thickness, and good in quality.

The pipe is conical, $18 \cdot 1$ in. long, $2 \cdot 6$ in. in diameter outside at the smaller end and 4 in. in diameter at the larger end. The corresponding internal diameters are $1 \cdot 9$ in. at the smaller end and

 $3 \times 3 \cdot 2$ in. at the larger, which is slightly oval in shape. The difference in size between the two ends allowed the pipes to fit

one inside the end of another, making an overlapping joint of about 3 in. The edge of the larger end still has traces of the white mortar used to seal the join and make it watertight.

NOTES ON MEDIEVAL WATER-PIPES OF LEAD AND POTTERY

During the Middle Ages, as in the Roman period, water was conveyed by means of lead piping or in sections of pottery pipes fitted together to form a continuous pipeline.

In both periods the lead pipe was made in the same way by a strip of lead bent round into a tube and sealed along the join. In medieval times two methods of sealing



were followed; either the edges of the tube were overlapped and simply pinched tightly together in a ridge, or the seam was soldered by molten lead.

Roman water-pipes of lead are best known at Chester,¹ where several lengths are dated A.D. 79 by inscriptions on a raised panel. Similar lead piping was found near the forum at Wroxeter, and recently at Cirencester.

Pottery water-pipes are among the specialized products of the works-depot of the Twentieth Legion at Holt.² The pipes are of two types, the first flanged at the smaller end and the second plain; the lengths are 2 ft. 2–5 in., and 1 ft. 11 in. respectively.

At Fishbourne, lengths of pottery water-pipes for the supply of fountains have been found *in situ* on three sides of the Palace garden.³ The pipes, dated A.D. 75-100, are cylindrical of the flanged type, shorter in length and larger in bore than those at Holt; they measure $17\frac{1}{2}$ in. long and 6-8 in. in diameter outside.

Evidence is plentiful that the supply of water on a large scale, often brought from a considerable distance, was re-introduced into England in the twelfth century.⁴ Lead water-pipes are known from the twelfth century and onwards, but water-pipes of pottery were apparently not made before the latter part of the thirteenth century. A few examples of pipes of both materials may be given; the evidence is largely derived from monastic sites and castles, and the water-pipes found at Ely show that the system was also followed in the towns.

The lay-out of a developed system of water distribution and storage by means of lead pipes and tanks is shown in the famous mid-twelfth century plan of Christ Church Priory at Canterbury,⁵ in the Library of Trinity College, Cambridge. The source of the water and the conduit house were on rising ground about a mile northeast of the monastery. Slightly later, c. 1181–88, the keep of Dover Castle had an elaborate built-in system of lead piping for the supply of water.⁶ The pipes were laid in an arched conduit within the immense thickness of the Norman walls. The piping is oval in section, about $3 \times 3\frac{1}{2}$ in.; the join is soldered, clearly as a safeguard against leaks, which would be very difficult to locate.

Similar lead piping, smaller in diameter and with the seam simply pinched, has been found at monastic sites in Yorkshire. At Rievaulx Abbey is a quantity of lead pipe pulled up from the cloisters at the time of the Suppression in 1539. The longest piece is 8 ft. 8 in. long, with one soldered joint in this length; the diameter outside of this and the other piping varies from $1\frac{1}{4}$ to $1\frac{3}{4}$ in. Short lengths of piping of similar diameter are at Byland Abbey.

In southern England considerable lengths of lead piping have been found in position during the current excavations at Wolvesey Palace, the twelfth-century bishop's palace built by Henry de Blois at Winchester.⁷ The piping probably belongs

⁶ Archaeological Journal, LXXXVI, p. 253, fig. 5.

¹ R. P. Wright and I. A. Richmond, Catalogue of the Roman inscribed and sculptured stones in the Grosvenor Museum, Chester (1955), p. 48, no. 199, pl. XLIV.

² W. F. Grimes, Holt, Denbighshire: the Works-Depot of the Twentieth Legion at Castle Lyons, Y Cymmrodor, XLI (1930), p. 134, fig. 60, 10-13.

³ Antiquaries Journal, XLVI, p. 35, pl. V b and XLVII, p. 58 and plan.

⁴ L. F. Salzman, Building in England down to 1540, pp. 268 ff.

⁵ B. Willis, Architectural History of the Monastery of Christ Church, Canterbury (1869), pp. 158–68, fig. 33 and pls. 1–2; M. R. James, The Canterbury Psalter (1935), p. 53, fos. 284–6.

⁷ Antiquaries Journal, XLV, p. 260, pl. LXXXI a and plan, pl. LXXXIII.

to the fourteenth century, when the palace was provided with a water-supply which passed through the passage of the gatehouse and was carried to several parts of the building. The pipe is in lengths of 11-12 ft., soldered together at the joints.

It may be noted that medieval lead piping was used not only to distribute water in a horizontal plane, but it was also set up vertically. Viollet-le-Duc illustrates vertical lead pipes hidden in the flying buttresses of the nave of Bayeux Cathedral, which conducted rain-water away from the roof.¹



Figs. 6–7. Water-pipes. Scale ½. Fig. 6. Marwell Manor, Owslebury, Hants. Fig. 7. Glenluce Abbey, Wigtownshire.

Pottery water-pipes appear sometime during the thirteenth century, the earliest ¹ Viollet-le-Duc, *Dictionnaire raisonné de l'Architecture française*, III, p. 502. datable pipes belonging to the second half of the century. Water-pipes, together with other building adjuncts such as roofing-tiles, finials, etc., were made at kilns producing pottery for domestic use, e.g. at Laverstock, Wilts.¹

Medieval water-pipes are also of two types, the first flanged at the smaller end and slightly splayed at the other, and the second plain and tapering, like the Ely waterpipe.

In southern England the best site is at Marwell Manor, Owslebury, near Winchester, where Henry de Blois founded a small college of secular priests in connexion with the church or chapel of the episcopal manor.² In trial-holes dug here in 1955–56, Mr W. Hartas Jackson found a large number of fragments of water-pipes of unglazed, buff gritty ware. The pipes are now in Winchester City Museum, and I am indebted to the Curator, Mr F. Cottrill, for permission to study them and make drawings. Assembly of the fragments produced large pieces of three pipes: a splayed end, $6\frac{1}{4}$ in. in diameter outside, and a continuous section of pipe for a length of $14\frac{1}{2}$ in.; and two narrower ends, both $4\cdot 4$ in. in diameter outside, with flanges about $1\frac{1}{2}$ in. from the end—these pieces are $8\frac{1}{2}$ and $8\frac{3}{4}$ in. long respectively. Apparently neither of the flanged ends belongs to the same pipe as the splayed end, since the broken ends would overlap by about 3 in. It has been possible to achieve a reconstruction on paper of the examples from Marwell Manor, showing the complete pipe to be about 20 in. long, which serves as a specimen of the flanged or collared type of water-pipe (Fig. 6).

Pottery water-pipes are also known at monastic sites in North Britain. Pieces of several water-pipes, about 2 in. in diameter outside, are at Whitby Abbey. The most complete evidence is, however, from Glenluce Abbey, Wigtownshire.³ At Glenluce lengths of pottery pipes for the distribution of the water supply were found in position, and changes in direction of the system were made by means of pottery junction-boxes with removable lids for inspection purposes. The pipes and boxes had tally-marks scored in the wet clay before firing, to facilitate assembly and to ensure tight jointing. Mr Stewart Cruden, Inspector of Ancient Monuments for Scotland, has kindly provided a drawing of one of the water-pipes from Glenluce Abbey (Fig. 7). It is $17\cdot 2$ in. long and has a fairly uniform diameter of about $3\cdot 8$ in. outside; the socketed end has a plain shoulder, and is thus a variant of the collared type as at Owslebury. A few similar water-pipes were found at Linlithgow Palace.

Finally, mention may be made of a collection of water-pipes stacked in the Chapter House of the Abbaye de Beauport, near Paimpol, on the north coast of Brittany. As far as can be recollected from a visit to the Abbey in 1961, these pipes were about 18-20 in. long and 2 in. in diameter, and thus similar in size and bore to the more slender of the pipes from England.

¹ Information from Mr J. W. G. Musty.

² V.C.H. Hampshire, 11, p. 211, and 111, p. 335.

³ Trans. Dumfriesshire and Galloway Nat. Hist. and Antiq. Soc. XXIX, p. 185, figs. 21–22.

THOMAS ALCOCK, MASTER OF JESUS COLLEGE, CAMBRIDGE IN 1516

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In the second edition of my father, Arthur Gray's *History of Jesus College*, *Cambridge* (1960) the only reference to Thomas Alcock's Mastership of that College is to its 'brief tenure' between the Masterships of his predecessor, John Ecclestone, and that of his successor, William Capon. It is true that Alcock's tenure was just under five months. But his connexion with the College dated back almost, if not quite, to the earliest days of the College. Moreover, at least one important event affecting the ultimate history of the College would appear to have happened during his brief Mastership.

His surname suggests that he was a relative of John Alcock, Bishop of Ely and Founder of Jesus College, but how he fits into the family pedigree is uncertain. He was ordained to the first tonsure in the Bishop's Manor Chapel at Downham, Cambs, on 21 December 1499, and sub-deacon in the same Chapel on 14 March 1499. On 4 April 1500, being then a B.A. and Fellow of Jesus College, he was ordained deacon in the same Chapel. On the following 18 April he was ordained a secular priest in Ely Cathedral.¹ On 27 June 1500 he incepted as an M.A.²

On 21 May 1500 Thomas Alcock was presented to the living of Shipdham in Norfolk.³ The fact that a month later he proceeded to his M.A. degree may suggest that he retained his fellowship, which he thereafter held in plurality with his benefice, but there appear to be no extant records on the subject. It is not until 1516 that we come again to more certain evidence regarding his career.

On 1 October 1500 Bishop John Alcock died at his Castle at Wisbech. It is evident that death overtook him suddenly and unexpectedly. He did not leave a will or any written directions as to the general governance of the College which he had so recently founded. The patent roll empowering him to found the College is dated 12 June 11 Hen. VII (1496) and indicates what his original intentions were regarding its constitution. As his register shows on 22 September 1499 and 10 May 1500 he held ordinations in what was already the College Chapel and doubtless gave directions *ad hoc* regarding matters affecting the conversion of the buildings of the former Nunnery of St Radegund to collegiate purposes. But the process of conversion took many years to fulfil. A deed of 31 January 1499 which endowed a chantry fellowship

¹ Ely Episcopal Records as edited by J. H. Crosby-C.U. Library Adv. d. 78.1, pp. 371-2.

² Grace Book B. i. pp. 123-4.

⁸ The future Master of Jesus College must be distinguished from another, and somewhat older, Thomas Alcock, who became Archdeacon of Ely. The respective careers of the two men are set out in A. B. Emden, *Biographical Register of the University of Cambridge to 1500*, pp. 5–6.

states that it is founded 'in a College in Cambridge called Jesus College that now is or shall be'.¹

When John Alcock suppressed the Nunnery and decided to apply its revenues and its buildings to collegiate purposes, he may well have failed to realize that he had taken over a damnosa hereditas. The revenues of the Convent were in a state of hopeless confusion and the conventual buildings were thoroughly dilapidated. These matters took many years to put to rights and it was not until a decade after the Bishop's death that it could be said that his College was placed on a financial footing. For the moment his sudden death came very near to being completely disastrous for the future prospects of his College in more ways than one. Not the least of these was that with his death the supply of red brick for the restoration and rehabilitation of the College buildings came to an abrupt end. This supply had come from the episcopally owned clay pits in the Isle of Ely. Alcock's immediate successor in the bishopric, Thomas Redman, had once been Abbot of Shap and titular Bishop of St Asaph. He does not appear ever to have graduated at either Cambridge or Oxford. He was not interested in the affairs of the University in his diocese, or those of the College which his predecessor wanted to build. So the supply of red brick was diverted to other purposes. John Sherman, the first historian of Jesus College, does not even mention his name. He was succeeded in 1505 by James Stanley, stepson of Lady Margaret Beaufort, mother of Henry VII. Sherman refers to the money lavished by Stanley on his house at Somersham and on other work at Manchester, and ends by saying 'let me keep further silence and let the most fair minded reader judge'.² Like Redman, he abstained from supplying red brick to Alcock's College.

The work of restoration must for the moment have been brought completely to a standstill. Very fortunately Alcock's friends, Sir Reginald Bray, his wife Catherine, and Sir John Rysley stepped into the breach and the College was enabled to finish the work by using the white or yellow brick from clay pits nearer to Cambridge. Very fortunately also, other benefactors gave endowments to the College, which went to supplement the attenuated revenues derived from the Nunnery estates.

As already said, Bishop Alcock never drew up a constitution for the College which he had in view. Sherman refers to the fact that he gave the College certain *statuta*, but these would appear to have been only directions *ad hoc* to meet particular occasions as and when they came to his notice.

John Eccleston, the second Master of the College (1505-15), gave orders for the distribution of the income of various benefactions given to the College after Alcock's death.³

Bishop Alcock had obtained royal letters patent which enabled him by the law of the land to endow a collegiate body corporate with the buildings and revenues of

¹ V.C.H. Cambs. III, p. 421, n. 2.

² Aborigines Jesuani, ed. J. P. Halliwell, p. 84.

³ Documents relating to the University and Colleges of Cambridge (1852), 1, p. 128.

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the suppressed Nunnery, but it was deemed necessary to obtain papal sanction for the suppression of a religious house and the conversion of its property to secular purposes. It would appear that Bishop Alcock had delayed seeking for that sanction, until he could present to the Pope satisfactory evidence that such conversion was more or less a *fait accompli*, and was in a form which the Holy See was likely to approve. At the time of his death he evidently did not feel that he was in a position to do so.

James Stanley, Bishop of Ely, obtained Pope Julius II's consent to the suppression of the Nunnery and the conversion of its buildings and revenues to secular purposes some time before that Pope's death in 1512. Though, in the words of the preamble to certain draft statutes which were submitted for Stanley's approval, the community at Jesus College was still but 'a tiny flock' (*parvulus grex*), the time had come for the drawing up of a proper code of Statutes for the better governance of the College. Accordingly a draft set of Statutes was submitted for approval to Stanley some time before his death in March 1515.

In a footnote on p. 422 of volume III of *Victoria County History of Cambridgeshire*, Dr Fredrick Brittain has expressed a doubt as to whether Stanley ever sealed those Statutes. Certainly, as he says, if sealed, they could not have been in force for very long. The oldest copy of these Statutes are written upon paper in a sixteenth-century hand and are bound in a volume which contains a rental of 1555–56 and a copy of Bishop West's later Statutes which are also in a sixteenth-century hand.

An examination of the manuscript shows that these so-called Stanley Statutes contain a number of gaps and palpable errors. They are most unmethodically strung together and have the appearance of being a piece of amateur patchwork intended for submission to a qualified draftsman for conversion into a more regular document drawn up in proper legal form. They suggest that they never reached this further stage in draftsmanship. In other words, as Dr Brittain suggests, Stanley never sealed or promulgated them as Statutes. The fact that at a later date Bishop West declared that his Statutes revoked all previous Statutes does not alter this view. Such words of revocation have always been customary in documents drawn up by legal draftsmen. They are what such draftsmen would declare to be 'in common form' and are inserted *ex abandanti cautela*.

John Eccleston, the second Master of Jesus College, was probably largely responsible for the draft submitted for Stanley's approval. He died in February 1516. On 19 February in that year Thomas Alcock was admitted as his successor and a mandate issued for his formal induction to that office.¹ On 14 July in the same year he wrote a letter resigning the Mastership, and William Capon was nominated his successor and to be admitted on his taking the oath to observe the College Statutes, which he did seven days later.²

Nicholas West had been consecrated Bishop of Ely on 7 October 1515 and began a visitation of his diocese in the following spring. On 4 April he reported that he

¹ C.U. Library (Baker MS) Mm. i. 29, fos. 278-80.

² C.U. Library (Baker MS) Mm. i. 29, fos. 276-8.

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had found grave disorders in the monastery at Ely.¹ It must have been at about that date that he arrived in Cambridge to continue his visitation.

What he discovered at Jesus College is set out in the preamble to the Statutes which he granted to that College. He tells us that in the course of his visitation of his diocese, he personally visited the College. He then learnt that his predecessor Bishop John Alcock had suppressed the Nunnery of St Radegund and set up a College in the buildings belonging to that convent. He then proceeds to say that 'our great Father was prevented by death from his completing what he had in his pious mind and could not complete his memorable work' and had found the revenues of the suppressed convent were insufficient to support the numbers of the new foundation he had in view. Accordingly as his successor, Bishop West, determined in order to 'fulfil the great work which our devout father and very excellent predecessor began, in so far as we can so do with God's aid, to establish, both firmly spiritually and temporarily, with fatherly affection' a code of Statutes for the better regulation and government of the College.²

Reading between the lines of such extant records as survive, it would appear that West's appointment of Thomas Alcock as Master was made for two good reasons. First, he was one of the very earliest members of that College and secondly, as a young man, he had been intimately acquainted with the wishes expressed by the Founder. West was anxious, in so far as changed circumstances permitted, to carry out Bishop Alcock's wishes, and no man was better suited to assist him in that purpose than Thomas Alcock.

Doubtless, the very amateurish document which had been submitted to Stanley as a draft had already begun to be put into more legal shape and form by the time that Thomas Alcock became Master, but West wanted conscientiously to be sure that the final draft in no way ran counter to the will and intention of the Founder and it was for that reason that he sought for the *nihil obstat* of the Founder's kinsman. When that was obtained, the Statutes could be promulgated.

Thomas Alcock's duties came to an end when the Statutes reached this stage of fruition and he relinquished the Mastership. Evidently he had no desire to be tied down to the duties of that post and was anxious to return to clerical labours outside and beyond the College. He had been made Vicar General of the diocese of Ely in 1516 and became the Bishop's Chancellor in 1521, but appears to have attended more or less faithfully to his parochial duties at Shipdham. He died on 19 September 1523. A mural brass in Shipdham Church commemorates him. I am indebted to Dr M. J. Waring, Fellow of Jesus College, for a photostat of a rubbing thereof. As he informs me, the brass had at one time or other been much mutilated owing to the insertion of huge iron screws and brass pins. In the circumstances I do not attempt to reproduce the inscription with its numerous abbreviations as it is in its present state, but set out the purport and effect thereof in modern English writing. It reads as follows:

¹ Letters and Papers, Henry VIII, ii, 1733.

² Documents relating to the University and Colleges of Cambridge (1852), 111, p. 94.

THOMAS ALCOCK, MASTER OF JESUS COLLEGE, CAMBRIDGE IN 1516 95 PRAY OF YOUR CHARITY FOR THE SOUL OF MASTER THOMAS ALKOKE SOMETIME PARSON OF THIS CHURCH AND WHO DIED THE XIX DAY OF SEPTEMBER IN THE YEAR OF OUR LORD MVXXXIII ON WHOSE SOUL MAY JESUS HAVE MERCY.

Bishop West's Statutes conferred the appointment of the Master of Jesus College on the Bishop of Ely, and it was not until 1882 that the right to elect the Master was bestowed upon the Fellows of the College. Though on the whole the Bishops of Ely showed honesty and discernment in their appointments to the Mastership, the result was that actual members of the College were very rarely appointed to the post. During the sixteenth century only three such persons were appointed, namely, Thomas Alcock (1516), John Reston (1546-51) and John Duport (1590-1617).

JESUS COLLEGE GRAMMAR SCHOOL

SIR JOHN GRAY

JOHN ALCOCK, the Founder of Jesus College, was born at Beverley but was the son of a Hull merchant, who died in 1434. On 22 November 1479 the son obtained a licence in mortmain to found a Chantry in Holy Trinity Church, Hull. A deed of 24 June 1484 (to which Alcock was not a party) recites that Alcock had made the mayor and burgesses of Hull the patrons of the Chantry and obtained various privileges for it from Pope Sextus IV. In order to settle certain disputes, the parties to the deed had agreed that the income of the chantry should be divided into three parts. The proprietors, farmers and vicars were to divide one-third amongst themselves. Hull Corporation was to receive another third, and the chaplains of the chantry the remainder.

A certificate of 1545 sets out that Alcock founded the chantry to pray for the soul of Edward IV, the founder, and all Christian souls and that the incumbent was bound to keep 'a free school of grammar' and to teach therein all scholars from the town of Hull and all scholars thither resorting without taking any stipend or wages for the same. The incumbent was to have a yearly stipend of \pounds to and to pay yearly 'to the clerk to teach children to sing forty shillings, and to ten of the best scholars in the school, each of them half a mark' so long as the possessions were able to bear the same.

Very clearly the school and chantry were closely united and the chantry priest and the schoolmaster were one and the same person. The original foundation contemplated a song school as well as a grammar school and the parish clerk was intended to serve the former.¹

There are many striking resemblances between the endowment of this chantry in Hull and that of the grammar school at Jesus College. It is inaccurate to say that 'the Grammar School for Boys formed no part of Alcock's plan for the constitutions of the College.² As Lady Bray's tripartite indenture of 1506 shows, it formed an integral part of Alcock's foundation of the College and was one of the earliest to receive implementation.

Catherine Bray was the widow of Sir Reginald Bray, who died in 1503. In his lifetime he had been a benefactor on a considerable scale to Jesus College. He is best known as the designer of St George's Chapel, Windsor. After his death Lady Bray, evidently in compliance with her husband's wishes, continued to be a liberal benefactor to the College, as an indenture tripartite, to which she was the first party, shows. The other parties were the Master and Fellows of Jesus College of the second part, and the Master and Fellows of Pembroke Hall of the third part.

¹ V.C.H. Yorkshire, 1, pp. 449-50.

² Gray, The Statutes of Jesus College A.D. 1514-1515, p. 52.

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The indenture is dated 11 May in the twenty-second year of the reign of Henry VII (i.e. 1506). It recites the fact that Lady Bray had been put to great charges in procuring the appropriation of the church of Great Shelford, Cambs., and had obtained the licence of the King and of the Ordinary of the diocese to appropriate the same to Jesus College. It further recites that she had contributed other great gifts for the purposes and good intentions thereinafter set out.

In consideration of these acts on her part and the promises made to her by Jesus College, it is agreed that there shall be a Master in the said College, who shall be learned and skilled in grammar, in order to instruct teach and inform continuously in the said College all the boys and adolescents and others resorting thereto from other places. They are to be instructed in a certain school built there for that purpose (*in quadam scola ibidem ad hoc constructa*). He is to teach certain boys and adolescents residing in Jesus College and others resorting thereto from elsewhere in the said freely and diligently without any payment or other exaction of money. Jesus College grant to Lady Bray that they will thenceforth pay to the said grammar master an annual stipend of ten marks. They further agree to assign and allot to the grammar master a certain room within the Tower of the said College which adjoins the Grammar School built there (*quandam cameram in eodem collegio in turrim contiguatam dictae scholae grammaticali*).

This grammar master is to be provided with sufficient victuals of food and the services of the barber and the laundress and all other allowances for clothing and albs for divine services as any Fellow of the College at the expense of the College.

Lady Bray was during her natural life to nominate and assign some suitable person, able and sufficiently grounded in grammar, to be such grammar master, whenever a vacancy arose. After her death such person was to be nominated and assigned in accordance with the tenor of the statutes of Jesus College.

No person was to be appointed to the post, who had any benefice exceeding the annual value of ten pounds in value unless Pembroke Hall consented thereto.

Power was given to Pembroke Hall to distrain on the revenues of Jesus College if the grammar master's stipend should be in arrear for more than three months, except in time of pestilence.

From this deed we learn that in 1506 there already was in existence a grammar school and a grammar school master, who lived in a chamber over the Gate Tower and the school was in a building to the west thereof. This building comprised a ground and an upper floor. The upper floor was possibly used as a dormitory for the boys and the lower floor for teaching and other purposes.¹

The accounts of Agnes Banastre, Treasuress of the Nunnery of Saint Radegund, for the years 1449–50 and 1450–51 show that buildings of some description existed on the site of the Grammar School. In 1449–50 certain *magnas portas exteriores* together with a building (*domus*) adjoining them had to be thatched with sedge. In the following year's accounts a payment was made for the reeds for the repair

¹ An additional floor was added to the range in 1718–20, which in 1952 was transformed into a War Memorial Library.

of the chamber *desuper portas exteriores huius monasterii*. This latter was clearly the chamber in the occupation of the grammar school master at the time of Lady Bray's benefaction. The purpose of the buildings to the west thereof can only be conjectured. Possibly they were used as an Almonry.

We can with a certain measure of certainty locate the room in the Gateway Tower, which was allotted under Lady Bray's deed to the schoolmaster. There are at present two sets of rooms, one above the other, in Gate Tower. In the bedroom of each of these there is a cupboard of the thickness of the wall, separating them from the Master's Lodge, and in one of them is a low blocked door communicating with the Lodge. Between the Gate and the door of the Master's garden there was discovered in 1912 a cesspool, vaulted and walled in the same red brick as the lower part of the Gate Tower and connected by a shaft with the Tower rooms.¹

Alcock's plans of including boys and 'dons' within the same walls resembled that of Walter de Merton, who made provision in his College at Oxford for a *grammaticus* and *pueri*, who were placed by him in Nunhall, a building detached from the College. Probably Alcock's decision to come to a similar conclusion at Cambridge was due partly to the innate conservatism of the man and partly to the force of the circumstances in which he was placed. He set apart for the school the quarter in which monastic schools were always placed, next to the entrance gate. Accordingly the building which Alcock selected for his school was that described by Agnes Banastre in her accounts of 1449–51 as adjoining the gate tower and had possibly been used in those days as the almonry of the Nuns of St Radegund.

The royal licence was for the foundation in the Nunnery of a certain College comprising one Master, six Fellows and a certain number of scholars to be instructed in grammar (certo numero scholarium in grammatica erudiendorum).

In all probability we can ascertain with a large measure of certainty not only the date of the establishment of the school, but also that of its first Master. Henry Forthe graduated B.A. in 1501–2 and M.A. in 1504–6. In 1504–5 he was allowed exemption from attending University masses and exequies whilst he was occupied *in schola grammaticali* provided that he pronounced those exequies at home.² In 1506–7 he was allowed exemption from attending three masses, exequies and congregations, and when it happens that he was absent through ignorance.³ In 1511–12 the University passed a Grace that seven years' study should suffice for entering sentences. He was presented by Jesus College to the Vicarage of All Saints, Cambridge, on 10 June 1511 and held the post until his death in about 1524. From 1517 he was Vicar of St Stephen's, Coleman Street, London.

A near successor to Forthe was Thomas Grove, who graduated in 1514–15 and proceeded to his M.A. degree in 1518, having become a Fellow of St John's in 1518. On 28 March 1517 he was ordained deacon at Ely, his title being that he was in charge of a grammar school (*prefuit scholae grammatici*). In that year it was granted

² Grace Book Γ . 38.

³ Ibid. pp. 53-4.

¹ Grey, The Master's Lodge, Jesus College, Cambridge, pp. 18–20. As to the transition from red to yellow brick see Pevsner, The Buildings of England—Cambridgeshire, pp. 73–4.

to him that the nine terms in which he heard the *ordinarium* for the greater part except for three terms in which he was in charge of the grammar school in Jesus College should be allowed to him for responsions, if he could attain to them or with two at least of them after completing his inception.¹ In 1519 he became Rector of Hadstock, Essex, where he died in 1522.²

College records concerning the school are scanty. Structurally it was beyond the limits of the College itself, and its government was not in the immediate control of the College as a corporate body.

Alcock died in 1500. He appears to have left no will or any other written instructions as to the administration of his school and college. Later writers refer to his *statuta*, which may have been purely verbal. If written, the documents appear to be no longer extant. But the draft College Statutes, which were drawn up for confirmation by James Stanley, Bishop of Ely, in 1514 or 1515, very probably reflect what were his wishes and intentions in regard to the school.

Chapter IV of the Stanley draft statutes sets out that there shall be four boys, who at the time of their admission shall be less than fourteen years of age and sufficiently trained in singing. They are to be elected by the Master of the College and the greater part of the Fellows. The College shall provide for them at a rate prescribed, and they shall attend the grammar school. If perchance such a boy as is to be elected has been sufficiently trained in grammar, he shall read such arts or other study as the Master of the College shall decide. These four boys shall serve the choir as choristers.

Chapter VIII sets out that 'in all future times there shall be a good man learned in Grammar and Rhetoric, nominated (since the death of Lady Bray) by the Master of the College. He shall be bound to teach and instruct all boys, as well those of the College as those drawn to the Grammar School from elsewhere in such fashion as the Master of the College shall appoint with the consent of his Fellows that are skilled in Grammar.' As prescribed in Lady Bray's tripartite indenture he is to receive ten marks yearly, payable at the four quarters of the year. The schoolmaster is to teach at the times and hours to be appointed by the Master of the College. If he does not do so, he is to be removed by the Master of the College and another shall be appointed in his place within three months.

Lady Bray's endowment made no provision for an usher. Chapter IX supplies this omission. He is to be appointed by the Master of the College, and is to be one who, in accordance with ordinances of the school and of the Master of the College with the advice of the school master, knows how to teach the smaller and lower boys, and so teaches at suitable times to be settled by the Master of the College all boys gathering to the school gratis and without demand of money. His yearly salary is to be forty shillings or less, according as the Master shall agree with him. He is to be removed whenever it is deemed fit by the Master of the College.

Both the schoolmaster and the usher are to observe and take part in divine services and to be bound by the College Statutes as the Fellows and other Scholars

¹ Grace Book Γ. p. 157. ² Venn, Alumni Cantabrigienses.

of the College are bound. They are to be bound strictly so to do by oath personally made (chapter IX).

Chapter XVI ordained that all the Fellows of the College and the Schoolmaster, either by themselves or by some other, should each week be a *hebdomadarius* in turn. Their duty as such was to carry out divine service in the College under penalty of one penny for each of such services.

It also provided for the celebration on all and Singular Sundays and Festival Days of special celebrations of first vespers, Matins, and Mass, and two Vespers. Immediately after the third stroke of the bell the four College boys, clad in surplices, were to enter the Church in readiness to say distinctly and devoutly and accurately to rehearse the service of the Blessed Mary, as acolytes do, at times meet and proper for celebration.

Chapter XVIII deals at considerable length with exequies for the dead, which are to be attended by the schoolmaster and usher under penalty of one halfpenny to be inflicted for such defect.

It also enacts that the boys every night about the seventh hour shall sing the antiphon of Jesus and the Blessed Virgin Mary and shall before their retirement say the accustomed suffrages for the souls of John Alcock and the well being of all benefactors of the College, as well living as dead.

On the Feast Day of St Luke (18 October) there were to be exequies for the soul of William Chubbes, first Master of the College. This was to be followed by a distribution at which the schoolmaster was to receive eight pence, the usher four pence and the boys each two pence, but, if any of these were not at Mass or at the Mass but not at the exequies they should forfeit half that sum.

On the morrow of Michaelmas Day there was to be a similar distribution at the Mass of Master Richard Preston.

On Tuesday in Rogation Days there was to be yet another similar distribution in commemoration of Thomas and Cristina Roberts of Over, Cambs.

Moreover the usher and all the scholars were before breakfast to recite certain psalms and litanies.

Finally 'in departing from school they shall say *De profundis* for the soul of Reginald Bray, Knight, and Catherine his wife, whom may God absolve and may the souls of Reginald Bray and Catherine his wife, and all the benefactors of this School (*hujus scholae*) by the mercy of God rest in peace'.

It was also ordained that after the death of the then Master John Eccleston on the day of the Exaltation of the Cross, similar distributions were to be made for the exequies of himself and certain benefactors to the College, who included Sir Reginald Bray and his wife Catherine.¹

Chapter xx fixed the maximum allowance for the boys' commons at eight pence a week. On Christmas Day, Easter Day, and Pentecost and Jesus Day the Senescal was to provide six shillings and eight pence for the bettering of the commons of the Master, Fellows, Scholars and boys together with a boar at Christmas at the discretion of the Master of the College.

¹ Eccleston died early in 1516.

SIR JOHN GRAY

Chapter xxv enacted that the Schoolmaster should have commons at weekly rate of fourteen pence and also free chamber, barber, laundress and wine and wax for divine service. In the case of the boys and the usher the weekly rate for commons was to be eight pence.

The last paragraph of this chapter shows that the College was being hard put to it to make both ends meet. It ordains that 'whatever happens to our aforesaid College, in any case provision shall be made for the Master of the College, the Master of the Grammar School, two Fellows, two youths, four boys and the Usher'.

The concluding page of the draft Statutes ordains that on all week days before breakfast the boys should in the dormitory or in church, as the Master of the College should direct, under supervision of the Usher recite certain suffrages and hymns.

The oldest copy of the Stanley Statutes is written on paper in a sixteenth-century hand. Stanley's successor Nicholas West drew up a new code. In his preamble he ignored Stanley's Statutes, from which his own differ radically in arrangement and wording. The earliest copy thereof is bound with the manuscript of the Stanley Statutes which are bound up in the Jesus College muniments with a rental of 1555–6. The West Statutes must have been delivered at some date before 19 July 1517 the date of the first election to a fellowship under West's Statutes.¹

Though chapter I of the West Statutes speaks of the possibility of an increase in the rents and possessions of the College it is clearly superoptimistic. Chapter IX of the West Statutes ordains that there 'shall be in our College eight

Chapter IX of the West Statutes ordains that there 'shall be in our College eight scholars, who we desire shall study continuously grammar, rhetoric, logic, mathematics or philosophy; and because we desire them to give more work to grammar, rhetoric, logic, mathematics or philosophy we decree and ordain that they shall be before admission competently instructed in singing so that they can sing psalms at Divine service with the Fellows, serve God and the offices in the choir, which are usually performed by scholars, may be fulfilled or due from them. It is lawful therefore for the Master and greater part of the Fellows to elect two or three of the said boys as scholars of mature age, so that the worship of God and the College may be better maintained...²

John Eccleston had become Master of Jesus College in 1505 and died at the end of 1515 or beginning of the following year. Evidently it was he who had procured the insertion of the provision for reduction of the numbers in the College which appears in chapter xxv of the Stanley draft statutes. He ordered that the Master of the College was to have $\pounds 6$. 13s. 4d. (ten marks) as prescribed by the Statutes: whereas that of the teacher of grammar was raised to ten pounds. The Usher was given 34s. 8d. for his commons and forty shillings for his stipend. The Master of the College was to have fourteen pence a week for his commons, but no allowance was made to the teacher of grammar, in respect of commons, and the boys and youths were to have eightpence per week. Their number was reduced from eight to six, and they were all described as *discipuli*, in a return to the Commissioners of Henry VIII.

Evidently the rise in stipend to the Schoolmaster was intended to compensate him ¹ Footnote by Dr. F. Brittain in V.C.H. Cambs. III, p. 422. ² Lamb, Documents, III, pp. 104-5 for the loss of College rooms and commons. The Usher continued to reside in the College proper, but it was evidently one of those which was vacant per defectum reparacionis in 1551.

The Master of the College had evidently taken over the Schoolmaster's premises in the Gate Tower, where in 1557 lay a diaper cloth on a cupboard, which Edmund Perpoynte, then Master, bequeathed to the College Chapel.¹

Probably the very first headmaster was Henry Forthe, who in 1504-5 was granted absence from masses and exequies when he is occupied in scola grammaticali provided he said exequies at home. In 1511-12 after seven years' study, these were held to suffice for him to enter sentences for an M.A. Degree.² On 11 June he was presented by Jesus College to the living of All Saints', Cambridge. On 28 September 1517 he was also presented to St Stephen's, Coleman Street, London. In his will dated 12 June 1516, Peter Clarebolt of Cambridge said 'I will there be at rental in All Hallows' Church, Cambridge by Master Forthe or by any other priest such as Master Forthe shall assign.³ On 18 November 1524 a successor was appointed to All Saints', Cambridge, after his death.

Thomas Grove was very probably his immediate successor at the School. In 1517-18 he was allowed a grace in respect of three terms in which prefuit scola grammaticali in collegio Jesu.⁴ He took his B.A. in 1504-5 and M.A. 1518. He became a Fellow of St John's and died as Rector of Hadstock, Essex, in 1522.

Ralph Radcliffe is certainly the most attractive of all the known headmasters of the Grammar School. He was born in Lancashire in about 1518 and originally went to Oxford, where he was one of the earliest undergraduates at Brasenose. But he migrated to Jesus College and took his B.A. Degree in 1536 and his M.A. in 1539. The date of his appointment to the headmastership is not certain, but in an undated letter addressed by him to Henry VIII he subscribes himself as 'Your Grace's humble servant Ralph Radclif, professor of arts and schoolmaster of Jesus College, Cambridge'.⁵ He subsequently removed to Hitchin, where he acquired a house which had been in the occupation of the White Friars. He converted the building into a school where he exhibited miracle plays performed by his pupils. John Bale, who like Radcliffe had been educated at Jesus College and was likewise a playwright, gave an account of Radcliffe's work in his Scriptores Anglicanae, describing his school as his Theatrum longe pulcherrimum.

Radcliffe died in 1559 at the early age of forty. One would fain believe that the first experiments in his *theatrum* were made whilst he was teaching at Jesus College. It is possible, but there is no evidence to support any such inference.⁶

On 15 October 1541 Christopher Carlell was admitted to the headmastership of the Grammar School. He was a member of Corpus, when he had graduated B.A. in 1538-9 and M.A. in 1541. He was an eminent Hebrew scholar. A copy of his

¹ Baker, MS. B. C.U. Library Mm 223 f. 237.

- Grace Book Γ 38, 53, 54, 96, 97.
 Grace Book Γ, p. 157.

³ Baker, MS. B. C.U. Library Mm 224 f. 124.

⁵ Historical Manuscripts Commission—Second Report, p. 853.

⁶ The first mention of play acting in the Bursar's Books is in 1562.

SIR JOHN GREY

Psalms of David in English with annotations is to be seen in the Cambridge University Library. He had been elected a Fellow of Clare in 1539 and took his STB Degree from that College in 1552. Nothing is known concerning his headmastership of the Grammar School, and one may even crave leave to doubt whether an eminent Hebraist was a suitable person to instruct small boys in grammar or rhetoric.

The Usher appears to have been lodged in the Cloister Court of the College. His quarters appear to have been unattractive. In 1557 they were vacant and in need of repair. In 1540–1 they were occupied by one Dixson, who in the year 1542–3 is described as 'Dixson, Usher' and matriculated in that year as 'John Dixson, sizar' and was perhaps the 'Mr Dixon' referred to in the Bursar's books of 1546–7. It should be noted that he was apparently Usher at the time when Christopher Carlell (see above) was headmaster.

'Sir' Watson and 'Sir' Highson are described as having been Ushers in 1564. The former would appear to have been Richard Watson who vacated the post on taking his B.A. Degree in 1563-4, when the latter would have succeeded him.¹

The names of only two of the choristers survive. These were Edmund and John Richards who were lodged in rooms in the College proper in 1538–9, according to the Bursar's Books. The reason for their being so lodged may have been because, in the words of chapter IV of the draft Stanley Statutes, they had been found 'to be sufficiently trained in Grammar and apt to read Arts or other study according to the decision of the Master of the College'. Their after careers are not known.

In the instructions given to the Edwardian Visitors to Cambridge University in 1549, they were bidden to divert moneys expended in any college on choristers, chantries, or other daily ecclesiastical services or grammar schools, for the support of scholars in literature and philosophy. This sounded very much like the death knell of Jesus College Grammar School, but for some reason the Visitors did not apply the axe. Like the choristers' school which Henry VI had established in 1443 at King's College, that at Jesus College was spared.

All the same the arrival of the Visitors must have been a sore time of affliction for John Reston, Master of Jesus College. On 28 July 1542 he had entered into an agreement with Jesus and St John's Colleges for the establishment of a yearly obit on 3 August for the souls of his parents Robert and Agnes, as well as for his own soul when he died. Amongst those present at the ceremony, the grammar master was to receive six pence and the usher four pence, and every chorister two pence.²

In addition—as Sherman, the earliest historian of Jesus College tells us—he had consecrated for himself an oratory, which was in fact none other than the former oratory of the Prioress of St Radegund. This was evidently the place whither on Sunday, 26 May 1549, the Visitors 'went from the church into a chamber where certain images were and caused them to be broken'.

When Reston made his will he was a generous benefactor to the College, but he must have died in 1551 a broken-hearted man.

¹ Baker, MS. B. C.U. Library Mm 2. 23 f. 71.

² Thomas Baker, History of the College of St. John the evangelist Cambridge, ed. J. E. B. Mayor, p. 362.

The accession of Mary in 1553 gave the Grammar School another respite, but it was not for long. On her death in 1558 the end was clearly very near at hand.

Once again the Visitors were slow to move in regard to Jesus and King's Colleges and also to the choristers' school which Mary had established at Trinity College. In the Statutes drafted in 1569 it was ordained that 'no person shall learn grammar in any college except in Jesus College only and in the Colleges of Trinity and King's to the choristers'. But in the revised Code of 1570 the exception in favour of Jesus College was omitted. The College had in fact anticipated this conclusion by ceasing to pay the stipends of the Master and Usher after Christmas 1567.

Though the Ely diocesan records show that a number of schoolmasters were licensed to teach in Cambridge in the reign of Elizabeth, their schools appear to have been private ventures and purely ephemeral, though a more permanent school in the town was clearly needed.

This want appears to have been realized in 1576, when the Cambridge Corporation appointed nine of their number as a Committee 'to devise and put in writing some good device for the erecting of a grammar school within the said town and how the charges of the same may be borne and raised'. Later in the same year a further committee of eleven was appointed to 'rate and assess what sums every person shall pay towards the charges thereof'. Rate paying is never a popular proposal and so nothing further was heard of it.

Despite legacies of one hundred marks each from William Bridon in 1590 and Thomas Cropley in 1607 no further attempt was made to establish a local grammar school, until in 1615 Stephen Perse in his will provided the means which led to the establishment of the school which now bears his name.

NOTES

TREVOR A. BEVIS, JAMES HITCHCOCK, C. B. DENSTON AND MARY D. CRA'STER

THE FONT AT ST WENDREDA'S, MARCH

Visitors to Saint Wendreda's church, March, who enter the building by the south porch, hardly give a second glance to the font nearby. An octagonal pedestal supports an octagonal basin, the latter inconspicuously carved with geometrical designs (Pl. II *a*). Its plain, and at first sight unremarkable, character has led in the past to its being mistakenly identified as Perpendicular,¹ but it is the church's oldest possession.

The present incumbent (The Rev. A. C. Turnbull) was the first to observe that the font had originally been square, the corners having at some time been cut away, it is assumed, to correspond with the general style of the building. The writer subsequently studied the carved designs and made drawings, thus establishing that the font was Norman.

Before its proportions were reduced, the font was 2 ft. 6 in. square and had three designs on each side. The designs comprised circles, within which had been carved a cross with splayed ends (Pl. II c), and four-petalled flowers whose petal ends penetrated a circle (Pl. II b). The font could well have been reshaped and placed on a new pedestal at the same time as the tower was added and other alterations made late in the fourteenth century, in order to bring it into harmony with the new work.

In the author's opinion, the font can be dated between 1100 and 1150. Its presence indicates that the present church, which has no visible work earlier than the thirteenth century, was preceded by a Norman one, which may in turn have risen above the foundations of a small Saxon church dedicated to an obscure Saxon lady.

T. A. B.

A DISORDERLY RECTOR AT ELY, 1594

The following document is folio 109 of Cambridge University Library Additional Manuscript 6605. The recipient of the letter is not indicated, but it is presumably the bishop of Ely.

Right Worshipfull o^r dutyes remembered Whereas we wer lately Chosen Churchwardens of Trinitie pish in Ely and understandinge that Sr. Richard Ffyston our Minister there is unlawfully placed or alowed for Want of lawfull allowance Institucon or Induction as behoveth & our office by Comen due ought to enquier and psent the same as we suppose. And forasmuch as he hath of long tyme served that Cuer in that unlawfull Contempt wthout any such lawfull allowance and is a veri Contentiouse man livinge Idelly not applyinge his booke hanntinge Alehouses & unlawfull games amongst the poorer sort of people & somtyme playinge in his owne house pyokinge

¹ See C. H. Evelyn-White, The Churches of Cambridgeshire, p. 132.

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some poore psons to loose there Mony there sometymes in the night season very unlawfully. He doth not Catachize the youth of the pish as he should he did never preach he hath Caused lately a pulpit to be made for him to reade the divine service wthout the Consent Counsell or agreem^t of the most Substantiall of the pish and wthout yo^r order as it is reported he beinge placed heartofore in the highest place in the Chancell of the same Church Wher all the Ministers heartofore have alwayes used to read the Divine service Sithence the erection of the same Church when all the people might very well heare the Divine service The most pte of the men beinge placed in the Chancell & the Women in the body of the Church he hath left the place of the Chancell wher the men are seated & hath placed himself among the women wch place dyd pcure extraordynarye Change to the pishoners wth no little murmor & Contraversye the former place more Convenient more Lawfull & more Antient, but he is so Willfull, stobern, & so stout of behavior as he hath moved of Late much Contenton & is soe prowd & haghtie as when the Churchwardens did bringe hym the booke lately to enter the Churchings & buryalls he requiered the Churchwardens to bringe pen & ink or else he would not record the same. He did lately take upon himself at the request of c'tane psons to make sertaine obligacons to use of the stock of the poore & to be sealed & deliv'ed to the same psons to us wthout our Consent previtie or agrem'

Yor Worshipp at Comamndm' Willm Alan John goodriche

Of all wch matter We thought good our office & dutie to advertise yor Worshipp Desiring yor WoP. to take such order hearin as to yor wisdom shalbe thought best. And soe humblye Wee doe take our leaves Ely this xth of ffebrary 1594.

J. H.

HUMAN REMAINS FROM WANDLEBURY

The bones were uncovered by workmen using a bulldozer while extending the area of the cricket pitch. They were found within 2 or 3 ft. of the top of the embankment, near its southern end, but the exact position could not be recorded.

Human remains were also reported to have been found at the same site, when the area was originally levelled for the pitch, at least eighty years ago.

In view of the position of these finds of human skeletons, just outside the southeastern perimeter of the hill-fort ramparts, it seems quite possible that this was an Iron Age burial ground. The remains uncovered in December 1966 had been broken by the bulldozer passing over them and were deposited at the laboratory in fragments. Prior to examining the remains, the bones were repaired inasmuch as this was possible, resulting in the reconstruction of two complete femora. The remains were representative of two individuals, though the majority of the material was from one skeleton. The individual represented by the most bones was a large robust male, whose stature was approximately 5 ft. 11 in. The stature was obtained by taking the maximum length measurements of the femora, and applying the measurements to the regression formulae of Trotter and Gleser (1952),¹ for 'whites'. An age at death for the individual was able to be ascertained from the degree of closure of the ectocranial and endocranial aspects of the sagittal suture which could be observed on a few of the cranial fragments. An age was also able to be

¹ Mildred Trotter and Goldine C. Gleser, 'Estimation of Stature from Long Bones of American Whites and Negroes', Amer. J. Phys. Anthrop. N.S. x (1952), pp. 463-514.



(a)



(*b*)



Font at St Wendreda's, March.

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obtained from the degree of attrition of three molar teeth, no conflict occurring between the two sets of criteria, the age being estimated as approximately twenty-five years. The oral health of the individual was not very good, as half of a mandible preserved displayed signs of abscesses in the sockets of the three molar teeth, and possibly in the socket of the second premolar tooth. Five teeth were also present among the remains, two of which had medium sized caries, and in a third, which was a molar tooth, carious decay had affected half of the occlusal surface down to the neck, leaving a large cavity. The abscesses affecting the tooth sockets had also affected the roots of four of the teeth, leaving them with a slight bulbous appearance. Slight deposits of calculus, or tartar, also adhered to four out of the five teeth.

The second individual was represented by fragmentary shafts of a femur, a tibia, and a humerus. The individual was an adult, but the shafts of the long bones were not of so large proportions as similar bones of the other individual. The sex of the individual was undeterminable from such a scanty proportion of a skeleton, but it was possible the individual was a female.

A POSSIBLE HOARD OF DECORATED FLAT AXES FROM LITTLEPORT, CAMBS.

In 1965 an Early Bronze Age flat axe was brought into the Museum of Archaeology and Ethnology for identification. It had 'rain' decoration on both faces, and herringbone tooling on the edges (Fig. 1). There was a very slight incipient stop-ridge.



Fig. 1. Flat axe from a hoard (?), Littleport, Cambs. Scale $\frac{1}{2}$.

The owner did not wish to part with it, although it transpired that it had been dug up in a garden at Littleport a few months back, *together with several other similar pieces* which had been put into the dustbin.

In view of the rarity of hoards of this date, and the lack of finds of decorated axes of this type in East Anglia,¹ it was thought worth while to publish this information, scanty though it be. M. D. C.

¹ J. M. Coles, 'A Flat Axe from Chatteris Fen, Cambs.', Proc. C.A.S. LVI/LVII (1962/63), pp. 4-8.

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