

PART I

PREHISTORIC, ROMAN, AND ANGLO-SAXON

PREHISTORIC ARCHAEOLOGY IN NORFOLK SINCE 1923

WITH NOTES ON THE GRIMES GRAVES FLINT-MINES AND THE MODERN FLINT INDUSTRY AT BRANDON, AND ON THE IRON AGE DATE OF WARHAM CAMP

BY R. R. CLARKE

The last meeting of the Institute at Norwich in 1923 coincided with the publication of Fox's *The Archaeology of the Cambridge Region*, that pioneer study in the application of geography to archaeological studies, but ten years elapsed before any attempt was made to apply its principles to Norfolk, a well-defined natural region. The formation in 1934 of the Norfolk Research Committee did much to ensure the co-ordination of archaeological and other field-work on a regional basis and led to a marked increase in the number of excavations in the county and to the exploration of sites discovered by air-photography.

The period under review has seen great developments in the exploration and interpretation of the *Palaeolithic* cultures in Norfolk, largely owing to the investigations of Professor Boswell and his colleagues. From beneath the crag at Eaton within Norwich City boundaries have come much-debated flints,¹ but the excavations of Sainty² in the stone-bed of the Norwich area have yielded flints more widely accepted as artifacts. Later sites investigated since 1923 have produced Clactonian flake-tools associated with mammoth at Carrow, Norwich,³ and Acheul-Clactonian industries at Whitlingham⁴ and South Acre.⁵ The *Mesolithic* cultures of the county have been studied by Sainty,⁶ who investigated the well-known heathland site at Kelling⁷ on the Cromer-Holt ridge. A *Mesolithic* site occurs at Hellesdon,⁸ Norwich, and several others have been identified in the area. In the west of the county the work of the Fenland Research Committee has shed much light on the co-ordination of this and succeeding cultures with physical and vegetational changes.

The Neolithic Age is at present ill-defined in Norfolk, owing to widespread *Mesolithic* survivals seen in its flint industries, but the intrusive elements in its composition are represented by at least one long barrow—the anomalous example at West Rudham,⁹ excavated in 1937-38, and by *Neolithic A2* pottery at Snettisham and Gayton.¹⁰ *Neolithic B* wares have been noted at Runcton Holme¹¹ and Ickburgh,¹² while both groups appear at the celebrated flint-mines of *Grimes Graves*, *Weeting*, the most extensively investigated site of this character in England. Apart from the work of Canon Greenwell in 1870 which first disclosed its nature, excavations have taken place almost annually from 1914 to 1939, chiefly by Mr. A. L. Armstrong, and have led to the examination of over 100 'floors' and 15 mine-shafts out of a visible total of 366, though others have been detected by excavation. Mr. Armstrong¹³ has distinguished three groups of mines to which he assigns a chronological sequence. (1) '*Primitive Phase*': shallow shafts (c. 13 feet deep) with no galleries; long bones of oxen used as wedges. (2) '*Intermediate Phase*': shafts with coves at base; bone picks and red deer antler picks employed. (3) '*Late Phase*':

¹ *Trans. Norf. & Norw. Nat. Soc.*, viii (1906), 217-220; *P.S.E.A.*, i (1912), 185-193; ii (1916), 217-219.

² *P.S.E.A.*, vi (1930), 57-75.

³ *P.S.E.A.*, vii (1933), 171-4.

⁴ *P.S.E.A.*, v (1927), 177-213.

⁵ *Norf. Arch.*, xxviii (1944), 183-4.

⁶ *Norf. Arch.*, xxviii (1947), 234-7.

⁷ *P.S.E.A.*, iv (1924), 165-176; v (1925), 56-61, 283-5.

⁸ *P.S.E.A.*, ii (1916), 194-203.

⁹ *Norf. Arch.*, xxvi (1938), 315-329; xxvii (1940), 315-331.

¹⁰ Snettisham—Unpublished private collection; Gayton, Museum of Arch. and Ethn., Cambridge, called Massingham Heath in *C.A.S.C.*, xxxix (1940), 46.

¹¹ *P.S.E.A.*, vii (1933), 200.

¹² *Norf. Arch.*, xxviii (1942), 25.

¹³ *P.S.E.A.*, v (1926), 91-127; vii (1932), 57-61, 382-394.

deep shafts sunk to the floorstone (c. 30 feet deep), complex with subterranean radiating galleries; antler picks and shovels made from deer shoulder-blades used. Former claims for a Palaeolithic origin for the mining have now been abandoned, but the chief excavator considers that the 'primitive phase' must be dated in Mesolithic times. Clark and Piggott¹ have denied the validity of the above chronological sequence and suggest that the form of mine is conditioned by the depth of the flint seam, solidity of the chalk, etc., and conclude that all types of mine are of Neolithic date. In support of this they point to the undoubted Neolithic affinities of objects found in all three types of mine: chalk lamp in 'primitive' pit, Neolithic B pottery in 'intermediate' shafts, and Neolithic A ware in 'late' pits. Tranchet axes and naturalistic engravings of deer on flint crust probably reflect the Mesolithic aspect of the Neolithic B culture of East Anglia, while the idea of mining is probably due to intrusive Neolithic A elements. The exploitation of the site may only have lasted a few centuries, during which its primary product was the flint axe, roughly knapped on its workshop floors and exported in an unfinished state. A remarkable discovery made in 1939 at the base of Pit 15 has not yet been published in detail. An altar was found with a female figurine and phallus of chalk, dedicated possibly to counteract the failure of the shaft to reach the coveted 'floorstone'.

THE MODERN FLINT INDUSTRY AT BRANDON

Three miles south-west of Grimes Graves lies Brandon in Suffolk, where the workshop of H. Edwards is now the only place in Britain at which gunflints are regularly manufactured. A new lease of life has recently been given to this declining industry by the installation of electrical apparatus to absorb the flint dust which formerly led to a high mortality among the knappers. Gunflints have been made at Brandon since at least 1720 and the flint was obtained from mines at Lingheath, Brandon, until 1938, since when it has come from open pits near Norwich. The industry reached its maximum prosperity during the Napoleonic Wars when 200 men are reputed to have been employed. Little is known of the Brandon knappers before the introduction of the flintlock gun, but it is likely that in medieval times they were responsible for much of the fine flint-work in East Anglian churches and houses as well as the production of strike-a-lights.²

No detailed study of the *Bronze Age* has yet been made in Norfolk and the only concerted investigation has been a survey—still unpublished—of its barrows by the Norfolk Research Committee. Two barrows (survivors of a group of four) remain on Eaton Golf Course, Norwich, and just outside the city boundary lies the 'Henge-monument' in Arminghall parish excavated in 1935.³ Evidence of Late Bronze Age activity in Norwich is furnished by three metal hoards⁴ and there are other indications of a considerable population in the adjacent area. This concentration, however, is secondary to the main nucleus in Breckland and West Norfolk during all periods prior to Late Saxon times. It was only then that a settlement of any size emerged on the actual site of Norwich, when the economic centre of the county moved eastwards as a result of the deforestation of Central Norfolk and the exploitation of its richer clay soils. Other investigations on Bronze Age sites include the excavation of a settlement with burials of the Early-Middle Bronze Age at Reffley,⁵ and the discovery of an extensive settlement of the Early Bronze Age at Edingthorpe⁶ near North Walsham where beaker, rusticated and grooved wares are represented.

All *Iron Age* finds from Norfolk up to 1940 have been published by the present writer

¹ *Antiquity*, vii (1933), 166-183. Other additions to Grimes Graves literature include J. R. Moir, *Official Guide*, Ministry of Works (1936); Clarke, *In Breckland Wilds* (1937), 71-74; Childe, *Prehistoric Communities of the British Isles* (1940), 38-40. Earlier papers are listed in Kendrick and Hawkes, *Archaeology in England and Wales, 1914-1931* (1932), 78.

² Clarke, *Antiquity*, ix (1935), 38-56; *In Breckland Wilds* (1937), 118-125.

³ *Proc. Prehist. Soc.*, ii (1936), 1-52.

⁴ Unthank Road (now in Norwich Museum), with mould for socketed axes; Hellesdon and Eaton.

⁵ *Proc. Prehist. Soc.*, iv (1938), 318. Material in British Museum.

⁶ Trial excavations 1948 and 1950—selection of material, Norwich Museum.

in a comprehensive paper in this Journal.¹ Apart from the excavation of part of an Iron Age A farmstead at West Harling² in 1948, the chief subsequent discoveries have been of metal objects not previously recorded from the county. A torc-terminal from North Creake is noticed separately below (p. 59), and an anthropoid sword from Shouldham will be published in the *Proceedings of the Prehistoric Society* for 1951. Other finds include two electrum torcs of massive character probably of the first century B.C. from Bawsey,³ and a remarkable group of three hoards of metalwork and coins found at Snettisham in 1948.⁴ Hoard A consists of fragments of tubular gold torcs; Hoard B of 12 gold coins of the Bellovaci and Gaulish Atrebatas with much scrap metal (bronze torcs, rings, etc.), and Hoard C of about 150 tin coins with similar scrap metal.

Prehistoric earthworks are rare in Norfolk and the only 'camp' investigated since 1923 is Tasburgh, where trial excavations in 1948 failed to yield any definite dating evidence. The only camp previously investigated is *Warham Camp*, the so-called 'Danes' Camp' at Warham St. Mary,⁵ and in view of recent suggestions by Poul Nørlund⁶ that its circular ramparts have been modified and perhaps used in the Viking Age, it is important to emphasize its Pre-Roman Iron Age date and the entire absence of any evidence for any later reconstruction. The excavations of 1914 did not define with precision the builders of Warham Camp but they did produce Iron Age 'AB' pottery from near the bottom of the Inner Ditch with a brooch and pottery of the mid-late first century A.D. higher in the infilling.⁷ The construction of this earthwork can, therefore, be dated with reasonable certainty to the century 50 B.C.-A.D. 50.

GOLD ORNAMENTS OF THE BRONZE AGE FROM NORFOLK

BY R. R. CLARKE

Few gold ornaments of the Bronze Age are recorded from Norfolk, a deficiency not surprising in view of its geographical position. Six or seven gold-covered beads comparable with those of the Wessex culture were found in the South Barrow at Great Bircham,⁸ but their present location is unknown. To a similar extension of the same culture belongs the rectangular gold plate, gold mountings and amber beads found with an inhumation in a barrow at Little Cressingham.⁹ Apart from these and torcs from Foulsham¹⁰ and Ashill,¹¹ the only gold finds of this age from the county are the fragmentary strips from Geldeston and a so-called bracelet from near Melton Constable, here illustrated for the first time.

The two fragmentary strips (Plate Ha) were found in 1777 at Geldeston Hall in South Norfolk, while digging to make cellars for this mansion. Early accounts¹² refer to them as a 'curious Roman bracelet of pure gold', but no detailed account appeared until

¹ 'The Iron Age in Norfolk and Suffolk', *Arch. Journ.*, xcvi (1940), 1-113.

² Previous work in *P.S.E.A.*, vii (1933).

³ Complete torc published in *Antiq. Journ.*, xxiv (1944), 149-51. Fragment found 1944 still unpublished. See also p. 61 below.

⁴ Preliminary notices in *Illustrated London News*, January 1, 1949, *East Anglian Magazine*, February, 1949, and *Norf. Arch.*, xxx (1950), 157 with pls. I-VI. See also p. 61 below.

⁵ Gray, *Antiq. Journ.*, xiii (1933), 399-413; Clarke, *Arch. Journ.*, xcvi (1940), 48-52.

⁶ *Trelleborg* (Copenhagen, 1948), 38, with fig. 20; *Nordisk Fortidsminder*, iv (1948), 284-5; whence *Danish Art Treasures Exhibition*, Catalogue (Victoria and Albert Museum, 1949) made the same suggestion.

⁷ A fragment of Gallo-Belgic pedestal-beaker came from Cutting II (of form 79A,

dated c. A.D. 10-60, in Hawkes and Hull, *Camulodunum*, 1947, 232).

⁸ F. C. Lukis, *Barrows near Bircham Magna* (Guernsey, 1843); *Archaeologia*, xliii (1871), figs. 216-7, p. 525; *Proc. Prehist. Soc.*, iv (1938), 92.

⁹ Re-published by Piggott in *Proc. Prehist. Soc.*, iv (1938), 92, fig. 22. Purchased by Norwich Castle Museum, 1950.

¹⁰ *Norf. Arch.*, i (1847), 231-5. On loan to Norwich Castle Museum from Lord Hastings.

¹¹ *Norf. Arch.*, v (1859), 193-4. Now in British Museum.

¹² Britton and Brayley, *Description of the County of Norfolk*, XI (1809), 202; *Excursions in the County of Norfolk*, I (1818), 79; *Proc. Suffolk Inst. Arch.*, iii (1863), 419; *V.C.H. Norfolk*, I (1901), 276. Water-colour drawing in B.M. Add. MSS. 23055, ff. 127-8.

1855, when the Rev. G. J. Chester¹ described them as fillets for the head and assigned them to the 'Celtic' period. One strip is complete, though now in three fragments. It measures 13.25 inches long by 1.3 inches wide. Four fragments of the second strip remain totalling 11.25 inches but it is probable that its original length was similar to that of the first strip. Each strip appears complete in itself and has no perforations for attachment. The curvature of the fragments and the simple overlap fastening at the ends show that it was designed to be worn as a circle. The dimensions would suggest a possible identification as collars. These strips have now been placed on loan in Norwich Castle Museum by the owner, Miss O. N. A. Kerrich.

No parallels to these strips can be cited from Britain,² but the zones of repoussé decoration bear a superficial resemblance to the collar portions of Irish gorgets³ of the Late Bronze Age. However, their completeness shows that they cannot form part of ornaments of this type, and Dr. Raftery kindly informs me that no parallels to them exist in the National Museum at Dublin. In view of the possibility of a continental origin enquiries have been made of Dr. H. C. Broholm at Copenhagen and Prof. E. Sprockhoff at Kiel, but neither can produce any close parallels, though the decoration finds an echo in the ornamentation of the gold cups of Period IV (c. 950-800 B.C.) from Boslunde, Denmark,⁴ and on a gold bracelet found in a grave at Gonnebek, Holstein.⁵ The present evidence is insufficient to decide between an Irish and a continental origin, but the geographical position of Geldeston favours the latter, and the cultural home of the find is probably to be sought in the North German area during the Middle or Late Bronze Age.

The so-called bracelet (Plate IIb), the first of its type to be recorded from Norfolk, is not uncommonly found in Britain but from its greater frequency in Ireland must be a product of that island.⁶ Its exact findspot is unknown, but it has been preserved since 1817 at Melton Constable Hall, in North Norfolk, and its owner, Lord Hastings, by whose kind permission it is published here,⁷ informs me that it was almost certainly found on this estate, and that there is no reason to consider it a recent import from Ireland. Its maximum dimension across the terminals is 3.5 inches, and these hollow undecorated circular terminals are each 1.2 inches in diameter. The hoop is of lozenge-shaped cross-section.

Many uses have been suggested for these objects, including bracelet, fibula, dress-fastener, and pendant, but in default of conclusive evidence the first suggestion would appear the more probable, and is borne out by their association in hoards⁸ with objects which can only be bracelets. A Late Bronze Age date would appear to be likely. One example found near Bremen, and now in the Focke Museum there, would from its associations seem to have been buried about 500 B.C.⁹ but the full chronological range of this type has not been defined precisely, and it may have had a considerably longer life both ways of that date.

¹ *Norf. Arch.*, iv (1855), 312.

² A possible exception is a small gold fragment from the Mountfield hoard, Sussex, 1863, preserved in the British Museum. *Proc. Soc. Ant. Lond.*, 2 ser. ii (1863), 247; *B.M. Bronze Age Guide* (1920), 52, Fig. 39, but its incompleteness renders comparison difficult.

³ Armstrong, *Catalogue of Irish Gold Ornaments in the Collection of the Royal Irish Academy* (Dublin, 1920), pl. IX, e.g. no. 45.

⁴ Ebert, *Reallexikon*, II (1925), 49 (fig.): For dating of Period IV see Broholm, *Danmarks*

Bronzealderen, IV (1949): Hawkes, in *Proc. Prehist. Soc.*, xiv (1948), 216, proposes 900-700 B.C.

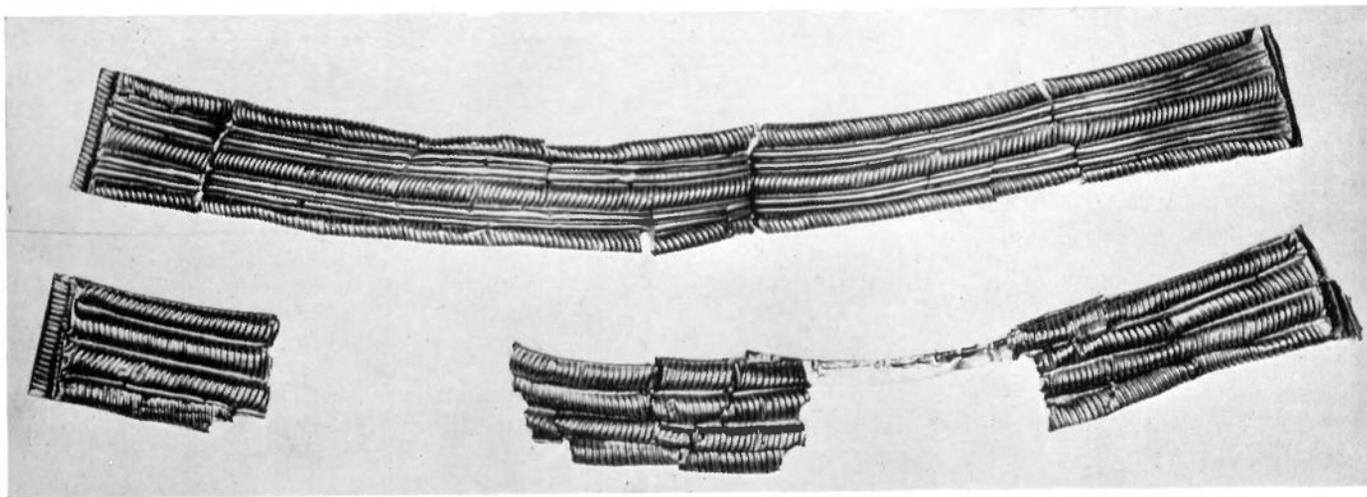
⁵ See also gold bracelet from Ginnerup, Jutland. Ebert, IX (1927), pl. 119b.

⁶ Armstrong, *Catalogue of Irish Gold Ornaments in Coll. Royal Irish Academy* (1920), 30-33; plates XV, XVI.

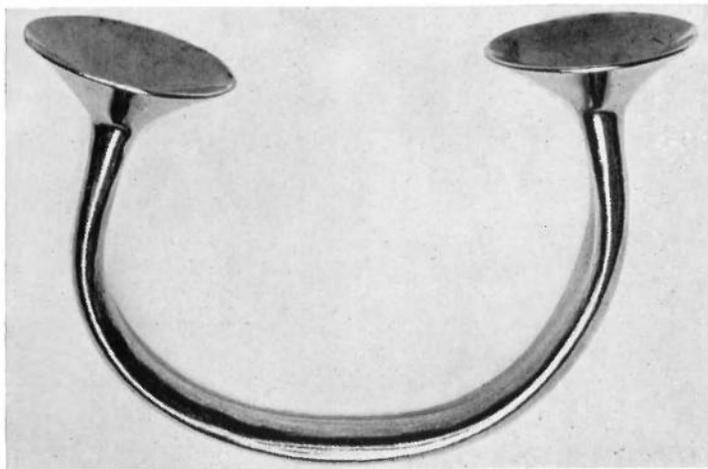
⁷ This object has been on loan to Norwich Castle Museum since 1947.

⁸ e.g. Kilmoyley, Co. Kerry (*Proc. Prehist. Soc.*, xii, 1946, pl. XIV and p. 161).

⁹ *Proc. Prehist. Soc.*, iii (1937), 395, 397.



A



B

- A. GOLD STRIPS, GELDESTON, NORFOLK. $\frac{1}{2}$.
(*Norwich Castle Museum Loan*)
- B. GOLD 'BRACELET'. MELTON CONSTABLE ESTATE, NORFOLK. $\frac{1}{2}$.
(*Norwich Castle Museum Loan*)



CELTIC TORC-TERMINAL (GOLD ALLOY), N. CREAKE, NORFOLK
 A. FRONT VIEW. $\frac{1}{4}$. B. TILTED REAR VIEW. $\frac{1}{4}$.
Norwich Castle Museum Loan



C. BURGH CASTLE, SUFFOLK: BASTION FALLEN FROM THE S. WALL OF THE LATE-ROMAN FORT, SHOWING SOCKET FOR REVOLVING SPRING-GUN

The bastion lies on what was its E. side, which is embedded in the ground. On the right is its back, broken from the wall (of which remains stand in the background); facing the camera is its flat top-surface, with the gun-socket, which is *c.* 2 feet in diameter.

Photo by J. R. Teggin, 19 July, 1949.

A CELTIC TORC-TERMINAL FROM NORTH CREAKE, NORFOLK

BY R. R. CLARKE

In the last decade many notable examples of Iron Age metalwork have been found in Norfolk, but the object here described is of more than local significance.

The decorated ring-ornament (Plate III, A, B) was ploughed up in 1947 in a field about half a mile north-west of Shammer House, North Creake,¹ on relatively high ground five miles from the North Norfolk coast. The only other archaeological material recorded from the vicinity consists of Roman roofing-tiles, rotary querns and pottery including Samian ware of the second century A.D., discovered between 1946 and 1948 in the adjacent field to the south-east.² The ornament was brought for examination to Norwich Castle Museum in 1949 by the owner, Mr. A. Everitt of Shammer House, who has since lent it for exhibition and has generously permitted its publication. It has been cast from an alloy of gold, silver and copper approximating in composition to modern 9-carat gold, according to a spectrographic examination³ kindly made by Dr. E. Voce of the Copper Development Association. The maximum length of the ornament is 4.4 cms., maximum breadth 3.9 cms., maximum thickness of ring-head 2 cms., and of base 2.6 cms. It now weighs 4½ ozs. Av. (120.5 grammes), but this includes an undefined quantity of cast-on metal in the socket. In shape it consists of a heavy ring-head with funnel-shaped central perforation, tilted at an angle of 20 degrees from the vertical to the axis of the circular base, which has a pronounced horizontal collar. The mouth of the socket appears from below as a six-lobed rosette, of which the edge had been damaged when the object was wrenched from its original attachment. One face of the ring-head is plain while the other is ornamented partly by cast projections and partly by chased curved lines, crudely executed freehand and often blundered. Below the collar round the base is a wavy horizontal rib, also imperfectly executed and perhaps only completed on the front face, though damage at the rear edge of the socket makes it impossible to be certain.⁴

The key to the function of this ring-ornament is provided by a number of broken-off ends of wires apparently of the same composition as the body of the object, still firmly embedded in the cast-on mass within the lobes of the rosette. Mr. H. Maryon, F.S.A., was the first to recognize that each lobe of the rosette contained a group of 6 or 7 wires (each about $\frac{1}{8}$ inch in diameter) forming one strand of a six-stranded interlaced wire torc, one inch in diameter, with cast-on terminals. He has kindly contributed the following observations on the probable technique of manufacture of such a torc. 'A model for the torc-terminal was formed in wax upon the end of the six strands. This would show the unusual tilt of the ring-head to the base, the raised ornament on the surface of the ring and the collar and rib round the base. A mould would then be made round the end of the torc and its wax finial. The wax would then be melted out and the work of casting would proceed in the usual manner. The smoothing up of the ring-head and the chasing of the ornament would then be undertaken. The small rib would receive a lateral blow on alternate sides at about $\frac{1}{8}$ inch intervals, from a flattish oval punch which had a nick across the middle of its face. The result would be the wavy decorative line round the base.'

The style of decoration round the ring-head is akin to the final stages of evolution of the Celtic lobed trumpet design, as traced by Sir Cyril Fox.⁵ This suggests a date

¹ 6-in. O.S. Norfolk sheet 7 S.E. 200-foot contour crosses the field.

² Preserved at Shammer House (1949). Unpublished.)

³ Other elements detected include small quantities of tin (probably about 1%), iron, silicon, aluminium, antimony, arsenic, bismuth, cadmium and lead.

⁴ Dr. P. Jacobsthal has drawn my attention

to a similar motif on silver discs from Roermond, Holland, and in the Bibliothèque Nationale, Paris (*Arch. Jahrbuch*, xxx, 1915). A chased zigzag appears also on the terminals of the Needwood Forest torc (*B.M. Quarterly*, xi, 1936-7, pl. II, c, with p. 3), where its continental affinities are discussed.

⁵ *A Find of the Early Iron Age from Llyn Cerrig Bach, Anglesey* (Nat. Mus. Wales, Cardiff, 1946), 48 ff.

for the production of this torc-terminal about the middle of the first century A.D. The surface of the background to this chased and raised design has been treated in a manner reminiscent of the 'basketry' work of the Celtic mirror style, though effected in an unsympathetic medium. The life of an object of this character may well have been long, and the evidence of occupation near by in the second century A.D. may not be irrelevant in connection with its final loss.

The general form of the North Creake terminal at once invites comparison with the well-known gold terminal¹ found in a hoard at Cairnmuir,² Peebleshire, in 1806, with three twisted gold torcs and a number of gold coins. The terminal and two of the coins are now preserved in the National Museum of Antiquities at Edinburgh. The Cairnmuir terminal is larger than that from North Creake, being 5.8 cms. in height. The ring-head of this object is, however, similarly inclined to its base at an angle of about 20 degrees from the vertical. The edge of the socket indicates that the terminal had also been wrenched from its attachment, but as the rugged edge had been subsequently flattened down there can be no certainty about its precise original form. It appears, however, to have had nine lobes, and the slight inturn of the base could well be explained as due to the necessity for gripping the curving strands of a wire torc rather than a straight bar of metal. The function of the Cairnmuir terminal has aroused considerable discussion. Its ornate character has led to its identification as a sceptre-head or 'head of a staff of office'³, while despite the precious metals of which it is composed, Cowen has argued that it should be regarded as a terret.⁴ Apart from the improbability of a sceptre-head leaning backwards or a terret having such a small aperture for the reins, the reasonably certain identification of the North Creake terminal, as a component of a torc, strongly supports a similar interpretation for the Cairnmuir terminal. This view can be regarded as proven following the discovery of a complete torc at Snettisham in 1950, noted below.

Attention may now be drawn to a third object of the same class, made of bronze coated with silver and decorated with a line of raised dots around the ring-head. Its height is 4.06 cms. and maximum breadth 3.8 cms., thus approximating in size to the example from North Creake. A recent examination of its socket has revealed, arranged in a circle, eighteen sheared-off wires, firmly embedded in cast-on material. It is without doubt to be interpreted as the terminal of a wire torc. This specimen was found on site 33 at Hengistbury Head, Hants, during the excavations of 1911-12, and was regarded by Bushe-Fox as probably the head of a linch-pin.⁵ The mixture of material on site 33 was such that no close dating can be provided for this object, but the evidence of Roman coins attested occupation into the second century A.D.

The general similarity in artistic style of the North Creake and Cairnmuir terminals suggests their attribution to the same school of metalwork, but the crude execution of the former stamps it as a rustic copy of the undoubted masterpiece represented by the latter. The Hengistbury Head terminal is also linked to Cairnmuir by the row of raised dots round the outside of the ring-head, which on the latter appear round the edge of the funnel-shaped central perforation. The dating evidence for the Cairnmuir find may now be considered. Roth⁶ identified the gold coins found in this hoard as Gaulish, and drew attention to the association of this type in equal numbers with coins of the Morini in a French hoard, which would now be dated c. 75-50 B.C. The time-lag involved in their transport to Scotland and subsequent concealment cannot be estimated precisely, but the deposit is probably not to be placed before the end of the first century B.C. The

¹ A spectrographic analysis done for Dr. P. Jacobsthal gives its composition as 85% gold, 9% silver, 3.5% copper, 2.5% iron with a trace of tin.

² *Arch. Scotica*, iv, 217, pl. X; Wilson, *Prehist. Annals of Scotland* (1851), 317; Anderson, *Scotland in Pagan Times (Iron Age)*, 138; Leeds, *Celtic Ornament* (1933), 131, 134, 136; Childe, *Prehistory of Scotland* (1935), 254, fig. 81.

³ *Short Guide to the Nat. Mus. of Antiquities*

of Scotland (1935), pl. II, 19; *A Short Guide to Scottish Antiquities* (1949), 15, 31.

⁴ *P.S.A. Scot.*, lxi (1934-5), 455-9, with fig. 1.

⁵ J. P. Bushe-Fox, *Excav. at Hengistbury Head, Hants, 1911-12*. Rep. Res. C'ttee Soc. Ant. Lond., III (1915), pl. XXX, 13, with pp. 13, 62. Now in British Museum (Mevrick Collection).

⁶ *Brit. Num. Journal*, iv (1907), 222. Wilson, *op. cit.* 520 (fig.). Ascribed to the Senones in *Proc. Prehist. Soc.*, xvi (1950), 14.

stylistic character of the Cairnmuir terminal provides a further criterion, and suggests that the hoard may have been concealed in the first half of the first century A.D. Mr. Stevenson has pointed out to me that the background of its decorated panels is, as has been suggested above for North Creake, a hammered version of the 'basketry' work background of the mirror style, the little pellets being the roundels of that style turned into three-dimensional balls. The dots round the central perforation can be regarded as pellets which have 'come loose' from the design. A similar interpretation may be advanced for the Hengistbury Head design, which Bushe-Fox appears to regard as a vestigial relic of a row of functional rivets. It must be admitted that in this case the row of dots constitutes the whole of the design apart from the hammered background. The Cairnmuir terminal is thus perhaps to be dated, at latest, to the early years of the first century A.D. In view of the stylistic degeneration exhibited by both North Creake and Hengistbury, a date about the middle of the first century A.D., or even slightly later in the case of Hengistbury, would satisfy the existing evidence.

If the argument advanced above be accepted for the identification of these ornaments as the cast terminals of a distinctive type of late Iron Age torc produced about the dawn of the first century A.D., it remains to consider the origin of the type, so widespread geographically. Here the gold torc from Needwood Forest,¹ Staffordshire, becomes significant. This consists of six twisted strands of gold wire wound round each other in pairs and cast-on to loop terminals ornamented by punch marks, chasing in low relief and small cast knobs finished by tooling. The Needwood Forest torc with its twisted wire construction and loop terminals is perhaps to be regarded as ancestral to the wire torcs with ring-head terminals described above. Professor Hawkes has drawn attention² to the Iron Age 'A' traditions of the dot and line pattern on its terminals, and has affirmed that its studded loops and twisted stem demand an origin in leather technique. On stylistic grounds he suggested for this remarkable torc a date in the late second century B.C.; but torcs of twisted wire in bronze and electrum with simple loop terminals are also well attested from hoards mainly of the first century B.C. at Ulceby, Lincs.³ and Snettisham, Norfolk,⁴ while a twisted gold torc with loop terminals was found on site 33 at Hengistbury Head⁵ close to the ring-head terminal described. The massive cast-on loop terminals of the two electrum torcs from Bawsey, West Norfolk,⁶ are presumably of similar date, though there is no direct evidence. The terminals of these Bawsey torcs have already developed far from the simple thin loop terminals of Ulceby and Snettisham, and the wider extent of the surface of the loops may have suggested a further progress into the ring-head type, where an obvious field for decoration presented itself.

In conclusion I wish to record my thanks to Professor Hawkes, who first pointed out the resemblance between the North Creake and Cairnmuir terminals, and to Dr. Jacobsthal, Dr. Voce, Mr. Brailsford, Mr. Maryon and Mr. Stevenson for help readily given, without in any way implicating them in any responsibility for my conclusions.

While the above account was in the press, a complete and magnificent example of this type of gold torc was found in November, 1950, in Hoard E at Snettisham associated with a fragmentary buffer-terminal torc and a bracelet, all probably concealed in the early years of the first century A.D.⁷

¹ *Archaeologia*, xxxiii (1849), 175; *Antiq. Journ.*, xiii (1933), 467, pl. LXXXI, 2. (British Museum.)

² *B.M. Quarterly*, XI (1936-7), 3, pl. II, c.

³ *J.B.A.A.*, xv (1859), 225-8.

⁴ Norwich Castle Museum. Preliminary notices (illustrated) in *Illustrated London News*, January 1, 1949; *Norf. Arch.*, xxx (1950), 157; *Num. Chron.*, 6 ser., viii (1950), 233-5.

⁵ J. P. Bushe-Fox, op. cit., pl. IX, 5. Now

in possession of Sir George Meyrick, Bart. (1950).

⁶ Both in Norwich Castle Museum. For torc found in 1941 see Maryon, *Antiq. Journ.*, xxiv (1944), 149-151; *Norf. Arch.*, xxviii (1942), 26-7, pl. 2; *Museums Journal*, xliii (1943), 10-11, pl. I. The second torc, which is incomplete, was found in 1944 close to the first (*Eastern Daily Press*, 11 August, 1944). It is still unpublished.

⁷ *Illustrated London News*, December 2, 1950; March 10, 1951; *B.M. Quarterly* (forthcoming).

ROMAN NORFOLK SINCE 1923: THE ROADS AND CIVILIAN OCCUPATION

BY R. R. CLARKE

The period since 1923 has witnessed a considerable expansion in our knowledge of Norfolk in the Roman Age.¹ Apart from the recording of numerous new sites, research has been directed to an investigation of the following matters. (a) Defining the road system with greater precision and dating its component sections (e.g. Peddars Way;² 'Pye Road' from Scole to Caistor-by-Norwich;³ discovery of bridges at Denver⁴ and Worthing⁵). (b) Exploration of villas at Gayton Thorpe,⁶ Aylsham,⁷ and Appleton.⁸ (c) Tracing the evolution of village or farm communities on sites with Iron Age origins like Runcton Holme,⁹ and Claudian foundations like Needham,¹⁰ where occupation ceased in the early third century. (d) Discovery of extensive agricultural areas in the Fens abutting on the western border of the county, with excavation of a site at Welney.¹¹ (e) Excavation of a substantial part of the only town in the area, at Caistor-by-Norwich, and the establishment of a stratified pottery sequence applicable to the area.

The site of Norwich, three miles north of Caistor, was of little importance in the Roman age, and there are only scanty traces of settlement at Eaton, Cotman Road and Dereham Road, the last represented by inhumation burials. The significance of Caistor stands to be assessed on the results of Professor Atkinson's excavations of 1929-35.

CAISTOR-BY-NORWICH: THE ROMAN TOWN OF *VENTA ICENORUM*

BY C. F. C. HAWKES

The British Iceni, inhabitants of modern Norfolk and Suffolk, upon submitting to Rome after their queen Boudicca's ill-fated revolt in A.D. 61, had here what became their regional capital and market-town. The remains of its walls have long been recognized; but it was its ground-plan (fig. 1), photographed from the air in ripening barley under the July sun of 1928, which brought its history to scrutiny by excavations: these were conducted for the Norfolk and Norwich Archaeological Society from 1929 to 1935 by Professor Donald Atkinson, F.S.A., who has most kindly helped the author in the preparation of this note.

The beginning of the first phase of the occupation is to be dated by material found associated with the laying down of the grid of streets, which divided the area into *insulae*; the date is about A.D. 70. Thus the town will have been founded under the Roman policy of pacification after Boudicca's revolt had been suppressed. It was small, and its start was unambitious. The first phase lasted for over a generation, and no building in stone is attested until its close and the beginning of a second. Then, a Forum and Basilica for the town were built, on a site in the NE. part of the central *insula* (A on plan, fig. 1) excavated in 1931. This site had apparently been reserved for them throughout the first phase, which was represented on it only by casual litter: the scraps of pottery, such as they were, reached anyhow the end of the first century. On surfaces of that phase, or at the Forum and Basilica foundation-level, there were stratified reasonably securely the following coins: Vespasian 4, Titus 1, Domitian 2, Trajan 5, Hadrian 2.

¹ A survey of the principal discoveries made since the publication of Haverfield's article in *V.C.H. Norfolk*, I (1901), appeared in *Norf. Arch.*, xxx (1950), 140-155.

² *Norf. Arch.*, xxvi (1937), 153-161. For Ferry over Wash, see *Antiquity*, vi (1932), 42-8.

³ *Norf. Arch.*, xxvi (1937), 120-1; 161-2.

⁴ *Geogr. J.*, lxxxii (1933), 434-444; *Antiq. Journ.*, xiv (1934), 184-6.

⁵ *J.R.S.*, xxxviii (1948), 26-27.

⁶ *Norf. Arch.*, xxiii (1928), 166-209.

⁷ *Norf. Arch.*, xxviii (1942), 27 (Marsham).

⁸ *J.R.S.*, xxxviii (1948), 90-91.

⁹ *P.S.E.A.*, vii (1933), 231-262.

¹⁰ *Norf. Arch.*, xxvi (1937), 145-153; *Antiq. Journ.*, xxi (1941), 40-55; *Norf. Arch.*, xxviii (1947), 187-216.

¹¹ *Antiquity*, x (1936), 94-6.

The Forum and Basilica then seem unlikely to be later than Hadrian (A.D. 117-138). They seem also very unlikely to be earlier. The first pottery to be found on their site in any quantity, which in time-range covered their building-period, was of types normally reckoned Flavian-Trajanic, whence in 1931 the excavator inclined to date it under Trajan (98-117); but his further study of the Caistor pottery in general has indicated that those types ran definitely later here than e.g. at Wroxeter or Richborough, or Corbridge, and it would be imprudent to claim this pottery as of Trajan's time rather than of Hadrian's. The 1930 excavations, in the northernmost *insula* in line with the Forum, disclosed three kilns

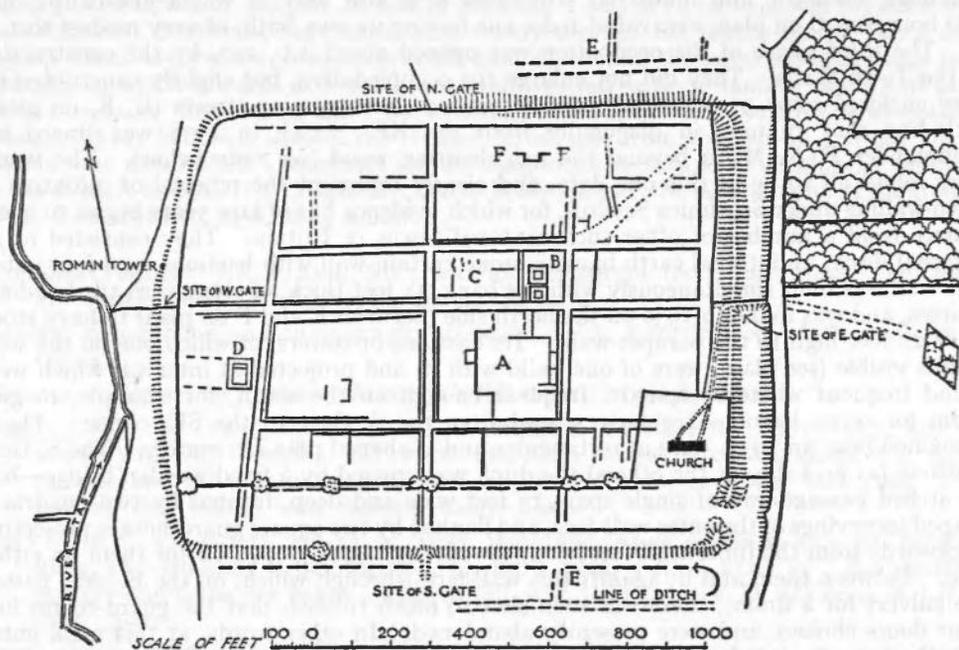


FIG. I. CAISTOR-BY-NORWICH: SKETCH-PLAN OF THE ROMAN TOWN

Showing the traces of streets and buildings indicated by air-photography in 1928
(adapted from R. E. M. Wheeler in *Antiquity*, iii, 183)

- | | |
|---|---|
| A. Forum and Basilica | D. Baths |
| B. Romano-Celtic Temples | EE. Streets cut by Town Walls of c. A.D. 200 |
| C. Houses: Buildings 1 and 2; Glass-furnace | FF. House, Building 4; Pottery-kilns under site of its E. end |

(at F—F on plan), in which pottery largely of this same sort had been produced; it was in his detailed study of them and of their output, published in 1932 (see below), that Professor Atkinson showed the case for this retardation at Caistor, whereby he dated their activity c. 110-40. In 1937, from the datable pits and leading stratified deposits excavated in 1929-31, he published a more extensive and varied series of pottery, of dates ranging over all the Caistor occupation, and he remarked that as a whole it confirmed this suggestion of the conservatism or backwardness of the Icenian population, which bears so especially upon the dating of the Forum.

The Forum and Basilica can thus be dated, at any rate provisionally, from the years round about 125. They formed a stone-built rectangular block 200 feet wide, the Forum having its colonnaded front facing eastward, and its internal space closed behind on the west by the Basilica. The Basilica had a nave ending to north in a single apse, and flanked to east by a single aisle; two further rooms—one perhaps a vestibule, the other

containing a channelled hypocaust—projected from it westward. In the same second phase of the occupation, and within the time-range again of pottery datable *c.* 110-40, a set of Public Baths was built, in the westernmost *insula* in line with the Forum. They recall the Baths at Silchester, and had a peristyle (D on plan) at their eastern front, 90 feet wide, and a tessellated *frigidarium*, a hypocausted *tepidarium* with a circular *sudatorium* by its SE. corner, and presumably a *caldarium* (still unexcavated), stretching in order down towards the western limit of the town, and draining evidently to the river Tas which flows by close beyond it. Burning, followed by repairs, occurred later in the second century both in the Baths and in the Forum. In contrast to these public buildings, domestic and industrial structures were still only of wattle-and-daub: e.g. two houses at C on plan, excavated 1929, one having its own bath, of very modest sort.

The third phase of the occupation was opened about A.D. 200, by the construction of the Town Walls. They did not enlarge the occupied area, but slightly constricted it: they enclosed some 35 acres only, and truncated some existing streets (E, E, on plan), including that running in diagonally from the NE., which in 1938 was traced by Commander F. R. Mann beyond the neighbouring wood (see note below). The works were found all to be of this one date, and clearly represent the renewal of initiative in town-walling under Septimius Severus, for which evidence has of late years begun to accumulate from a number of other such cantonal towns in Britain. They consisted of an external ditch, an internal earth bank, a stone curtain-wall with bastions, and four gates. The wall was built simultaneously with the bank, 11 feet thick, of stone with tile bonding-courses, and was found in 1930 on the north side (between E and F on plan) to have stood some 20 feet high to the parapet-walk. Its bastions or towers, of which one on the west stands visible (see plan), were of one build with it, and projected at intervals which were found frequent wherever tested: frequent enough on the south, for example, to give room for seven bastions regularly spaced from the S. Gate to the SE. corner. Those examined here (in 1934) were of rectangular and U-shaped plan alternately. The S. Gate—where (as probably at the others) the ditch was crossed by a fixed wooden bridge—had an arched passage-way of single span, 13 feet wide and deep, fronted by two quadrant-shaped incurvings of the outer wall-face, and flanked by two square guard-houses projecting backwards from the inner wall-face, with the internal bank sloped off for them on either side. Between them and it, against this wall-face (through which, on the E. side, passed the culvert for a drain), there was soon shot so much rubbish that the guard-rooms had their doors choked, and were presently abandoned. In other words, at this main entry into the town from Colchester and London, the design for the seemly maintenance of the gate and gate-watch was neglected almost from the start; middens stood heaped over the drain and behind the guard-room on each side of the passage-way; and finally the guard-rooms, long useless because thus inaccessible, were before 300 deliberately filled with earth. Moreover, from *c.* 200 when the walls and gates were built, the Forum was in ruins, and two more generations passed before a new one was built. The Baths, however, in the second quarter of the third century, underwent considerable reconstruction, and a good deal of new building was done in the first quarter of the century within the town.

At the same time as the walls, or *c.* 200-20, were built the two 'Romano-Celtic' temples seen north of the Forum *insula* at B on plan; the northerly was a fairly normal example of its type, with square *cella* surrounded by portico, but the walls of the southerly were thicker, with portico as much as 20 feet in width, and its *cella* was probably tower-like, and up to 40 or 50 feet in height, recalling the so-called 'Janus' temple at Autun in Gaul. Now also were built three dwelling-houses, not even yet of stone, but all alike of evidently timber-framed wattle-and-daub construction on low stone sleeper-walls. Two were at C on plan, superseding the two purely wattle-and-daub houses already noticed: one was of 'shop' type, *c.* 20 by ?*c.* 90 feet ('Building 1'), the other ('Building 2') of L-shaped plan 62 feet 6 inches by 73 feet, with a corridor, but having both its wings of 'basilican' build, with internal roof-posts on masonry bases, and outer and partition walls rendered in painted plaster. The third was on the old kiln site (F—F on plan), and was the best house discovered in the town ('Building 4'). Its main east-west row of rooms, between two corridors, connected two wings; one projected southward from

a set of baths in the west end, the other (apsed) from the east end (also apsed), which overlay the kilns.

The replacement of the ruined Forum, marking a fourth phase in the history of the town, was undertaken about 270 or soon after, possibly on the recovery of Britain from the Gallic Empire by Aurelian (271-74). The new Forum was built at A above the foundations of its predecessor, and was of broadly similar but much simplified plan and somewhat smaller. The accompanying Basilica, levelled up over its predecessor's foundations above the fall of the ground to westward, has wholly been robbed and denuded away, but the whole structure seemingly survived into the second half of the fourth century. At C, about 300, the N. end of Building 1 was in ruins, and was replaced by a glass-furnace; otherwise, occupation held steady through the fourth century until after c. 360. Then, everywhere, it appears much diminished, and the latest evidence came from Building 4, which towards 400 was burnt, and was left with 36 human skulls and other human remains unretrieved amid its wreckage. Next, on the site of a south-eastern suburb, which had had squalid hovels and refuse-pits from the second century to the fourth, was established a cemetery of the Anglo-Saxon invaders, which was probably in use as early as 450. On this see Mr. Clarke below, p. 71; the bibliography of the Roman town, from 1928 to 1938, is as follows:

1928 observations: *J.R.S.*, xviii, 201; with air-photograph (20th July, 1928), *The Times*, 4th March, 1929; *Antiquity*, iii (1929), 182-7.

General introduction and Bibliography to 1930: E. A. Kent in *Norf. Arch.*, xxiii, pt. 3 (1930).

Excavations (pending Professor Atkinson's full report, in preparation):

1929: *J.R.S.*, xix (1929), 196-7; in full, D. Atkinson in *Norf. Arch.*, xxiv (1931), 93-139: *insula* with (B) Temples, (C) wattle-and-daub houses, etc., Buildings 1-2, glass-furnace and other industrial remains, adjacent streets, and pits, with coins (list), pottery (see below), and Samian stamps (list).

1930: *J.R.S.*, xxi (1931), 232-3: N. Town Wall, and *insula* within it with pit, pottery-kilns, and Building 4 (photograph, pl. XXI; plan, *J.R.S.*, xxii, 33); for stratified pottery and coins, see below; kilns in full, with their pottery, D. Atkinson in *J.R.S.*, xxii, 33-46.

1931, 1933: *J.R.S.*, xxii (1932), 210 (inscription, 226); xxiv (1934), 209-10: central *insula* with earlier and later Forum and Basilica; for stratified pottery and coins, see below.

1934: *J.R.S.*, xxv (1935), 213: S. Town Wall and S. Gate, of which pl. xxxiv shows (1) a quadrant, with bridge-posthole, (2) E. guardroom, with drain beside.

1935: *J.R.S.*, xxvi (1936), 251: Baths, from peristyle (D) as far west as *tepidarium* (beyond, not yet excavated).

Stratified pottery and coins, 1929-31: D. Atkinson in *Norf. Arch.*, xxvi (1937), 197-230, summarizing (200-10) contents of the 18 chief pits and of 8 stratified deposits (nos. 1-6, 1929-30; nos. 7-8, 1931, decisive for dating interval between Forums), and describing (210-30) the pottery as a whole by type-groups, with 9 plates of line-drawings.

Road on N.E. (with water-pipe line and bronze-furnace adjoining), examined 1938 by Commander F. R. Mann: *J.R.S.*, xxix (1939), 214.

ROMAN NORFOLK SINCE 1923: MILITARY WORKS OF THE SAXON SHORE

BY R. R. CLARKE

The military aspect of Roman Norfolk is less conspicuous than its civil counterpart; but of the coastal fort of the Saxon Shore at Brancaster (*Branodunum*), despite its thorough destruction in the eighteenth century, enough remained for the excavations of 1935 to reveal its main features,¹ and suggest an occupation starting in the late third century. The virtual obliteration of Brancaster is counterbalanced by the excellent state of preservation of the next member of the Saxon shore series at Burgh Castle, just outside the county boundary of Norfolk. In his description of this site summarized in the following note, Morris has drawn attention to the possibility that a system of signal-stations comparable to those on the Yorkshire coast existed in East Anglia, and has cited some evidence from Caister-by-Yarmouth and from Corton (Suffolk).² In 1935 I made a similar suggestion for a site at Stiffkey³ in North Norfolk, and air-photography has revealed a rectangular earthwork at Thornham⁴ in North-West Norfolk which may qualify for a similar interpretation, but is as yet unexcavated.

THE FORT OF THE SAXON SHORE AT BURGH CASTLE, SUFFOLK

BY A. J. MORRIS AND C. F. C. HAWKES

The Roman fort called Burgh Castle stands in the north-west corner of the Suffolk peninsula of Lothingland, on the shelf of ground, composed mainly of brick-earth and about 30 feet in height, above the east bank of the river Waveney at its opening northward into Breydon Water and the Yare, whence the Yarmouth estuary now bends south again to reach the sea, 4 miles eastward from the site. The fort is generally identified with *Gariannonum*, one of the series of evidently Late Roman forts, extending from the Norfolk to the Channel coast, which are certainly those held under the command of the *Comes Litoris Saxonici*, or 'Count of the Saxon Shore'. The name comes presumably from the ancient name of the river, given in Greek by Ptolemy as *Gariennos*, now the Yare. The fortified area (plan, fig. 2) is about 5 acres in extent, and is oblong in shape, having originally no doubt been quadrilateral. It has walls now on three sides only; the longest is that on the east, 640 feet in length, while those on the north and south remain (with interruptions) 300 and 325 feet long respectively, and break off on the west at the edge of the shelf of ground, where it drops in a cliff to the marsh along the river. No west wall here is to be seen; but in 1850 and 1855, on behalf of Sir John Boileau who in 1846 had bought the site and saved the existing walls from destruction, excavations were undertaken by Henry Harrod, F.S.A., with the express purpose of locating a west wall and completing the plan of the fortifications. His numbered trenches along the cliff foot (fig. 2) revealed at a depth of 3 to 4 feet a stratum of clean clay, as though laid by inundation, 18 inches to 2 feet thick, and having beneath it a stratum of broken mortar surmounting a large quantity of flints, tiles, and further broken mortar. In one trench at this level he found a layer of stones placed on clay and surmounted by a thin layer of gravel. These apparent foundations were traced through his trenches 2, 4, and 5, though no solid mass of masonry was found. Trench 6 revealed at a depth of 4 feet 9 inches a double layer of large flints, placed upon a bed of seemingly puddled clay which extended to a depth of at least 6 feet. Trench 3 revealed a fragment apparently of a wall *in situ* nearly 4 feet from the surface, smooth and perfect on the inner side, but broken up 5 feet within that, all beyond being very wet; beneath it were found a number of decayed oak piles, extending for a distance

¹ *Antiq. Journ.*, xvi (1936), 444-460.² *Proc. Suffolk Inst. Arch.*, xxiv (1949), 102.³ *Norf. Arch.*, xxv (1935), 426-7.⁴ Royal Air Force basic air-cover, 1946.

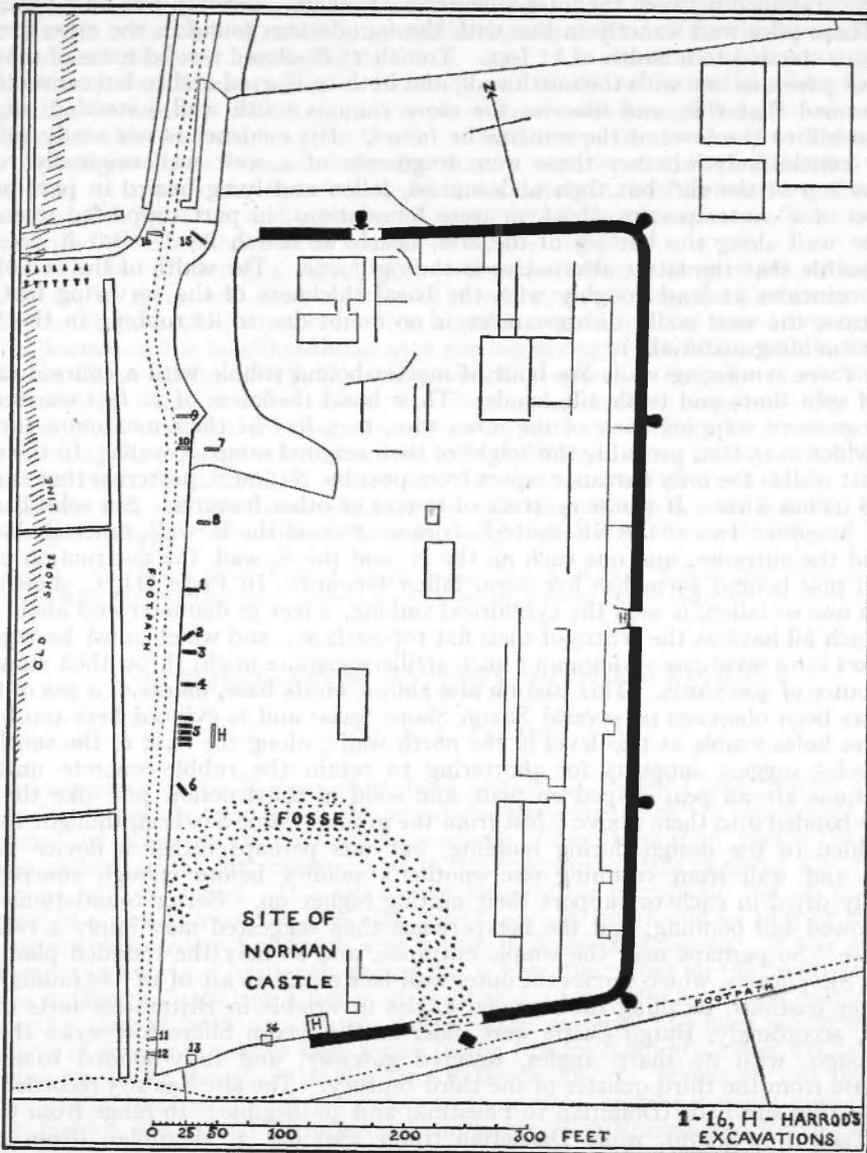


FIG. 2. BURGH CASTLE: PLAN OF THE ROMAN FORT, BY A. J. MORRIS
 Showing H. Harrod's principal excavations of 1850 and 1855, and the traces of internal buildings
 suggested by air-photography in 1933
 The Roman and Anglo-Saxon Cemetery site is in the field on the east of the fort.
By permission of the author and the Suffolk Institute of Archaeology.

of 11 feet from the inner wall-face. In Trench 1 at a depth of 5 feet was a layer of clay, mortar and flints, and under it more piles, about 1 foot apart and with clay, chalk lumps and mortar rammed between them for a depth of 18 inches; beneath this filling was black mud. These piles were exactly in line with the foundations found in the other trenches, and again extended to a width of 11 feet. Trench 15 disclosed a solid mass of mortar at a depth of 7 feet, in line with the north wall, and both to Harrod and to later investigators it has seemed that this, and likewise the more ruinous south wall, extended originally down the hill to the level of the remains he found. His evidence is not really sufficient to show conclusively whether these were fragments of a west wall originally running along the top of the cliff but then undermined, fallen and lying buried in part perhaps over piles of a contemporary wharf, or were foundations, in part supported upon piles, of a west wall along the bottom of the cliff, nearly at marsh level. But it does seem quite possible that the latter alternative is the right one. The width of the bed of piles, 11 feet, coincides at least roughly with the basal thickness of the surviving fort-walls. In any case, the west wall's disappearance is no doubt due to its robbing in the Middle Ages for building-material.

The three remaining walls are built of mortar-bound rubble with a coursed exterior facing of split flints and triple tile bands. Their basal thickness of 11 feet was reduced, by a progressive stepping-back of the inner face, to 5 feet at their maximum surviving height, which is 15 feet, probably the height of their original rampart-walk. In the middle of the east wall is the only entrance (apart from possible N. and S. posterns) that survives, 15 feet 6 inches wide. It shows no trace of towers or other features. Six solid bastions, however, remain: two at the NE. and SE. corners, two on the E. wall, centrally between these and the entrance, and one each on the N. and the S. wall, the destruction of both of which just behind them has left them fallen forward. In Plate III, C, showing the southern one so fallen, is seen the cylindrical sinking, 2 feet in diameter and about 2 feet deep, which all have at the centre of their flat top surface; and which must be regarded² as a socket for a revolving spring-gun; such artillery-engines might throw their stone balls to a distance of 400 yards. This bastion also shows, on its base, marks of a use of timber which has been observed in several Saxon Shore forts² and is evinced here too by four transverse holes visible at this level in the north wall: along the base of the south wall, timber-holes suggest supports for shuttering to retain the rubble-concrete until dry. The bastions are all pear-shaped on plan, and solid in construction just like the walls, but only bonded into them above 7 feet from the ground: this has been thought to prove them added to the design during building, but was perhaps rather a device to keep bastions and wall from straining one another's solidity before enough concrete had separately dried in each to support their uniting higher up. Better foundations would have allowed full bonding, and the inexperience thus suggested may imply a relatively early date. So perhaps may the simple entrance, and so may the rounded plan of the NE. and SE. corners, which carries the outer wall-face round an arc of 18 feet radius behind the corner bastions, recalling the rounded angles invariable in Britain for forts of prior age. If, accordingly, Burgh Castle were older in the Saxon Shore fort-series than e.g. Richborough, with its sharp angles, towered gateway, and fully-bonded bastions, it might date from the third quarter of the third century. The site has 183 recorded coins, 4 being earlier survivals (Domitian to Faustina) and 30 illegible: 16 range from Gordian III to Tacitus (238-276), while Diocletian (from 284) has 3, Maximian (from 286) 2, Carausius (from 286) none, Allectus (293-6) and his conqueror Constantius 3 each, with only 2 others before Constantine, from whom (316) to Honorius (395) range the remaining 120. The pottery and small finds known run almost all from the same period in the third century onwards.

There is some evidence for the former existence of internal buildings, most notably that of an air-photograph taken by the Norfolk and Norwich Aero Club in July 1933, which

¹ *Survey & Policy of Field Research*, I (Council for British Archaeology, 1948), 59 (Dr. I. A. Richmond); *Burgh Castle, Official Guide* (Ministry of Works, 1948), 4.

² J. P. Bushe-Fox *R.S.*, xxii (1932), 64-5.

has unusual interest (fig. 2), though the suggested building lines remain difficult to distinguish from the modern cultivation-lines, since the fort-walls give both the same alignment. For the garrison, the *Notitia Dignitatum* of the West, in its list of the Saxon Shore frontier command (ch. xxviii), names the *Equites stablesiani Gariannonensium*, under a *praepositus*. Stevens¹ dates the list A.D. 402. An inscribed helmet² suggests *eq. stablesiani* in Constantinian times in Holland, and we do not know how long before 402 the unit has been here. But it cannot anyhow have stayed much longer: *eq. stablesiani* also appear in the *Notitia* (ch. vii) in the list of field-troops (*comitatenses*) commanded by a *Comes Britanniarum*, or 'Count of the Britains'; and Stevens, dating this list 409, well argues that it represents the field-army then lately taken abroad by the usurper Constantine III, with our and other units swept into it from the Saxon Shore command. If so, Burgh Castle will have been evacuated by this regiment *c.* 407-8.

The fort has produced a vessel of the Romano-Saxon pottery dealt with below by Mr. Clarke (fig. 3, 1), and the field east of it contains probably the Roman cemetery, as well as certainly Anglo-Saxon cremation-burials. Anglo-Saxons may have commenced their settlement in the neighbourhood near the beginning of the fifth century, or at latest *c.* 450. In the seventh century, this was probably the Roman fort-site which, then called Cnobheresburg,³ was accepted from the East Anglian king Sigeberht by the Irish missionary St. Fursa, for the foundation of a monastery. After the Norman Conquest the fort was apparently made into a castle, with the Roman outer walls used for the bailey, and the motte built in the SW. corner over the western half of the S. wall. The mark of its circuit can still be traced (fig. 2), but it was partially removed about 1770, and completely in 1839. The walls are now in the guardianship of the Ministry of Works.

A J. Morris, 'The Saxon Shore Fort at Burgh Castle' (1947), in *Proc. Suffolk Inst. Arch.*, xxiv (1949), 100-20, with full Bibliography; *Burgh Castle, Suffolk*, Official Guide (Ministry of Works, 1948).

ROMANO-SAXON POTTERY IN EAST ANGLIA

BY R. R. CLARKE

In his survey of the Roman coastguard fortress at Burgh Castle, Morris published⁴ a jar in hard grey clay turned on the wheel and decorated with circular bosses separated by groups of three small circular depressions. This decoration recalls Saxo-Frisian ceramic fashions of the fifth century and Morris suggested a date of about A.D. 400 for the production of this hybrid. It is illustrated here by his permission (fig. 3, 1). A large fragment of a similar vessel in grey clay with black slip was found in 1935 at the Roman settlement at Caister-by-Yarmouth and is now in Norwich Museum. It has been noted previously as a hybrid of similar character⁵ but is here illustrated for the first time (fig. 3, 2.) Here as at Burgh Castle the absence of associations precludes any close dating but it is noteworthy that at both sites Pagan Anglo-Saxon material has been recovered. Small fragments of similar jars have been found in the Roman town at Caistor-by-Norwich and on a Roman site at Brundall⁶ in the Yare valley leading to Yarmouth and again Anglo-Saxon material has been found on or close to these sites. So far it might appear that this ceramic fashion was a local phenomenon confined to East Norfolk and North-East Suffolk but its distribution extended as far south as Felixstowe,⁷ and also across the main East Anglian watershed to Breckland, for a similar pot found in an inhumation grave at

¹ C. E. Stevens, 'The British Sections of the *Notitia Dignitatum*', *Arch. Journ.*, xcvi (1940), 125-54.

² J. M. C. Toynbee in *J.R.S.*, xxxviii (1948), 23, notes 25 and 23.

³ Bede, *H. E.*, iii, 19. For place-name evidence that should strengthen the identification, see Dr. O. K. Schram quoted in *Proc. Suffolk Inst. Arch.*, xxiv, 118.

⁴ *Proc. Suffolk Inst. Arch.*, xxiv (1949), 116-118 (fig. 7, 5).

⁵ *Norf. Arch.*, xxvii (1940), 236; xxix (1946), 39.

⁶ Norwich Castle Museum.

⁷ *Proc. Suffolk Inst. Arch.*, xxiv (1949), 179, with fig. 6, II (British Museum, pot in red ware: 53, 8-15, 7).

Mitchell's Hill, Icklingham, was published by Fox as long ago as 1923.¹ This pot is now in Moyses Hall Museum, Bury St. Edmunds. From another grave at the east end of the same cemetery came another hybrid in grey ware with a polished black surface, slight bosses and a cordon below the neck, now in the Ashmolean Museum.² This cemetery at Icklingham is in close proximity to a Roman site where coin evidence suggests occupation until well on into the fifth century and where Anglo-Saxon occupation is attested at least as early. Similar pottery is also preserved in the Colchester Museum, but in no case can it be dated with certainty. It includes a bowl in light orange-red ware

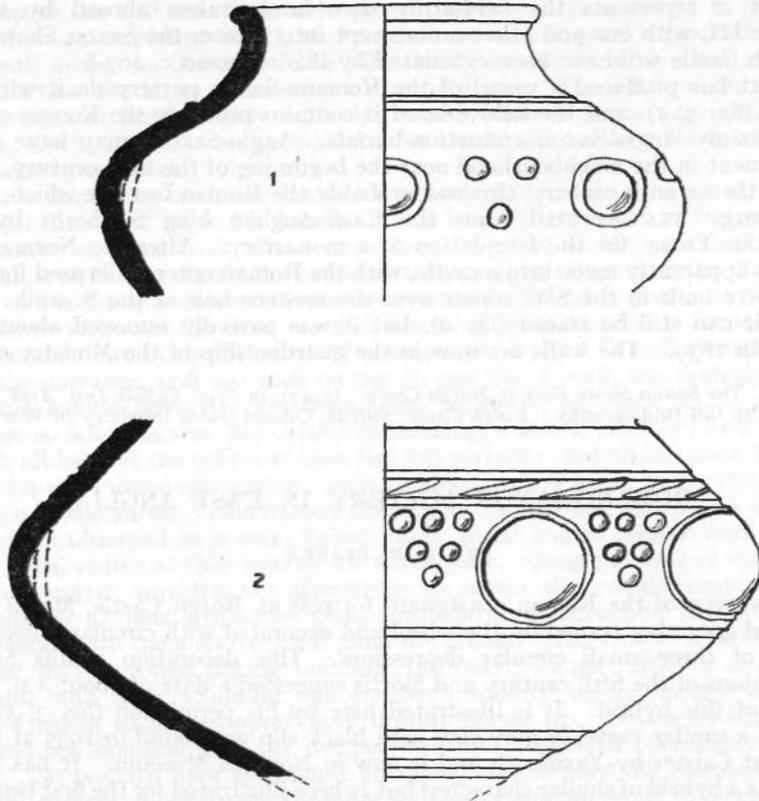


FIG. 3. ROMANO-SAXON POTTERY

I. BURGH CASTLE, SUFFOLK. 2. CAISTER-BY-YARMOUTH, NORFOLK. $\frac{1}{2}$
(Norwich Castle Museum)

from Sawbridgeworth, Herts (620-36); two examples from Colchester area (Joslin Collection Nos. 622 and 634), a jar from St. Martin's churchyard, Colchester (3755-18) and two vessels in grey ware from the west cemetery at Colchester (Graves 95 and 106). The last two³ may be attributed to the fourth century.

Until further examples of this type of pot are found in datable contexts its chronological position must remain open to speculation but its general form and technique

¹ Fox, *Arch. Camb. Region* (1923), 93-4, 97 (pl. XV, 1). Iron Age dating there given corrected in *P.S.E.A.*, iv (1924), 230, and *Camb. Hist. Journ.*, ix (1947), 12. See also *V.C.H. Suffolk*, I (1911), 310 and pl. IV B; *Arch. Journ.*, xcvi (1940), 107-8.

² Reg. No. 1930, 413. Termed 'Saxon urn' by former owner: *Proc. Suffolk Inst. Arch.*, xxiv (1949), 173, with fig. 2, XII.

³ *Catal. Roman Pottery, Colchester Museum* (1930), 279, 283.

stamp it as the product of Romanized kilns probably in East Anglia.¹ Its presence on nine Roman sites of which at least two (Burgh Castle and Icklingham) were not occupied before the third century suggests a late Roman origin but if the validity of the comparison of its bossed decoration with Saxo-Frisian handmade pots is accepted, then the Dark Ages occupation already attested on six of these sites becomes of vital importance. Provisionally it may be suggested that this type of pot is more likely to represent the Romanized traditions of the late fourth or early fifth century already compromising with the artistic ideas of the invaders and thus representing a local fusion of the two cultures. In this connexion Morris² has already revived the old explanation of the 'Saxon Shore' as an item of place-name evidence for Saxon residence on the East Anglian littoral while the system of coastal fortifications still functioned as a military command.

ANGLO-SAXON NORFOLK

BY R. R. CLARKE

In 1939-40 a comprehensive survey of the archaeological material relating to Anglo-Saxon Norfolk for the period A.D. 400-800 was published with a gazetteer of all known sites.³ It brought to notice several cemeteries additional to those marked on the *Ordnance Survey Map of Britain in the Dark Ages (South Sheet)* of 1935, notably those at Brundall and Eade Road, Norwich,⁴ while a major contribution to the paper was a survey by J. N. L. Myres of all the pottery known to survive from the Norfolk cemeteries except Caistor-by-Norwich. Apart from this study of earlier discoveries, the archaeology of Pagan Anglo-Saxon Norfolk has been advanced since 1923 by excavations at the Devil's Dyke, Weeting (1949),⁵ demonstrating its post-Roman character; by the re-examination of the cemetery at Markshall (1948-49),⁶ and by the emergency excavation of a large part of a previously unknown cemetery revealed by deep ploughing at Illington (1949).⁷ But the most important piece of fieldwork for this period has been the excavation of the cemetery at Caistor-by-Norwich, from 1932 to 1938. Apart from a brief report⁸ this remains unpublished, though the late excavator's notes are being utilized for a full publication by Mr. J. N. L. Myres and the present writer.⁹ The site lies about 1,100 feet south-east of the east gate of the Roman town (p. 63), on the crest of a slope now largely covered by a plantation. Tree-planting, ploughing, and the activities of rabbits caused much destruction before its almost total excavation by Commander F. R. Mann, R.N. The cemetery was superimposed on a suburb of the Roman town, and traces of squalid hovels and refuse pits of the second-fourth centuries were found. Over 500 cremations in urns and about 60 inhumations were investigated, but the associated grave goods were poor. The chief importance of the site lies in its great range of pottery and the possibility of determining its relative chronology through the disturbance of earlier by later burials. This suggests provisionally the intrusion in the sixth century of a Saxon culture addicted to both cremation and inhumation, into the midst of a predominantly Anglo-Frisian community exclusively devoted to cremation. The chronological range of this village graveyard has not been fixed with precision but it probably started as early as A.D. 450 and lasted into the seventh century.

The Late Saxon period has been considerably illumined in Norfolk since 1947 by the extensive excavations in progress on the site of the town at Thetford.

¹ Other hybrid pots are from Faversham, Richborough and Sittingbourne, Kent, and Elmswell, Yorkshire. For note on these see Myres, *Arch. Newsletter* III (1950), 103-4.

² *Proc. Suffolk Inst. Arch.*, xxiv (1949), 116.

³ R. R. Clarke, *Norf. Arch.*, xxvii (1940), 163-249.

⁴ Marked on O.S. Map as single burial.

⁵ *Archaeological Newsletter* III (1950), 38.

⁶ Sherds with animal stamps have been recovered from dumps left by the excavators of 1815-22.

⁷ A predominantly cremation cemetery.

⁸ *Norf. Arch.*, xxvii (1940), 216-18.

⁹ All finds from this excavation are now in Norwich Castle Museum.

THE SAXON TOWN OF THETFORD

BY G. C. DUNNING

Thetford is mentioned several times in the Anglo-Saxon Chronicle. In 869 the Danes wintered there; in 1004 it was sacked before a hard battle; and in 1010 it was again burnt. Another side of the picture is shown by an entry under 1018, when Thetford is mentioned with other towns as trading with the Continent. In 1075 Herfast, the new Bishop of East Anglia, moved his see to Thetford, whence it was removed in 1094 to Norwich. The Thetford mint issued coins from the reign of Eadgar (959-975) until that of Henry II, though its output declined after the reign of William I.¹

It is evident that a town of importance existed where the Icknield Way crosses the rivers Thet and Little Ouse, and chance finds of pottery etc. indicated that the settlement extended over a large area on the south bank of the river. This has been amply confirmed by large-scale excavations on the St. Mary's Housing Estate in 1948-9, undertaken by the Ministry of Works. The excavations revealed intense industrial activity in this part of the town in the latter part of its history, presumably close to its south-western limit. No evidence was obtained as to the extent of the settlement nor if it was defended by a bank and ditch, as suggested by analogy with towns or trading settlements of comparable date abroad. The beginning of occupation is provisionally referred to the eighth century; it was heaviest in the ninth and tenth centuries, and continued during the eleventh century on a diminished scale until the Norman period. After the Conquest the settlement appears to have moved to the north side of the river, where the motte-and-bailey castle was built to guard the ford.

The main site excavated was crossed by a shallow double-ditch system running from south-east to north-west, later filled in and partly covered by a system of three super-imposed flint roads, traced for a length of about 250 ft. A coin of St. Edmund (875-905) was found on the surface of the lowest road (Road 1), and a coin of Canute (1016-35) on the uppermost road (Road 3) at the north end of the site. A number of huts, clay floors and pits were associated with the early ditch system. One rectangular hut, about 35 ft. long and 15 ft. wide, was divided into three rooms, and another was oval, about 25 ft. by 20 ft., with a central hearth, and surrounded by post-holes for the sloping roof-poles.

During the period of the roads, occupation was concentrated along both sides of the road system. Numerous hut-sites were found, including a boat-shaped building 50 ft. long and 15 ft. wide in the middle, divided by cross-walls into five rooms. Various methods of house construction were employed. Usually the floors were sunk 1 or 2 ft. into the natural sand, and the walls either of turfs or wattle-work set on sleeper beams. Upwards of 180 pits belonging to various periods were cleared out. The majority were filled with rubbish, a number lined with wooden planks were clearly storage pits, and two were latrine pits. Two deep shafts, one over 30 ft. deep were probably wells or used for the tanning of hides.

The period of Road 2 (tenth century) was one of great industrial activity, and over a large area grey wood ash accumulated, in some places to a depth of 4 ft. Road 2 and a number of the huts became engulfed in ash. The industries carried on were bronze and iron working, and pottery making on a large scale. Three pottery kilns were found close together. The two earlier kilns had been demolished, but the third was intact, and it may be dated to the first half of the eleventh century. The kiln was horse-shoe shaped and built in a hollow dug through earlier occupation levels. The firing chamber was roofed with a heavy clay dome, leaving four large flue-holes at the sides, and there was no central supporting drum for the firing platform. The kiln measured 6 ft. long, 5 ft. 6 in. wide, and 4 ft. 8 in. high internally. Part of the last batch of pottery to be fired—cooking pots and lamps of different types—remained on the dome and filled the flues.

¹ *Num. Chron.*, 6 ser. ix (1949), 189-236.

The pottery output was enormous, and the main types comprise cooking pots, mostly with sagging bases, flanged bowls and dishes, bridge-spouted pitchers, storage-jars, crucibles, and lamps of three types. The pottery is made in a single ceramic tradition, modelled closely on Frankish and Carolingian prototypes. More particularly its origins are found in the middle and lower Rhineland, where continuity of types from the Roman period, the use of the potter's wheel, and firing in kilns, are demonstrated in the Trier region. The excavations established that excellent lead-glazed pottery was in use in East Anglia in the late ninth or early tenth century. Several glazed sherds were sealed between Roads 1 and 2 in association with a coin of St. Edmund. The glaze occurs on spouted pitchers of fine quality whitish or pink fabric, and also on cooking-pots of finer ware than the usual grey sandy paste. For the most part the glaze is yellow or light green, thin and transparent, and a later development has stripes and blobs of reddish-brown pigment or slip beneath the glaze. The origin of Late Saxon lead glaze at Thetford has been sought in the E. Mediterranean, but evidence from Holland makes this far-fetched explanation unnecessary. At Brunsum and other kiln sites in Dutch Limburg, red-painted pitchers, bowls, and cooking pots, derived from the Pingsdorf series of the Rhineland, sometimes have sparse lead glaze. Another group in Holland has roller-stamped decoration but no painting, and is distinguished by its fine thin white or yellow ware, and yellow or pale green glaze in patches or zones on the body. This glazed ware first appears in the late ninth and early tenth centuries, and lasts into the twelfth century.¹ It seems then that the early glazes in Holland and in East Anglia have a common origin, and represent a technical development in the pottery industry which enabled the finer quality wares to be fired at sufficiently low temperatures for glazing to be possible.

The small finds at Thetford are very numerous and illustrate the industries carried on in the town and its trade connexions. Four or five lead disc-brooches with pearled borders and geometric designs, and a silvered copper disc pin-head decorated with interlace and Anglian beasts' heads, are dated ninth and tenth centuries. Amongst iron objects are several prick spurs and pieces of bridle-bits, and a range of carpenter's tools including an adze, hammer, chisel, file, two-edged saw and a spoon-bit. A large iron ploughshare was recently found in the bank of the little Ouse near the Grammar School. Several horse shoes were found, some in stratified deposits. Bone objects include many single sided hog-backed combs, pins with decorated heads, a flute, spindle-whorls, and tools used in pottery making. Trade with the Continent is shown by a great quantity of pieces of Niedermendig lava querns, whetstones of schist probably from the Eifel region, and by a few glass beads and a bracelet.

Many of the small finds at Thetford are of types widely distributed abroad in this period, and have exact counterparts at Dorestad, in the Frisian terps, and at Hedeby in Schleswig. The very close similarity of cultures in the lands bordering the North Sea may be explained by the activities of the Frisian merchants, who traded wine and the more solid products of the Rhineland for wool, furs and even slaves from the far north.

Longer notices of the Thetford excavations have appeared in the *Archaeological News Letter*, January and August, 1950, by Group Captain G. M. Knocker, who directed the excavations on behalf of the Ministry of Works.

¹ Dutch 'pottery with sparse glaze' is discussed by W. C. Braat in *Oudheidkundig Bodemonerzoek in Nederland: Gedenkboek A. E.*

van Giffen (1947), 464-6, with references to earlier papers and excavation reports.