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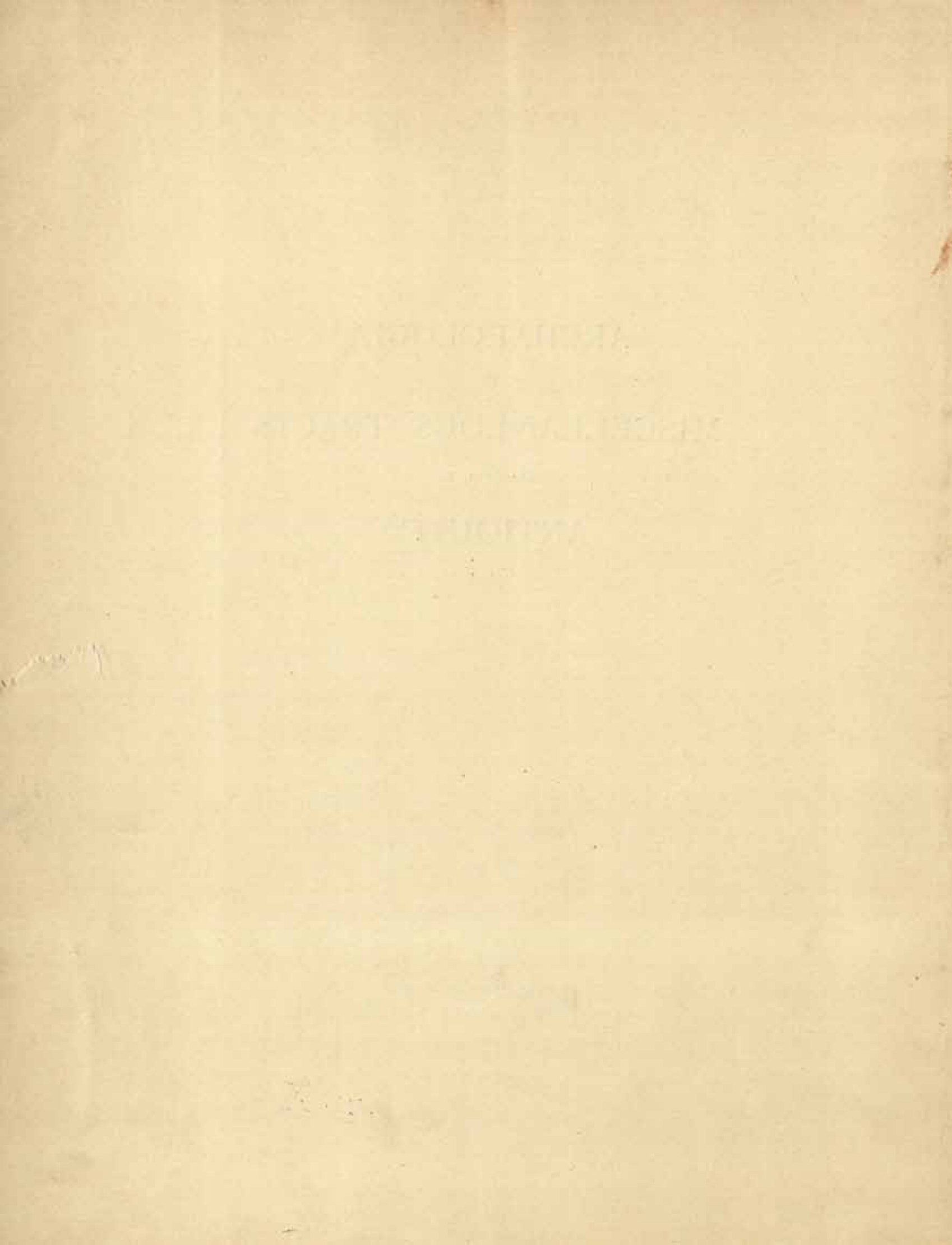
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I.—*An English Gold Rosary of about 1500.*

By SIR ERIC MACLAGAN, C.B.E., Vice-President, and C. C. OMAN, Esq., M.A.

Read 6th December 1934

I

THE English Medieval Gold Rosary¹ which forms the subject of the communications to be laid before the Society by my colleague Mr. Oman and myself was brought to the Victoria and Albert Museum about eighteen months ago. So far as I am aware hardly any one knew of its existence previously. It had been the property of the Langdales of Houghton Hall, Sancton, an old Yorkshire Roman Catholic family, and had apparently been found some considerable time ago in a chest with a number of other objects connected with religion. It had not until quite recently been regarded as of any special importance or interest, and nothing apparently can be traced as to its history.

After protracted negotiations which extended over a full year the rosary was purchased for the Museum out of funds bequeathed by the late Captain H. B. Murray, with whose collection it will ultimately be placed in the special Gallery devoted to this bequest. As it has for some months been definitely the property of the Museum it cannot be brought here to-night, but photographs of the whole rosary and of details have been placed on the table together with some other examples of similar English medieval goldsmiths' work which Mr. Oman has brought with him to illustrate points raised in his paper.

I will leave it to Mr. Oman to lay before you the evidence as to the existence of other gold rosaries in England during the later middle ages. But so far as I know no other actual example even in part has survived. And what gives peculiar interest to the rosary which we are considering this evening is the fact that each bead is engraved on each side with the figure of a saint or some other religious representation, while the names of the two saints are engraved on the edges of the beads; the engraving being in each case filled up with black enamel after the fashion of English iconographic rings. I propose in my own communication to confine myself almost entirely to the question of the iconography of the rosary and of the only possible parallel to it from this point of view with which I am acquainted.

¹ The use of the word *rosary* is of course an anachronism. But it appears to have come into general use during the century following the date at which these particular beads were made.

It would seem at first sight that the fact that the names of the saints are engraved on the sides of the beads made their identification a very easy matter. But the goldsmith who made the rosary was not a very careful worker, and his lettering is in some cases extraordinarily difficult to decipher. I hope that when slides showing the inscriptions are shown on the screen the letters may be clearer than they are on the original beads, and that some of our Fellows present may be able to throw light on the disputable identifications which still remain; but so far they have puzzled even so eminent an authority as the Provost of Eton, who has been kind enough to devote a good deal of time to the examination of the photographs.

Not only did the artist fail to be consistent in placing the inscription on the right or the left of the saint represented (about 90 per cent. are to the dexter side¹) but in some cases it cannot, I think, be denied that he put the wrong name to the saint or the wrong saint to the name, for duplicates occur in both categories. And the symbols of the saints had to be represented on such a small scale that they are not always readily identifiable.

One word must be said as to the arrangement of the beads. When the rosary reached the Museum they were strung in what appeared to be a completely haphazard fashion so far as the saints were concerned, and two of the large beads with the knop were attached as a pendant so as to approximate to the appearance of a modern rosary. On the advice of Fr. Thurston this arrangement was modified (so far as the general appearance of the rosary was concerned) to correspond with at least one example illustrated on a medieval brass. And an order for the beads was worked out by which on one side at any rate they present something approximating to a consistent scheme. But this arrangement has of course no authority whatever, and has merely been carried out for practical convenience.

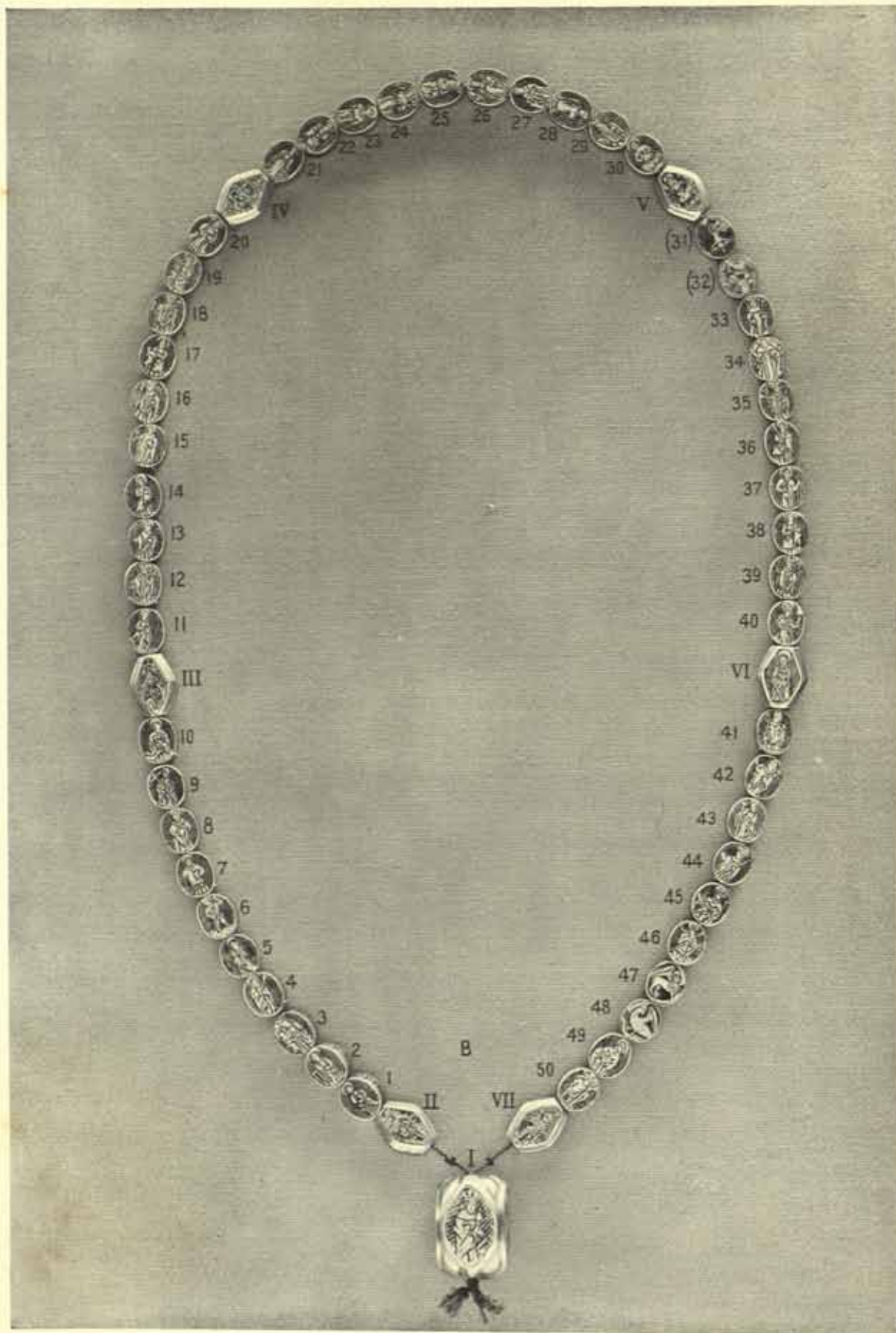
The rosary consists of fifty small (*Ave*) beads, oval in shape, measuring 12.5 mm. in length and 6 mm. in thickness, and weighing between 44.84 and 38.84 grains. In addition there are six rather larger (*Pater*) lozenge-shaped beads or gauds with bevelled faces about 16 mm. long and 10 mm. wide, or including the bevel about 13.5 mm.; the weights of these vary between 39.42 and 36.41 grains (less, that is, than the smaller oval beads). The rosary terminates in a large four-sided knop, rather melon-shaped with flat vesica-shaped faces about 21 by 15 mm.; the whole knop is about 30 mm. long and 20 mm. wide, and weighs 190.56 grains.

I propose to go through the beads giving the names of the saints represented and indicating as briefly as I can those which seem to be of special interest.

¹ The obvious exceptions are the beads numbered 15, 16, 18, 22, 23, 25, 37, 41, and 50; but there may be others in doubtful cases.



An English Gold Rosary



An English Gold Rosary

The iconographical points raised are so numerous that I cannot do more this evening than hint at them. I hope very much that some light may be thrown upon them by others who are present.

In order to facilitate the study of the beads so far as possible we have had them photographed in groups. The photographs showing the whole of the rosary as restrung (pls. I and II) are difficult to use in any case owing to the fact that some of the beads are bound to appear in them sideways.

The knop (I; pl. III, fig. 1) does not, I think, present any features of special interest. One face (*a*) shows the Virgin and Child with S. Joseph, the ox and the ass to the right; the second (*b*), a king kneeling with no crown; the third (*c*) and fourth (*d*), standing kings crowned.

The larger 'Pater' beads or gauds have been photographed together and it is perhaps simplest to dispose of them in the first place. These six beads (pl. III, fig. 2) show on one set of faces the Holy Trinity (II *a*) *s' trinitas*, the Annunciation (III *a*) *salutacio*, the Virgin and Child seated (IV *a*) *s' ctā maria*, the Crucifixion (V *a*) *crucifixus*, the Assumption (VI *a*) *fāta maria*, and S. Michael the Archangel (VII *a*) *s' michael*. None of these subjects calls for any special remark, and the inscriptions accompanying them are quite straightforward. The other sides of the same beads (pl. III, fig. 3) represent Christ at the Column (II *b*) *Ihs flagellat⁹*; the Coronation of our Lady (III *b*) *coronacio*; the Martyrdom of S. Erasmus (IV *b*) *s' erasmus*; the Resurrection (V *b*) *resurrectio*; S. Andrew (VI *b*) *s' andris*; and S. Reinold (VII *b*) *s' reynoldus*.

There is, I think, no question about the identification of this last figure, one of the most unexpected occurring on the rosary. The inscription—*s' reynoldus*—is perfectly clear and the representation of the saint in armour apparently holding a skull on a sword with another skull at his feet is at any rate partly in accordance with the traditional iconography. Karl Künstle in his *Ikongraphie der Heiligen* (1926; p. 512) says that S. Reinold is represented as a knight in armour with a sword or lance or hammer; he was murdered by masons. There is a monograph on him by Knörich (published by the Historischer Verein für Dortmund in their thirty-first volume), but his cult seems to have been almost entirely confined to Dortmund and the surrounding parts of Westphalia, and it is not easy to explain his presence on this rosary. In going through the smaller beads, however, other connexions with the Rhine and the neighbouring parts of the Continent will make themselves evident.

In the arbitrary arrangement of the beads which we have adopted the first decade has been strung so as to show so far as possible the beads with representations of the Apostles. There are very few points in this group of beads to which special attention need be called. The sides shown in pl. IV, fig. 1 give S. Peter (1 *a*) *s' petre* with the keys, S. Paul (2 *a*) *s' paulu⁹* with the sword,

S. Andrew (3 *a*) *s' andria* with the saltire cross, S. James the Greater (4 *a*) *s' iacob'm* as a pilgrim, S. John the Evangelist (5 *a*) *s' iohān* with the cup, S. Philip (6 *a*) *s' phillipp* with a tall cross, S. Bartholomew (7 *a*) *s' bartolm* with a knife, S. Simon (8 *a*) *s' symon* with a saw, S. Mathias (9 *a*; reversed in pl. iv, fig. 2) *s' mathia* with an axe, and S. Stephen (10 *a*) *s' stepha* holding three stones. On the other sides of the same beads of the first decade (pl. iv, fig. 2) are S. James the Less (1 *b*) *s' iacob* with no emblem, but clearly named at the side, S. Jude (2 *b*) *s' iuda* apparently with a carpenter's square, the Virgin and Child (at the back of the bead with S. Andrew) (3 *b*) *s' maria*, S. Thomas (4 *b*) *s' thomas* with a spear, S. Mary Magdalene (5 *b*) *s' mari mad* with a pot of ointment and a palm (probably transferred to her by mistake by the engraver from S. John the Evangelist on the other side of the bead, who has not got his palm), S. George (6 *b*) *s' georgi* spearing the dragon, S. Lawrence (7 *b*) *s' laurēci* with a grid-iron, S. Ignatius (8 *b*) *s' ignasi* as a bishop holding a heart, S. Matthew (9 *b*; reversed in pl. iv, fig. 1) *s' mathe* with a tall cross, and what is apparently a second representation of S. John the Evangelist (10 *b*) *s' iohēs e*; the inscription at least is perfectly clear. It is not easy to be certain about the emblem which he is holding, and the figure is in no way a duplicate of the other S. John the Evangelist on the fifth bead. I suspect that this is a case in which the engraver has made one of his mistakes.

The only iconographical point of interest so far as I am aware among the emblems on these ten beads is the tall cross assigned to S. Matthew (9 *b*): I think I am right in saying that this is a most unusual emblem for S. Matthew to hold. But another example of it occurs on the third of the Apostle windows in the south aisle at Fairford, where the artist has used practically the same cartoon for S. Matthew and S. Philip, although he has varied the colours.

The beads of the second decade have been grouped so as to include as many as possible of the specifically English saints represented, and they are naturally of rather more interest. Going through them in the same way they show on one side (pl. iv, fig. 1) S. Thomas of Canterbury (11 *a*) *s' thōs cā* as an archbishop with a cross; S. William of York (12 *a*) *s' wilhelm* as an archbishop with a book; S. Dunstan (13 *a*; reversed in pl. iv, fig. 2) *s' dunston* as a bishop with tongs, S. Erkenwald of London (14 *a*) *s' e'kenoldū* as a bishop holding a cathedral. The next saint cannot perhaps be identified with such absolute certainty, but for reasons which I will mention later I feel practically sure that he represents S. Felix of Dunwich (15 *a*) *s' felice* shown as a mitred monk with a cross and book. After him comes a S. Thomas (16 *a*; reversed in pl. iv, fig. 2) *s' tomas* shown as a bishop with a cross and a church. Here, again, I will give you my reasons later for believing that this represents S. Thomas

of Hereford. Then come S. Botolf (17 *a*) *s' botolu* as a monk with a crosier and book, and S. Alban (18 *a*) *s' albone* as a prince carrying a cross (an unusual piece of iconography). The next bead again presents some difficulties; the figure of a bishop (19 *a*) *s' eduald* apparently holding a devil. This would naturally suggest S. Edwold of Cerne; but he was not a bishop, and I have reason to believe that *s' eduald* is here a contraction for S. Ethelwold, although I know of no story connecting either saint with a demon. The last bead shows S. Edward the Confessor (20 *a*) *s' eduard* as a king with a ring.

On the other sides of the beads of the second decade (pl. iv, fig. 2) are S. Agatha (11 *b*) *s' aghata* with her shears; S. Clement (12 *b*) *s' clemēs* as a bishop with an anchor; S. Lambert (13 *b*; reversed in pl. iv, fig. 1) *s' lamb't* as a bishop with a cup; S. Abo (14 *b*) *s' abo* clearly lettered and presumably to be identified with S. Abo of Ramsey, represented as a layman with a book and some sort of object to the right of his head (S. Abo was actually a Benedictine monk and afterwards an Abbot, so the representation does not fit particularly well). After him come S. Bernard (15 *b*) *s' bernarde* as a monk with a chalice and a book; S. Severinus (16 *b*; reversed in pl. iv, fig. 1) *s' seberinus* as a bishop with a cross and a book; and S. John the Baptist (17 *b*) *s' iohanes* with the Agnus Dei. The next figure (18 *b*) *s' crispine* is apparently a bishop carrying an object which may be a shoe. The shoe would fit the better known S. Crispin, the bishop's vestments would not; but S. Crispin, bishop of Agen, was beheaded, and the object held may be a knife; so this figure remains one of the puzzles of the rosary. The next two figures are S. Susanna (19 *b*) *s' fufana* with a wreath or crown, and S. Edmund (20 *b*) *s' edmund* as a king with an arrow.

The beads of this particular decade introduce one very curious feature in the choice of the saints for the rosary, to which it is perhaps most convenient to call attention at this point. In some, but by no means in all cases, the arrangement of the two saints on a bead seems unquestionably to have been dictated by the occurrence of their festivals in the calendar. In the particular set of ten which we are here considering it can hardly be a mere coincidence that S. Felix of Dunwich and S. Bernard, who are represented on the same bead (no. 15), both have their festivals on 8th March, while S. Thomas of Hereford and S. Severinus on the next bead (no. 16) are both commemorated on 2nd October. I hope that other students of iconography will agree with me that this gives very good reason for identifying the saints as S. Felix of Dunwich and S. Thomas of Hereford rather than any of the other holy men of the same name. These are not the only examples of similar coincidences. On the next bead but one (no. 17) S. Botolf and S. John the Baptist at any rate come close together (17th June and 24th June), while S. Ethelwold and S. Susanna (no. 19) keep even closer company on 12th August and 11th August. It is

difficult to imagine any other conceivable connexion between an Anglo-Saxon cleric and an early Roman virgin martyr, and here again I believe this gives us strong grounds for believing that S. Ethelwold and not S. Edwold is represented.¹

The beads of the third decade have been arranged to exhibit a series of canonized women. On the side intended for exhibition (pl. iv, fig. 1) they show S. Anne (21 *a*) *s' anna* teaching our Lady to read; S. Mary Salome (22 *a*) *a' ma' falōi* with a book; S. Mary Magdalene (23 *a*) *s' mare ma'*, occurring for the second time, with a pot of ointment; S. Agnes (24 *a*) *s' agneta* with palm and lamb; S. Barbara (25 *a*) *s' barbera* with palm and tower; S. Margaret (26 *a*) *s' m'gereta* with cross and book and a dragon at her feet; S. Apollonia (27 *a*) *sā aplonie* holding her tooth; S. Elizabeth (28 *a*) *s' elisabet* with three crowns; S. Bridget (29 *a*) *s' brigida* as a crowned nun with a book; and S. Etheldreda (30 *a*) as an abbess with a book. All these are labelled with clearly identifiable inscriptions, the last appearing in the English form as *s' audria*.

On the other sides of these beads (pl. iv, fig. 2) are seen S. Catherine (21 *b*) *s' caterna* with wheel and sword; S. Mary the mother of James (22 *b*) *s' ma' iacob'*; S. Francis (23 *b*) *s' franci* with his hands raised; S. Clare (24 *b*) *s' clara* with the monstrance; S. Ursula (25 *b*) *s' usela* with her arrow; S. Dorothy (26 *b*) *s' dorethia* with a basket of flowers and a branch; S. Giles (27 *b*) *s' egidi'* as a monk with a hind. The next bead (28 *b*) must, I think, be regarded as one of the engraver's mistakes. It is fairly clearly inscribed *s' quirine*; but the figure represented (engraved in this case up-side-down) is a bishop holding a comb of the sort regularly associated with S. Blaise, and there is nothing to associate such a comb with S. Quirinus. The backs of the last two beads show S. Basil (29 *b*) *s' baselcu'* as a bishop with a crosier, and S. Cecily (30 *b*) *s' cecilie* in a cauldron.

The next decade contains nearly all the real puzzles. The first two beads, to begin with, are not original, but additions which can apparently be dated before the end of the sixteenth century. But the figures themselves strongly suggest that the engraver was copying earlier models as closely as he felt inclined to do; and the inscriptions, although in italic form, equally suggest that they are copies of inscriptions in the same style as those on the other beads. I feel, therefore, that we are entitled to assume in default of evidence to the contrary that they are copies of beads which got crushed or otherwise damaged and had to be replaced.² If so, they ought to provide some suggestion as to

¹ Other possible instances are no. 10, with S. Stephen (26th December) and S. John (27th December); no. 22, with Mary Salome and Mary the mother of James (27th March); no. 39, with S. Alban of Mainz (1st December) and S. Nicholas (6th December); and no. 46, with S. Jerome (30th September) and S. Cornelius (14th September).

² Canon Doble has, however, made a suggestion which is at any rate worth recording. Our information about S. Endelient is largely due to Nicholas Roscarrock, a graduate of Exeter College in



Fig. 1

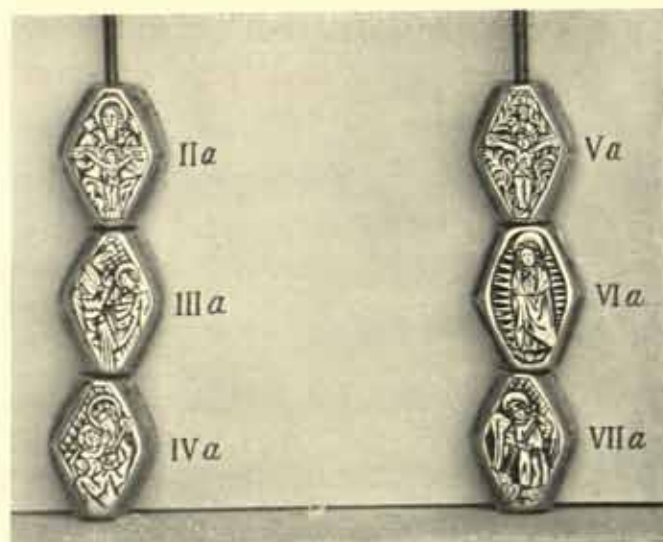


Fig. 2

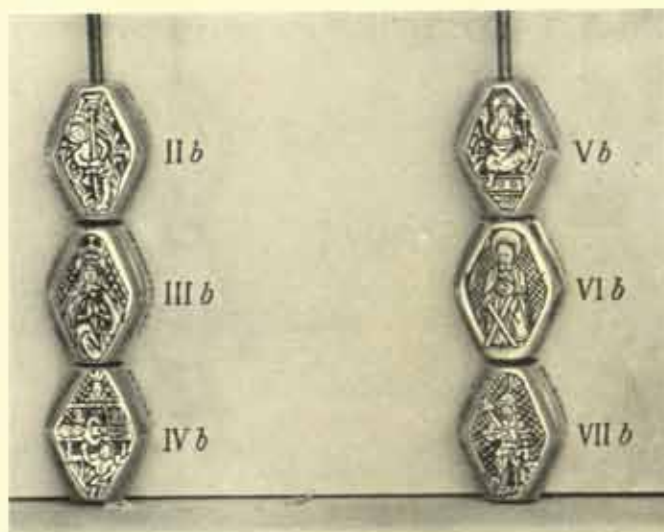


Fig. 3

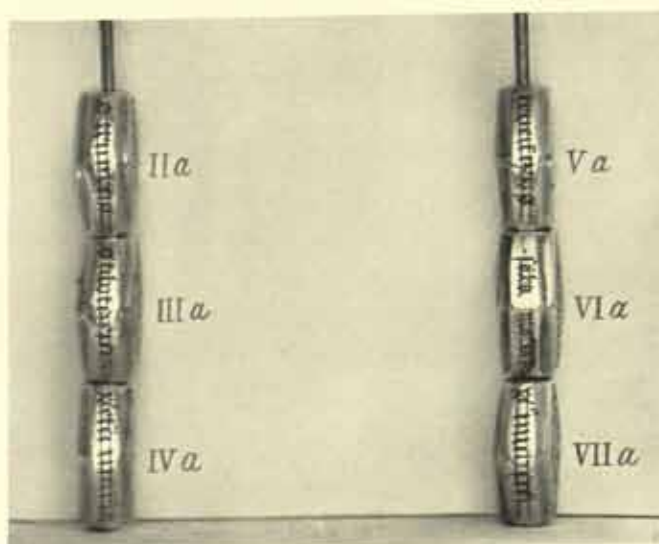


Fig. 4

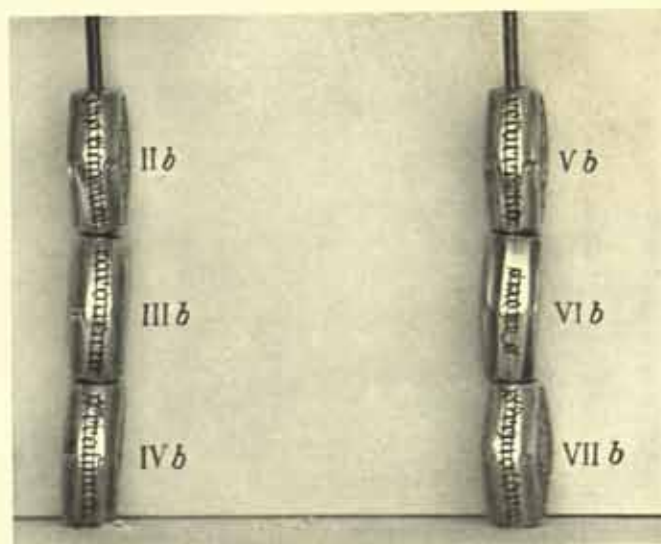


Fig. 5

An English Gold Rosary—details

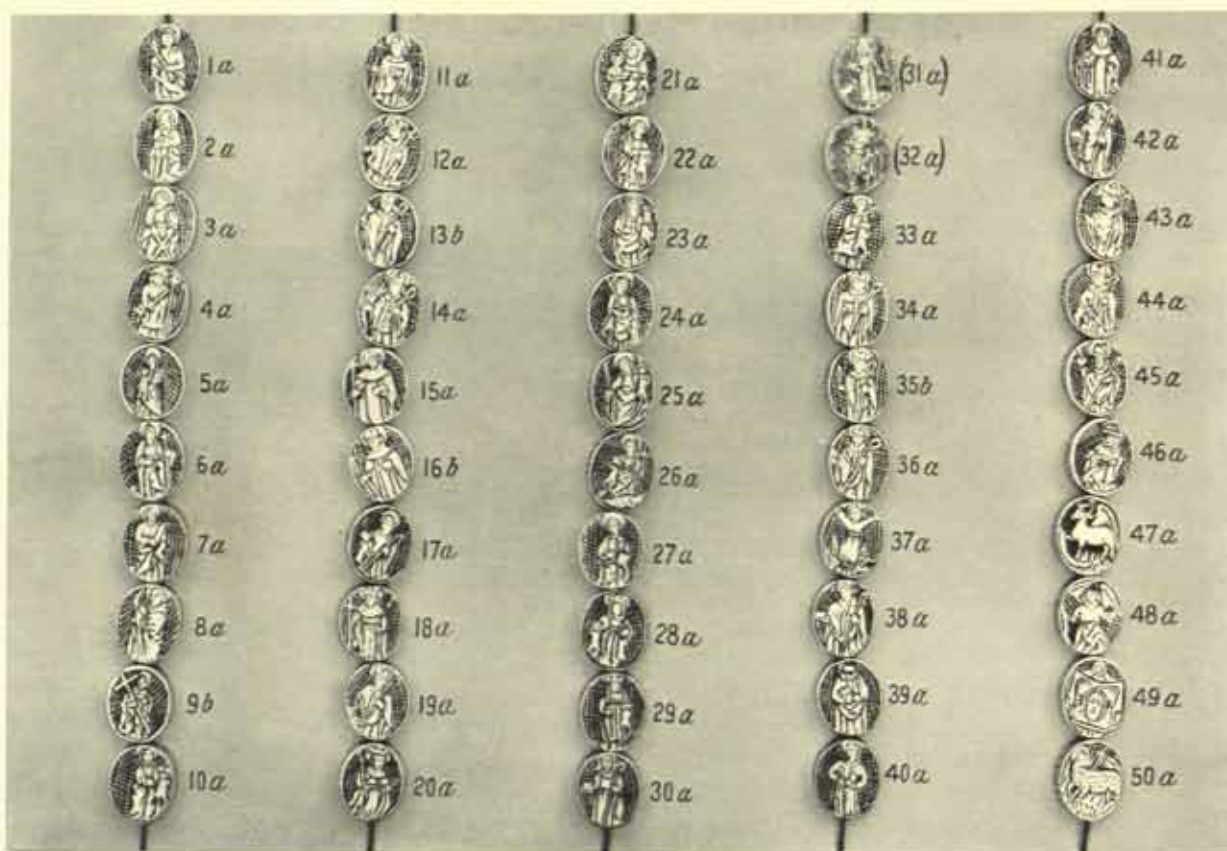


Fig. 1

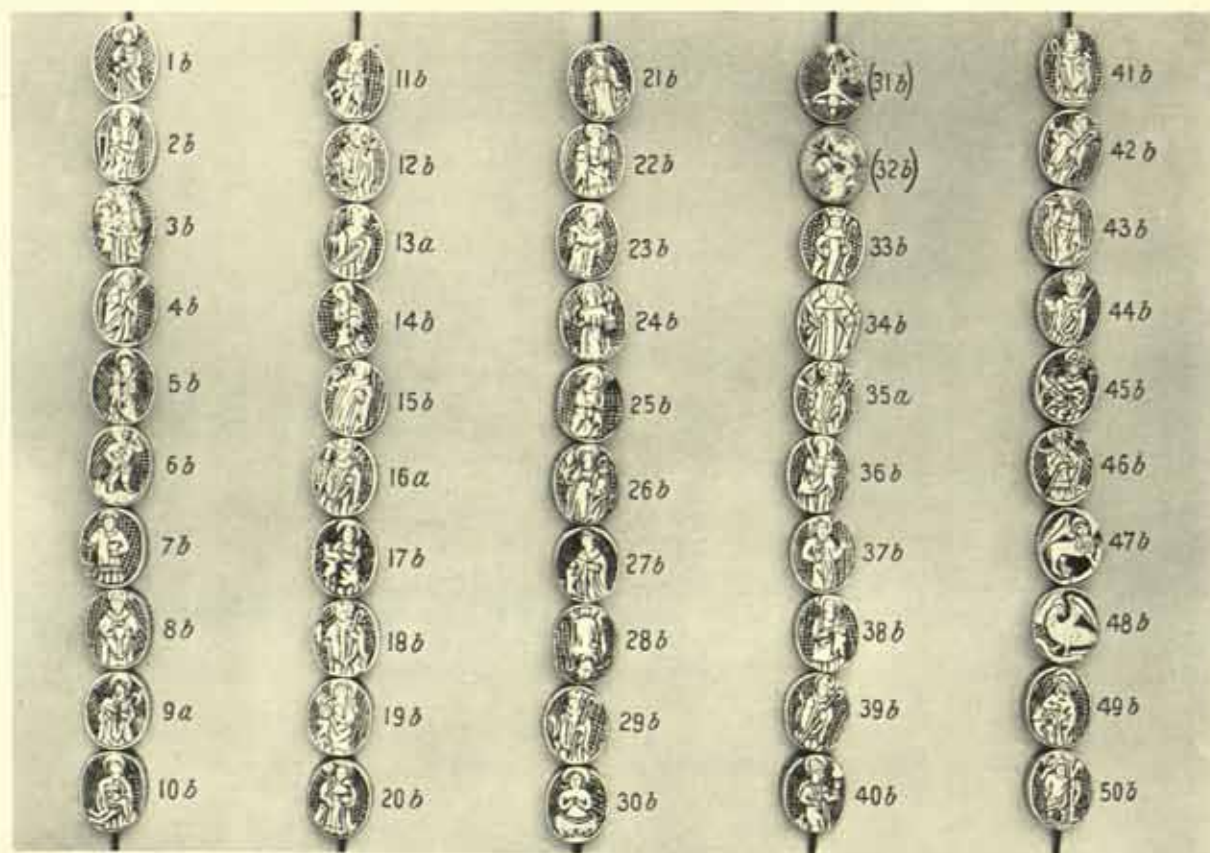


Fig. 2

An English Gold Rosary—details

Published by the Society of Antiquaries of London, 1936

the origin of the rosary, for the saints represented on them are a remarkable group. As the engraved figures themselves are of less interest owing to their later date, I will deal with both sides of these two beads before going on to the rest of the decade. On the side arranged for exhibition (pl. iv, fig. 1) the first bead (31 *a*) *S^a Endelienta VM* has a representation of S. Endelient with a palm, ox, and cauldron; her name is quite clear. The story of this obscure Cornish saint, the patron of S. Endellion, is recorded¹ and she is traditionally associated with a cow, although I cannot explain the cauldron. She was one of the numerous canonized children of S. Brechann, a sister of S. Morwenna, and her church is not very far from Morwenstow; it stands a little south-west of Camel-ford. At the back of this bead is S. William of Norwich (31 *b*) *S^a: Guil: nor M* as a crucified child, engraved up-side-down. The next bead, again a late sixteenth-century copy, shows two other saints of the name of William, one (pl. iv; 32 *a*) a pilgrim labelled *s^a Guil: e d: E*, for whom I would suggest an identification with S. William of Rochester, and the other (pl. iv; 32 *b*) a seated hermit, engraved upside-down, labelled *s^a Guil: M*, for whom I would again suggest an identification with S. William of Maleval. I can make no sense of the letters *e.d.e.* in the first case, but the original engraver made his *e*'s and *r*'s in a way which is almost indistinguishable, and it seems just possible that the original bead may have been labelled *roc* or something of the kind, and that the copyist a hundred years later read the letters as *e.d.e.* I do not think any one who has spent some time trying to decipher these inscriptions will regard such a mistake as impossible.

The third bead of the fourth decade (pl. iv) is clear enough; it shows S. Cordula (33 *a*) *s^a cordela*, one of the companions of S. Ursula, with a sword in her throat. But the next three are all puzzles. The first of them (34 *a*) shows a bishop with what seems to be a book, and is labelled as S. Victor (*s^a victoriu^o*) or else S. Vincent (*s^a vincenti*). It is possible, but not certain, that this is meant for the bishop of Le Mans. The next (35 *a*; reversed in pl. iv) is again a

1568, who was accused as early as 1577, with certain others, for not attending the church services, and who went in that year to Douai and Rome. Three years later he was imprisoned in the Tower and racked, and again in 1594 he was committed to the Fleet; he died in 1633 after spending the last years of his life in the household of Lord William Howard at Castle Howard. He had a special devotion to S. Endelient, and wrote her life and a poem in her honour, of which the manuscript is in the University Library at Cambridge. If we could suppose that the rosary was at that time in the possession of Lord William Howard (for which there is, so far as I know, no evidence whatever) it would seem possible that these two beads were added at that time in honour of the three canonized Williams and of Nicholas Roscarrock's patroness. A full account of Nicholas Roscarrock, with a transcript of the life of S. Endelient and the poem, is to be found in *St. Endellion Prebendal Church, its Constitution and History*, by the Rev. Thomas Taylor, Truro, 1929.

¹ See *St. Nectan, St. Keyne and the Children of Brychan in Cornwall*, by the Rev. Gilbert H. Doble (Exeter, 1930), in addition to the book mentioned in the preceding note.

bishop, apparently holding a branch, and according to the inscriptions on the sides of the bead he ought to be either S. Quintin (*s' quintine*) or S. Secundinus (*35 b*) *s' senedenē*. There were at least two canonized prelates of the name of Quintin, a bishop of Rodez and another of Clermont-Ferrand. But the identification is a conjectural one and the inscription not very clear. The next saint (*36 a*) is even more difficult to be sure about. He is represented as a bishop with a book and the nearest I can get to reading the inscription is *s' debe* or *dabe*; but I am by no means sure of the letters. If they are correctly read he is presumably S. David; however, in this case there is no risk of confusion with the saint on the other side. After him comes S. Afra (*37 a*) *s' faber* crowned and crucified in a tree among flames; *s' faber* is, I imagine, a new form of the name; and indeed I do not think I have come across any other record of this Augsburg saint in English art. But the representation would in any case identify her with something like certainty and the name seems quite a possible corruption. The next beads have S. Boniface (*38 a*) *s' bonēfāc* as a bishop with a book, S. Alban of Mainz (*39 a*) *s' alban*⁹ as a bishop carrying his head, and on the last bead S. Cosmas (*40 a*) *s' colūme* as a doctor.

The backs of the first two beads of the fourth decade I have already described. The others (pl. iv, fig. 2) are as full of puzzles as the faces. On the third bead (*33 b*) is a crowned abbess with a book, whose inscription has baffled us. It might be read as *s' trone* or *s' tenne*; and if the latter reading is correct the saint might be identified with the mother of S. Kentigern, generally called Thenew, although she has been changed into S. Enoch in order to name a railway station. But I regard this as the merest guess, an improbable one at that, and I hope that something more convincing may be suggested. The next bead (*34 b*) shows a monk with a palm and book, and if the bishop on the other side is S. Victor, he must be a S. Vincent; but S. Vincent Ferrer, though a monk, was not a martyr, and the better known S. Vincent was of course a deacon and not a monk. This figure also remains doubtful. And so does the next (*35 b*; reversed in pl. iv, fig. 1), a bishop with a knife, who is presumably S. Secundinus (for I cannot guess any other name nearer to *senedenē*) if the bishop on the other side of the bead is S. Quintin. A bishop named Secundinus was martyred with S. Agapitus and is commemorated on 29 April. But it is difficult to account for his presence here. The next bead shows S. Lucy (*36 b*) *s' lucia* with book and palm; the next our Saviour (*37 b*) *s' salbatōr* blessing; the next (*38 b*) a figure with a book and an almost indecipherable name. It looks like *s' icilian*, and I suppose it may be one of the two saints Julian who are both commemorated on the 28th January. But this again is really a guess and no more. The backs of the last two beads show S. Nicholas (*39 b*) *s' nicola*⁹ as a bishop blessing, and S. Damian (*40 b*) *s' dommia*⁹ at the back of the bead with S. Cosmas.

The fifth and last decade has only one really serious puzzle among the reverses, although it includes two examples of mistakes. To take the faces of the beads in order (pl. iv, fig. 1), they show S. Anthony (41 *a*) *s' antoni* as a monk with staff and bell; S. Benedict (42 *a*) *s' bendictu* in a chasuble with a crosier; S. Nicholas (43 *a*) *s' nicolau*⁹ (the second representation of him) as a bishop blessing; S. Martin (44 *a*) *s' mertin* as a bishop with a beggar; S. Augustine (45 *a*) *s' augusti*⁹ as a bishop holding a heart; S. Jerome (46 *a*) *s' je'onim*⁹ as a cardinal with a lion; the ox of S. Luke (47 *a*) *s' lucas*; the angel of S. Matthew (48 *a*) *s' mathew*⁹; S. Veronica (49 *a*) *s' dronekel* holding her napkin; and the Lamb of God (50 *a*) *s' agnus d*⁹.

On the backs of these beads of the last decade (pl. iv, fig. 2) the first saint (41 *b*) *s' lodcom*⁹, a bishop with what looks like a hammer, suggests S. Eligius. The inscription seems to read as above, but I am not sure of some of the letters. After him comes S. Servatius (42 *b*) *s' serbaet* as a bishop with keys, the correct emblem assigned to this Maestricht saint; S. Helen (43 *b*) *s' elena* as a queen with a cross, and a bishop with a windlass, who must, I think, be meant for S. Erasmus (44 *b*), although he is inscribed clearly *s' blasius*—you may remember that on the twenty-eighth bead a figure which seemed to represent S. Blaise was inscribed S. Quirinus; S. Gregory (45 *b*) *s' gregor*⁹ as a pope with a book, at the back of S. Augustine; and S. Cornelius (46 *b*) *s' corneli*⁹ as a pope carrying a horn (put at the back of S. Jerome where one would expect S. Ambrose). Then come the lion of S. Mark (47 *b*) *s' marca*⁹ and the eagle of S. John (48 *b*) *s' iohan*⁹ at the backs of the beads with the other symbols of the Evangelists; a second S. Jerome (49 *b*) quite clearly represented, but labelled *s' a'brofiu* and obviously an engraver's mistake; and last of all S. Christopher (50 *b*) *s' cristo*⁹ carrying the Child.

The inscriptions on the edges of the beads are shown in pl. iii, figs. 4 and 5, and pl. v, but owing to the curvature of the beads it is often impossible to make out the first and last letters in the photographs.

An examination of the list of saints as a whole suggests certain obvious considerations. In the first place there is nothing to suggest that the set of beads as we have them is imperfect; there might have been more beads, but the groups of saints all seem to be complete. For example, all the Apostles are represented, as well as the symbols of all the four Evangelists; and the names of the four Fathers of the Latin Church appear, although the name of S. Ambrose is accompanied by the figure of S. Jerome.

There are a few cases of the same saint appearing twice, but not many. The Blessed Virgin Mary appears on one of the large beads and on one of the small ones; so does S. Andrew. S. Blaise appears once under the name of

S. Quirinus, and his name occurs in connexion with the figure of S. Erasmus. This figure of S. Erasmus is to some extent duplicated by the representation of his martyrdom on one of the large beads. S. Jerome occurs twice, once in mistake for S. Ambrose. S. John the Evangelist apparently occurs twice (in addition to his symbol on a third bead) but one of the figures is rather doubtful. S. Mary Magdalene and S. Nicholas both appear twice over with their names and proper symbols.

It seems impossible to get any suggestion from the saints as to the place in which or for which the rosary was made. Even if the style of the work were not definitely English, a point on which Mr. Oman will have something to say, the large number of English saints would certainly point to an English origin. But some of them come from the eastern counties, S. Abo and S. Felix, one at least from London, S. Erkenwald, some from the South like SS. Dunstan and Ethelwold, and at least one, S. Endelient, from the extreme West. There is, however, a marked lack of specifically northern saints, except S. William of York. If the two late sixteenth-century beads repeat earlier ones there must be some significance in the fact that four saints named William are represented.

As I have already suggested, there appears also to be some connexion with the Rhine and its neighbourhood. S. Servatius of Maestricht, SS. Severinus and Cordula of Cologne, S. Reinold of Dortmund, S. Alban of Mainz, and S. Afra of Augsburg are all unusual figures in English iconography; but all of them except S. Cordula and S. Reinold occur in Whytford's *Martiloge*. And Fr. Thurston has pointed out in one of his valuable papers on the Rosary in *The Month* (December 1900) that the confraternity of the Rosary founded in 1475 at Cologne under the influence of Alanus de Rupe, who died in that year, played no small part in the encouragement of its use before the end of the century.

When I first began to try and work out the saints on the gold rosary I knew of no sort of parallel for it; no instance, that is to say, of the association of particular saints with the beads of the rosary.¹ The elaborately carved box-wood rosary beads of a very slightly later date are familiar enough; but the carvings in them generally represent scenes from the story of the Incarnation, and the same applies to a curious set of ebony rosary beads which was for some years exhibited on loan at the Museum and is now at All Hallows, Barking by the Tower. In the gold rosary, however, although most of the

¹ The present method of associating each decade with meditation on a particular mystery apparently originated in Germany early in the fifteenth century and only became general towards the middle of the sixteenth, supplanting a variety of other systems. The most accessible short account of the history and use of the rosary is to be found in the article by Fr. Thurston in the *Dictionnaire d'Archéologie Chrétienne*, iii, 399 ff., s.v. Chapelet.

subjects on the larger 'Pater' beads represent the mysteries of our Redemption, the smaller beads are nearly all figures of individual saints.

A curious English parallel to this has been pointed out to me by Mr. Wormald. The British Museum possesses a manuscript [MS. Egerton 1821], English work of after 1475 (probably dating from about 1500, and therefore almost exactly contemporary with the gold beads), which contains miscellaneous devotions mainly connected with the rosary. The earlier pages of it have pasted on to them some devotional woodcuts which were described by Mr. Campbell Dodgson in the Walpole Society's Volume for 1928-9, but otherwise the manuscript does not appear to have been described at all fully, although Fr. Thurston mentions it in the same series of articles in *The Month* (November 1900, pp. 10-11), and connects it definitely with the ideas of Alanus de Rupe.

The devotions contained in it are of a very curious character and I cannot take up your time this evening in describing them at all fully, but they include two separate methods of reciting the rosary in which each bead was to be associated with the memory of some particular saint or group of saints.

The more complete of these methods which begins on the back of leaf 17 of the manuscript is headed in Latin—'Of the Psalter of the Glorious Virgin Mary and of the method of saying it according to her revelation to a certain devout servant of hers.' The first set of fifty beads is to be said in honour of the Joy of the Annunciation; the second in honour of the Joy of the Nativity of our Lord; the third in honour of the Joy of the Assumption. This should be done with invocations of Christ and of his saints, of whom Mary is the chief glory.

The servant of God and Mary is then told to invoke her and remind her of her joy at the Annunciation, after which he is to repeat an 'Our Father' and a 'Hail Mary'; following which her beads of the first decade are to be said in honour of S. Anastasius, the monk and martyr, with his seventy companions; S. Fileas; S. Maximus; S. Pionius; the Crown of Soldiers; SS. Ciran, Silvanus, Pileus, and Linus; the seventy-nine martyrs; S. Julius; the forty martyrs; and the two hundred and sixty-two martyrs.

This system is continued right through the 150 beads; and this method of saying the rosary is followed by another with separate meditations on our Lady and our Lord, their several limbs, and the events of their lives, followed by the names of a certain number of saints.

The book also contains (leaf 10, v) what is described as *Exercitium meum cotidianum*, a series of invocations and of saints allotted to the different days of the week. These three devotions include altogether the names of nearly two hundred and fifty saints.

Naturally some of these, such as the Apostles and the principal patrons of Christendom, occur both in the manuscript and on the beads of the rosary; although the coincidences are not perhaps quite as numerous as might have been expected. But the two lists, one of a hundred and the other of nearly two hundred and fifty saints, certainly have one point in common. The manuscript at the British Museum, like our gold rosary, includes a rather surprising number of minor saints from the Rhine district, in this case particularly from the Netherlands. I might cite the names of S. Christina of St. Trond, S. Elizabeth of Spalbeck (more generally called of Herkenrode, and commemorated in the *Martiloge* on 23rd June) and S. Mary of Oignies.

On the other hand, the writer of the British Museum manuscript (or the patron for whom he was working) inserted a number of specifically Northern English saints (such as the Venerable Bede, S. Cuthbert, S. John of Beverley, and S. Kentigern) who are missing from the rosary. He also seems to have had a curious devotion for the various specific groups of martyrs who are commemorated in the Martyrology. There are no less than seventeen of these groups mentioned, ranging from the forty martyrs (who occur twice) to a group of ten thousand martyrs, and including such singular numbers (apart from those quoted above) as the hundred and sixty-six martyrs and the nine hundred and seventy-six martyrs. Most of these, but not all, can be identified in the Roman Martyrology or in Whytford.

It may be noted that the writer of the manuscript was also, in one section at any rate, interested in the calendar in connexion with the saints he put down to be commemorated. On leaf 19 the feasts of twelve of the saints mentioned are indicated. They are not in the order of the calendar, but one of them falls in January, five in February, and six in March. After this page there are only a few scattered references to the feasts of the saints, one on the back of leaf 19, one on the back of leaf 20, and four on leaf 22. Almost all the feasts given agree with those assigned to the saints or groups of saints by Whytford.

It can hardly be denied that this curious manuscript sheds some light, although it does not amount to very much, on the devotional ideas embodied in the gold rosary. But with this suggestion I will leave the matter, at any rate for the present, and make way for my colleague Mr. Oman. Let me repeat, however, that I hope some of those present may be able to put me right with regard to the more dubious identifications which have been laid before you.

E. M.

LIST OF SAINTS AND SUBJECTS

- | | | |
|---|---|--|
| Abo, 14 <i>b</i> | Damian, 40 <i>b</i> | Mary the mother of James, 22 <i>b</i> |
| Adoration of the Magi, 1 <i>a</i> ,
<i>b</i> , <i>c</i> , and <i>d</i> | Dorothy, 26 <i>b</i> | Mary Magdalene, 5 <i>b</i> and 23 <i>a</i> |
| Afra, 37 <i>a</i> | Dunstan, 13 <i>a</i> | Mary Salome, 22 <i>a</i> |
| Agatha, 11 <i>b</i> | Edmund, 20 <i>b</i> | Mathias, 9 <i>a</i> |
| Agnes, 24 <i>a</i> | Edward the Confessor, 20 <i>a</i> | Matthew, 9 <i>b</i> |
| Agnus Dei, 50 <i>a</i> | Edwold; cf. 19 <i>a</i> | Matthew, Symbol of, 48 <i>a</i> |
| Alban, 18 <i>a</i> | Eligius? 41 <i>b</i> | Michael, VII <i>a</i> |
| Alban of Mainz, 39 <i>a</i> | Elizabeth, 28 <i>a</i> | Nicholas, 39 <i>b</i> and 43 <i>a</i> |
| Ambrose; cf. 49 <i>b</i> | Endelient, (31 <i>a</i>) | Paul, 2 <i>a</i> |
| Andrew, VI <i>b</i> and 3 <i>a</i> | Erasmus? 44 <i>b</i> | Peter, 1 <i>a</i> |
| Anne, 21 <i>a</i> | Erasmus, Martyrdom of, IV <i>b</i> | Philip, 6 <i>a</i> |
| Annunciation, III <i>a</i> | Erkenwald, 14 <i>a</i> | Quintin? 35 <i>a</i> |
| Antony, 41 <i>a</i> | Etheldreda, 30 <i>a</i> | Quirinus, cf. 28 <i>b</i> |
| Apollonia, 27 <i>a</i> | Ethelwold? 19 <i>a</i> | Reinold, VII <i>b</i> |
| Assumption, VI <i>a</i> | Felix of Dunwich, 15 <i>a</i> | Resurrection, V <i>b</i> |
| Augustine, 45 <i>a</i> | Francis, 23 <i>b</i> | Salvator Mundi, 37 <i>b</i> |
| Barbara, 25 <i>a</i> | George, 6 <i>b</i> | Secundinus? 35 <i>b</i> |
| Bartholomew, 7 <i>a</i> | Giles, 27 <i>b</i> | Servatius, 42 <i>b</i> |
| Basil, 29 <i>b</i> | Gregory, 45 <i>b</i> | Severinus, 16 <i>b</i> |
| Benedict, 42 <i>a</i> | Helen, 43 <i>b</i> | Simon, 8 <i>a</i> |
| Bernard, 15 <i>b</i> | Ignatius, 8 <i>b</i> | Stephen, 10 <i>a</i> |
| Blaise? 28 <i>b</i> ; cf. 44 <i>b</i> | James the Greater, 4 <i>a</i> | Susanna, 19 <i>b</i> |
| Boniface, 38 <i>a</i> | James the Less, 1 <i>b</i> | Thenew? 33 <i>b</i> |
| Botolf, 17 <i>a</i> | Jerome, 46 <i>a</i> and 49 <i>b</i> ? | Thomas, 4 <i>b</i> |
| Bridget, 29 <i>a</i> | John the Baptist, 17 <i>b</i> | Thomas of Canterbury, 11 <i>a</i> |
| Catherine, 21 <i>b</i> | John the Evangelist, 5 <i>a</i> and 10 <i>b</i> | Thomas of Hereford, 16 <i>a</i> |
| Cecily, 30 <i>b</i> | John the Evangelist, Symbol of, 48 <i>b</i> | Trinity, 11 <i>a</i> |
| Christ at the Column, II <i>b</i> | Jude, 2 <i>b</i> | Ursula, 25 <i>b</i> |
| Christopher, 50 <i>b</i> | Julian? 38 <i>b</i> | Veronica, 49 <i>a</i> |
| Clare, 24 <i>b</i> | Lambert, 13 <i>b</i> | Victor? 34 <i>a</i> |
| Clement, 12 <i>b</i> | Lawrence, 7 <i>b</i> | Vincent? 34 <i>b</i> |
| Cordula, 33 <i>a</i> | Lucy, 36 <i>b</i> | Virgin and Child, IV <i>a</i> and 3 <i>b</i> |
| Cornelius, 46 <i>b</i> | Luke, Symbol of, 47 <i>a</i> | William of Maleval? (32 <i>b</i>) |
| Coronation of the Virgin, III <i>b</i> | Margaret, 26 <i>a</i> | William of Norwich, (31 <i>b</i>) |
| Cosmas, 40 <i>a</i> | Mark, Symbol of, 47 <i>b</i> | William of Rochester, (32 <i>a</i>) |
| Crispin, 18 <i>b</i> | Martin, 44 <i>a</i> | William of York, 12 <i>a</i> |
| Crucifixion, V <i>a</i> | | |
| David? 36 <i>a</i> | | |

II

I think that I am accurate in stating that the present rosary is the only one of definitely English manufacture which is known. One or two other rosaries have survived in this country from pre-Reformation days, but these are either so devoid of artistic treatment as to be of uncertain origin, or else, like the magnificent boxwood rosary of Henry VIII at Chatsworth, definitely foreign.

The almost complete disappearance of medieval rosaries in this country is not difficult to explain. The use of rosaries was objectionable to the early Reformers on two grounds. First, they regarded the whole practice as highly Mariolatrous, and secondly, they declared that encouragement given to the numbering of prayers tended to make those who repeated them careless about their meaning.

Official disapprobation of the use of rosaries was first expressed in Thomas Cromwell's series of injunctions issued in 1536.¹ He commanded the clergy to preach a sermon at least once a quarter in every church 'wherein ye shall purely and sincerely declare the gospell of Christ and in the same exhort your herers . . . not to repose their trust or affiance in any other workes devised by mannys fantasies beside Scripture as in . . . saying over a number of bedes not understood or mynded'. In a series of articles to be inquired into in a visitation of the diocese of Canterbury in 1547² allusion is again made to this matter, and preachers are told to exhort their parishioners against the 'wearing or praying upon beads'. When in 1551 Bishop Ferrar's factious opponents at S. Davids formulated fifty-six accusations against him, the twenty-second was that 'whereas Superstitious praying upon beads is not only ungodly but reprov'd in the king's majesty's Injunctions; the said bishop, meeting many with beads in their hands, never rebuked any of them'. The bishop, needless to say, denied the truth of this charge except with regard to the period of the Catholic insurrection in Devon and Cornwall, when he admitted he had bridled his tongue so as not to provoke trouble in his diocese.³

The fact that the use of rosaries was now frowned upon did not make them less dear to those who were ardent Catholics. A passage in the morbid diary of Henry Machyn⁴ suggests that rosaries became almost party badges: 'The XV day (of March 1551) the Lady Mary rode through London unto St. John's, her place, with fifty knights and gentlemen in velvet coats and chains of gold afore her, and after her iiii score gentlemen and ladies, every one havynge a peyre of bedes of black.'

¹ Wilkins, *Concilia*, iii, 816.

² Foxe, *Acts and Monuments*, ed. Stoughton, vii, 6, 13.

³ *Ibid.* iv, 23.

⁴ Camden Society, 1847, 4-5.

At a later stage of the Reformation, when the Catholics no longer had such a powerful protector, a rosary became a thing not to be flaunted before the public gaze. Many who wished to repeat their rosary devotions preferred the use of the more easily concealed decade ring which had been popular ever since the fifteenth century.

Of the numerous trades to which the English Reformation brought ruin, hardly any can have disappeared leaving fewer traces of its existence than that of the makers of rosaries. The name of Paternoster Row is indeed a lasting memorial of those who pursued this profession in London, but whilst it seems likely that our rosary was made in the City, I would not like to particularize and say that it must have originated in this street. There does not seem to have been any guild of paternosterers, and it is quite clear that the manufacture and retailing of rosaries was not confined to those who specialized in this line of business. It is likely, indeed, that those who dwelt in the parish of S. Michael-le-Quern and made their living by the sale of rosaries, dealt principally in those of the least expensive materials. Even of these they had no monopoly, as wills and inventories show that they could be obtained in other parts of the ward of Faringdon Within, which also comprised most of the goldsmiths' quarter. It seems tolerably clear that the trade in rosaries was in fact largely in the hands of the goldsmiths, though it is unlikely that many of those which they sold were equal in splendour to the present one.

The ordinary rosary of the later middle ages seems to have consisted in a varying number of small beads (usually in groups of ten known as decades) separated by larger ones known as gauds. Those in use amongst the upper classes were made of such materials as amber, agate, box-wood, coral, crystal, ebony, garnet, jacinth, jet, lapis lazuli or mother-o'-pearl. Many testators were able to bequeath more than one rosary—John Baret bequeathed three in 1463,¹ Dame Maude Parr five in 1529,² and the dowager countess of Oxford³ five in 1537. But although rosaries described as being gauded with gold are not infrequently encountered in wills and inventories, those composed entirely of gold beads seem always to have remained rare. The earliest references to such that I have met belong only to the year 1394 when Lady Roos⁴ bequeathed her 'better pair of gold paternosters', and Sir Brian Stapleton⁵ his 'pair of paternosters of gold enamelled blue'.

From the close of the fourteenth century until the Reformation pairs of gold beads appear at irregular intervals in nearly every collection of wills, but,

¹ *Bury Wills and Inventories*, Camden Society, 1850, 36, 42.

² *North Country Wills*, ii, 93-4.

³ *Essex Archaeological Society*, xx, N.S., 1933, 12, 13, 15.

⁴ *Testamenta Eboracensia*, i, 202.

⁵ *Ibid.* i, 199.

as details are usually not given, any attempt to give a complete list of these would not be justified. The following, however, do give us some idea of the appearance of the objects to which they refer:

'j par de paternosters de auro cum oculis' (Will of Lord Scrope of Masham, 1405).¹

'Item, j pair Pater nosteres d'or faitz al maneres des coers, les gaudes esmailles de vert.

Item, j autre pair Pater nosteres d'or, de manere la suyte.

Item, j autre pair Pater nosteres d'or fait al manere des langettes' (Jewels, probably belonging to Joan of Navarre, captured with Friar Randolph in 1419).²

'a pair of bedes of LXI rounde stones of golde gaudied with sex square stones of golde enameled, with a crosse of golde, two other stones and a scallopshele of geete hanging by' (Will of Cecily, Duchess of York, 1495).³

'Itm A payr of Bedes of golde enameled black and white' (Privy Purse Expenses of Princess Mary, 1542).⁴

Whilst the above passages serve to give some impression of the gold rosaries in use in this country, there is nothing in any of them to suggest that the objects which they describe resembled our rosary at all closely. If, on the other hand, we extend the range of our search to other forms of jewellery, we find that our rosary is the largest and perhaps the best preserved example of the most characteristically English type of late medieval jewellery.

Although jewellery decorated with figures of saints was used throughout medieval Europe, the variety which was produced in this country is quite unmistakable. It was made in gold, silver, and brass, but we need not concern ourselves here with the examples in the two baser materials. The ordinary gold iconographic jewel shows an engraved representation of a saint, saints, or a devotional subject. The engraving seems generally to have been filled in with enamel and there was also often an enamelled background. Only a small proportion of the surviving examples have preserved their enamelling intact, but it would seem that both the filling in and the background were almost always of black. The subsidiary ornament sometimes, however, shows traces of red, green, and white enamel.

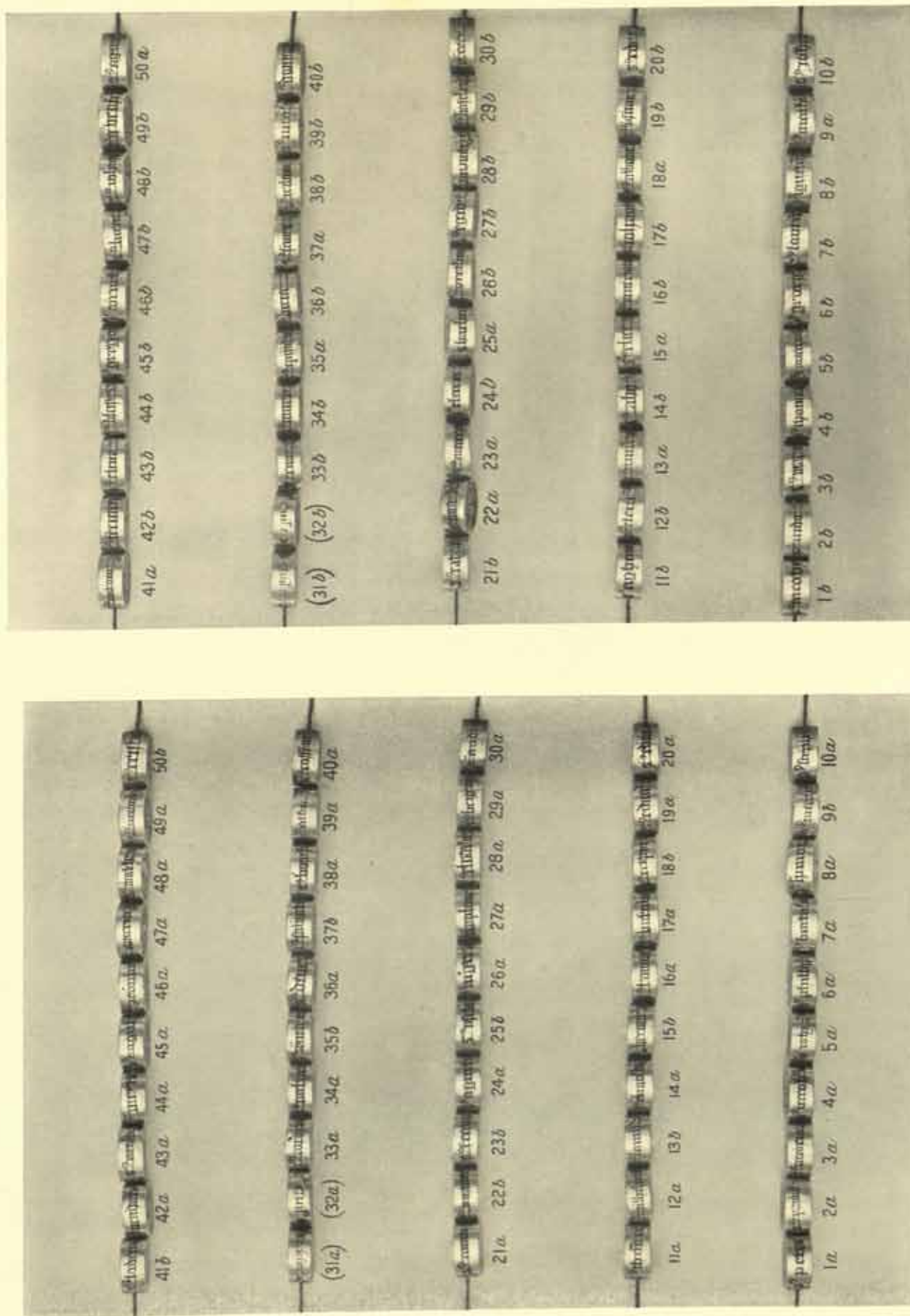
Finger-rings and brooches form nine-tenths of the surviving examples of English iconographic jewellery. A few of the rings are set with gems and have the saints engraved on the shoulders. Others are signets and have the saints similarly placed, except in a few instances, when the bezel is a revolving one, having the owner's devise cut on one side and the saints engraved on the others. A few rings are plain and have the saints engraved either lengthwise

¹ *Testamenta Eboracensia*, iii, 3.

² *Wills in Doctors Commons*, Camden Society, 1862, 6.

³ ed. F. Madden, 1831, 179.

⁴ *Archaeologia*, lxi, 1908, 170.



An English Gold Rosary—details
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Fig. 1. Cross from Clare.
British Museum (1/2)



Fig. 2. Cross from Mat-
laske, Norfolk. Nor-
wich Museum (1/2)

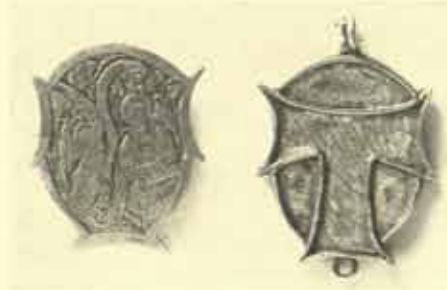


Fig. 3. Cross from Bridlington. British
Museum (1/2)



Fig. 4. Circular pendant, Dr.
P. Nelson, front (1/2)



Fig. 5. Circular pendant, Dr.
P. Nelson, back (1/2)



Fig. 6. Plaque with the
Adoration of the Kings.
Miss J. Evans (1/2)

or across the hoop. The majority, however, have bezels on which are engraved from one to three saints, with perhaps a further pair on the shoulders. A few are decade rings and have the hoop formed of a number of knobs, but not invariably ten, as might be expected.

The brooches are of the familiar ring type and usually show a couple of saints in the contorted attitude necessitated by the space which they have to occupy.

Though it would be unreasonable to expect the limited number of these rings and brooches to cover as wide a field of iconography as our rosary, the range of subjects actually chosen is quite surprisingly limited. They may be divided conveniently into two classes—those depicting one or more unconnected saints and those representing devotional subjects.

The former class is by far the most common. They comprise a number of saints who were venerated, for one reason or another, throughout Europe, and a very few with exclusively English cults. Though it is not infrequently difficult or impossible to be certain about the identity of a saint who has been depicted on too small a space, the following list, which does not comprise a score of names, may be taken as being very nearly complete :

The Virgin and Child
S. Anne
S. Anthony
S. Awdrey
S. Barbara
S. Bartholomew
S. Catherine
S. Christopher
S. Edith
S. George

S. Helen
S. James the Greater
S. John the Baptist
S. John the Evangelist
The Magi
S. Margaret
S. Paul
S. Peter
S. Thomas of Canterbury

The devotional subjects are even fewer in number. The Annunciation alone is quite frequently found. Next in frequency is the Trinity, which appears on four rings in the British Museum,¹ and on one at the Victoria and Albert Museum, which also has a representation of our Lady of Pity.² Three rings, depicting the Five Wounds together with their mystical names, are known. Two of these are in the British Museum.³ The best known of these is the Coventry Ring, which also carries a representation of the Image of Pity. The third example, which is in private possession, is engraved also with the

¹ O. M. Dalton, *Catalogue of Early Christian, Mediaeval, and Later Rings in the British Museum*, 1912, nos. 718, 723, 744, 767.

² C. C. Oman, *Catalogue of Rings in the Victoria and Albert Museum*, 1930, no. 735.

³ Dalton, *ibid.* nos. 718, 719.

Crucifixion.¹ In the year 1537 the dowager Countess of Oxford bequeathed a 'Ring w^t the five Joyes of our ladye w^t a table diamond'. The only ring depicting the Five Joys which I have encountered is in the possession of the Bishop of Pella. It has a six-sided hoop. One side has been reset with a large amethyst, whilst the remaining five are engraved respectively with the Annunciation, the Nativity, the Resurrection, the Assumption, and the Ascension.

The surviving examples of English iconographic jewellery other than rings and brooches are very few in number. Three small pendent reliquary crosses are known, two of them being tau-shaped and the third of the usual Latin form. This last was found on the site of Clare Castle, Suffolk, in 1866, and is now the property of H.M. the King² (pl. vi, fig. 1). The front is engraved with a crucifix on a background of black enamel (most of which is missing), whilst at the extremities of the limbs are pounced the letters *inri*. The back is pounced with a floral design, and unpins disclosing a cavity wherein minute fragments of wood and stone were found. Cross reliquaries seem to have been very common at this time, but we may cite the description of one bequeathed in 1537 by the dowager countess of Oxford to the successor to her husband's title (and incidentally a very close neighbour to Clare). She mentions it as her 'little crosse of golde, having closed in the same a piece of the holy crosse, which I dayly ware aboute my Necke'.³

The tau-shaped cross from Matlaske, Norfolk, now in the Norwich Castle museum⁴ (pl. vi, fig. 2), was also originally a reliquary, but the back is now missing. The front, however, shows the crucified Christ between S. John the Baptist and a bishop saint against a black enamelled background with floral sprays.

Lastly, there is the tau-cross from Bridlington at the British Museum⁵ (pl. vi, fig. 3). On its front is depicted the Annunciation against a background of floral sprays. The back merely shows the outline of the cross. No trace of the enamelling now remains, either on front or back.

Besides the above only four other pieces need be mentioned. The first is a small circular pendant with a twisted border, found on the beach at Reculver in 1876, and now in the British Museum.⁶ On one side is depicted S. John the Baptist and on the other S. Catherine against a floral background. No trace of the enamelling now remains. Next comes a charming little circular pendant, in the possession of Dr. Philip Nelson (pl. vi, figs. 4 and 5). On one side are the heads of the Virgin and Child and on the other the Image of Pity. The third is

¹ *Notes and Queries*, 4th S., x, 330.

² *Archaeological Journal*, xxv, 1868, 60-71. Since transferred to the British Museum, see *Antiquaries Journal*, xvi, 321.

³ *Essex Archaeological Society*, xx, N.S., 1933, 12.

⁴ *Norfolk Archaeology*, iii, 1852, 97.

⁵ *The Reliquary*, xv, 1874, 69.

⁶ Joan Evans, *English Jewellery*, 1921, pl. xv, p. 8 and *Proc. Soc. Ant.*, vi, 1876, 510.

a pendant with a three-lobed top, at the British Museum.¹ It has on one side the figure of an archbishop and on the other S. John the Baptist, against a background with white flowers and above the inscription 'A mon derreyne'. Last, but perhaps finest of all, comes an oblong plaque depicting the Adoration of the Three Kings, in the possession of Miss Joan Evans (pl. vi, fig. 6). It is only a fragment, and its original use is a matter of conjecture.

Though the manufacture of English iconographic jewellery would seem to have been carried on for nearly a century and a half, only a very few pieces can be considered as being of early date. Amongst these we may cite a ring showing S. Catherine, at the Victoria and Albert Museum (*Catalogue no. 727*), another showing S. George, in the collection of Dr. Nelson, and Miss Evans's Adoration plaque. None of these can date much after the year 1400.

For the dating of later pieces we are forced to depend almost entirely on slight stylistic changes, as there is hardly ever anything that can be called direct evidence. Consequently no chronological arrangement can be put forward, except in an extremely tentative manner. A considerable portion of the output would seem to belong to the third quarter of the fifteenth century, including, I think, the Bridlington and Matlaske crosses. It may be noted that the floral decoration of these resembles that on the ring found in the tomb in Hereford Cathedral of Bishop John Stanbury (d. 1474), which (if we suppose it to be his episcopal ring) may go back to his consecration to the see of Bangor in 1448. The Reculver pendant would seem also to be of about the same date. Later than these come the Clare cross and the Coventry ring, both of which I should be inclined to place at the end of the fifteenth century. Dr. Nelson's pendant and the three-lobed pendant in the British Museum must both date well in the sixteenth century. The latter, in fact, is stylistically not unlike, though artistically superior to, the print of the Epworth mazer,² which is usually dated about 1525.

The rosary presents only the scantiest material for dating. Nearly all the personages depicted on it wear the costumes accorded them by the unchanging conventions of medieval iconography. The only exceptions are SS. George and Reinold, who are both in armour. The former wears the breastplate of two overlapping plates, fauld and unimportant tasses of about the year 1440. S. Reinold is shown with a salet and the flamboyant gothic armour in use in this country from about 1455 to 1480. Whilst we may be sure that the rosary was not made before 1455, we must not presume that it was made during the period whilst gothic armour was in fashion. If S. George was depicted in out-of-date armour, may not also S. Reinold have been? I should myself be

¹ Joan Evans, *ibid.*, pl. xv, 1, 3.

² Jackson, *History of English Plate*, ii, 1911, fig. 839.

inclined to date the rosary just a little before 1500 and very close to the Clare cross and Coventry ring.

Two further questions remain to be considered—whether the rosary may be considered to be complete, and how it was originally arranged. These two points are best treated together.

Modern catholic usage does not help us much in resolving these problems. The modern rosary consists of five decades of small ave beads separated by larger paternoster beads, and has a pendant of three more small ave beads and two large beads for a pater and credo, ending in a small cross.

Though there is clear evidence that some sort of pendant was known in this country at the close of the sixteenth century, it would seem that it was at that time of comparatively recent adoption. An ornamental tassel or a large bead is all that is mentioned in medieval times.

The minimum number of ave beads at the period in question was certainly ten, but there was no fixed maximum. The number of decades of the better class of rosary, in fact, seems to have been settled partly by the piety and partly by the financial position of the owner. The numbers of beads most commonly mentioned are, however, ten, fifty, sixty, thrice fifty, and thrice sixty.

The number of large beads or gauds, representing paternosters, which separated the decades, varied according to the arrangement of the rosary. There were at this time two main classes of rosaries.

First, there was the type most commonly affected by men, in which the beads were merely strung on a cord, the ends of which were not tied together so as to form a loop. These usually consisted of a single decade of aves but occasionally ran to two. Those which comprised a single decade might have either a paternoster bead at each end or only at one. If intended to be worn thrust through the girdle, it would usually have a tassel at each end. If it was intended to hang from the girdle, it would have a tassel at one end and a loop at the other. Here we may mention that high-class rosaries seem usually to have been laced on silk, and that black, red, and gold tassels are recorded.

The second type of rosary was the more familiar one; it was strung in a loop and consisted of almost any number of decades. It is pretty clear that our rosary must belong to this group. It was commonly carried at the girdle, like the other type, but might be worn in several other ways. In the inventory of the goods of Sir John Howard, who died in 1460,¹ is mentioned 'a pair of beads for a gentlewoman's neck, gawdeid with 8 gawden of gold and 8 pearls'. Some, however, seem to have thought this a rather poor substitute for a proper necklace, as did Margaret Paston, who wrote to her husband for 'sommethyng for my necke' since, when Margaret of Anjou came to Norwich in 1453, she had

¹ *Historical Manuscripts Commission*, 7th Report, 1879, 537.

had to borrow 'coseyn Elizabeth Clere's devys, for I durst not for shame go with my beds among so many fresch jauntylwomen'.¹ Largish rosaries were sometimes worn across the shoulder like a bandolier, as is shown, for instance, by one of the male mourners on the alabaster monument of Sir John Arderne (d. 1408) at Elford, Staffs. In a woodcut in Caxton's second edition of the *Canterbury Tales*, the Miller's horse is depicted with a rosary round its neck, but I cannot say whether this represents a usual practice or not.

There is very little evidence with regard to the composition of English medieval gold rosaries, but what information we have seems to show that they were of all sizes. One pledged by Henry V in 1415 had twelve knops, clearly a string rosary with ten aves and two paters.² At the other end of the scale is the one bequeathed by Lady Lucy Browne in 1531, which had no less than ten gauds.³ It seems reasonable to suppose, however, that most gold rosaries did not exceed medium size. As between five and six decades there would be little to choose. Our rosary, it will be noted, is composed of five decades of aves, six paters, and the large bead. The presence of six paters naturally raises the question whether there was once another decade of aves. The rosary bequeathed by the duchess of York had, it will be remembered, six pater beads. On the other hand, a six-decade rosary bequeathed in 1498 by Anne, Lady Scrope, had apparently only four paters, besides a large bead which is described as 'a grete botton of goold'.⁴

The use of six pater beads on a five-decade rosary is by no means without precedent. If we turn to the monumental brasses we will see what were apparently the two commonest ways of wearing the loop type of rosary. In one the point which marked the completion of the cycle of prayers was shown by a pendent tassel, and in the other by a loop for attachment to the girdle. Whilst sometimes we find the tassel or loop accompanied by a single pater bead, in others we find one on either side. The use of a large bead in addition to the tassel or loop was, of course, a refinement not in general use. The following may be quoted as instances of the use of a five-decade rosary having six paters, two of which flank the great bead attached to the girdle by a loop:

Brass of Lettys Terry, 1524, St. John Maddermarket, Norwich.

Brass of Elizabeth Whyte, 1528, Shotesham St. Mary, Norfolk.

¹ *Paston Letters*, ed. Gairdner, i, 254.

² Sir H. Nicholas, *History of the Battle of Agincourt*, 1833, Appendix, 18.

³ *North Country Wills*, ii, 129.

⁴ 'To Our Lady of Walsingham X of my grete beedes of goold lassed w^t sylke crymmesyn and goold, w^t a grete botton of goold, and tassellyd w^t the same. To our Lady of Pewe X of the same beedes. To Seint Edmund of Bury X of the same beedes. To Seint Thomas of Canterbury X of the same beedes. To my Lord Cardynall X Aveis w^t ij Paternosters of the same beedes. To my Lord Thomas Fyncham X Aveis and ij Paternosters of the same beedes' (*Testamenta Eboracensia*, iv, 153).

For the use of a tassel hanging from a large bead flanked by two pater beads we may mention:

Brass of Ele Spelman, 1496, Narborough, Norfolk.

The rosary in this last instance has actually nine decades, but the arrangement would, of course, be equally applicable to one with five.

If then we are at liberty to believe that our rosary is still complete, this does not exclude the possibility that when first taken into use it had further adornments. The instrument used to aid private devotions was the most intimate and personal of all forms of jewellery, not excluding the wedding-ring. From at least the middle of the fourteenth century it became usual to string on to the rosary all sorts of little trinkets, some of a devotional and some of a sentimental nature. Of the former sort we have already mentioned the jet scallop-shell on the rosary of the duchess of York, evidently brought back from S. Iago by some pilgrim. In the 'Image of our ladie of Pitie to hang at her beades' bequeathed by the dowager countess of Oxford¹ to her 'Suster Veer' the religious and personal sentiments were combined, but in other cases the adornments can have been nothing more than souvenirs. Brooches were not uncommonly attached to rosaries. No less than five are shown on the beads of a fourteenth-century freestone effigy of a lady in Bangor Cathedral.² A pipe or whistle is mentioned once. Rings occur frequently in wills, inventories, and artistic representations. A passage in the will of Anne Baret (d. 1504) seems to imply in fact that she wore her wedding-ring on her rosary.³ Here, however, I must stop, for I am straying from the study of our particular rosary to that of rosaries in general.

C. C. O.

¹ *Essex Archaeological Society*, xx, N.S., 1933, 12.

² *Archaeological Journal*, xxxvii, 1880, 206.

³ *Bury Wills and Inventories*, Camden Society, 1850, 95.

II.—*The Roof Bosses of Lincoln Cathedral*

By C. J. P. CAVE, *Esq., M.A., F.S.A.*

Read 12th December 1935

THE roof bosses of Lincoln Cathedral are of particular interest, for they show the evolution of this form of ornament from the stiff conventional foliage of the end of the twelfth century in St. Hugh's Quire, through the freer foliage of the first half of the thirteenth century in the nave, to the climax of the art in the second half of the thirteenth century in the Angel Quire. These later bosses are unsurpassed anywhere, whether in the trefoil and natural foliage, or in the figure bosses, all too few, in the aisles.

Before a description of the bosses it will be useful to point out how the conventional trefoil foliage varies in the different parts of the cathedral. There has been a good deal of controversy on the dates of the different parts of the vaulting of St. Hugh's Quire, the eastern and the great transepts, and the nave. In the high vault of St. Hugh's Quire the conventional foliage is trefoil with an occasional fourth leaflet on the leaf stalk (pl. vii, fig. 1). These leaf stalks are prominent and very long; they mostly proceed from a hole in the centre of the boss, and run outwards in a rather irregular manner, radially but not spirally. The midrib of the central leaf is very well marked and is a continuation of the leaf stalk; it runs to the very tip of the leaf when it ends in a point. The side leaflets also have midribs which run to the tips. The whole design is rather crude, and there is what one might call a rather untidy look about the foliage. The bosses in the high vault of the eastern transepts have practically the same kind of leaves.

In the aisles of St. Hugh's Quire and in the chapels of the eastern transepts the leaves are very much like those on the high vault (pl. vii, fig. 2), but the midrib of the central lobe stops short about two-thirds of the way down the leaflet, sometimes, but not always, with a slight depression as though the midrib were pressing into the leaf.

In the great transepts the leaves very much resemble those in the aisles of St. Hugh's Quire: as a rule the midrib stops short before reaching the tip; but if it does reach the tip it is cut off squarely and does not run into a point; the end of the leaflet, too, is rather squarely cut off.

In the nave the midrib comes to an end before reaching the tip and is made to look as though it were pressing hard into the leaf so that the tip of the

latter bends forward over the midrib (pl. vii, fig. 3), or else the depression caused by the pressing down of the midrib makes the leaf look like a loop.

The leaves in the Chapter House, dating early in the thirteenth century, have a good deal of likeness to those in the main transepts, though there are some minor differences.

In the Angel Quire the trefoil foliage is much more varied and conforms less to one pattern; much of the conventional foliage has four lobes in place of three; the midrib of the principal lobe presses into the leaf and appears to pierce it, and at that point the surface of the leaf is raised into a little ridge in some cases, and into a little bulb in others (pl. viii, fig. 5). The tip of the leaf is never bent forward, nor made to look like a loop as in the nave. In a few cases the midrib is made to run to the leaf tip, but this form does not in any way resemble leaves in St. Hugh's Quire or the eastern transepts.

These points may appear trivial, but the different varieties are certainly characteristic of different parts of the building; from the evidence of the bosses, for instance, the vaulting of St. Hugh's Quire cannot be of the same date as that of the nave as has at times been maintained.

Having considered the trefoil foliage separately, we must deal with other characteristics of the bosses in various parts of the cathedral. There are not many further points to be noted about the bosses in the three middle bays of St. Hugh's Quire, except to lay stress on the point that the foliage is very peculiar and that I know nothing quite like it (pl. vii, fig. 4). The early French bosses and the work of William de Sens at Canterbury bear no resemblance to it, nor does the trefoil foliage done under William the Englishman. It seems as though the early sculptors at Lincoln evolved a style of their own, which in the beginning was rather crude and not very pleasing. Neither do we find any resemblance to Lincoln in New Shoreham, Southwark, or Chichester.

The east bay, or the crossing, and the west bay must be further considered. The vaulting of the first four bays, including the crossing, is well known as extraordinary and unique; but the bosses of the crossing bay quite obviously belong to the Angel Quire series, and so does the foliage over the four arches round the bay. It would seem likely that this vaulting had to be taken down when the Angel Quire was added and that it was rebuilt with the same vaulting but with new keystones. The vaulting of the fifth bay is different, being ordinary sexpartite vaulting, and the boss is different from the others (pl. vii, fig. 5). It is more deeply cut and it shows an arrangement of two whorls of leaves, and in these two particulars it is like the nave bosses. But it shows some signs of having been reworked, and on its outer edges it seems to have the remnants of the long leaf stems and midribs of the bosses in St. Hugh's Quire proper. There is very little doubt that this bay, or at any rate its vaulting, was

destroyed by the fall of the central tower in 1237 (or 1239) and that it was rebuilt in sexpartite vaulting. It would also seem possible that the keystone was able to be used again, and that it was worked up in the style of the nave bosses which were probably being erected at that date.

The bosses on the high vault of the eastern transepts are in the same style as those in St. Hugh's Quire, except the outer boss of each transept. In the



Fig. 1



Fig. 2

north-east transept the north bay is cut off from the rest of the transept by a wall which has an arch below and openings above like those of the triforium and clerestory; the space behind the wall is vaulted below, but above it goes right up into the roof timbers. The boss on the vaulting is in the same style as those in St. Hugh's Quire aisles, and different from those of the high vault. In the south transept there are some suggestions that originally there was the same arrangement, but if so it was altered later, and vaulting was put in at the same height as the rest of the vaulting of the transept. The change must have been made at the time of the building of the Angel Quire, for the boss, which consists of trefoil and quatrefoil foliage, is in exactly the same style as the bosses of the Angel Quire.

In the Canons' vestry and in its antechamber are bosses with conventional foliage which seems to belong to the same period.

In the aisles of St. Hugh's Quire there are two bosses, one in each aisle, that have beasts on them, perhaps meant for lions; the backbones of these animals are treated just like the midribs of the leaves; they are very prominent and form a continuation of the beasts' tails, just as the midribs form a continuation of the leaf-stalks.

The bosses in the great transepts have foliage which differs not only in detail, as already pointed out, but in general arrangement from that farther east (pl. vii, fig. 6). The foliage is less straggling and has in general a more compact look; one would say that it was more developed (fig. 1).

The nave was built in the first half of the thirteenth century and was probably complete before 1253. We find here a great change in the roof bosses; the technique has improved very much: the bosses are deeply carved, and the stems and foliage are undercut in a remarkable way; many of them are carved with the trefoil foliage of early Gothic, but the treatment is altogether freer than anything found in St. Hugh's or in the transepts. There is a general tendency for the trefoil foliage in the nave to be arranged roughly in two whorls of leaves (pl. vii, fig. 7).

There are also examples of foliage that differs from that already described (pl. vii, fig. 8). Two bosses have broad flat foliage, that seems almost naturalistic; they are three-lobed, and each lobe has indented edges; the ribs are made to look much more like natural veining than is the case with the earlier bosses, and small clusters of fruit make it almost certain that this foliage is meant for the vine. A third variety occurs on several bosses, where the foliage has three sets of trefoil leaves on one stem; the leaves are small and delicate, and the midrib is represented by a sunken line (pl. vii, fig. 9). This small-leaved plant is extremely like rue, and it seems possible that here and in the vine foliage we have almost the earliest attempts at naturalistic carving, which was afterwards more fully developed in Westminster Abbey, in the Angel Quire at Lincoln, and in the chapter house at Southwell. There are still other varieties (fig. 2). The carvers seem to have got away from the very conventional foliage of a generation back, and to have experimented on various lines.¹

There are one or two bosses with figures of dragons in the nave; on the north side of the first bay is one with a centre of foliage and an outer ring made up of six dragons, each one biting its neighbour in front. At the west end is a boss with three dragons, their heads close together in the centre.

In the nave aisles we also get various kinds of foliage, though in the first two or three bays the trefoil foliage is like that in the great transepts, and in the aisles of St. Hugh's Quire. Further west we get a greater variety.

In the south aisle there are several figures. In the third bay amid quite natural vine leaves and grapes are three beasts, two of which have wings; much of the beasts is hidden behind foliage, but they have sharply serrated spines like that of some fossil reptile; one of the monsters is eating a bunch of grapes. The fourth bay contains three remarkable bosses; the eastern one has

¹ The boss in the centre of the sixth bay and the one to the north are modern. The remains of the original centre boss may be seen in the cloisters.

a demi-figure of Christ with the right hand raised in benediction (pl. VIII, fig. 1); there is a curious horizontal band passing behind the neck, which may be the cross of the nimbus. The boss is at the meeting-point of three ribs, and in each of the three angles is the demi-figure of an angel. There is no foliage. The central boss of the same bay is the Lamb with the cross and the banner, surrounded by a narrow wreath of foliage; the Lamb is holding the base of the cross in one of its front feet, and the stem of the cross passes behind its body (pl. VIII, fig. 2). The third boss consists of three heads; one an old man with beard and moustache, the second a young man or boy, the third a woman in a pleated head-dress and wimple (pl. VIII, fig. 3). Between them is foliage, a modified trefoil foliage, something like that found on one or two of the nave bosses. In the next bay to the west is a still more remarkable boss (pl. VIII, fig. 4). A head with a look of anguish on the face is surrounded by four dragons; two are pulling his hair with their mouths, and one is tearing his throat with its talons; there is a trace of foliage round, and each dragon has some trefoil foliage on its shoulder. In one of the angles is another human head with its mouth open, apparently with laughter. A very similar motif is found at Exeter.

These figures are all extremely sharp, so much so that they might almost be taken for restorations; but the Lincolnshire stone used for much of the carving is so hard that there has been no appreciable weathering inside the building. I am inclined to think that these bosses are original.

The bosses in the chapter-house which are not foliage of a conventional kind are carved with strange beasts, generally three, occasionally four; they are arranged round the boss snout to tail, and with their near forefeet, which resemble hands, they clutch at leaves that are arranged flower-like in the centre of the boss.

We now come to the Angel Quire which was being built from 1255 to 1270. The art of carving had reached its zenith, and the bosses in this part of the cathedral surpass anything else in the country. Those on the high vault are all foliage, very many of them modifications of the conventional trefoil of early Gothic art; but all trace of stiffness has gone out of the leaves, whose stems grow out of the vaulting ribs and trail across them in a very graceful manner (pl. VIII, fig. 5). Besides the trefoil there are many examples of natural foliage, as good as, if not better than, the famous foliage in the chapter-house at Southwell. Hawthorn occurs several times (pl. VIII, fig. 6), sometimes with its berries, these being so minutely done that the dried up remains of the flower on the top of the fruit is clearly shown. Maple appears with its winged seeds, and oak with acorns and oak-galls (pl. VIII, fig. 7). Vines also occur (pl. VIII, fig. 8), especially in the aisles, with small round clusters of grapes well known at that time; the large berried and elongated bunches known to us are the result of

cultivation and hothouses. We also find the seed-pods of the yellow water-lily (pl. viii, fig. 9), though the accompanying leaves and small flowers belong to some other plant. There is one group of leaves that must be meant for worm-wood (pl. ix, fig. 1), and there are other leaves and flowers that, while they look natural, are difficult to place (pl. ix, fig. 2). Some flowers look like periwinkles, one of them surrounded by oak leaves (pl. ix, fig. 3),¹ and some of the hawthorn leaves are accompanied by flowers that may be meant for the hawthorn blossom, though it is not very natural.

In the aisles of the quire are a number of figure bosses which we may take in their order:

South aisle: First bay. A queen seated (pl. ix, fig. 4); in her left arm she is holding a small dog whose head she is stroking with her right hand; she has her head bent forward as though looking at the dog; she wears a crown. A second small dog stands on the seat beside her; in front of the queen stands a bare-headed young man, also looking down at the dogs; his right hand rests on his right knee; his left hand was apparently stretched out over the dogs, but it is now lost from the wrist. Seen none too clearly, and in a not very good light, this boss used to be supposed to be the Annunciation, but a photograph shows that it is not that; what it actually represents is unknown.²

Two old men seated (pl. ix, fig. 5), and evidently conversing together; one of them wears a crown, the other has a close-fitting hood over his head; they both hold scrolls. I suggest that they may be meant for David and Nathan, but this is only a guess.

Second bay. The Tree of Jesse (pl. ix, fig. 6); Jesse, crowned, is lying down at the base of the composition, and a stem, springing out of his middle, divides just above him, and the two branches separate and unite again at the top of the composition; in the middle is David playing on a harp which seems to have nine strings; he is crowned and wears a bushy beard; on either side of the composition is a bearded figure with a scroll.

The Coronation of the Virgin (pl. ix, fig. 7). Our Lord crowned is seated; in the left hand he holds a book on His knee; His right hand is raised in benediction towards the Virgin. She sits sideways facing our Lord; the crown is already on her head, and her hands are clasped together; both figures wear very full robes; both have long hair descending over the shoulders.

Third bay. Two old men seated on a bench (pl. ix, fig. 8), both have long hair and a beard, one is nearly bald on the top of his head; they both wear very full outer garments showing a closer-fitting robe underneath. One of them is pointing with his left forefinger to the palm of his right hand, as though arguing a point with his *vis-à-vis*, who holds a scroll in his left hand to which he points with his right index finger; probably the figures represent a prophet and an apostle.

¹ A wooden boss very like this one is to be found in Chartham Church, Kent.

² Dr. G. R. Owst, in a letter to *The Times* of 19th Dec. 1935, suggests that this is 'a satire on the evil lady of rank who fondles her lap-dogs (as again on the Sedilia at Hechington) and neglects the poor.'



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

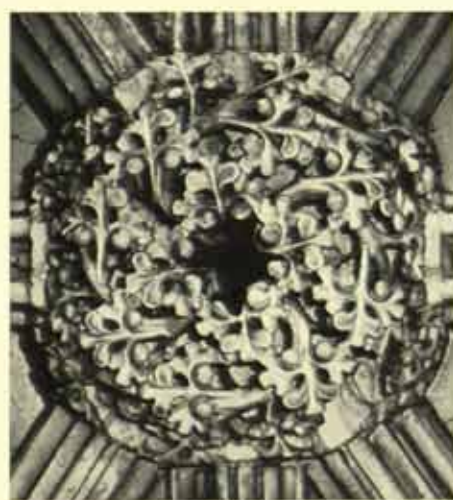


Fig. 9

ROOF BOSSES OF LINCOLN CATHEDRAL

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Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

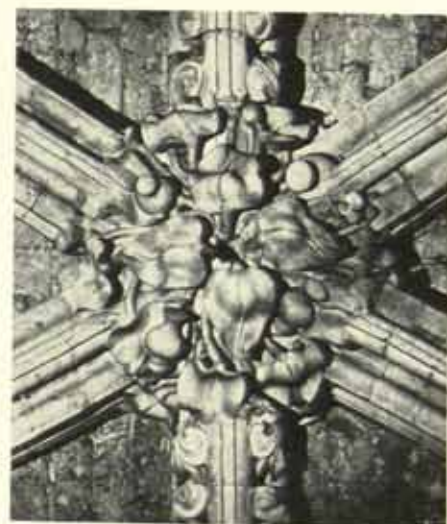


Fig. 9

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Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9

ROOF BOSSES OF LINCOLN CATHEDRAL.

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Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9

A naked man fighting with a monster (pl. ix, fig. 9); the man, who has straight hair, is holding a sword in his right hand with which he is making a cut at the monster's neck; the monster is parrying the stroke with a small round shield; the man is looking over his shoulder away from the monster, and with his left hand he is pushing away the right arm of the monster, who is preparing to deliver a blow with a weapon which looks rather like a billhook. The monster has a very long neck with a human head; the arms, too, are human, but the body has wings and a long dragon-like tail.

Fourth bay. Three lizard-like monsters (pl. x, fig. 1), with very long ears, and apparently hind legs only; each monster is biting the neck of another.

A monster with a beast's head (pl. x, fig. 3), the wings and talons of a bird, and a long scaly or feathered body of a reptile; the monster is surrounded with naturalistic foliage and fruit of the vine, and is eating some of the grapes.

Between the fourth and fifth bay. Two monsters (pl. x, fig. 2) with the wings and talons of a bird; they have very long ears, and each one is biting the ear of the other.

Fifth bay. Two naked demi-figures of young men (pl. x, fig. 4), each one being upside down with respect to the other. Over one figure are naturalistic oak leaves, with acorns; one leaf has an oak-gall on it; over the other figure are hawthorn leaves and berries.

Most of these bosses have some conventional trefoil or quatrefoil foliage round them, but the two men and the creature eating grapes are surrounded by naturalistic foliage, and the groups of monsters have no foliage.

North aisle, first bay. The heads of two women (pl. x, fig. 5) surrounded by naturalistic vine foliage; each one has a close-fitting head-covering over the top of the head, and a fillet over the forehead; each one wears a wimple, but one has her throat covered by drapery, the other has a widely-open collar showing her throat and neck.

Third bay. A naked man fighting with a merman (pl. x, fig. 6); the man has a cap on his head, which looks rather like the cap of liberty, he holds a short sword in his right hand which he is pointing at the merman, while his left hand is pressing back the merman's right arm; he is stepping across part of the vaulting rib on to a hawthorn stem, and is looking back, not at his adversary. The merman, who has long hair and a beard, has a weapon in his right hand which he is aiming at the head of the man, while in his left hand he carries a heater-shaped shield with which he is parrying the man's sword thrust; the merman is naked save for a band round his middle; his body ends in a fish's tail.

Between the third and the fourth bay. Two grotesque figures, a man and a woman, of whom little more than the heads, necks, and arms are visible (pl. x, fig. 7); they are about to kiss each other, and each has an arm round the neck of the other; the man has a beard and moustache, and wears a close-fitting head-dress fastened by a band under the chin; the woman has a headband round her forehead which also comes down in a broad band over the chin; their necks are inordinately long, and so are their bodies, as far as they can be seen, as they curve away behind the vaulting ribs and below the leafless stems of some tree; below the two heads is another head, of a beardless man,

frowning strongly; nothing else appears of him except his forearms and hands which come out from behind a vaulting rib, the hands clasping the tree branches.¹

All the other bosses in the aisles of the Angel Quire are foliage.

The bosses in the east bay of St. Hugh's Quire (the eastern crossing) must now be described; they belong to the Angel Quire series. Over the four arches round the crossing are small foliage bosses, either oak with acorns, or hawthorn with or without small flowers. The eastern boss (pl. x, fig. 9) on the main vault consists of hawthorn leaves with some small flowers, and a large flower in the centre of the boss with a central hole; these flowers may be meant for the hawthorn blossom, though the central one looks more like a primrose. On one side is a small demi-figure of an angel with very small wings, who is leaning over the side of the boss and taking hold of two of the hawthorn stems with his hands. The other boss on this vault is entirely made up of hawthorn leaves and a number of small flowers, no doubt meant for may; in the centre is a flower like the one on the other boss.

Under the north-western tower is a boss with three dragon-like animals arranged round the boss, each one of which is biting the foreleg of the one in front of it. Heads occur in the angles of the vaulting ribs. In the south-west tower St. Martin, on horseback, is dividing his cloak with his sword to give part of it to a beggar who seems to be lying almost underneath the feet of the stallion.

The vaulting under the tower dates from the latter half of the fourteenth century. The bosses are difficult to see and to photograph, as they are very high up and are all highly gilded. There are two interesting bosses. On one an oak tree divides the boss into two halves; on the dexter side a man is standing dressed in a jerkin, with buttons down the front, and over his shoulders a cloak with a scalloped edge; he is wearing a head-dress which looks like a helmet, and he is bending a bow which has an arrow on the string. On the other side is a nearly naked man sitting on a dead stag; he is holding up a sword in his right hand, and on his left arm is a round convex shield with a large pointed boss. On the ground in front of the tree are three rabbits, two of them bolting into their holes. On another boss are two centaurs lunging at each other with swords, and protecting themselves with small round shields. There is also a boss with a lion and a dragon fighting, and another with a head surrounded by vine leaves and grapes, with a protruding tongue and with two vine leaves coming out of the mouth. There are also a number of foliage bosses.

One of the most curious characteristics of the Lincoln bosses remains to be mentioned. In most churches one finds an extremely good fit between the vaulting ribs and their prolongation across the boss or keystone; so good is the fit in

¹ Dr. Owst, loc. cit., suggests that this 'represents in typical satiric fashion the Vice of Luxuria, and the "frowning face" is that of the Evil One, who draws the two lovers together'.

most cases that the rib carving on the bosses could not possibly have been done before the boss was in place; this part of the carving must have been done *in situ*, and it is probable that much of the figure carving was done *in situ* also. At any rate practical stone carvers speak of modern bosses being carved in this way, and say it is no more difficult than carving the stone in the workshop. But in St. Hugh's Quire (pl. vii, fig. 4) the joins are so bad that they give the idea that the bosses were carved in the workshop. The bosses in the aisles which I look on as slightly later are a little better, but in the eastern transepts the fits are bad. In the high vault of the nave (fig. 1) there is no proper joining up of vaulting rib and boss; the carving was evidently done in the workshop and the boss was just allowed to fit down on the vaulting ribs with no attempt at a proper finish. In the nave aisles some attempts were made to carry the vaulting rib mouldings on to the boss; these attempts were not always very successful. In the western transepts some attempts in the same direction were made, and in some cases the foliage, which seems to have extended to the edge of the boss, has been pared off wholly or partially to leave room round the edges for the mouldings of the ribs to be continued on to the boss; but though this has been done the whole arrangement is clumsy when seen in detail, though from the floor, and without field glasses, nothing seems wrong. The same thing may be seen on several of the bosses of the chapter-house; the first boss in the entrance is an example: it looks as though it had been made for the high vault and as though it had been pared down to fit its present position.

By the time the Angel Quire was reached the carvers had learnt the orthodox way of putting up a boss, but the early workers do not seem to have known the proper way of setting to work. I know of no other great church where the proper method was not adopted.

The first boss in the main south transept has never been finished (pl. x, fig. 8); on about one-third of the boss the foliage has been outlined but not carved in detail.

The roof of the cloisters is very remarkable, since it is wooden vaulting made on the same plan as stone vaulting and dating from the last years of the thirteenth century. The north walk has disappeared to make room for the library built by Sir Christopher Wren. A good deal of repair was done in the last century, and the south and east walks certainly were taken down and reinstated sometime about 1882 to 1892.

The bosses are very much weathered and few have survived without the loss of some parts, but even in their present state they form a very remarkable collection, and those who carved them were not only skilled craftsmen in the art of wood carving, but were artists as well.

The bosses in the east walk were photographed when they were taken

down, and the photographs were reproduced in the *Builder*¹ and again to illustrate an article by the Rev. E. Venables, Precentor of Lincoln.²

As Venables suggests, some of the bosses represent Occupations of the Months, no. 5 being undoubtedly killing the pig, for December. No. 1 may be pruning, or tree cutting which Venables suggests; the former would be for February, the latter perhaps for October, but it may also be threshing with a flail. No. 3 may be sowing, which would be appropriate for November. If this were so the last three months of the year would be in their proper order. But no. 7, a man with a bowl, looks very like January. Venables thinks that no. 2, now very much worn, represents a man sitting over a fire, for February, but I do not agree. There are no other bosses that could represent any of the other occupations, and we must conclude that the others were in the north walk and were destroyed when the library was built. Whether no. 7 is really January misplaced or not must remain a debatable point.

The following is a list of the bosses in the cloisters:

East walk (numbers from north):

1. A man holding something with both hands and bending forward; Venables suggests a man felling a tree, and that it might be an Occupation of the Months; it might be hoeing, or pruning. The boss is very much mutilated.

2. A seated figure, very much worn; Venables suggests a man warming himself, for February.

3. A man in a flat, round head-dress fastened under the chin with something like a wimple. He has a shoulder-strap over his right shoulder, and on his right-hand side is some object that Venables describes as a shallow basket of seed corn, with a sack of corn behind him. The details are not now obvious; he might be a sower.

4. Very much worn; it might be dragons fighting.

5. A bearded man with his arms raised; the forearms have gone; in front of him is a pig, and there are oak leaves and acorns. This is certainly an Occupation of the Month, killing the pig, usually associated with December.

6. A beast, Venables calls it a male lamb, scratching its nose with its hind foot; very much worn.

7. A seated figure holding a bowl; perhaps the feasting Occupation, possibly for January.

8. A group of four human heads with the bodies of beasts; two have clawed feet, one has cloven feet, and the feet of one are not now discernible. Venables says they are the four living creatures of Ezekiel's vision; I think it is more likely that they are just a fancy of the carver.

¹ July 19, 1890.

² *Associated Architectural Societies' Reports*, xx, 179. A very similar article, but without illustrations, appeared in the *Archaeological Journal*, xlvii, 220; it has a longer account of Occupations of the Months, especially of a set at Worcester.

9. Two dragons fighting.

10. The upper part a woman in a veil head-dress ; the lower part ends in legs, one of an ox and one of a lion.

11. Our Lord seated on a throne ; He is bare-headed ; the right hand is raised in benediction, the left rests on the arm of the throne ; a loose alb-like robe is worn with a cord round the waist, and an outer cloak is fastened over the breast by a diamond-shaped clasp.

12. A hare crouching as though in its form. Venables says that its head and shoulders are invested with a close-fitting covering, puckered at the neck, with holes for the eyes and ears. This seems to be so, but it is not very clear.

13. The Madonna and Child ; our Lady is sitting on a seat and the Child is on her left knee ; she wears a crown and a veil head-dress ; her right arm is extended, but is broken. The Child, headless, stretches out one hand, and in the other holds a dove ; in the corner of the boss behind and above the Child is a large bird rather like a partridge. Though much damaged and worn this boss is, as Venables says, 'exquisitely graceful'.

14. A very much damaged figure of an angel holding a crown.

15. The Coronation of the Virgin ; the figures are sitting on a seat ; our Lord is very like the figure on no. 11 ; our Lady is sitting sideways ; her head and hands have gone.

16. A very much damaged figure ; perhaps, as Venables says, a tumbler holding his right ankle in his hand.

17. Foliage ; vine with leaves and grapes.

18. A calf scratching its nose with its hind foot.

19. South-east corner ; a bishop seated on a throne.

West Walk (numbers from north) :

1. Figure of a man, very much worn.

2. Figure, very much worn.

3. A grotesque face with a protruding tongue ; the hair is brushed upwards above the forehead, and there are curls below the very prominent ears.

4. There is practically nothing left of this boss.

5. Perhaps a man and a dragon.

6. Very much damaged.

7. The head of a woman in a veil head-dress, with a wimple. A very fine head.

8. A long-eared dragon coiled up.

9. A grotesque head with curly hair and a beard, the lips held apart sideways with each hand.

10. Practically all gone.

11. Foliage, damaged.

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12. A figure, perhaps a woman, crowned and seated on a throne, with part of a sceptre in the right hand.

13. A 'sun' face; the head is surrounded by leaf-like rays, and the tongue is protruding.

14. A fragment only.

15. The seated figure of a woman with a veil head-dress and a wimple; she leans forward, and has been holding something on her right knee, but the left hand and forearm have gone. The figure seems to have been within a cusped roundel, but only part of this remains.

16. Four dragons, each biting the neck of another; this is a very poor representation, and looks as though it might be much later work than the other bosses.

17. Very much worn, perhaps vine foliage.

18. A rose and some leaves, tending towards naturalism.

19. South-west corner. Two figures, each seated on a seat; the right-hand figure, who has long hair and may be a woman, has the right hand on the throat of the other, the arm itself missing. The throttled figure wears a close-fitting cap or else is tonsured. Neither figure has bare feet.

South walk (numbered from West):

1. A grotesque figure, one half being the head of a man with the legs of a dog, the other half the head of a dog and the legs of a man.

2. A lion with a bearded human head, and a cape over its shoulders.

3. A very much worn figure.

4. A monster with a human head, perhaps that of a woman, with head covering and a wimple; the arms, too, are human; wings spring from the shoulders; the rest of the body appears to be fish-like and tapering, with a divided tail which is held in the right hand.

5. A beast very much worn.

6. Foliage very much worn.

7. A fragment only.

8. A grotesque head with curly hair and beard; two objects, very likely bugle-horns, are held to the mouth by each hand.

9. Very much worn.

10. A seated figure, headless and much worn.

11. Conventional foliage, much worn.

12. The bust of a man with a beard; the two hands are taking off or putting on a round cap.

13. The figure of a goat with horns and beard; the body seems to be clothed in a garment.

14. Two beasts, a lion and a dragon, fighting.

15. A woman in a head-dress whose top reminds one of the pedimental head-dress of later times; the hair is long and the right hand is holding a thick tress; a simple gown is worn, girded at the waist. But the most curious feature is that the figure is sitting cross-legged.

16. A very much worn figure.

17. Foliage, worn.

18. A human head with moustache and beard, and coiled round it what looks like the body of an eel with a wing-like object that is probably meant for a fin; the figure is most likely meant for that of a merman.

19. A figure playing a viol; very much worn.

20. A grotesque figure with a monkey-like face wearing a cowl; the figure is rather obscure; it may be meant to have wings.

21. Very much worn.

22. Foliage; probably vine leaves, but no grapes are shown.

23. Very much worn; perhaps a dog.

24. Rather naturalistic oak leaves.

25. Very much worn.

26. A fine head, with beard and moustache; the beard is held in the left hand, and the first finger of the right hand is feeling the teeth—a 'toothache' head.

27. A grotesque figure; the bearded head of a man with a dragon's body and wings.

28. Very much worn foliage, and perhaps a dragon.

29. A bird or beast, much worn.

In the passage leading from the north-east transept to the cloisters is a number of bosses on the stone-vaulted roof. Many of these are merely foliage, but the following have figures of various sorts:

4. A long-eared dragon.

7. A woman's head with the winged body of some animal.

8. An old man with a long beard, with apparently wings in place of legs; he is holding on to a stem which bears vine leaves and grapes.

10. A crowned figure, no doubt David, playing on a harp with many strings, at least eighteen.

11. A man's head and arms; he is holding his lips sideways with his hands. This is very like no. 9 in the west walk of the cloisters.

A man's head, with mouth foliage that covers the chin and the sides of the head.

Allowing for the difference of material in which they are carved these bosses are very much like those in the cloisters, and they may date from about the same time, namely, the end of the thirteenth century.

In the Library there are a few wooden bosses of some interest. There are several grotesque heads, and a very nice little figure of an angel playing an instrument of the mandora or lute family with a plectrum; the reverted head, which is characteristic of those instruments, is very well shown. But the most remarkable boss is that showing a griffin carrying a knight in armour in its talons. The knight's head is very well shown; he wears a helmet and camail which puts the date of the carving somewhere in the second half of the fourteenth century.

I am indebted to Sir Albert Seward, F.R.S., and to Miss Talbot-Ponsonby, for some of the identifications of the plants.

III. *The Excavation of the Giants' Hills Long Barrow, Skendleby, Lincolnshire.*

By C. W. PHILLIPS, Esq., M.A., F.S.A.

Read 14th March 1935

INTRODUCTORY

BEFORE describing this excavation a few introductory remarks must be made on the circumstances which brought it about.

As early as 1924 Mr. O. G. S. Crawford was convinced from a study of the 6-inch maps that long barrows existed on the Lincolnshire Wolds, but the matter was not tested in the field until the writer began a general revision of the archaeological information on the Lincolnshire sheets in 1929. After a careful examination of the Wold area it became apparent that Mr. Crawford's belief was amply justified, and that an important group of long barrows existed between the Humber and the Wash. An account was given of these in the *Archaeological Journal* for 1932,¹ and details of further discoveries were given in the *Proceedings* of the Prehistoric Society.² Altogether eleven certain examples are known, two more have been destroyed, and there are two doubtful cases (fig. 1).

The immense amount of work done on the Yorkshire long barrows in the nineteenth century by Canon Greenwell and J. R. Mortimer has largely destroyed this group, and when all due deference has been paid to the memory of two of the most remarkable figures in British archaeology, it remains true that they did perhaps more to raise problems than to solve them.

A peculiar feature of the Yorkshire long barrow which occurred in a majority of the excavated examples was the 'crematorium trench', used, apparently, to adapt the form and circumstances of long barrows to a cremation rite on the whole foreign, so far as our present information goes, to the long barrows of the south and west of England.

Until quite recently East Yorkshire was the only part of the eastern side of England to yield Neolithic A pottery, but during the past two years this type of ware has been found in a number of places in East Anglia. An important example is the quantity which has been recovered from an old land surface by Mr. S. Hazzledine Warren at Lion Point, Walton-on-the-Naze; and recent investigations on the south-eastern edge of the Fens have revealed it on more

¹ *Arch. Journ.*, lxxxix, 1932, 174-202.

² *P.P.S.*, vii, part iii, 1934, 423.

than one site.¹ The most interesting is the excavation conducted by Dr. Grahame Clark for the Fenland Research Committee at Peacock's Farm, Shippea Hill, where it is shown to have been separated from beaker ware by a phase of recent geology involving the deposition of 6 ft. of clay and 2 ft. of peat.² The ware has also come to light from Great Ponton in South Lincolnshire,³ so that the East Yorkshire occurrence is no longer isolated.

In view of these facts and new discoveries it seemed desirable to excavate one of the most southerly and easterly of the Lincolnshire group so that, if it showed the cremation feature, this might be studied under modern conditions, and, in any case, so that the finds might be considered in relation to the general long barrow and Neolithic problem in the British Isles.

The barrow chosen was that known as Giants' Hills in the parish of Skendleby. Besides showing no signs of any former disturbance, it was free from trees, had been reduced a little in height by ploughing, and fulfilled the topographical conditions required.

The excavator was fortunate in securing the whole-hearted consent and support of the owner, Mr. W. Gainsford of Somersby, who has generously presented all the material from the barrow to the British Museum and the Royal College of Surgeons.

The work was carried out in the summers of 1933 and 1934, and took four months in all. In 1933 work was confined to an examination of the ditch on the upper side of the barrow, but in 1934 the barrow proper was completely excavated.

The Society of Antiquaries contributed £5 to the expenses; the Antony Wilkin Fund of Cambridge University granted £40 through the good offices of Mr. M. C. Burkitt, F.S.A.; £60 were subscribed by well-wishers in the county of Lincoln, and several of the excavator's friends also made valued contributions. To these institutions and individuals hearty thanks are due for making it possible to conduct the work to a thorough conclusion.

A number of friends also gave skilled and prolonged assistance in the actual work. Chief among these was Mr. A. H. A. Hogg, who worked through nearly the whole of the 1934 season, when the major operations were carried out. Mr. Hogg's skill and perception were invaluable; practically the whole of the surveying was his work, and the excavation could never have been so successful without his presence. Mr. E. J. André Kenny also put in some valuable surveying work in the 1933 season. Thanks are due for a great deal of skilled assistance to Dr. Grahame Clark, F.S.A.; Miss G. M. White; Miss A. E. Welsford; Mr. R. Rainbird Clarke; Mr. J. C. Mossop; and Mr. J. M. Watson.

¹ *Proc. Cambridge Antiq. Soc.*, xxxv, 108.

² *Antiq. Journ.*, xv, July 1935, 302.

³ *Ibid.*, xv, July 1935, 347-8.

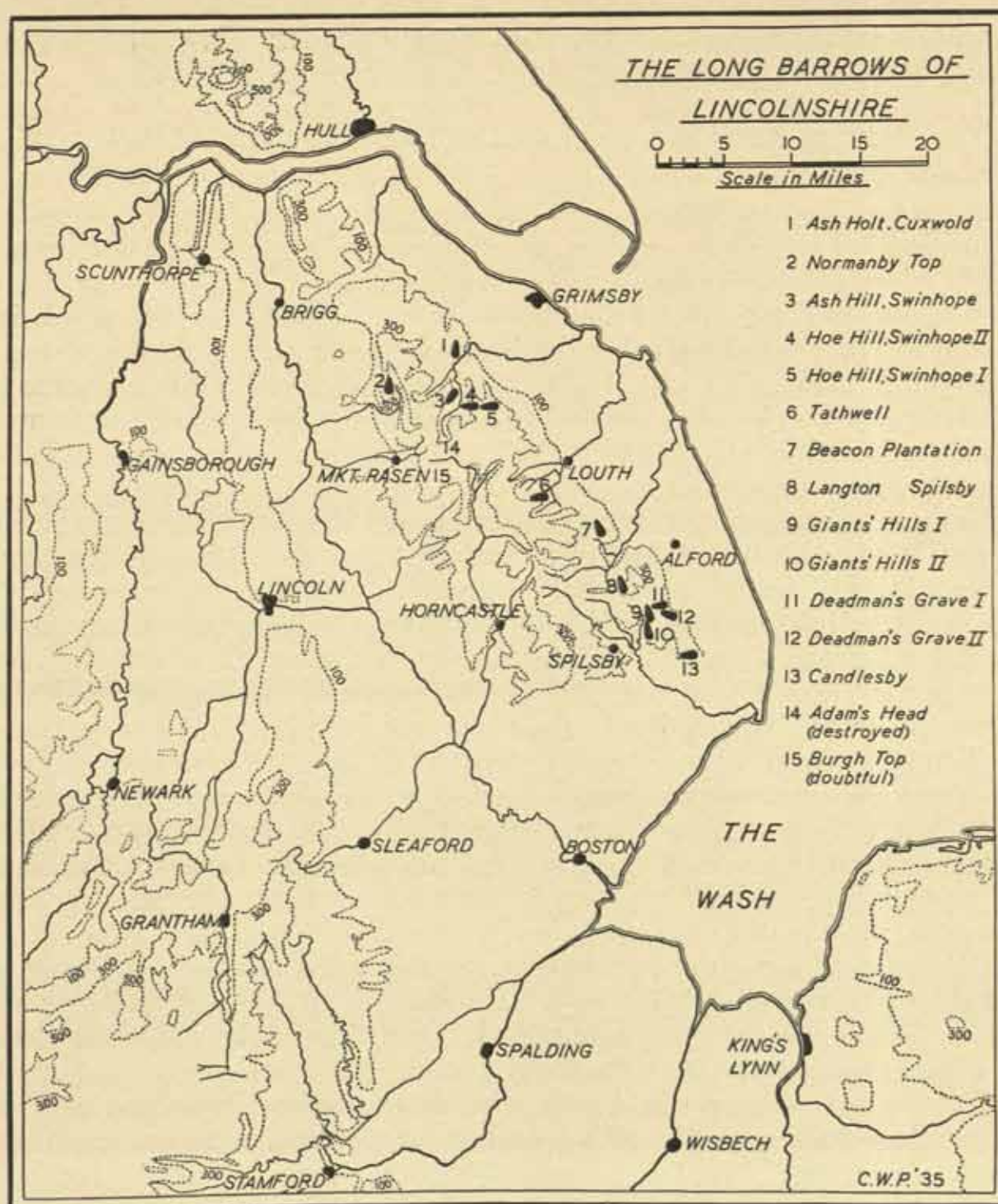


Fig. 1. Map showing distribution of Long Barrows in Lincolnshire

The site was visited by Mr. R. A. Smith, Director of the Society of Antiquaries; Mr. O. G. S. Crawford, F.S.A.; Mr. M. C. Burkitt, F.S.A.; Mr. C. F. C. Hawkes, F.S.A.; Mr. Stuart Piggott; and Mr. P. K. Baillie Reynolds, F.S.A.

THE POSITION AND CHARACTER OF THE BARROW BEFORE EXCAVATION

The barrow stands just below the crest of the eastern side of the valley known as Fordington Bottoms in the northern part of the parish of Skendleby. Its position is Longitude $0^{\circ} 8' 23''$ E. and Latitude $53^{\circ} 13' 5''$, and on the northern edge of Lincolnshire 6-inch sheet 75 SW. (fig. 2).

The barrow is built along the contour of the hillside at an average height of about 230 ft. above sea level, and this arrangement gives it an orientation of approximately NW.-SE., with the broader and higher end of the barrow to the SE. This direction is the prevailing one among the Lincolnshire long barrows, but no particular significance seems to attach to it since in the majority of cases they are placed along contours which happen to run in that direction. The Fordington valley begins about a mile and a half above the site of the barrow, and runs down past the village of Skendleby to merge in the wider valley of the Steeping River a mile below that village. A good perennial stream of water runs along the bottom of the valley, fed by springs breaking out along the line of junction between the chalk and the Spilsby sandstone into which the valley has been cut. A strong spring rises at the bottom of the slope on which the barrow stands, and now works an hydraulic ram for Skendleby Lodge Farm.

Three long barrows are associated with this valley: Spellow Hills in the parish of Langton at its head, and the two Giants' Hills barrows on the eastern flank. A mile farther to the east another valley, now dry, has also a pair of long barrows, the Deadmen's Graves; and if the doubtful barrow at Candlesby is accepted, there are six long barrows within an area of four miles by three. This is the most notable concentration in Lincolnshire (fig. 3).

Before describing the barrow excavated a word is necessary about the second long barrow close by. The plural form 'Giants' Hills' had always been puzzling, since by no stretch of imagination could the obvious long barrow on the site be mistaken for more than one mound.

During 1934 the crop on the field below the barrow permitted a careful examination of the ground, and it soon became clear that what appeared to be a partly obliterated lynchet some 250 yards farther down the slope was the last remains of another long barrow of much the same size and character as that excavated, and oriented in the same way along the contour. The presence of great quantities of small chalk rubble in this part of the field was clear evidence of the spreading of the barrow at the time of its destruction. Mr. Gainsford, who has known this spot for many years, recalls this barrow in much better

preservation than now, and points out that in wet weather the partridges often gather on this spot where the loose chalk suits them better than the surrounding

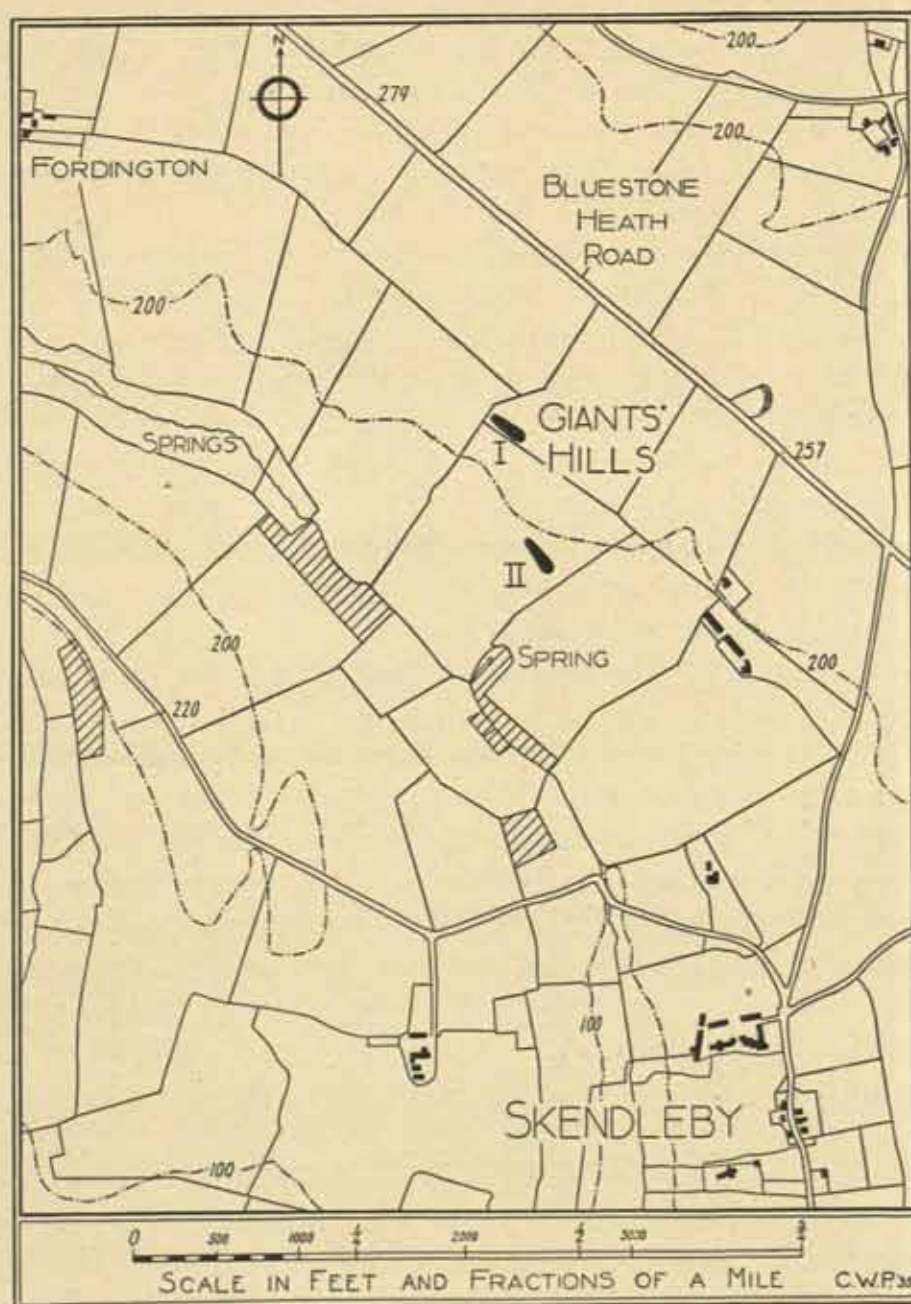


Fig. 2

(Based upon the Ordnance Survey Map, with the sanction of the Controller of H.M. Stationery Office)

heavy ground. Mr. Crawford inspected the site, and agreed that the evidence pointed decisively to a second long barrow. Thus the plural form of the name is explained, and a third closely associated pair of long barrows has been established for the Lincolnshire Wolds.

The barrow excavated stands in the corner of a field, the northern boundary of which is that of the parish of Skendleby, and it is tolerably certain that the barrow was a factor in determining the position of this boundary. It is so closely tucked into the corner that one boundary hedge runs along its lower edge and the other passes its west end at a distance of a few yards, and was proved by excavation to be growing in the top soil of the silted ditch coming round the end of the barrow. During the course of the work the first hedge was abolished but the second was not touched.

The field in which the barrow stands has been ploughed for a long time, and the plough has been carried right over the barrow many times with the result that its original height has been reduced to an average of 5 ft. Instead of attaining its highest point at the east end the barrow did not vary much in height throughout its 200 ft. of length. A marked feature was a slight depression or saddle across the middle giving the effect of two summits, one at the east end, and a second a little north-west of the middle. Scarcely any trace of the ditch was visible save that the contour survey showed an extensive but slight depression on the upper side of the barrow.

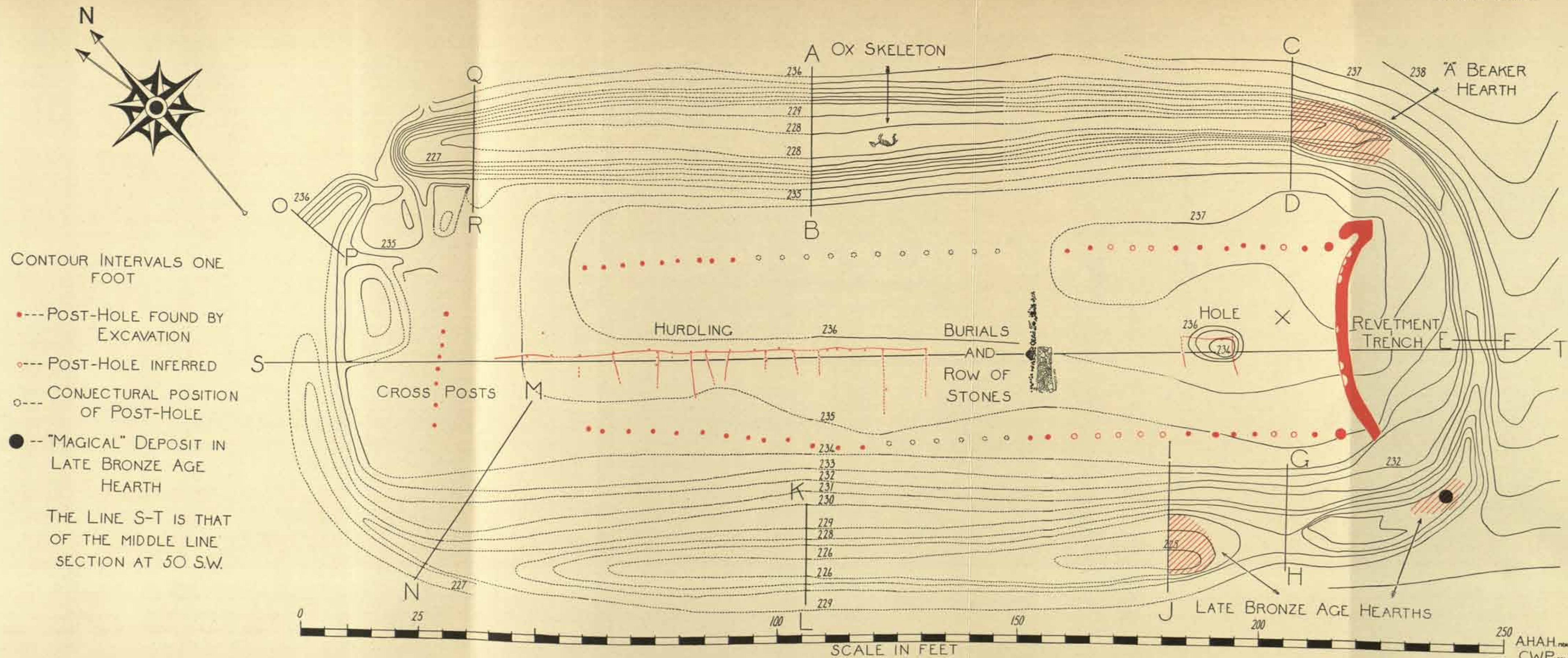
The field on the lower side of the barrow is also under the plough, and the effect has been to accentuate the slight tilt which the barrow has through standing along a contour on a marked downward slope. Ploughing has tended to add slightly to the upper side of the barrow and subtract from the lower side. From this cause the barrow is not very impressive when seen from the upper field, but gains in apparent height viewed from the lower one.

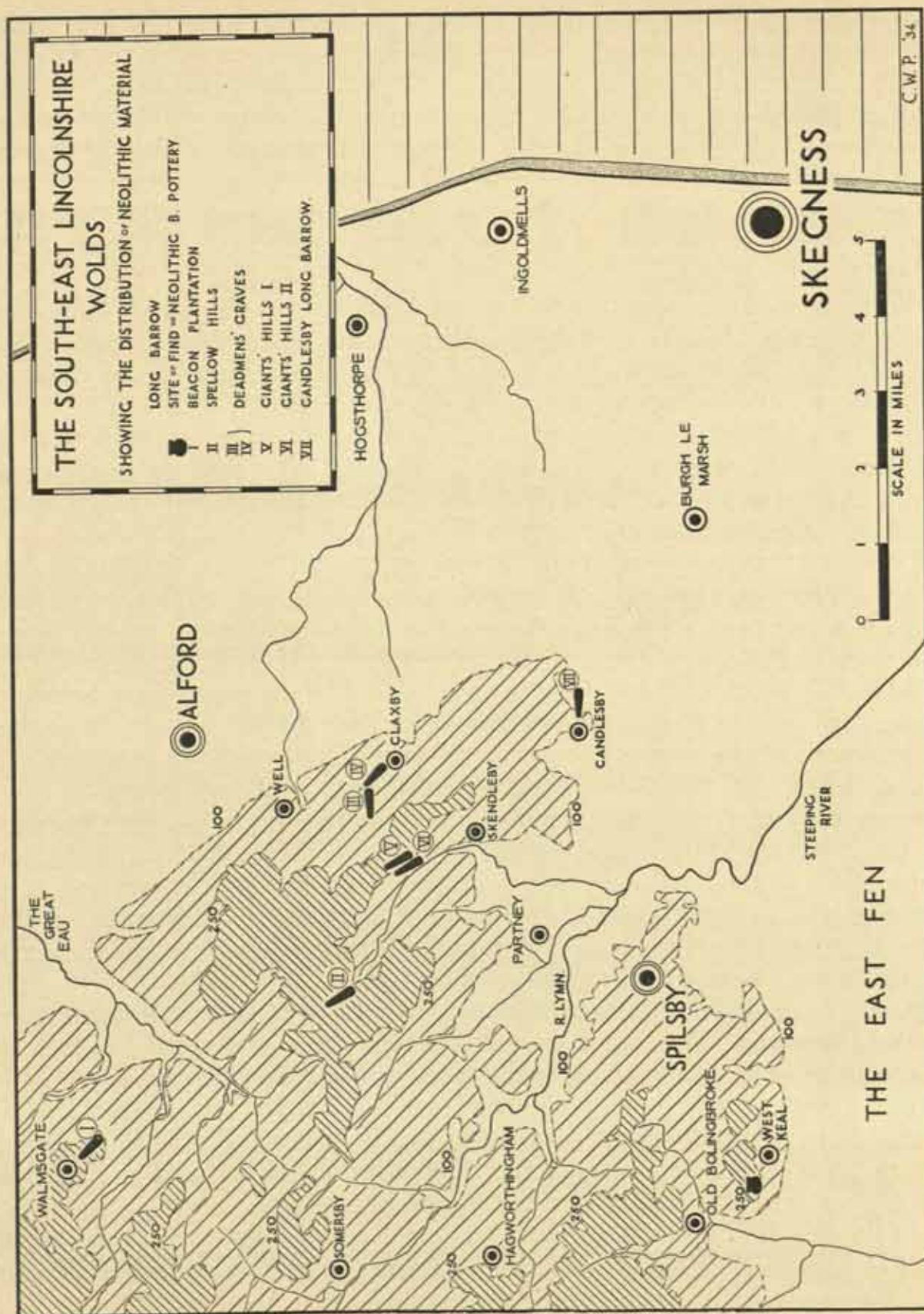
Excavation proved that the builders of the long barrow chose a slight elongated boss of chalk for their site. This was presumably the result of the slightly greater hardness of the chalk at this spot and its superior resistance to the ice. In effect, the barrow was placed along a slight natural shelf so that the old ground surface when found was practically level instead of following the general slope of the hill.

THE METHOD OF EXCAVATION

The first step taken was to lay out a rectangle 180 by 80 ft. round the barrow and drive in a strong post at each of the corners. A line of levels was run from the nearest Ordnance bench mark, and a local bench mark was cut on one of the posts. A contour survey of the barrow was then made (fig. 4).

In the case of barrows with large ditches there are two main lines of investigation which may be pursued. First, there is the actual barrow with its primary interments and any original structural features it may have. This gives information about its builders, its value depending on the degree of preservation of the contents and the absence of disturbance. Secondly, there





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is the evidence of the part which the monument has played in the life of the district since it was completed. Some of this may be recovered in the form of folk-lore, but the archaeologist is able to get more decisive information in the form of stratified traces of casual human settlement in the ditch before the shelter afforded by it was destroyed by silting. In the case of a long barrow ditch of normal size this may usually be relied upon to give evidence down to the close of prehistoric times. There is the further possibility of intrusive secondary burials in the body of the barrow or in the ditch. At Giants' Hills none was found.

The season of 1933 was devoted to establishing the second of these two points by digging a large section of the ditch on the upper side of the barrow. In 1934 the barrow proper was excavated, and as much more of the ditch as was necessary to prove its character all round the barrow.

In opening the barrow a central spine was left intact right down the middle to show the original height, and this was carried across the ditch at the east end. At the same time 5-ft.-wide balks at right angles to the central spine were left at stated intervals (fig. 4).

It was originally expected that the east end would contain the burials, but when a complete excavation of the eastern third of the barrow had shown that this was not the case, a 5-ft.-wide trench was driven along the central spine right through to the west end. In this way the burial area was approached from the side, and, when found, fully opened out. Also the remarkable hurdling in the western part of the barrow was revealed and studied, further cross-cuts over the whole of the barrow being made at various points to establish the section and find out about the hurdling offsetting from the central 'fence'. Another investigation was the careful clearance of the revetment trench found across the eastern end in the old ground surface. Trenches had also to be run along the sides of the barrow to follow up the post-holes which were found to flank it along the greater part of its length on both sides. The whole of the extreme west end was also excavated to find out as much as possible about the eight posts which were found to have stood there.

At various points in the excavated ditch evidences of later settlement were found and examined. The exact amount of excavation done may be seen in fig. 4, and the results of the whole work are summarized in pl. xi.

Human and animal remains, pottery, soil, snail-shells, and charcoal were submitted to recognized experts for reports which appear below as appendices.

At the end of the 1934 season the ditches were refilled, and the barrow rebuilt and successfully restored to its original appearance.

Certain peculiarities of the site which had some influence on the work remain to be noted. The old ground surface under the barrow was never difficult

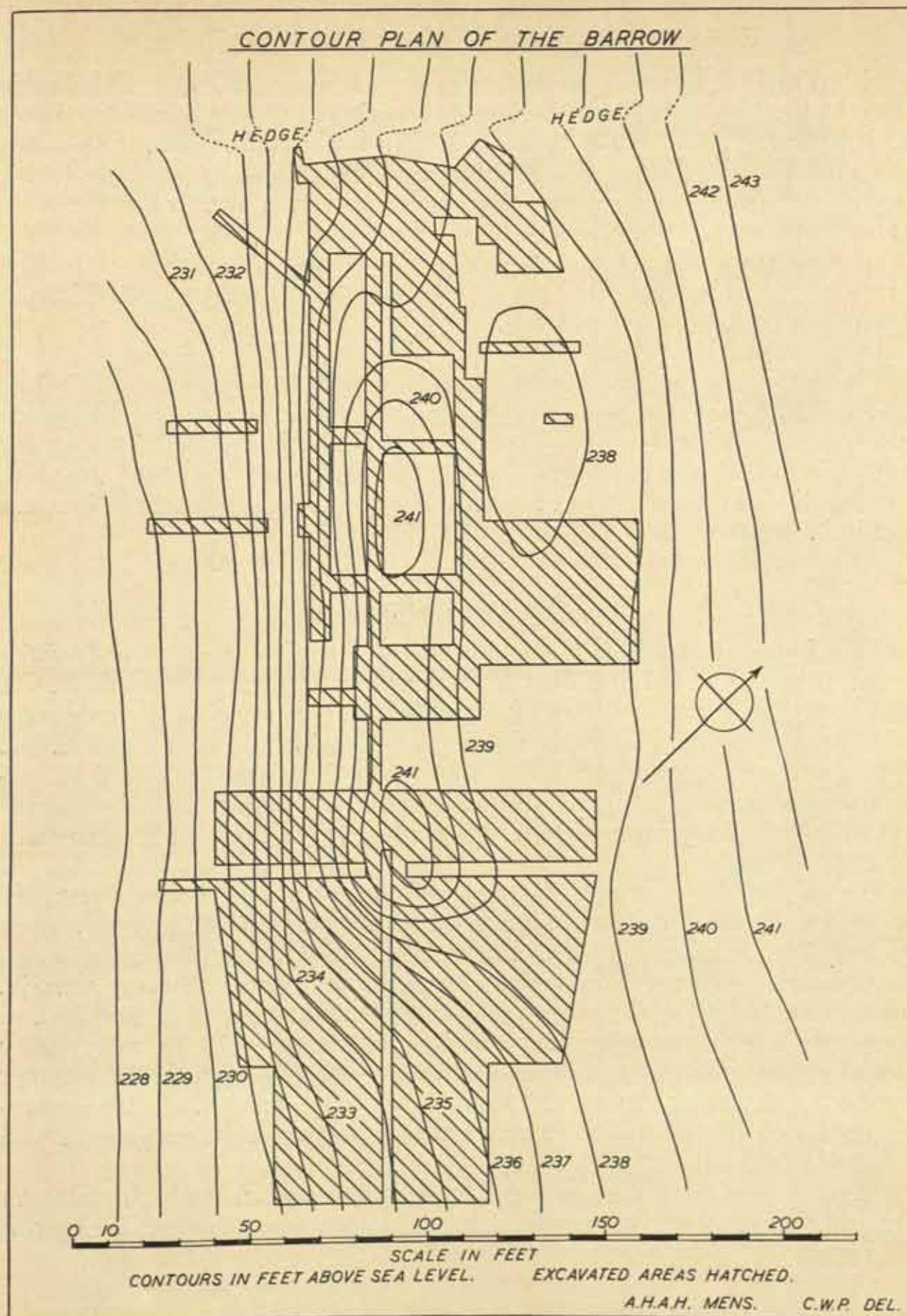


Fig. 4. Contour plan of the Barrow

to find, but when it was realized that various excavations had been made in this surface by the barrow builders, the rotten condition of the chalk in some places caused difficulties. The whole of the upper part of the chalk had been shattered by ice pressure, and in some places the disintegration was so complete that it was difficult to say whether the chalk had been moved or not. It was fortunate that few of these doubtful places occurred at important points, and it was found by experience that where the chalk had not been moved, though badly broken up, there was a white mould-like appearance which easily distinguished it from the filling of post-holes and trenches.

In describing the excavation the following plan will be followed:

The details of the barrow will be dealt with in the order in which they occur, working from the east end towards the west—revetment trench, side posts, 'empty hole' in the old ground surface, the burials and burial area, the hurdling in the western part of the barrow, the eight posts across the west end, the excavations in the ditch, and the various evidences of settlement which were found in it.

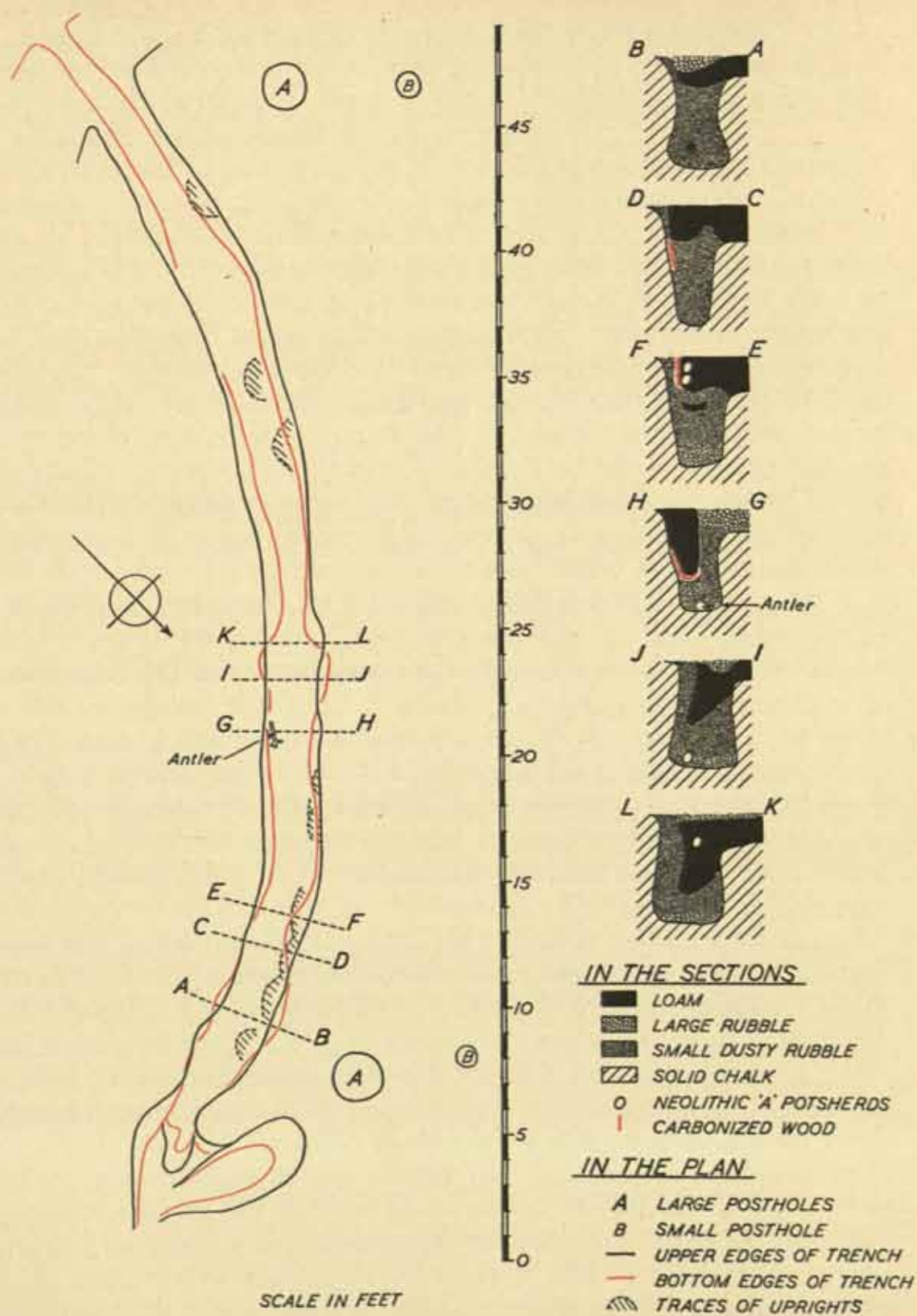
THE REVETMENT TRENCH

This feature was the first one found in excavating the east end of the barrow. It was expected that the burials would be found along the middle line in the eastern half in the manner of the Yorkshire barrows, so a beginning was made by removing the east end in four sections, leaving a central spine 2 ft. 6 in. wide along the middle and 5-ft.-wide balks across the width (see pl. xi). A considerable area was also stripped down to solid chalk outside the ditch at the east end, to see if any arrangement of posts had stood there, but nothing was found.

The existence of some arrangement across the end of the barrow was only suspected when the old ground surface had been reached and a clear section obtained of the spine of the barrow. Careful note was made of changes in the barrow material as it was removed, and sections were drawn at every 2 ft. 6 in. from the outer edges to the spine and parallel to the latter. The first hint of the revetment trench was given by a curious narrow band of white dusty chalky material which protruded from the old ground surface along a line which later proved to be the inner edge of the trench towards the barrow. As the excavation proceeded this was isolated and left standing up, an arrangement well illustrated by pl. xiii, fig. 1.

The section of the barrow revealed in the spine may be seen in pl. xiii, figs. 1 and 2, and clearly showed that some definite division had run across the barrow at this point.

PLAN AND SECTIONS OF REVETMENT TRENCH



C.W.P. '36

A short exploratory trench was therefore cut across the line of the white chalky band on each side of the central spine. In this way the existence of the trench was revealed, and it was emptied with great care to find out what kind of timber barrier had stood in it, since it was obviously intended for this purpose. Pl. XII shows the results of this investigation.

The trench was found to have a curved plan with the convexity of the curve towards the barrow. Its average width was 2 ft. 6 in., and it was sunk to a fairly constant depth of 4 ft. into the chalk beneath the original ground surface. On the inner or barrow side of the trench the original ground surface had not been interfered with, but on the outer side it had been lowered by as much as 1 ft. 6 in. in many places, and only rose again to the normal level some three or four feet away from the outer edge of the trench. This outer lowering of the old ground surface was filled with a dense loam containing many small fragments of Neolithic A pottery, a fair sprinkling of flint flakes, and some occasional traces of carbonized vegetable matter. This loam ran into the trench in varying degrees as will be seen from the sections on pl. XII. In general the lower parts of the trench were filled up with small chalk rubble, and there was no other content save the traces of wood shortly to be described, one or two scraps of Neolithic A pottery, and a piece of red-deer antler broken out of the skull.

At no place through the whole excavation was the soil favourable to the preservation of wood, and the elucidation of the type of wooden barrier which had stood in the trench was difficult. A careful emptying of the trench with small tools soon showed that on that side nearest to the barrow there were peculiarities of the infilling which threw light upon the probable character of the woodwork. It was observed that against the inner side of the trench were vertical masses of chalk rubble with semicircular section, the diameter against the side. Only nine of these could be distinguished, and the majority were found on the upper or more northerly side of the barrow. The general appearance of these vestiges may be seen in pl. XIV, fig. 1. It was observed that in the upper part of the trench the loam packed close against them, and made a determination of their limits fairly easy. On the outer face of these chalk masses occurred more or less vertical streaks of carbon, and it seems reasonable to suppose that the chalk represented very rough casts of the holes left behind when the posts rotted—posts which were tree-trunks split in half vertically, and placed with the flat faces towards the barrow. The loam which was packed against them on the outer face was unlikely to run in, but the small chalk rubble heaped against them on the barrow side poured down and so occupied the space once filled with wood. The streaky appearance of carbon may represent the outer face of the wood deliberately charred to preserve it. No more decisive traces of wood were found than these, and the exact character of the wooden barrier

THE EXCAVATION OF THE GIANTS' HILLS

must remain uncertain. Mr. Maby's examination of some of the traces of carbon made him tolerably certain that the wood was oak.

A careful watch was kept for any sign of larger posts at the point where the trench crossed the middle line of the barrow in the hope that some kind of false entrance might be inferred, but nothing was seen to justify this view. At one end of the trench there was an extension as though a beginning had

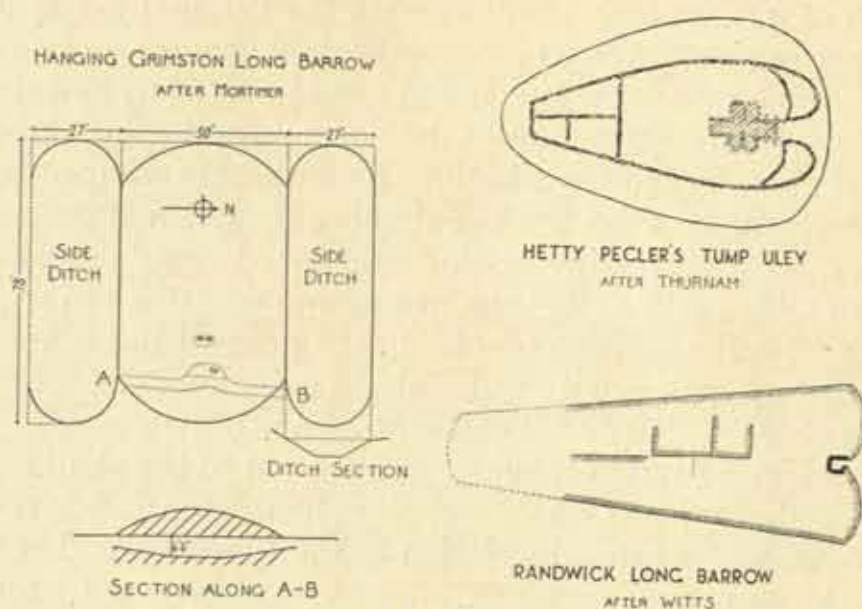


Fig. 5

been made with digging another parallel to and behind it. Nothing was found which explained this, but it may be conjectured that the trench may originally have been intended to curve more decisively towards the barrow, the idea being abandoned before much digging was done.

Another interesting feature which has a bearing upon the character of the revetment of the east end of the barrow may be seen in pl. XIII, fig. 2. Here there is a shallow tip of chalk rubble seen in section on the old ground surface immediately behind the trench, and above it a mass of dark soil which represents a pile of decayed turf. Reference to the general plan (pl. XI) will show that this dark soil had a definite limit in a straight line across the barrow some 10 ft. behind the revetment trench. The explanation seems to be that the wooden revetment of the east end was put up in a separate operation before the barrow was piled against it, and that in order to hold it up a mass of turf was piled behind. The chalk tip on the old ground surface was seen to occur just behind the revetment trench most of the way along its course, and it may be part of the upcast from the trench when it was dug.

Before leaving the revetment trench attention must be drawn to the interesting way in which it compares with the 'underground passage' which Mortimer found across the east end of the Hanging Grimston long barrow¹ (fig. 5). It is not easy to account for all the details of his find, which does not provide a perfect analogy to Giants' Hills. On the middle line of the barrow there was what he called a pit-dwelling attaining a maximum depth of 6 ft. 6 in., and containing a variety of matter, including a pot of Neolithic A type, some 20 pig skulls, and deer remains. It is stated that 'many streaks of burnt and decayed matter ran obliquely—and in some cases almost vertically—into the pit dwelling, reaching in places nearly to the bottom'. Similar appearances with two other smashed Neolithic A bowls and more animal remains are reported in the two flanking trenches which ran out to the edges of the barrow from this central pit, and it seems probable that the whole was a revetment trench with more and better preserved traces of wood than at Giants' Hills, and incorporating a feature in the middle, the contents of which suggest a place of offerings for the dead and a possible false entrance.

THE SIDE POSTS

Early in the excavation of the east end, holes which had contained posts were found at the edges of the barrow, and their general arrangement will be seen on pl. xi. Starting with a large hole behind each end of the revetment trench they ran along both sides of the barrow to within a short distance of the west end.

Time did not permit the excavation of every one of these post-holes, and some were unwittingly destroyed on the upper side of the barrow during the work of 1933, but the majority were found, showing that they had stretched in two unbroken lines along both sides of the barrow. The two large holes averaged a diameter and depth of about 2 ft. The smaller ones were separated from each other by an average distance of about 5 ft., and the posts had not been set very far into the old ground surface, but probably relied for some of their support on being partly buried in the edges of the barrow. These smaller posts averaged about 9 in. in diameter. No surviving traces of wood were found, but it may be guessed that they were oak posts. Allowing for a regular maintenance of the interval observed in the case of the numerous fully excavated holes, it may be estimated that the total number of posts was 64—32 a side—including the large posts (pl. xv, fig. 1).

The interest of this discovery is considerable, and will be discussed more fully below, but it may be pointed out in passing that this arrangement seems

¹ Mortimer, *Forty Years' Researches in British and Saxon Burial Mounds in East Yorkshire*, 102-5.
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to be an expression in wood of the peristaliths found round such famous long barrows as West Kennett, Wayland's Smithy,¹ and some of the Kentish examples.

THE 'EMPTY HOLE' IN THE OLD GROUND SURFACE

Reference to pl. xi will show that on the middle line of the barrow at a point nearly half-way between the revetment trench and the burials, a curious feature was found which will be called the 'Empty Hole' for the sake of convenience. A plan of the hole and two sections across it will be found in fig. 6, where it will be seen that it originally had a kind of hurdle surround, open towards the lower side of the barrow. At a later stage in the work a well-defined system of hurdle structures was found in the western part of the barrow, but at the time of the excavation of the hole area this could not be expected. It was difficult to interpret the facts observed at the actual time of the excavation of the hole, and at a later stage fuller knowledge of the possibilities of the barrow made it necessary to reconsider them in the light of this knowledge. The only clear suggestion that there had been some sort of structure round the hole was the occurrence of a curious vertical loam-band seldom more than 9 in. high. In plan this loam enclosed a rectangular area with one side along the middle line of the barrow and open towards its lower side (see fig. 6).

At three points small stake-holes were seen in close association with this loam-band, and there probably had been more which could not be recognized. Thus it is probable that some sort of three-sided rectangular arrangement of hurdles was set up over the hole, although, for reasons to be mentioned later, it was far worse preserved than the similar, but more extensive, hurdling in the western part of the barrow.

In excavating this area a careful approach was made from the lower side, and sections were measured and drawn at frequent intervals so that it was later possible to reconstruct the whole arrangement on paper.

To make the sequence of events at the time of the building of the barrow clear we will reverse the order, and consider the hole itself first, which was, in fact, found and excavated last.

It was oval in form—11 ft. long, 7 ft. wide, and nearly 3 ft. deep (pl. xvii, fig. 1). It had been sunk in the original ground surface and three-parts filled again with clean chalk rubble—presumably the material which had originally been removed in making it. Nothing whatever was found in the hole except this rubble, and for this reason it has been described as 'Empty'. Above this rubble, and filling the hole to a point well above the level of the original ground surface, was a dense deposit of loam. This proved to be very rich in mollusca, containing

¹ *Antiq. Journ.*, i, 1921, 193, fig. 3.



Fig. 1. View of the revetment trench area on the lower side of the central spine before complete excavation.
Note the traces of the revetment emerging from the ground



Fig. 2. View of the revetment trench area on the upper side of the central spine before complete excavation.
Note the signs of the turf backing to the revetment in the section and also the pile of upcast from the revetment trench on the old ground surface



Fig. 1. The revetment trench on the upper side of the central spine at a later stage of the excavation showing 'casts' of the decayed uprights in position



Fig. 2. View of the east end of the barrow showing the revetment trench completely excavated

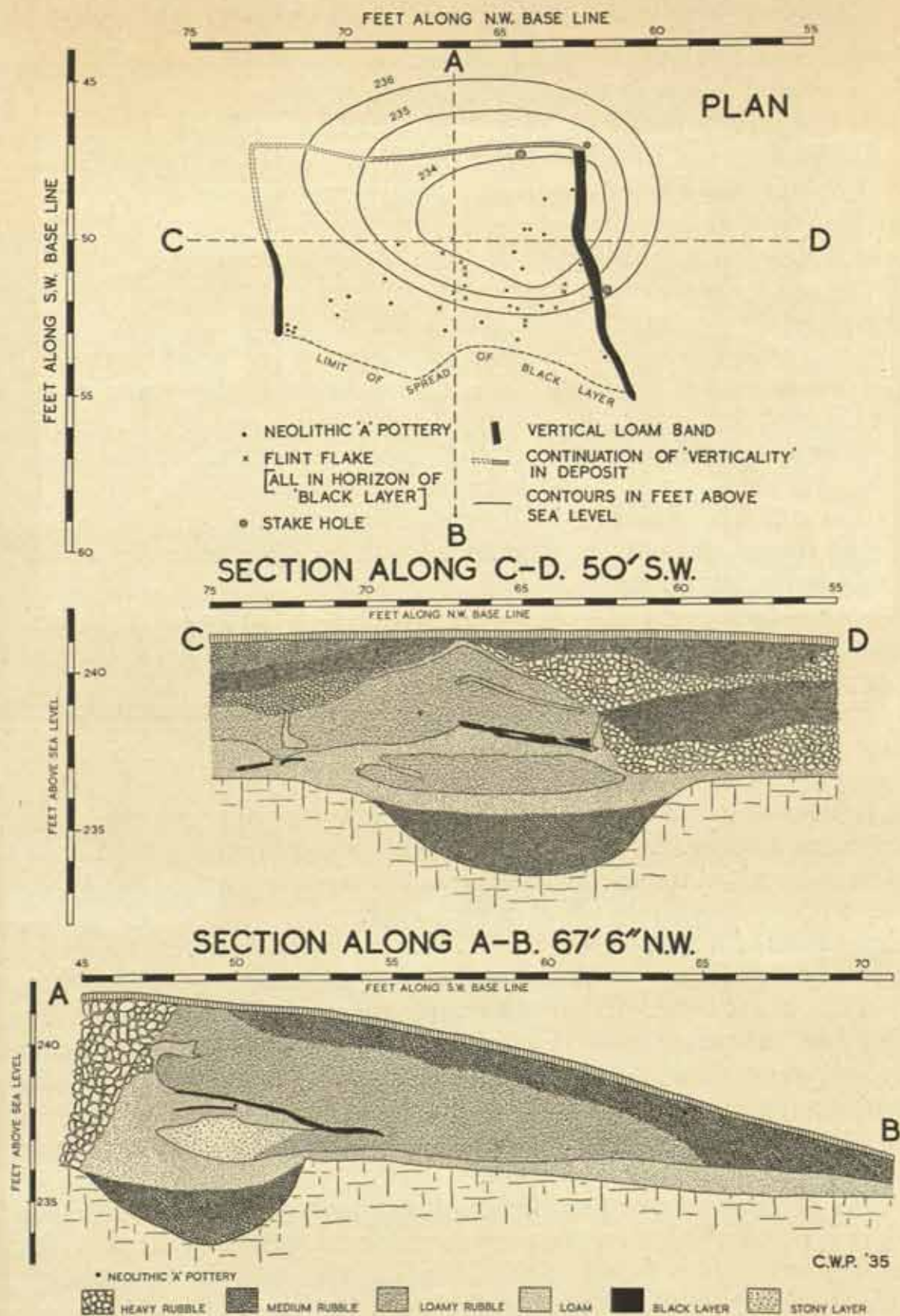


Fig. 6. Plan and section of deposits over the 'Empty Hole'

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twenty-three species indicating very damp conditions, and was probably brought to this spot from lower ground (see Appendix III).

It is clear from the arrangement of traces of hurdling that it can only have been set up after the hole had been wholly or partially refilled, because two out of the three stake-holes recognized had been sunk into the filling. It may be assumed that no long time elapsed between the digging and refilling of the hole, since they were probably part of the same sequence of ritual. When the hurdles were in place the area enclosed by them was filled up with loam and loamy rubble, the arrangement of which will be seen in the sections on fig. 6. This deposit stood more or less vertically against the back of the structure, and ran outwards and downwards in a talus towards the lower edge of the barrow. Scattered among this loamy material was a certain amount of chalk rubble with a well-defined band of much blacker material. A small amount of this black matter was also found beneath and outside the hurdle enclosure to the north-west. The filling of the hurdle enclosure, when seen in section along the middle line of the barrow, formed a low conical tip with masses of heavy chalk rubble resting on it.

After the hurdling and its contents had been put in position the main mass of the barrow was thrown up round it, and here it consisted for the most part of large pieces of mined chalk from the lower parts of the ditch. The material piled against the back of the hurdling was particularly heavy, and a good deal of compression took place which distorted the outline of the hurdle enclosure, prevented the recovery of the trace of most of the wooden stakes supporting it, and left nothing but the vestiges of its plan a little above the old ground surface as seen on fig. 6. In any case, it does not appear that the hurdles were so tall or so stout as those found later in the western part of the barrow, and they were presumably only ritual in character.

Fragments of Neolithic A pottery and many flint flakes were found scattered in the loamy deposit enclosed by the hurdles, and these were largely concentrated in the black band. From the arrangement of this black band it did not seem likely that it was the product of fires and occupation on this actual spot, and the view that it was occupation-soil brought from some other place was afterwards supported by the results of its careful examination, and of other similar black bands occurring in deposits by the burials. A few burnt flints were also found in the loamy deposit.

In the present state of knowledge of funerary monuments of the Neolithic period, it is not possible to assign a reason for this hole and its superstructure. The nearest analogy is found in the Hanging Grimston barrow where a hole of similar type was found on the middle line of the barrow behind the presumed revetment trench. A Neolithic A bowl of form G was found here. A study of

the records of long barrow excavation shows that some type of comparable hole or holes has been found many times under long barrows in widely separated parts of England, and this subject will be more fully discussed below.

THE FINDING OF 'B' BEAKER IN THE BARROW

During the excavation of that part of the barrow between the revetment trench and the hole a small but very important find was made in the substance of the barrow. At the point marked X on pl. xi a lenticular mass of loam occurred in the barrow which had every appearance of deriving from a pile of turves, since reddish streaks could be seen in it which were probably the remains of grass. There was no reason to suppose that this was the result of later interference, and the heavy chalk capping common to most parts of the barrow passed over it without any signs of a break. Underneath this loam at two points separated vertically by a distance of 1 ft., and bedded in small chalk rubble, were found two pieces of a thin reddish ware decorated with horizontal cord-impressions (fig. 22, nos. 11 and 12.) These were clearly pieces from the same 'B' beaker, and their weathered condition was marked, and showed that they had knocked about on the surface as scraps for some time before they reached the place where they were found. Their position in the barrow made it as nearly certain as anything can be in excavation work that they were not intrusive, but were scraped up with other loose material and piled on to the rising barrow (pl. xvii, fig. 2).

The implications of this fact are important. We can only conclude that when the barrow was built 'B' beaker was already in use somewhere near-by, and that scraps were littered on the surface of the ground. Thus on the site 'B' beaker was pre-primary, Neolithic A ware primary, and 'A' beaker secondary, since it was found in the ditches some way from the bottom.

THE BURIALS AND BURIAL AREA

All expectations which had been formed on the position of burials at Giants' Hills from the arrangements in the Yorkshire long barrows were quickly falsified as the work proceeded. The investigation of the east end had already shown conclusively that no cremation of the type found by Greenwell and Mortimer was here.

The next step taken was to drive a trench 5 ft. wide along the middle line from the west side of the hole, watching for any sign of the burials. By the time that the trench had been carried westward 30 ft., the burial area was found. Reference to plate xi will show its general relationship to the rest of the barrow, and fig. 7 gives its features in greater detail (see also pl. xix, fig. 1).

No excavation had been made in the original ground surface for the reception of the dead, but a carefully laid platform of chalk slabs was put directly on to the ground. In plan it was a long rectangle $9\frac{1}{2}$ ft. by $3\frac{1}{2}$ ft. with its longer axis across the barrow. Along the eastern side there stood a few small slabs of chalk set on edge as a kerb, and not continuing more than half-way along the pavement, and along the western side there was a more complete arrangement consisting of a row of medium-sized boulder-stones and flint nodules which was continued straight towards the edge of the barrow on the upper side for a total distance of 22 ft. The number of large pebbles and nodules incorporated in this vestigial wall was greater when the line cleared the burial pavement, but the largest stone in it—a boulder which it required the full strength of a man to move—was close by the side of the pavement at its north-east corner.

A careful examination of the burial area showed that after the pavement had been laid down and the line of stones put in position, a large bank of loam was deposited along the western side of the pavement and round its south-west corner. The height of this loam bank was 3 ft. at the maximum and its width 10 ft. Its edge nearest the burials ran down over the line of stones completely concealing them from view, and also involving the side of the burial pavement to the detriment of the bones on that side. There was no similar arrangement on the east side of the pavement, and a section of the barrow along its middle line shows that the materials of which it was made stopped short vertically as soon as the edge of the pavement was reached (fig. 7).

Between the burial area and the hole, a large tip of loam was seen on the old ground surface, but this did not appear to have any association with either. The vertical character of the barrow materials on the east side of the burial pavement seems to demand the former existence of some kind of wooden barrier to keep it in position before the burial area was filled in. No trace of this was found.

When the pavement had been laid down and the deposits described above had been placed round it, the mass of the barrow was thrown up, with the result that the pavement appeared at the end of a trench cutting into the barrow from the upper side, the east side of the trench being presumably kept vertical by some sort of woodwork, and the west side sloping outwards more gently over the mound of loam. It was probably at this stage that the bodies were brought in and placed on the pavement, and then the trench was filled to the top with a mass of large chalk blocks which rested directly on the bodies. This chalk, got from the lower parts of the ditch, was loosely packed, leaving many large spaces. Some slight attempt seems to have been made to close off the trench at its entrance. At the outer end of the vestigial wall a large mass of



Fig. 1. Sectional view of the post-hole of one of the side posts of the barrow

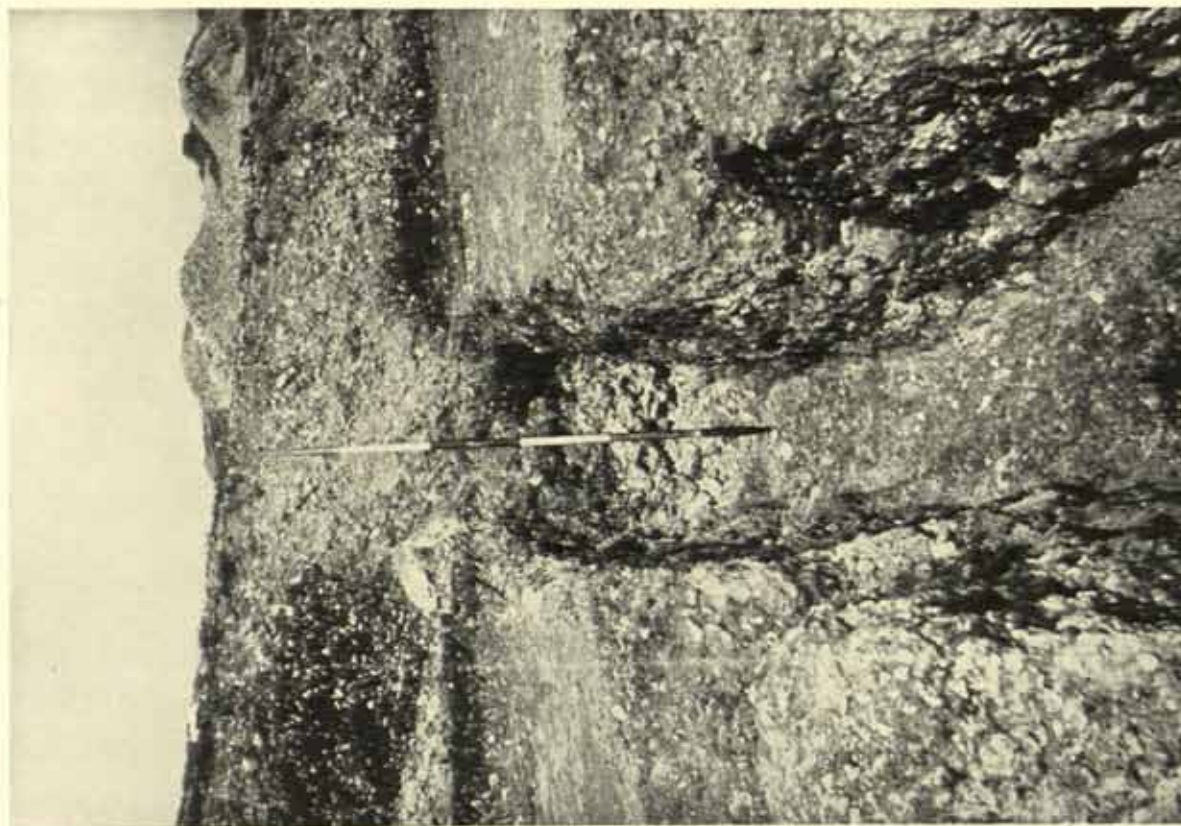


Fig. 2. View of the revetment trench at its point of passage through the middle line of the barrow seen from the lower side of the barrow



Fig. 1. View of one end of the revetment trench showing the 'false digging', the large post-hole at the beginning of the range of side posts along the upper side of the barrow, and the old ground surface under the barrow



Fig. 2. View of the revetment trench on the upper side of the barrow showing the 'false digging', the large post-hole, and the ditch going round the east end of the barrow

chalk was found in the entrance to the trench, which was much more compactly placed than the average filling. This may have been an accident, but those

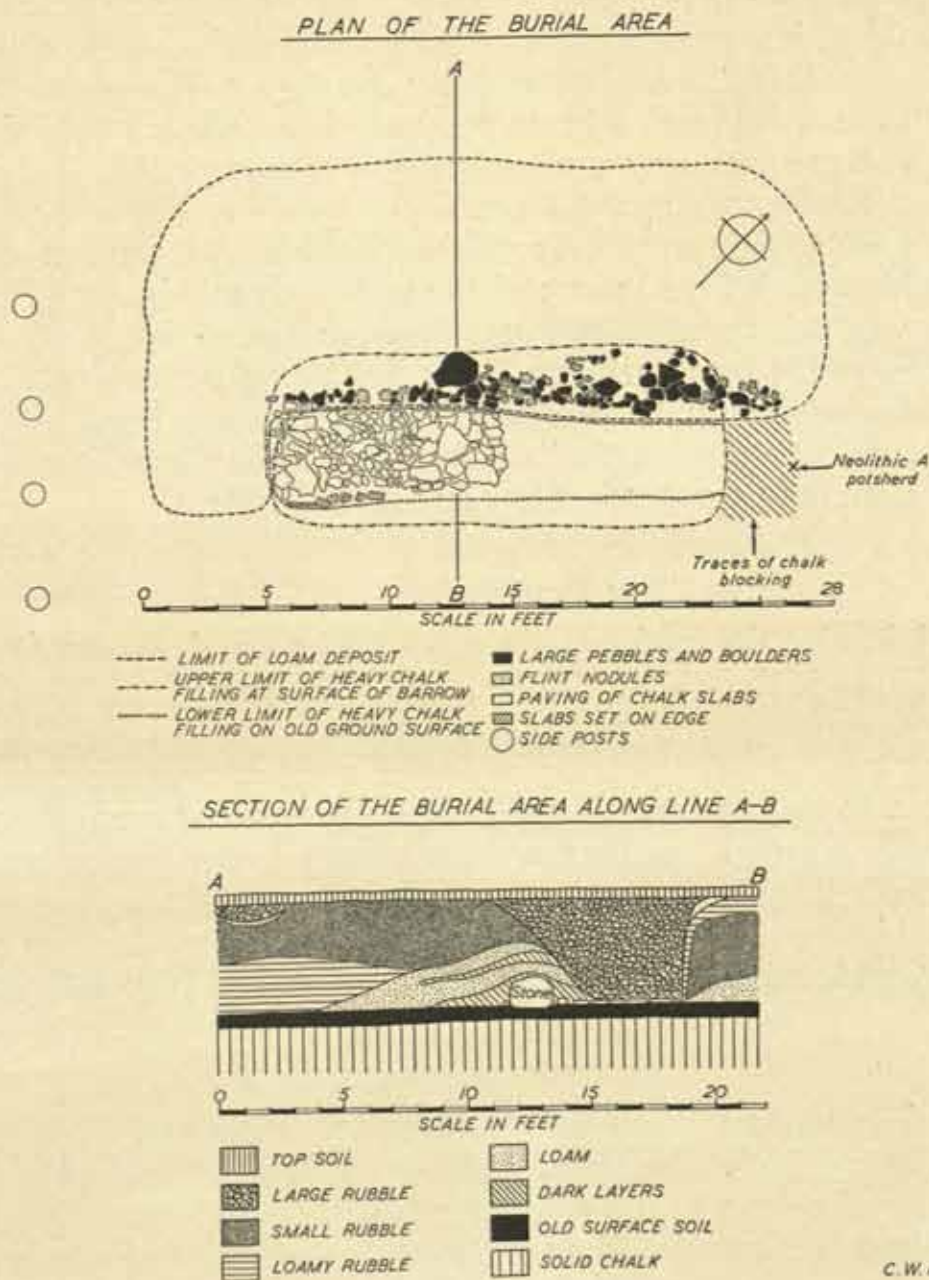


Fig. 7. Plan and section of the burial area

who observed it were of opinion that it might be interpreted as chalk blocks placed rather than thrown in casually. An interesting point was that against the outer side of this mass were found some large pieces of a Neolithic A1 bowl of form G (fig. 20). Not more than a third of the vessel was found, so that it cannot have been placed there intact.

An interesting question affecting the burial area is whether the line of side posts along the upper side of the barrow gave any indication by its arrangement of the point at which the trench containing the burials had its entrance. By an unfortunate accident it was impossible to give any positive answer to this. In the season of 1933 a trench was driven along the upper side of the barrow in connexion with the opening of a large section of the ditch. This trench was found in 1934 to have cut away a number of post-holes which had not been noticed in the previous season, and those destroyed were the dozen westward from the site of the trench mouth. It will be noted from fig. 7 that a post-hole was positively identified directly east of the trench mouth in a position which preserves the normal average interval between these side posts observed everywhere else, and it does not seem likely that any alteration in the normal arrangement was made to mark the point where the trench began.

This general description of the burial area will now be followed by some more detailed remarks on several of the structural features.

THE PAVEMENT

This was laid directly on the old ground surface, and measured 9 ft. 6 in. by 3 ft. 6 in. No special care was taken to choose slabs of one shape or size, but the general result was to produce a kind of 'crazy paving' which left few gaps of any size. Four intact bodies were placed in crouching attitudes on this narrow area as well as a number of bones representing four other persons. They were badly crowded together, and overlapped each other, but did not trespass outside the limits of the pavement. It is surprising, in view of the ease with which the latter could have been increased in size, that this was not done. This crowding made sorting out and studying the bodies very difficult (fig. 7).

THE LINE OF STONES

The materials used for this were local boulder-stones and the flint nodules found in digging the ditch. The large boulder requires a little more description. It was of a dull red colour, with a weathered and rotted surface. Its colour and size evidently interested the builders of the barrow, though it is impossible to suggest what virtues it had in their eyes. Some care had been taken to make it stand firmly by wedging its base with some smaller stones, but there was no sign that it had been cut or worked in any way. Mr. J. K. S. St. Joseph kindly examined a specimen taken from it. He reports:

The rock belongs to the Orthophyre type, and is rather rich in albite. It can be matched approximately by specimens in the Cambridge Museum of Petrology from the Melrose district, and such was probably its place of origin.

Little care was taken to do more than range the stones in a straight line, and it is difficult to suggest any purpose for them. The arrangement hints at the division of the barrow into two parts. East of the stones were the burials and the hole, and west of it the curious arrangement of hurdling which will be described below. Other examples of this suggestion of a division across a long barrow are known. In the case of Hetty Pegler's Tump at Uley, Gloucestershire (fig. 5), the plan made by Thurnam shows a stone division cutting off the tail end of the barrow from the rest, and it is particularly significant that the small part thus divided is itself bisected down the middle line by another piece of walling from which there is one offset wall running at right angles to meet the southern edge of the barrow. On a small scale this reproduces in stone the hurdle-work in the western part of the Giants' Hills barrow.

In Wor Barrow General Pitt Rivers also found some nodules of flint arranged in a line by the side of the burials, and 'laid out like the foundation of a wall'.¹ The arrangement was much smaller than at Giants' Hills, and was in line with the long axis of the barrow, so that the division idea does not seem applicable in this case.

THE BANK OF LOAM

The general dimensions of this feature have already been given above. One of the most interesting things observed here was the occurrence of more than one black band of the same type as that seen on a smaller scale in the materials over the hole. This black material did not extend northwards far beyond the limit of the burial pavement, but obviously had been deposited in the neighbourhood of the bodies and not elsewhere. Much broken Neolithic A pottery was found in these black bands, and to a lesser extent throughout the loam bank. Samples of the black material were taken and submitted to Mr. A. S. Kennard, A.L.S., F.G.S., and also to Mr. J. Cecil Maby, B.Sc., whose full reports appear as appendices (see fig. 7).

In conversation Mr. Kennard has expressed the opinion that the black layer in both places represents occupation-soil brought from some other place, probably from hut floors. He pointed out that it contains much pottery crushed small, spicules of bone, tiny chips of flint, and a high proportion of carbon. Further, there are no mollusca, a situation compatible with the conditions on the trodden floor of a hut and its immediate vicinity. In the case of the black layer over the hole some fragments of carbonized hazel-nut shell were recovered, and also a few carbonized seeds. Mr. Maby found the condition of these seeds too bad for positive identification, but he has suggested that they may possibly be grains of wheat.

¹ Pitt-Rivers, *Excavations in Cranborne Chase*, iv, 66, and pls. CCXLIX and CCLVI.

All these observations go to support the view that this black material represents definite occupation, while the position of the material in the deposits and the obvious way in which it has been tipped in preclude its creation on the spot at the time of the building of the barrow. We are thus faced with the

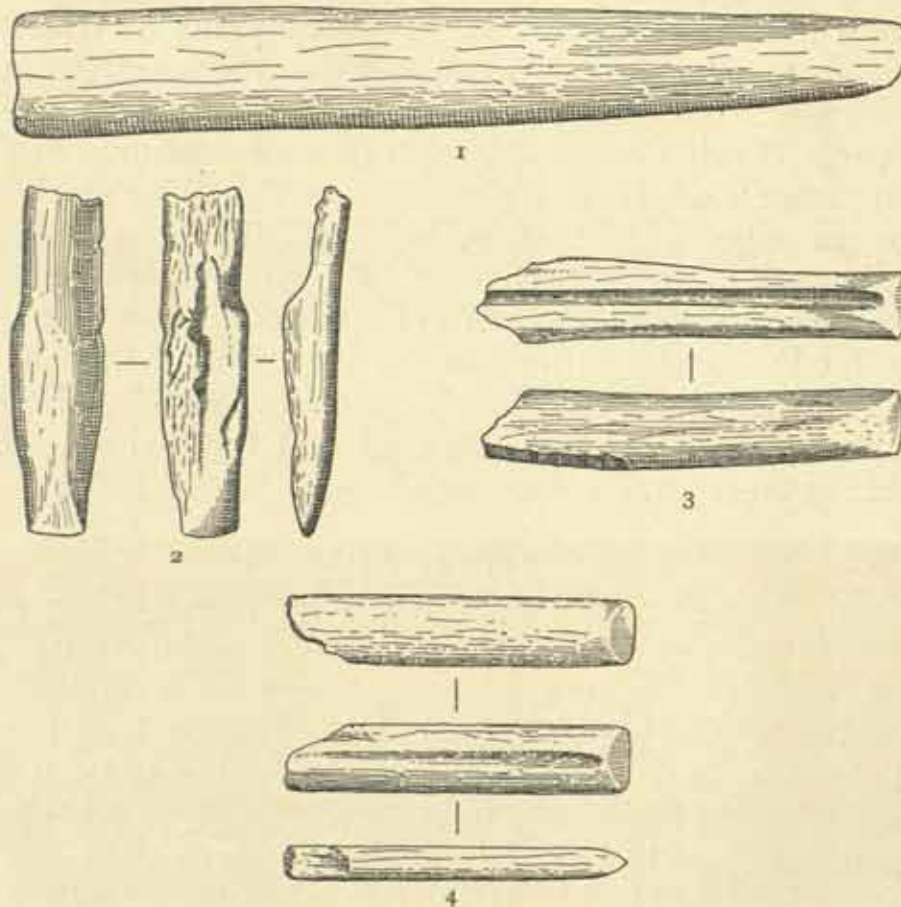


Fig. 8. Bone implements ($\frac{1}{2}$)

1. Typical of the Danish Passage-graves. 2. From settlement site of Passage-grave date, Alsen, Schleswig-Holstein. 3. From Temple Bottom long barrow, near Marlborough, Wilts. 4. From Giants' Hills

apparent fact that the builders of the barrow brought soil from a dwelling-place—possibly that of the dead buried in the barrow—and made ritual use of it. It is difficult to see how the much comminuted pottery, flint, bone, and charcoal could have been produced by any other means than by occupation lasting a number of years.

One interesting object was found in the loam bank—the small bone chisel illustrated in fig. 8. It is made from a piece taken out of the long bone of a large animal, and has been carefully finished by rubbing to give a straight edge of rather blunt form. The implement has been broken in the shaft, and the missing part was not found. A precisely similar bone object was found in



Fig. 1. View of the 'Empty Hole' after excavation



Fig. 2. View showing the site of the discovery of the 'B' beaker fragments in the barrow marked by crosses



Fig. 1. View of the deposit over the 'Empty Hole' seen in section in the central spine of the barrow

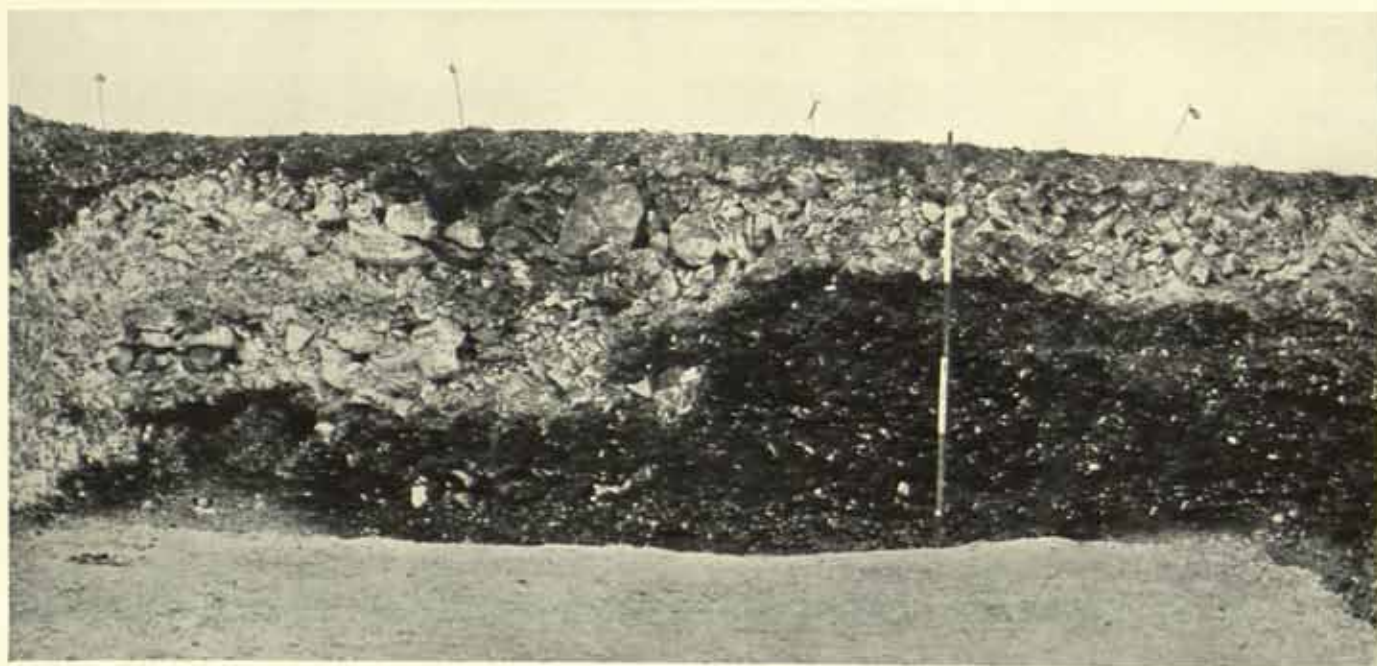


Fig. 2. Back view of the above

the Temple Bottom chambered long barrow, Wiltshire, in 1866.¹ Another bone object described by Thurnam as 'a scoop or gouge-shaped chisel made from the shank bone of a horse' was found among the primary burials in the Bown Hill long barrow, Gloucestershire,² and Greenwell also in his excavation of a long barrow (ccxxxii) in the parish of Upper Swell found in the rubble filling of a burial trench which sounds similar to that at Giants' Hills 'some bone implements such as we may suppose to have been used for flaying and cleaning the hides of animals'.³

I am indebted to Dr. Grahame Clark for drawing my attention to bone chisel-like objects of this kind which occur in the Danish Passage-graves, and are also recognized in North Germany as being a regular feature of that culture.⁴

Fig. 8, showing examples of these German and Danish types, indicates very clearly their resemblance to British specimens. It is possible that the frequency with which these objects are found to have been broken may have some significance.

THE CROSS POSTS

At the far west end of the barrow, just outside the apparent end of the barrow proper, but some 20 ft. from the inner edge of the ditch, an unexpected feature was found in the shape of eight post holes set up in a line at slightly irregular intervals across the middle line of the barrow. Their occurrence was very definite, and in one case the hole was still quite empty but sealed at the top by the loam which had fallen in round the post as it rotted off at ground level. After this find it was expected that a careful excavation of all the ground at the west end of the barrow would show that these eight posts were part of a rectangular enclosure formed of the wooden revetment of the east end, the two ranges of posts along the upper and lower sides, and one across the end connecting the side ranges. This was not the case. The eight cross posts were found to have no connexion with the side posts, nor was their arrangement particularly symmetrical with regard to them. The whole scheme will be seen on pl. xi. At the present day it is difficult to be certain where the barrow ended because of damage by the plough, but a careful consideration of all the evidence suggests that the cross posts probably stood at the extreme end of the barrow mound without being actually set in it (pl. xx, fig. 1).

No identifiable trace of wood was found in the holes, though they were full of a dusty deposit which obviously came from its decay. The posts cannot have

¹ *Proc. Soc. Antiq.*, 2nd ser., iii, 215.

² Crawford, *The Long Barrows of the Cotswolds*, 85.

³ Greenwell, *British Barrows*, 527.

⁴ G. Schwantes, *Geschichte Schleswig-Holsteins*, Bd. I, Lief. 3, Abb. 278. 1935.

exceeded 9 in. in diameter, and so were not larger than those along the side of the barrow, but as far as could be judged they were set farther in the ground (2 ft.), and so may have been taller. Nothing was found on or in the old ground surface round these posts, although the whole area was examined.

It can hardly be a coincidence that the number of these cross posts and of the burials in the barrow was the same, and it may be suggested that they in some way symbolized the dead people. If this was the case, they may have been decorated, but no hint of this survived, and no vestiges of offerings could be seen.

Reference to pl. xi will show that the only causeway known to cross the ditch gives access to the area at the end of the barrow which would be dominated by these eight posts. If any attention was paid to the barrow after its completion, these posts would have been more likely to receive it than any other part if our surmise that they represent the dead is correct. In this event the causeway would be useful, and may have been deliberately left for this purpose.

THE HURDLE WORK

When the site of the burials had been found, and the extent of the arrangements round them ascertained, a trench was continued along the middle line of the barrow, while the burial area was examined in greater detail.

The trench was carried down to the old ground surface, and passed through a number of loamy and rubbly deposits of a mixed nature, very few artifacts being found except at the bottom, where there was a fairly constant occurrence of broken scraps of Neolithic A pottery and flint flakes scattered on the old surface by the barrow builders. The trench was 5 ft. in width, and an examination of its sides soon showed a series of what were called for the sake of convenience 'verticalities' at irregular intervals. These vague vertical breaks in the substance of the barrow could only be interpreted as the traces of decayed barriers of some kind, presumably of wood. A heavy rain fell on the night after these were noted, and brought away a thickness of between 6 in. and 1 ft. of material from the side of the trench towards the upper side of the barrow. This fall had taken place along a definite division in the material of the barrow along its middle line, and it was at once apparent, from the impressions of upright posts and pieces of wood fixed between them, that some sort of a fence had been set up here before the barrow had been built, and then had been buried in it. A general view of the appearance of typical traces of this fence will be seen in pl. xxi, fig. 1, and a plan and elevation of the whole arrangement are shown in fig. 9. The reason for the 'verticalities' became clear at once, for they were traces of similar fences setting off at about right angles from the central fence in the direction of the lower side of the barrow.

Thus by a piece of good fortune this remarkable feature was revealed as a whole and relatively undamaged. It was expected that similar pieces of fencing would set off towards the upper side of the barrow, but no sign of any

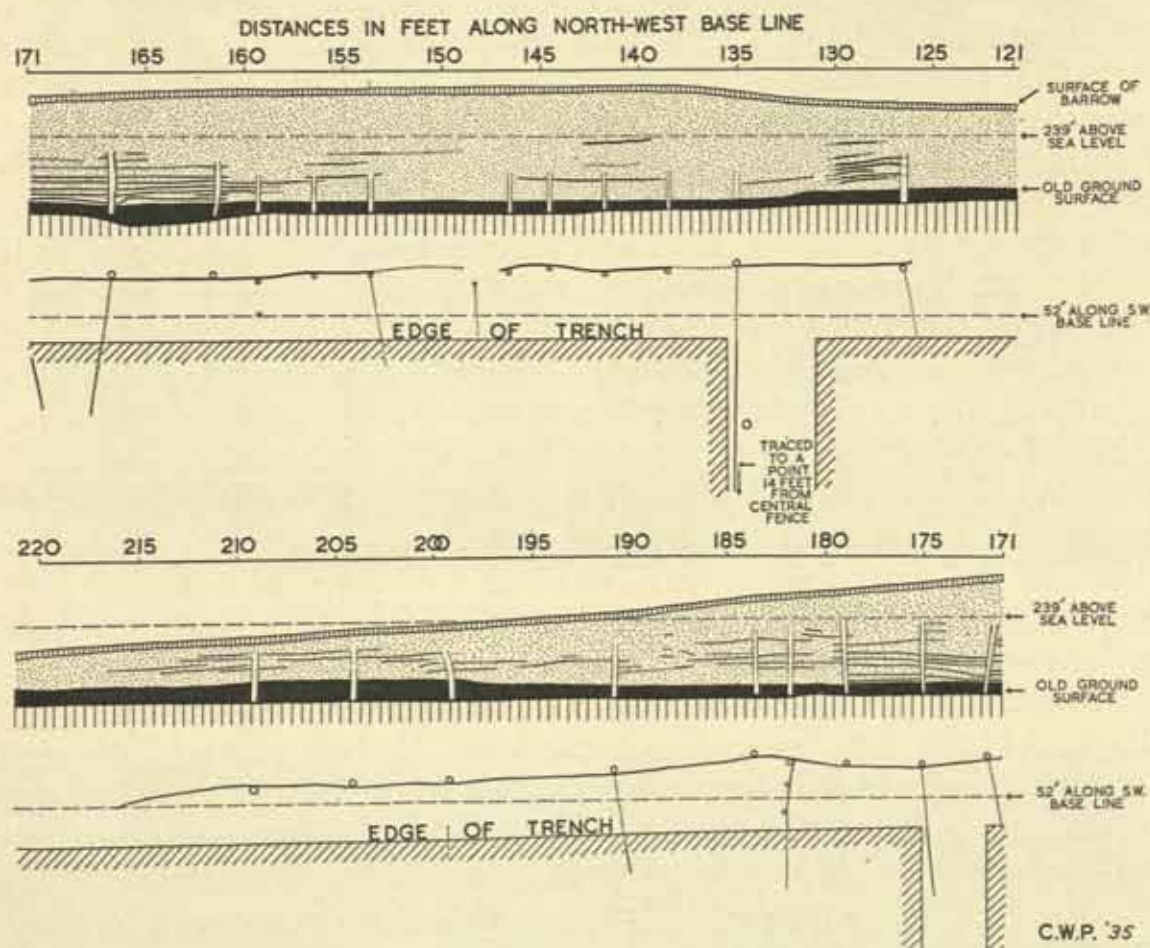


Fig. 9. Plan and section of hurdle work

such arrangement could be found, although a sufficient amount of the upper side of the barrow was opened.

A glance at fig. 9 will show that the uprights of the fence were not traceable to a greater height than 3 ft. 6 in. above the old ground surface, although they may have been higher originally. They were driven lightly into the loam of the old surface, and no attempt was made to penetrate into the underlying chalk. At a number of points between the two extremes of the recognized extent of the fence it was difficult to recover any of its details, though its continuous character is not to be doubted within these limits. In the direction of the burials there was a definite termination, but at the west end the arrangement was not so clear, mainly because ploughing had lowered the barrow and cut off the top of the fence, but there was no sign that it emerged from the

barrow proper or became involved with the cross posts. The many traces of the body of the fence showed that it was made by stretching long rods between the uprights, and that these passed sometimes in front and sometimes behind them. The rods were mostly between a half and three-quarters of an inch in thickness, and their decay had left perfectly preserved longitudinal holes in the material of the barrow which made it possible to judge with some certainty where a given rod began and ended, and whether it went behind or in front of an upright. No doubt some kind of binding was used to secure the rods to the uprights, for they all appeared to go in front or behind an upright in a body instead of going alternately behind and in front from the bottom to the top as in basket-work. There was nothing to show how the rods were attached to the upright at the eastern end of the fence. It will be seen from an examination of the elevation that the rods were not set very closely together, but that on an average there was a space of $1\frac{1}{2}$ in. between them.

The offset fences running towards the lower side of the barrow did not differ in any essentials from the main fence except that they were less substantial and were held up by a smaller type of stake. Only one upright comparable with those of the central fence was found, at a distance of nearly 10 ft. to the south of it, and the rods of the associated offset fence were found to run past it at a distance of 6 in. to the west. This does not mean that they were not once attached to it, but earth pressure may have made them break away.

This post may have formed an anchorage. Its hole was well preserved in the barrow, and it was possible to take a cast by pouring in plaster of Paris. Pl. xx, fig. 2 gives this cast in position with willow rods placed to show where the original longitudinals of the fence went. The ends of the rods will be seen disappearing into holes passing behind the cast at a distance. This particular offset fence was traced to a point 14 ft. from the central fence. In every case recognized the offset fences had their origin from an upright of the central fence. Several times the arrangement of their longitudinals vertically one above the other was to be seen in section on the opposite side of the trench.

This is well illustrated in pl. xxi, fig. 2 where four, and possibly six, of the holes left by their decay may be seen. In this particular instance it was possible to run a 72-inch steel tape into each of the holes to its full length without finding the end. The small chalk rubble which was usually the filling round these fences seems to have been piled up wet and set, taking a rough mould of each piece of wood. Pl. xxi, fig. 2 also shows another feature which was observed in excavating these fences. The filling of the various bays formed by the central and offset fences was not always quite the same in composition. One would contain a clean small chalk rubble set almost to the consistency of concrete, while its neighbour would have a filling containing a fair proportion of loamy



Photo: O. G. S. Crawford

Fig. 1. General view of the burial area showing the platform of chalk slabs on which the burials were placed and also the line of stones

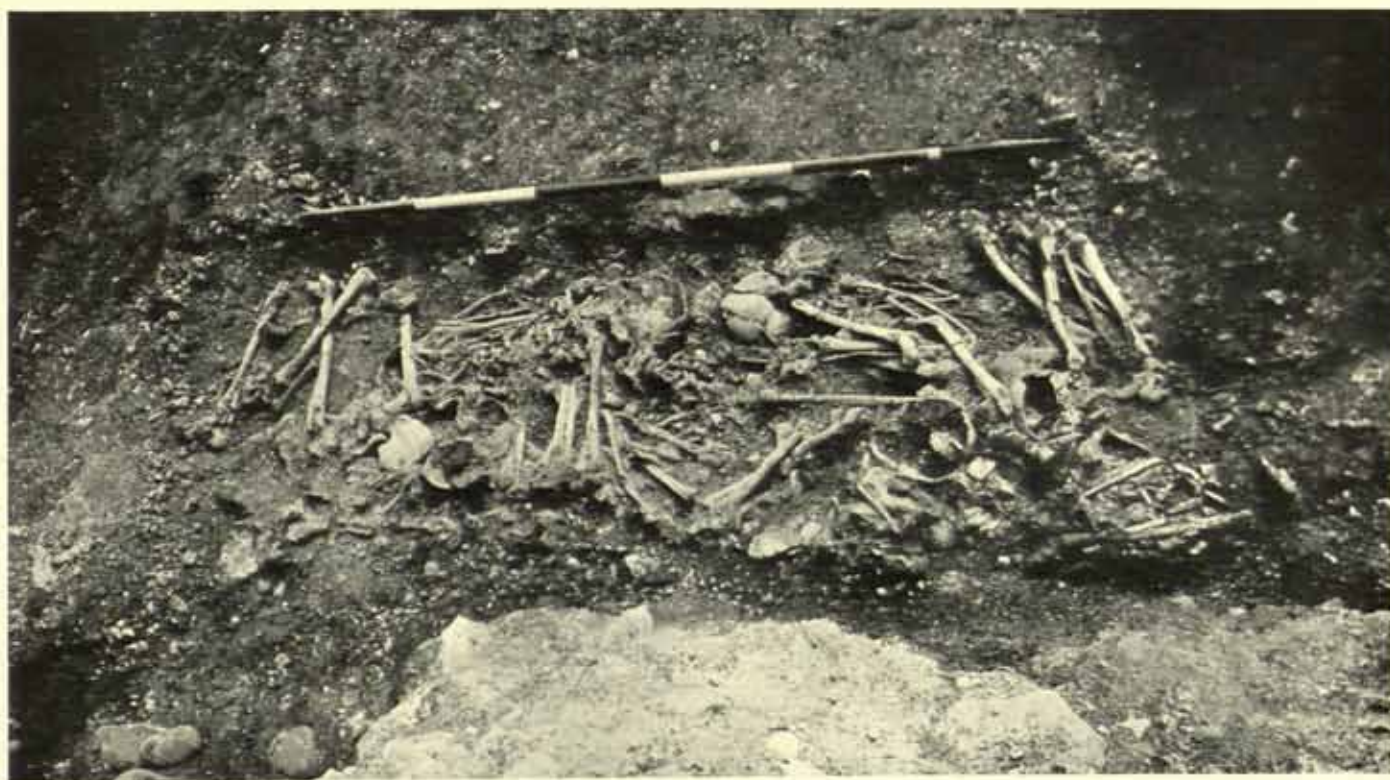


Fig. 2. General view of the burials



Fig. 1. View of the position of the eight cross posts at the small end of the barrow shown by eight ranging poles in the holes. The eighth pole is just visible on the extreme left of the picture

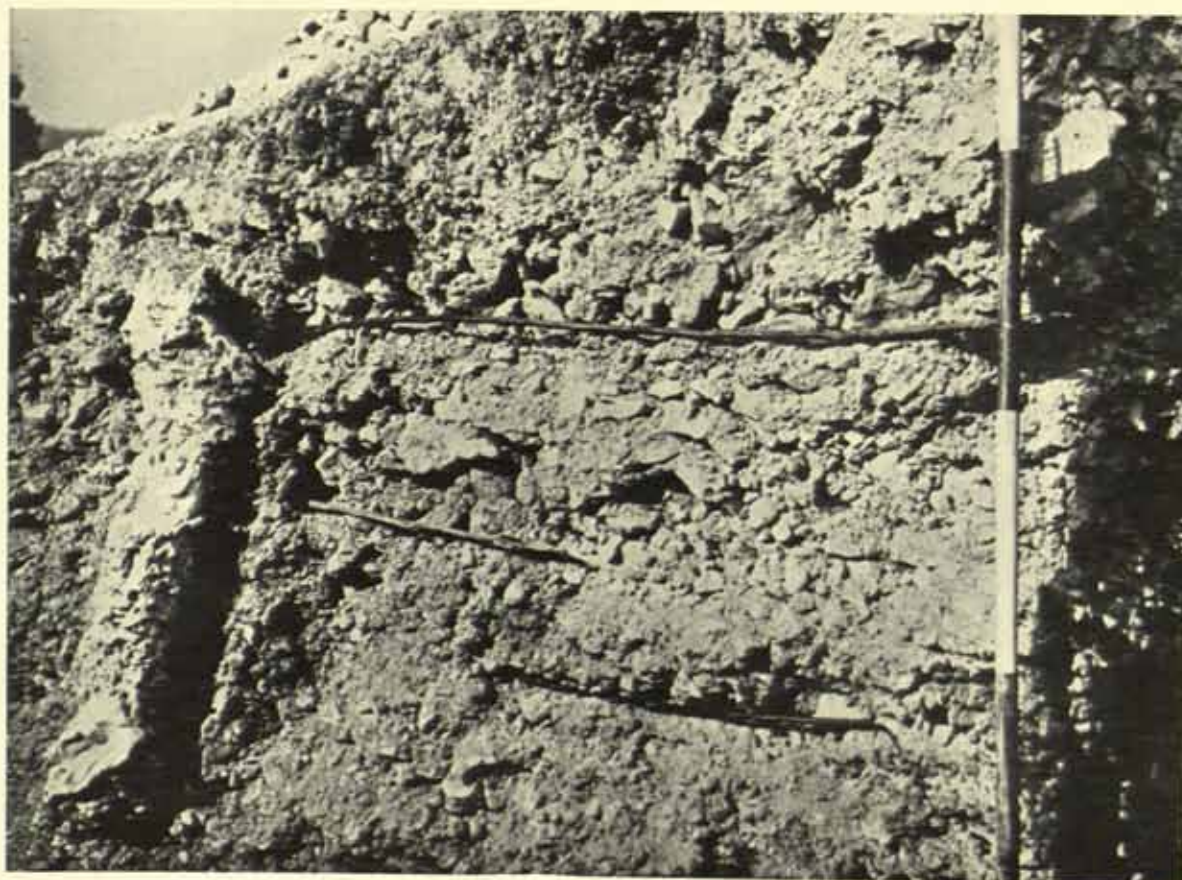


Fig. 2. View of one of the hurdle offsets after excavation. Willow rods show the position of some of the original rods. The cylindrical mass on the left is the plaster cast of a supporting post *in situ*

Photo: O. G. S. Crawford

material. No particular significance may be attached to this fact, but it is well illustrated here. The material behind the ranging pole is much darker than that to the left of the fence holes.

Although it is clear that the top of the central fence never reached or projected from the top of the barrow, it is not so certain how the offset fences were related to its lower side. The offset which was traced for a distance of 14 ft.

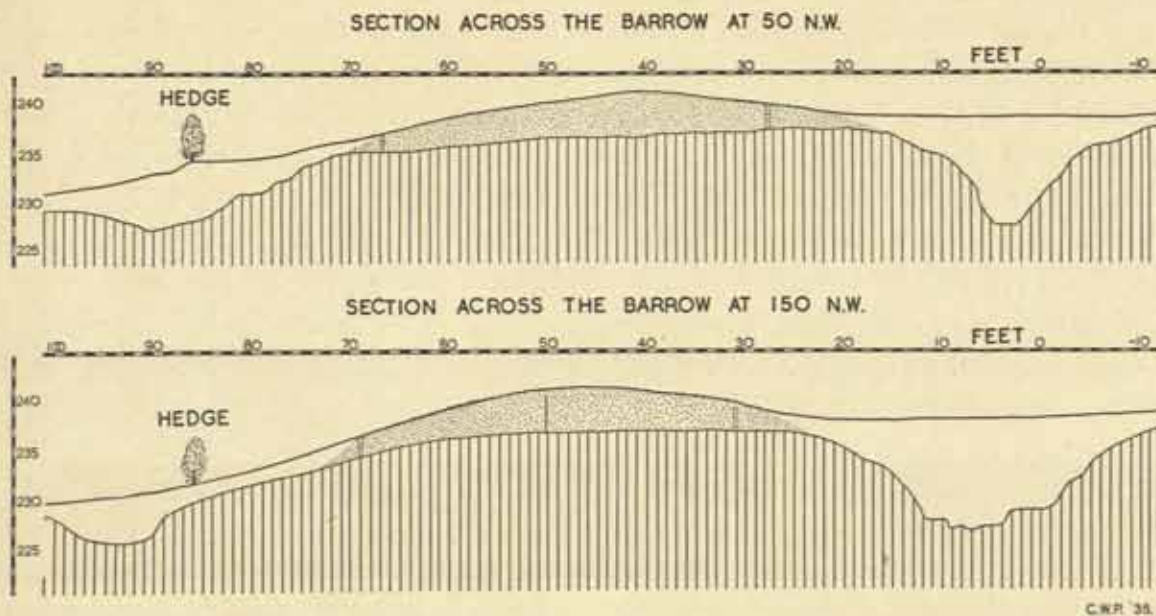


Fig. 10. Typical sections across the barrow

from the central fence brought it within 6 ft. of the line of the side posts. Unless the barrow had a very steep side, or the offset fence declined suddenly in height as it approached the edge, it might be expected to have emerged from the surface of the barrow at the edge. Since the barrow has lost so much height by ploughing and by the processes of time, this is a point which cannot be pursued profitably, but it seems unlikely that in its finished form the barrow showed any signs of these inner fences.

In no case was it possible to recover any identifiable fragment of the wood from which the fences were made, though a certain amount of carbonaceous matter could be distinguished here and there.

Nothing that was found inside the area of the fences threw any light on their purpose. With the exception of the usual occasional fragments of Neolithic A pottery and flint flakes that were found on most parts of the old surface, there were no discoveries.

For a while it was thought possible that, since the barrow was built on the slope of a hill, it might have been necessary to give it a reinforcement on its lower side to prevent slipping, but this idea was soon given up because in the

first place the arrangement described was not likely to have been effective, and, secondly, the actual surface on which the barrow was placed was relatively flat, as may be seen by considering the old ground surface in its relation to the slope of the hill revealed in fig. 10.

A search through long barrow literature shows that this arrangement has been recognized before, though not carried out in wood.

Fig. 5 shows the features noted by Thurnam and Wits in the Hetty Pegler's Tump and Randwick long barrows respectively. Some reference has been made to the first already, in discussing the line of stones by the side of the burials, and it will be seen that the features of the small end of that barrow recall those at Giants' Hills, though in a minor way. At Randwick the resemblance is more striking. Wits suggested that the divisions in the build of this barrow may have had something to do with the allotting of quotas of work, but Giants' Hills shows that this is an unlikely explanation.

Greenwell also noticed something of the kind during his work in the Cotswolds. In the Upper Swell long barrow ccxxx1 he describes his finds as follows:

The barrow itself was carefully constructed, and was full of what may be called walls, which, occurring as they did in one case at least in the form of a passage, at first induced us to hope that we had found the entrance into a chamber near the east end. Further examination, however, showed very plainly that the transverse walls were merely thrown up to facilitate the operations of the people constructing the barrow. . . . Along the middle line of the barrow, at all events for a certain part of its length if not for the whole, a row of large flag-stones had been set upright, and against them on either side other large stones were arranged sloping, in a roof-shaped fashion, towards the central ones, forming what may be called the backbone of the mound.¹

In the Nether Swell barrow ccxxix he also observed walls which he does not describe in any detail, but which he states bore a general resemblance to those mentioned above.²

THE DITCH

Upon excavation the barrow proved to have a ditch running almost entirely round it, the exception being a very slight causeway little more than 1 ft. wide at the northern side of the west end.

Along the upper side of the barrow the general dimensions of the ditch were fairly constant. Its depth was normally about 10 ft., increasing to nearly 12 ft. half-way along the barrow, where the ditch, which was comparatively narrow and steep-sided at the eastern and western ends, widened out to fully 12 ft. at the bottom. Round the east end the ditch was continuous but much

¹ Greenwell, *British Barrows*, pp. 521-2.

² *Ibid.*, p. 514.

slighter. Along the lower side of the barrow it increased again in width, but never attained any depth comparable to that on the upper side. Four feet seems to have been the greatest depth here. At the west end the presence of a hedge and tree prevented full cross-sectioning, but it was apparent that the width and depth here were relatively greater.

The task of clearing out the ditch round the whole barrow was more than the resources of the excavation could afford, but a considerable part of it was completely emptied. An idea of the amount cleared may be gained by a study of fig. 4 and pl. xi. The most comprehensive pieces of work were done on the upper ditch and round the eastern end of the barrow. The western end of the upper ditch was cleared for a length of 15 ft., a section 50 ft. long was also worked out in the middle of the upper side of the barrow, and the whole of the range round the east end was emptied.

On the lower side a number of sections was made, some of which proved to contain hearths, and so were increased to make a study of these. Round the west end the inner part of the ditch only was cleared except at the point abutting on the small causeway, where it was cleared across its whole width for a distance of 15 ft.

At no point was much found in the bottom of the ditch relating to the period of its digging. A few scraps of Neolithic A 1 pottery and some broken pieces of red deer and fallow deer antlers were all that occurred along with a fair number of knapped flint flakes, none of which showed any signs of secondary working.

The nature of the chalk on the barrow site made the digging of this large ditch a less arduous task than it would have been on the undisturbed rock chalks of southern England. The effect of the ice shattering varies in its depth, but it may safely be said to extend at least 6 ft. from the surface, and occasional pockets of rotten chalk referred to above must have helped the work. Further, along this part of the Fordington valley the chalk forms a comparatively thin capping over the Spilsby sandstone, and it is probably not more than 40 ft. thick under the barrow site. This may explain the large fissures noted in the chalk at the bottom of the ditch, and well illustrated in pl. xxii, fig. 1. It was thought that they were due to solution by water passing through to the underlying sandstone.

There was no direct evidence of the method followed in digging the ditch, but the very haphazard way in which all kinds of material were piled up in the barrow favoured the view that a hole was opened and carried down to a good depth, and that undercutting was carried on in two directions along the projected line of the ditch, the chalk and loam thus occurring indiscriminately, instead of the loam coming first as would be the case if the top soil were stripped

off first. In this much broken chalk, undercutting would be a quick and easy way of opening a deep trench. Molluscan evidence has shown that at the time

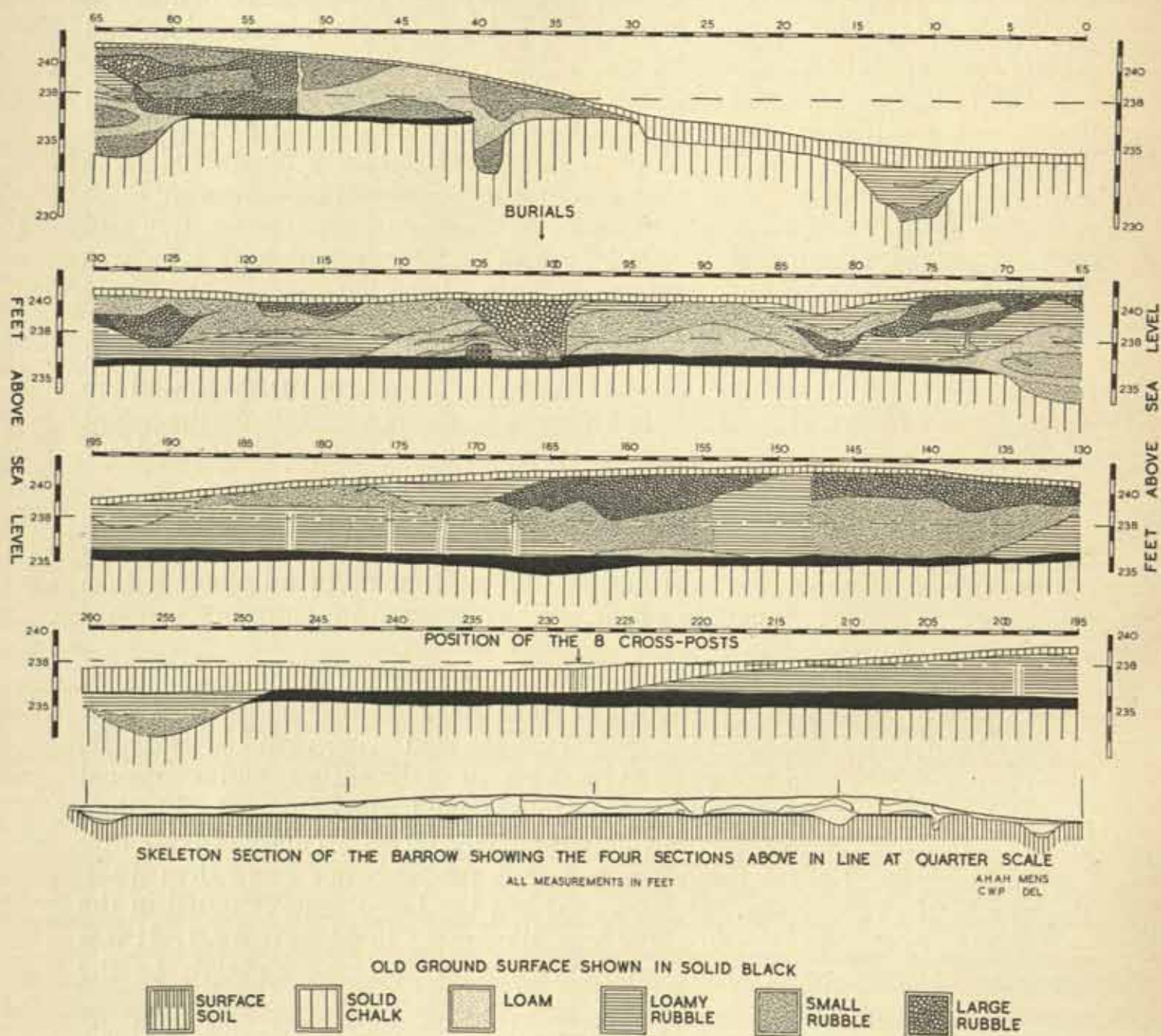


Fig. 11. Section along the middle of the barrow at 50 ft. SW.

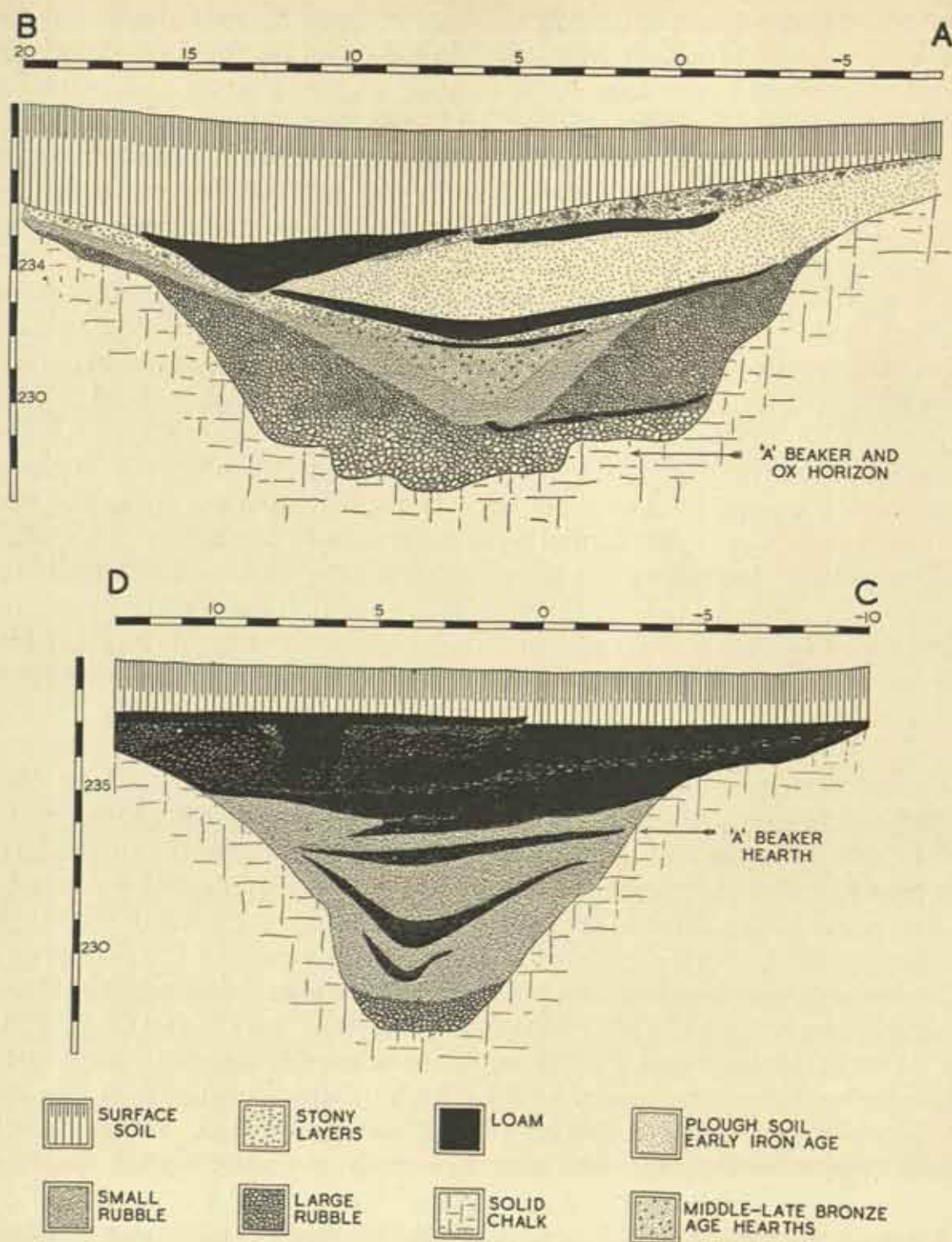
the barrow was built the site was covered with grass, and an examination of the carbonized remains occurring here and there in the old ground surface has shown that in all probability the work was done in the autumn, for seed heads occur. Broken hazel-nut shells were found in a number of places, and their

nucleation suggests that the barrow builders cracked and ate these nuts as they worked. The largest number was found in the loam on the old ground surface just east of the revetment trench. It may be argued that as hazel-nuts do not keep well they are only normally available between September and January. This slender piece of evidence points to autumn as the time of building.

We will begin our more detailed survey of the evidence afforded by the filling of the ditch by studying the section A-B across the upper ditch shown in pl. XI, and given in diagrammatic form in fig. 12.

Here the barrow is on the left-hand side, and it will be seen that the ditch was much wider than it was deep. At a point farther east along this ditch (section C-D, pl. XI, also fig. 12) it became much narrower. In section A-B an Early Bronze Age horizon represented by some scraps of A beaker and the skeleton of a *Bos longifrons* occurred at a height of 9 in. only above the floor of the middle of the ditch, while in the case of section C-D a hearth of the same age containing a good deal of material was not less than 5 ft. from the bottom. This divergence may be explained by a difference in the width of the ditch at these two points. In section A-B the primary silting had to run out a long way from both sides in order to bury the middle of the ditch floor, while in section C-D the first falls from the sides occurring shortly after the finishing of the barrow would have an immediate effect. Thus it is not surprising to find that the ditch at C-D was largely filled up at a period which may have been only a few years later than the completion of the barrow.

To return to section A-B, it will be seen that the primary silting contains a slight band of loam. At this point it formed quite a distinct stratum, but in general this appearance of loam among the clean chalk rubble of the primary silting was patchy. Its presence at this level may be explained by turf falling from the edges of the ditch to the bottom, as weathering undercut it by bringing down runs of the underlying chalk. No finds were made in the primary silting of this particular section, but at a point 9 in. above the middle of the floor and 13 ft. east of the section the skeleton of *Bos longifrons* was found on its left side. Dr. J. Wilfrid Jackson has kindly supplied a report on this important find, which will be found in Appendix II. Behind the backbone of the animal were found two pieces of A beaker (fig. 22, nos. 13 and 14). At this level also knapped flint flakes were found very generally over the middle part of the ditch, but secondary working was represented by one rough scraper and a spall struck from a highly polished flint axe. Only the rough preliminary work of flint implement-making seems to have been carried out here, and there were no clear signs of a hearth. Between the primary silting in section A-B and the almost horizontal band of loam stretching across the ditch at a distance of some 5 ft. from the bottom may be seen an infilling of loamy rubble and other stony



C.W.P. '35

Fig. 12. Sections of upper ditch: A-B at 150 ft. NW., C-D at 50 ft. NW.

material. This was found to contain slight evidences of occasional occupation. Knapped flint flakes occurred more sparsely along with a few amorphous scraps of coarse pottery and some charcoal. The total amount of evidence recovered at this level did not allow accurate dating, but it was clearly later than A beaker and must represent the Middle, and possibly part of the Later, Bronze Age. The molluscan evidence recovered from this material showed damp conditions

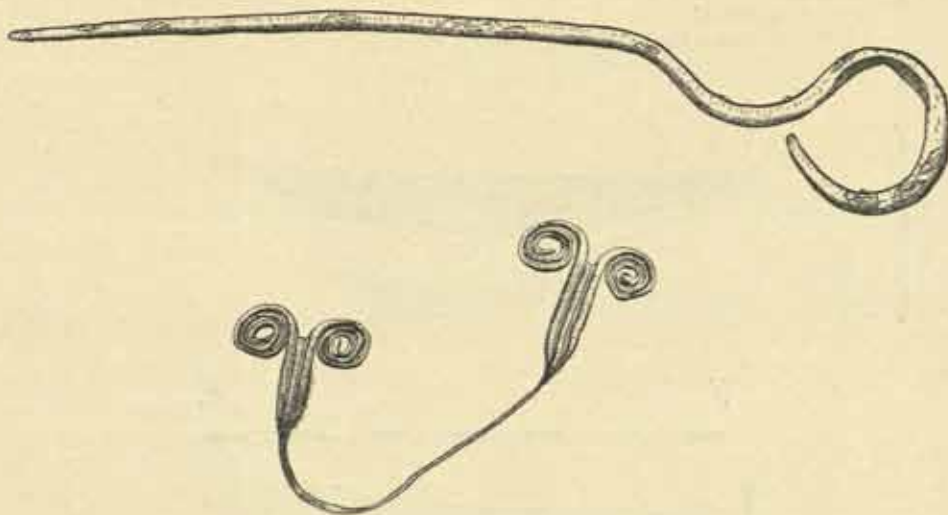


Fig. 13. Early Iron Age bronze objects from plough-soil in the upper ditch ($\frac{1}{2}$)
(By courtesy of the Royal Archaeological Institute)

with a coarse bushy growth in the ditch (see Appendix III). The band of loam, with its slight predecessor just below, occurs when the attainment of the angle of rest in the silting permitted the development of grass. This loam contained nothing to date it, but the evidence above and below suggested that it began to develop at the end of the second millennium B.C. and carried on well into the first millennium B.C.

We now come to the most remarkable feature revealed by the section. Above this loam a large run of stony material will be seen which came in from the outside of the ditch and carried the bottom of it right over to the left-hand or barrow side. This was clearly the result of some disturbance of the soil, and may be attributed with some certainty to ploughing in the Early Iron Age. Some distance to the east of this section two bronze objects, not associated, were found in the lower part of this stratum (fig. 13). They clearly belong to the earlier half of the British Iron Age, and a careful examination of the soil from this stratum confirmed the ploughing interpretation. Mr. Kennard has stated that the mollusca are distinctively those belonging to arable soil (see Appendix III).

THE EXCAVATION OF THE GIANTS' HILLS

This feature continued right along the 50-ft. length of the middle part of the upper ditch, but nothing comparable could be seen in the sections made at the opposite ends of the ditch, so that it may be conjectured that the field was a small one of the typical Celtic kind. If the view that this inrush of soil

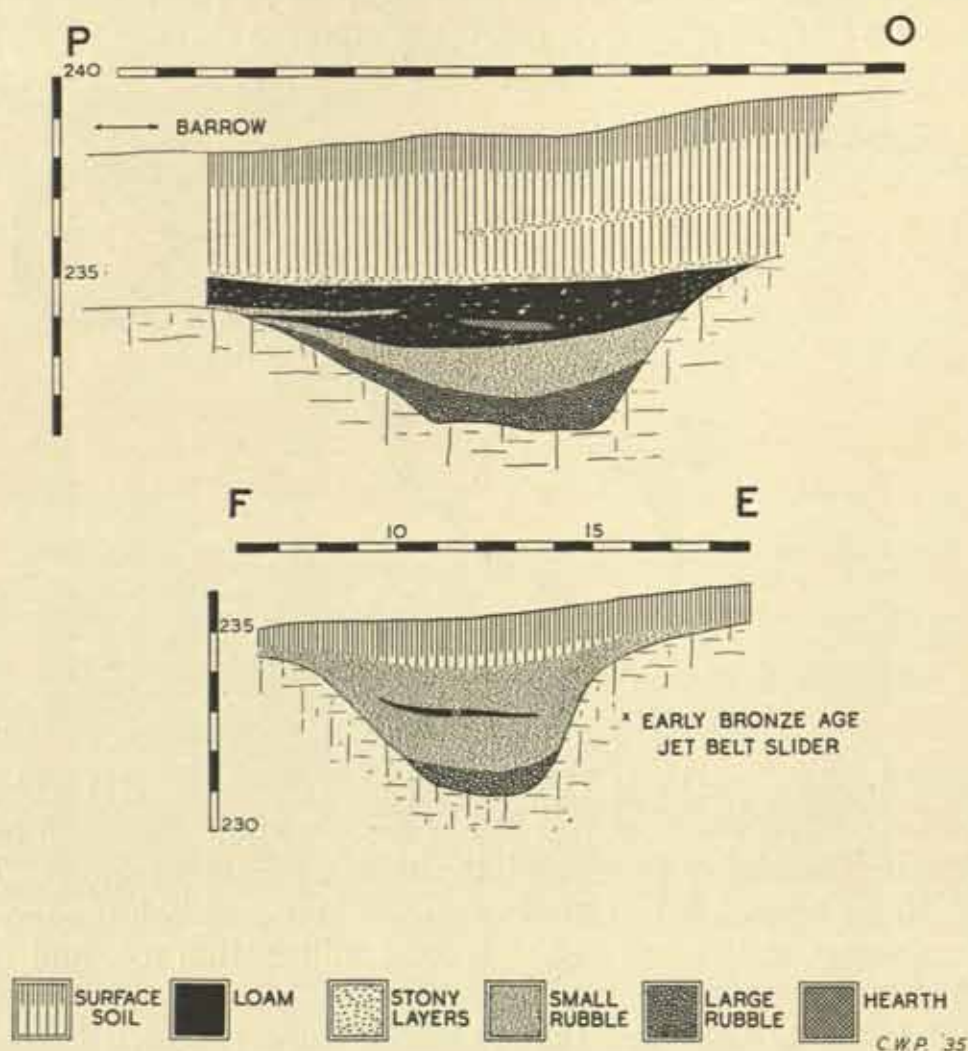


Fig. 14. Sections of ditch: O-P at small end of barrow, E-F at east end of barrow

represents plough-land is correct, this is the first evidence for prehistoric agriculture recovered in the Wold area of Lincolnshire.

Above this soil there were two more phases of loam, divided from each other by a well-marked stony layer running in from the outside. They clearly show that the land lapsed back to grass, and although the stony layer may hint at a short resumption of ploughing some distance from the ditch, the phase did not last, and a long and undisturbed growth of grass in the new bottom of the ditch resulted in the uppermost and thickest mass of loam. This was definitely

dated in the Romano-British period by the occurrence of a coin of Allectus (A.D. 293-296) and a fair amount of broken Romano-British pottery, including a little pile of five superimposed flat sherds which were found just as the grass had grown up round them, possibly the relic of a children's game.

Above this top loam no further archaeological features could be distinguished, but a few scraps of glazed pottery were found at a depth well below the reach of the plough, showing that the site had its visitors in Medieval and later times.

This section A-B had the most comprehensive story to tell about the relation of the barrow and its ditch to all who had passed or made temporary sojourn since the barrow was completed, but in several other parts of the ditch individual periods were more effectively represented.

The other sections which were studied carefully will be seen on pl. XI, distinguished by pairs of letters. Among these reference has already been made to C-D with its well-developed hearth of A beaker age; E-F (fig. 14), which showed the filling of the ditch at its slightest point, was almost featureless, but 2 ft. to the north of it, at a distance of 2 ft. above the floor, a fine example of a jet belt-runner of Early Bronze Age type was found which may be equated in age with the A beaker hearth (fig. 15). The find was isolated.



Fig. 15. Jet belt-runner of the Early Bronze Age ($\frac{1}{2}$)

G-H chiefly served to show that although rabbits had burrowed a great deal along the lower side of the barrow they had not penetrated into the mound proper, nor had they sunk their holes into the filling of the lower ditch (fig. 16).

I-J was an important section since it revealed a considerable Late Bronze Age hearth in the lower ditch. This was fully excavated, and showed that at the beginning of the first millennium B.C. the lower ditch was nearly filled up by natural silting, and that folk who squatted on that side of the barrow were availing themselves more of the protection afforded by the mass of the barrow than by the sinking of the ditch below ground surface (fig. 17).

K-L showed traces of a Late Bronze Age hearth in the same stratigraphical position as that in I-J (fig. 17).

M-N was run obliquely from the edge of the barrow out across a slight berm and through the ditch. The latter showed nothing of interest, but a deposit of very dense and pure loam on old ground surface by the edge of the barrow awaits an explanation. It differed so decidedly from that normally found in the barrow that it was thought to be dust accumulated through wind action, but this is not a sufficient explanation of its presence. It contained nothing.

THE EXCAVATION OF THE GIANTS' HILLS

Round the west end of the barrow the partial clearance which was made of the near side of the ditch showed that there was a more or less continuous

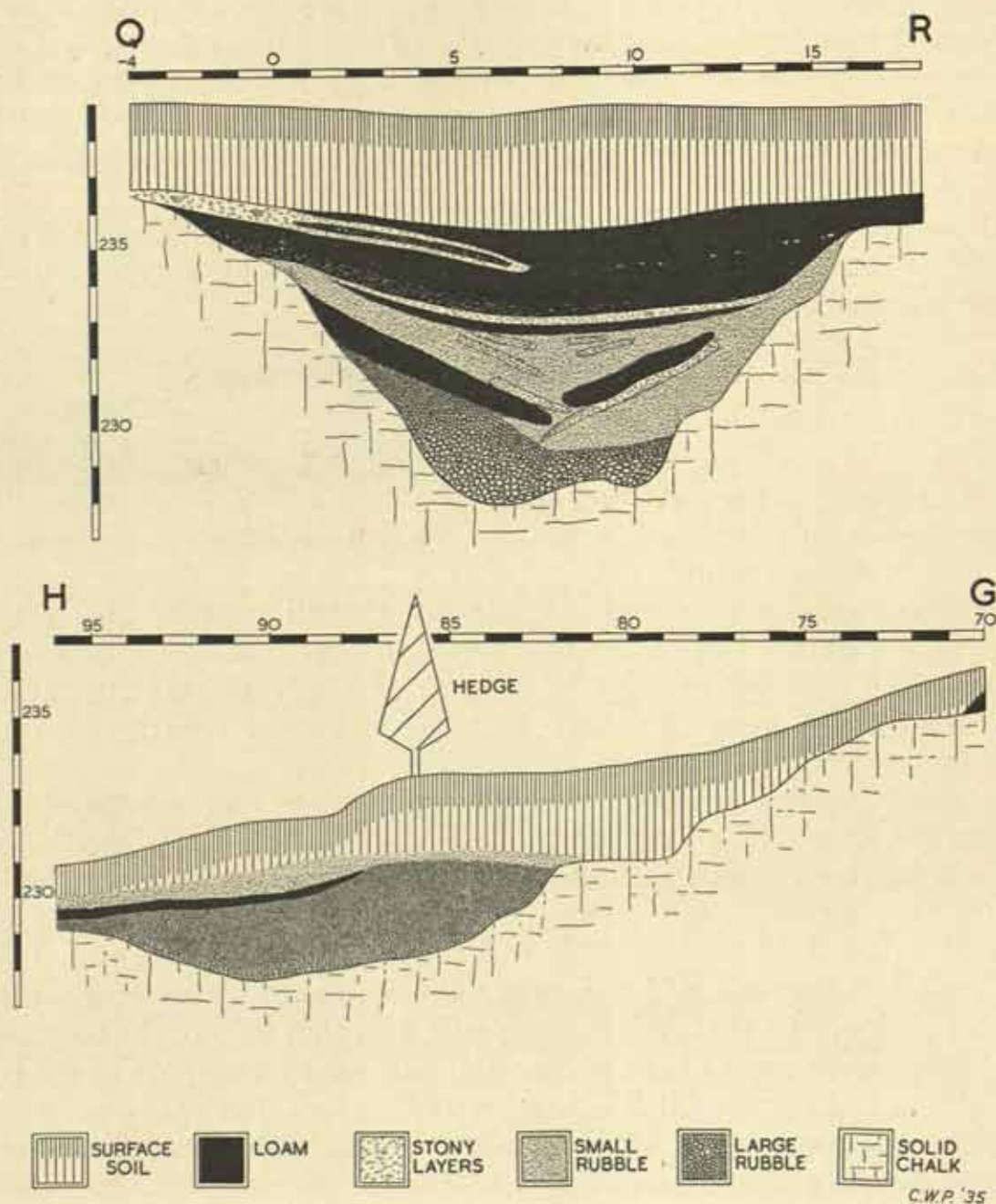


Fig. 16. Q-R, section of upper ditch at 121 ft. NW.; G-H, section of lower ditch at 50 ft. NW.

hearth at a constant level, which appeared to belong to the Late Bronze Age also, though some fragments of pottery found in the upper part of the ditch might be attributed to the Early Iron Age. o-p (fig. 14) gave a complete section of the ditch at this point, but the cut was made too far to the north to touch the

end of the hearth just mentioned. The last section Q-R was in most respects comparable to C-D, except that there was no Early Bronze Age material; and a slight

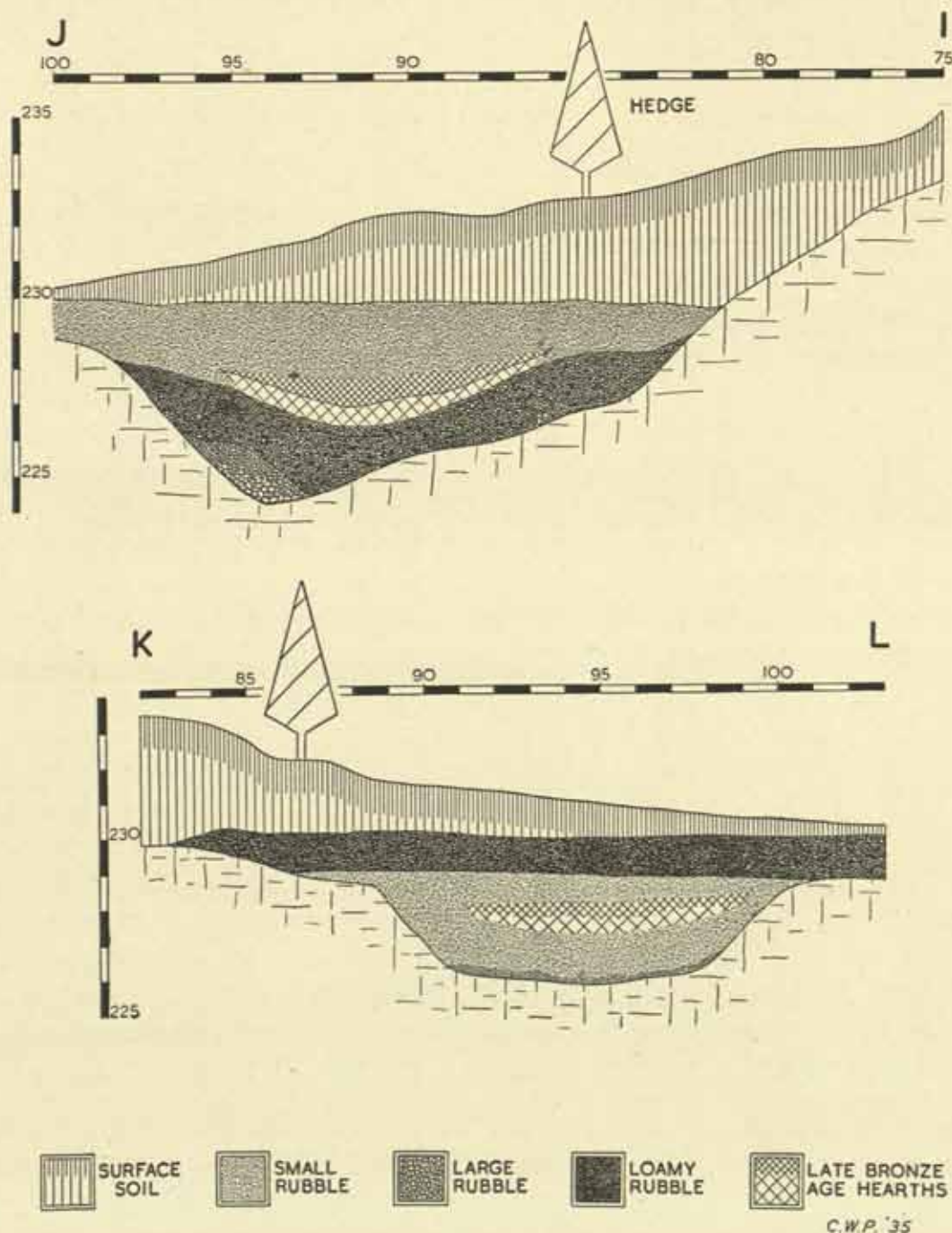


Fig. 17. Sections of lower ditch: I-J, at 75 ft. NW.; K-L, at 150 ft. NW.

hint of the plough-land found in A-B was emphasized by the finding of a sherd of undoubted Early Iron Age ware of hard gritty character in this horizon (fig. 16).

Thus the other sections did nothing to amplify the sequence of events shown in A-B except to make it clear that, without the intrusion of plough-soil in the Early Iron Age, the ditch continued to fill up with a dense loam until modern times.

THE SMALL DITCHES

Before the subject of the ditch is closed one unexpected feature of the excavation must receive attention.

During the course of the work at the west end several small ditches in the original ground surface were noticed which must have been made and silted up by natural causes before the building of the barrow was begun. The most prominent of these was a slight affair which ran across the upper ditch at right angles at its extreme west end. This will be seen on pl. xi expressed in contours immediately west of section Q-R. It was clear that the barrow ditch had been sunk through this trench. Another slight ditch occurred east of P, and it will be seen that a roughly rectangular piece of ground is surrounded on three sides by this ditch and a slight continuation, which runs southward for a short distance and then runs west again to meet the ditch rounding the west end of the barrow.

Besides these slight features of the old ground surface there was reason to believe that another slight trench ran along the outer side of the upper ditch for most of its length, and it appeared in the form of a marked step in the descent of the outer side of the ditch high up near the ground surface. Some traces of a similar feature on the inner side of the upper ditch existed at the west end. None of these small trenches contained anything which would date them, and the only find was a slight amount of oak charcoal in one place. A study of their relationship to the old surface and of their filling shows that they had silted up before the barrow was begun, and so a theory held for a short time, that they might have been part of some scheme for marking out the site of the barrow, had to be abandoned. Its attractiveness will be seen when it is remembered that two of them by a coincidence seemed to mark the limits of the upper ditch. Their human authorship is undoubted, but no sign of occupation could be found.

THE HEARTHES IN THE DITCH

In Section A-B. No well-defined culture stratum was found in the bottom foot of the filling of the ditch in this section, though reference has already been made to the occurrence of an ox skeleton, two pieces of A beaker, and numerous flint flakes. In the faint traces of slight hearths which occurred in the middle of the ditch through a depth of 3 ft. below the lower loam band, a small number of badly preserved animal remains was found. Dr. Jackson was able to dis-



Photo: O. G. S. Crawford
Fig. 1. View of traces of the main hurdle fence along the spine of the barrow

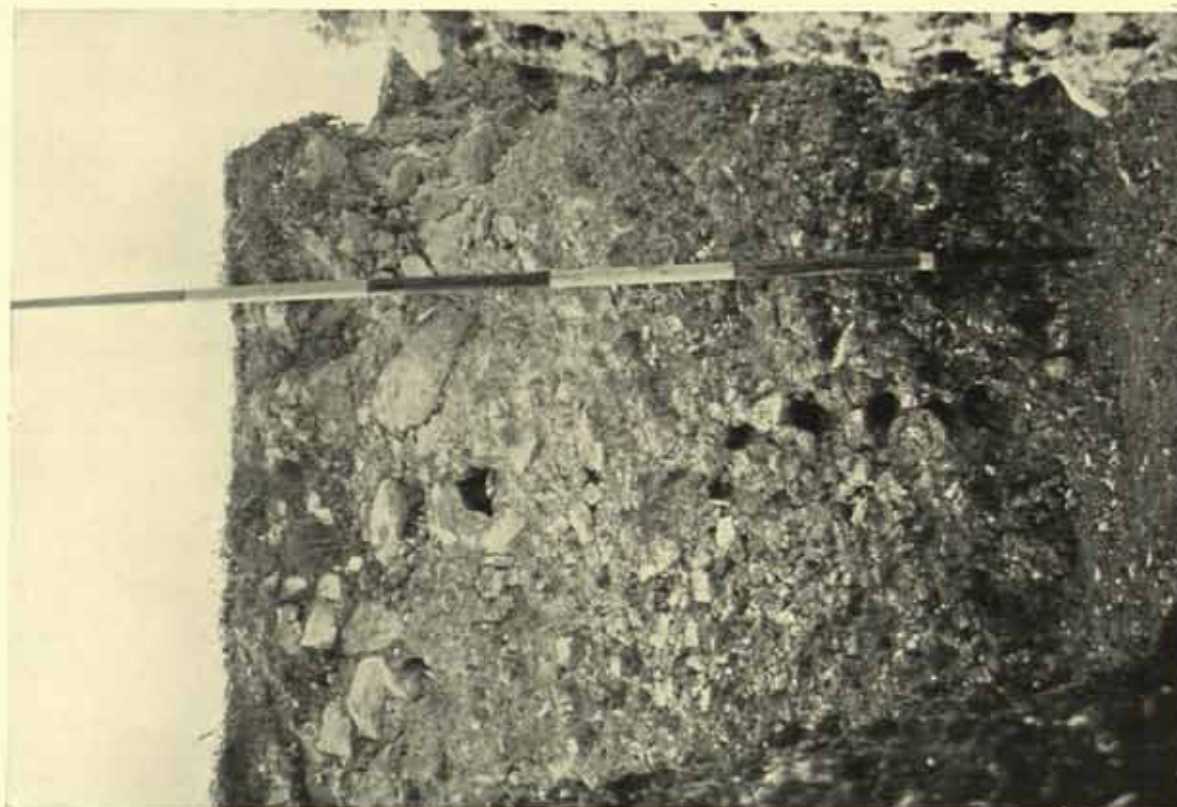


Photo: O. G. S. Crawford
Fig. 2. View of the holes left by one of the offset fences in the side of the trench down the spine of the barrow



Fig. 1. View of section A-B across the ditch on the upper side of the barrow



Fig. 2. View of the end of the upper trench at the causeway. The men are in the other end of the ditch coming round the small end of the barrow. The slight depression visible between the bucket and the edge of the ditch in the foreground is one of the small pre-barrow ditches

tinguish the remains of an ox—possibly of two species, a larger and a smaller—pig, and sheep, the last occurring in the upper part of this deposit. More surprising than these were adult upper and lower molars of horse, and a young upper molar of the same. These horses appear to have belonged to the latter part of the Bronze Age.

In Section C-D. The extent of the A beaker hearth in this part of the ditch will be seen in pl. xi. It kept a constant level and attained a maximum thickness of 6 in. Parts of four or five beakers were found, but the remains were too fragmentary to allow of restoration. A few scraps of coarse pottery were also found in close association with the beaker. The only other artifact was a minute bronze awl only two-fifths of an inch long. This small size seems to have been the result of use rather than of corrosion, and the way in which this tiny object is pointed at each end is entirely characteristic of the bronze awls which have often been found in funerary associations with A beakers.

Animal remains were fairly common and included ox, sheep, pig, and dog. The woods present in charcoal form were alder, hazel, ash, oak, elm, and cherry or plum, the last being plentiful.

HEARTH WITH 'MAGICAL DEPOSIT' BETWEEN E-F AND G-H (SEE PL. XI).

This was a slight affair, yielding a few scraps of Late Bronze Age pottery and remains of ox and pig. Its chief interest consisted in the finding of a small area not more than 1 ft. by 1 ft. 6 in. near the middle of the occupied area, and roughly paved with a number of medium-sized cobble stones. This area had not been used as a hearth, and after it had been noted that it did not seem to have any relation to the structure of a possible hut the stones were taken up. Underneath was found a deposit of burnt matter filling a small hole to the depth of 4 in. This proved to be pieces of burnt antler and charcoal, derived exclusively from yew wood. The peculiar features of this wood are described by Mr. Maby in Appendix IV. It is impossible to account for this deposit as the base of a centre post packed round with stones and supporting some form of roof. The yew was not a large piece of wood, the burnt antler was not necessary to the stabilizing of a post, nor did the disposition of the stones support the post-hole idea. In the absence of a better explanation it is suggested that the peculiar nature of the contents of the hole and the careful way in which it had been sealed down suggest a magic rite, possibly connected with hunting.

THE LATE BRONZE AGE HEARTH AT I-J

This was the most interesting find outside the barrow proper. The extent of the hearth will be seen in pl. xi. It attained a maximum thickness of 9 in. in the middle of the ditch and thinned towards the edges. The culture stratum

was clearly marked by a friable dirty-greyish soil containing many fragments of large coarse pots, lumps of burnt clay (not daub), animal bones, and charcoal. The pottery is illustrated in fig. 23, and is a typical example of Late Bronze Age ware assuming large bucket-like forms with straight finger-tip decorated rims and strips of clay applied to the bodies of the vessels both vertically and

horizontally and decorated in the same way. A few fragments of pots with plain rounded rims also occur, showing rough applied cord ornament.

The animal remains belonged to ox, sheep, and pig. The charcoals from the hearth were predominantly hazel and hawthorn, with one specimen of ash.

The outstanding find in this hearth was the finding of a baked clay model of an animal presumably intended to be a frog or toad (pl. xxiv).

The various features of the animal are represented with little skill, but the maker ob-

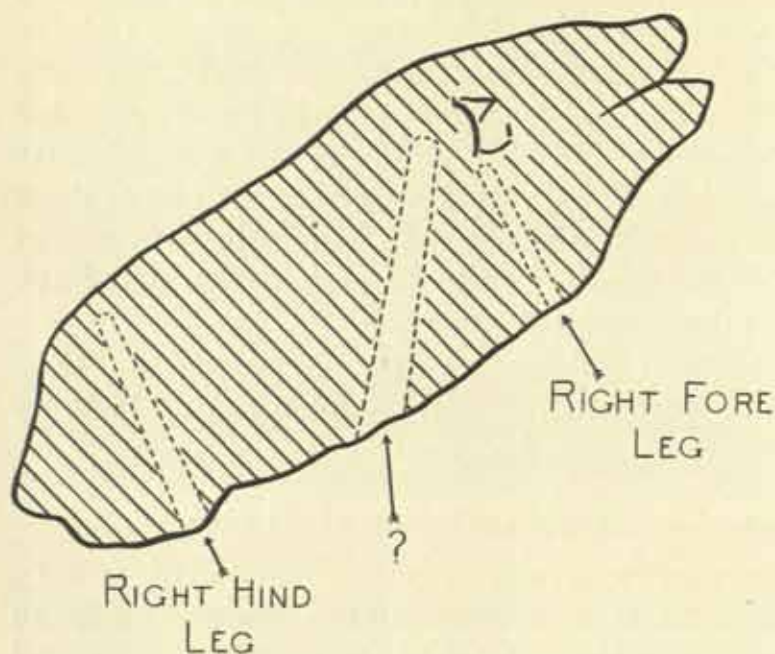


Fig. 18. Profile of the toad (?), showing the arrangement of leg-attachment holes (3)

served the peculiarities of the creature he was trying to represent. In this way the eyes have been shown as placed in bumps raised on the head, and the tail end of the creature has been accurately modelled. The wide mouth and flattened head are also typical. The legs are missing, though the points of attachment to the body with the aid of thin sticks are clearly visible. These sticks were pushed into the body to such a depth that they nearly protruded from the back. It must be admitted that the general indications do not favour the view that the legs were attached in the normal squatting attitude of the animal, but a peculiar feature of the underside of the model may have some bearing on this. A fifth hole will be seen on the underside placed in the middle of the ventral surface. This proved to be much larger than those left by the leg sticks, and it was found to extend forward at an angle right into the head of the animal. The real purpose of this is uncertain, but it may be suggested that a stick pushed into the figure in this way and protruding backwards may have helped to give it the characteristic attitude of the toad with the body sloping slightly from the head down to the tail (fig. 18). The surface of the body

has been carefully smoothed, but no attempt has been made to show any other features than those mentioned.

Whether this model is to be regarded as a child's toy, an accessory to magic arts, or the product of a potter's idle moments, other finds made in the same hearth showed that it was not the only clay object made, for a number of broken lumps of baked clay was found. None of these pieces would fit together, but their general appearance did not suggest that they were merely odd rolls and lumps of clay which had been accidentally fired, nor were they pieces of loom weights. One carried traces of a decoration made by impressing the teeth of a small comb, a motif unrepresented on any other of the Late Bronze Age material found on the site.

A small baked spherical pellet of clay, half an inch in diameter, also found in this hearth, had some faint parallel lines traced on it while wet as if by drawing a comb over its surface.

The remaining finds were a small bone-point broken from a bodkin or coarse needle, a mussel shell from the sea-shore in a bad state of decay, and a fragment of shale.

This last was also in a very bad condition, but sufficient remained to make it clear that it has come from some flat plate-like object.

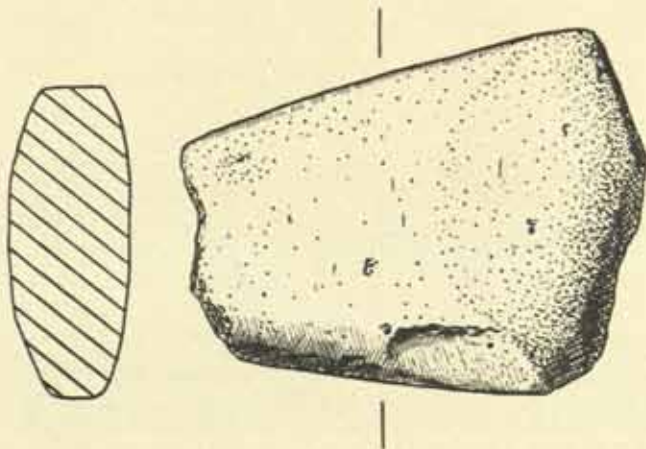


Fig. 19. Stone axe from the edge of the ditch (†)

THE HEARTH IN THE DITCH AT THE WEST END OF THE BARROW

Reference has already been made to the existence of an extensive hearth at this point. Circumstances made it impossible to undertake the complete excavation of this part of the ditch, and all that could be done was to prove that it had passed round the end of the barrow. This work revealed the edge of this hearth on the inner side of the ditch, and showed that it was not less than 20 ft. long. Enough fragments of pottery were found to show that it may be attributed to the Late Bronze Age.

A find made here was the small, much-damaged axe of fine-grained sandstone shown in fig. 19. It was resting on the side of the ditch, where it appeared to have been trodden into the ground. It was not possible to make any accurate observations of its stratigraphical position with regard to the Late Bronze Age hearth, but it may well belong to the period of the making of the ditch or soon after. The butt is so battered that its original form is uncertain, but the sides

are definitely flattened and the object has been polished all over. The material is so soft that it is open to question whether it was ever intended for serious use.

THE POTTERY

Neolithic. The old ground surface under the barrow and the various deposits which have been described in association with the ritual pit, the revetment trench, and the burial area produced a fair quantity of Neolithic A pottery.

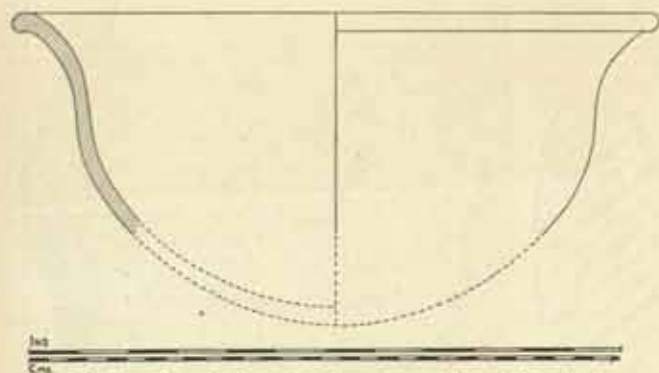


Fig. 20. Conjectural restoration of bowl found at entrance to burial trench

Unfortunately all of this had been trodden to small pieces—not to be wondered at as the majority of the pots were small and unusually thin. Reconstruction work has been impossible for this reason. Of the vessel found at the end of the burial trench not enough was recovered to make

its form beyond doubt, but the profile shown in fig. 20 is probably very near the mark.

The whole of the material was submitted to Mr. Stuart Piggott, who has kindly supplied the following report:

The pottery forms a very homogeneous group of Neolithic A 1 ware of the type which we have learnt to expect in eastern England, and its immediate analogues are to be found in Yorkshire. A large number of vessels is represented: the majority of good, hard, sometimes rather sandy ware, with a small proportion of sherds of softer ware with shell backing. Decoration is completely absent (fig. 21).

Typology. Enough sherds remain to make one restored drawing possible, fig. 20. This is a graceful bowl with a slightly beaded rim, everted neck and no carination. The type is obviously a 'softening' of form G, and it falls into line with the vessels from the Yorkshire Long Barrows (e.g. Hanging Grimston and Kilham), although these have the carination typical of the form. There are a number of fragments of small, finely made pots with similar everted necks (3, 4, 6, 9, 12, 16, 18, 19), and one or two sherds showing slight shoulders (5, 14). The other rim types, invariably very simple, suggest vessels of forms A and B. A few thick fragments probably belong to round bases. A noteworthy feature is the absence of the hooked or rolled-over rims typical of Yorkshire, which occur again in Cambridgeshire. The Giants' Hills rims are in the main of rather delicate profile.

Technique. Several sherds, by their mode of fracture, give clear evidence of coil technique being employed to build up the pots. The rim no. 18 is a particularly good example.

Conclusions. The group presents no exceptional features, but is precisely what might have been expected from a Neolithic site in N.E. England. While connexions



Fig. 1. General view of the barrow from the east end at an early stage in the excavation



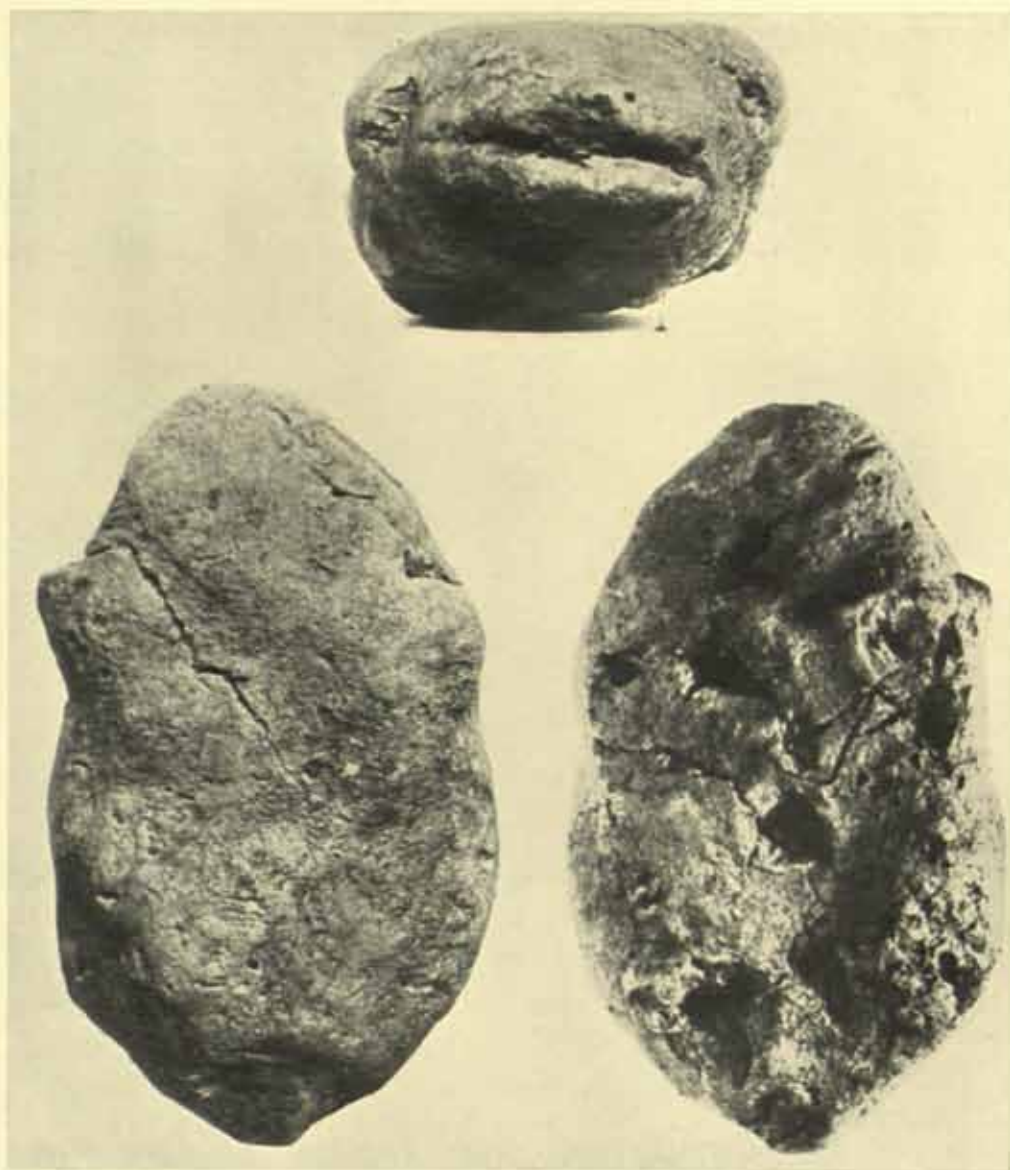
Fig. 2. General view of the barrow from the east end at a late stage in the excavation



Fig. 3. Panoramic view of the revetment trench area at an early stage in the excavation



Fig. 4. Panoramic view of the fully excavated revetment trench showing also the ditch rounding the east end of the barrow. N.B. The chalk blocks on the left-hand side of the central spine are not an original feature, and the short cross-trenches were dug for test purposes



Clay animal from Late Bronze Age hearth in the ditch (†)

with the Neolithic wares of Yorkshire are apparent, their relationship need not necessarily be regarded as parental. A common origin is on the whole more likely.

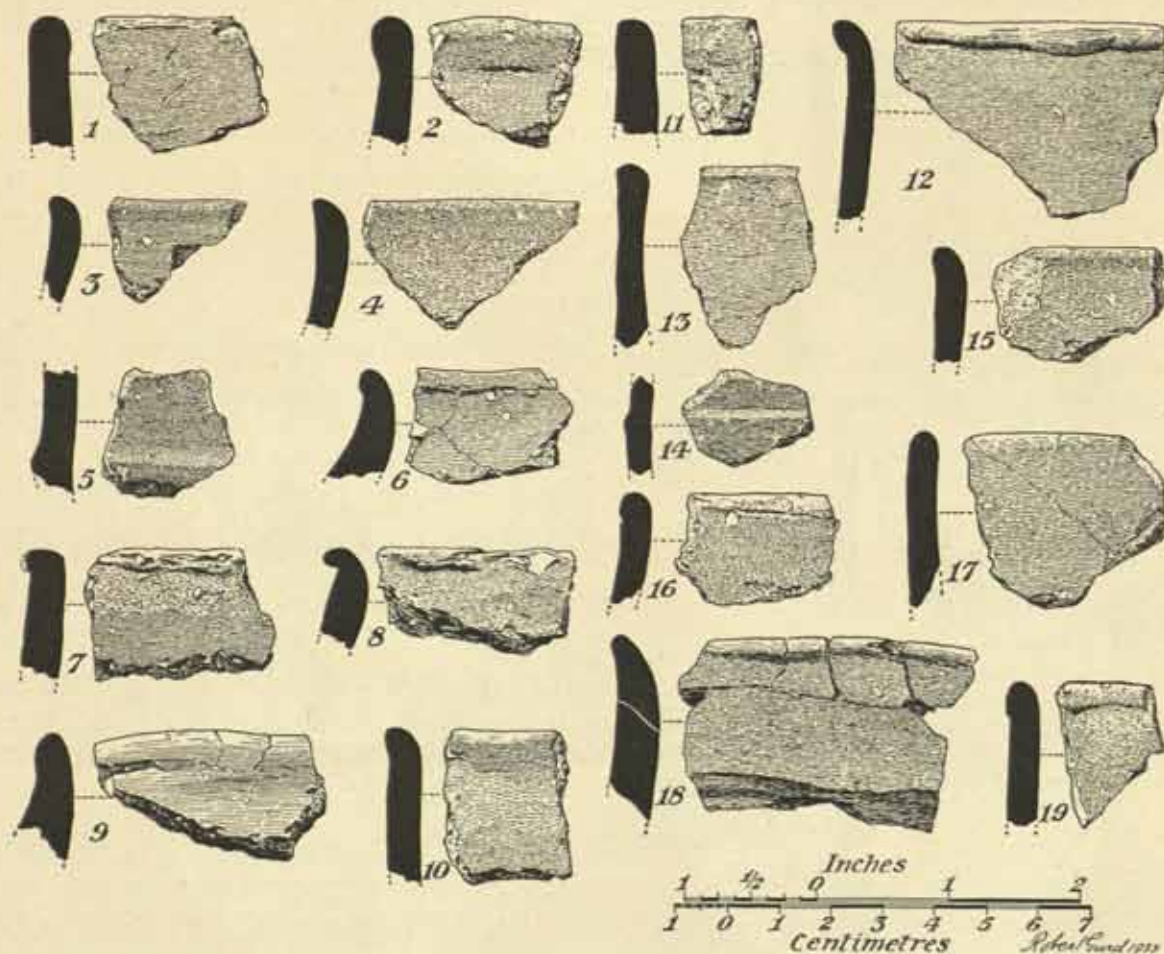


Fig. 21. Neolithic A pottery from the barrow

THE BEAKER WARE

The interest of the Early Bronze Age pottery recovered from the barrow and ditch is not intrinsic, but is to be found in its obvious closeness in age to the Neolithic A ware used by the barrow builders.

Nothing more can be said about the two scraps of B beaker (fig. 22, nos. 11, 12) except that they are of a light buff colour, are weathered, and probably came from the same pot. Their stratigraphical position and significance have already been described above.

In fig. 22 pieces 1 to 10 are typical of the 100 odd small fragments recovered from the hearth sectioned by c-d.

Not more than four beakers seem to be represented and they were trodden to small fragments in antiquity. The essentially A character of their decoration is obvious and requires no comment.

Fig. 22, nos. 13 and 14 are the two fragments of beaker found close to the backbone of the *Bos longifrons* skeleton. They appear to belong to a larger and coarser vessel than any found in the A beaker hearth, but their A character is clear.

Several amorphous scraps of a coarse pottery different in character from the A beaker ware were found in association with it in the hearth. It did not belong to the 'rusticated' class of beaker ware, and was not in any obvious way Neolithic. The sherds were quite small and no forms were preserved.

THE LATE BRONZE AGE WARE

Typical pieces of this pottery are seen in fig. 23. The majority of it came from the hearth at 1-J which produced the clay animal, but some pieces were also found in the hearth with the 'magical' deposit, notably nos. 9 and 10.

Since the pots were large it is not surprising that pieces of them abounded in the hearth at 1-J, but rims and bases were not so common. The illustration shows the typically Late Bronze Age character of the ware so completely that little comment is required. The rims are typical with their finger-tip marking along

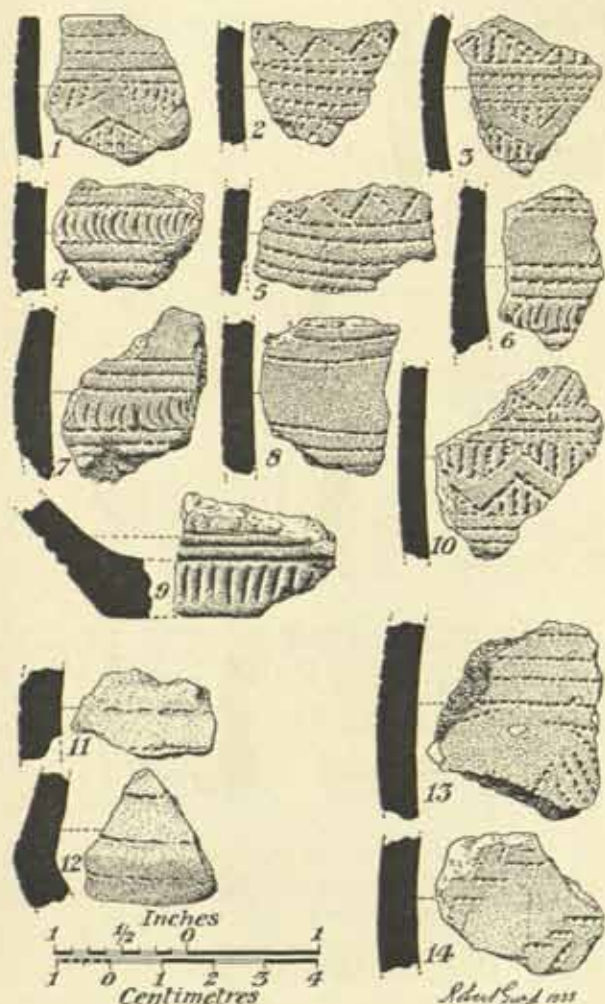


Fig. 22. Beaker pottery from the barrow and ditch

the top, and the form of ornament by finger-tip on applied bands of clay seen in 11, 15, and 16 is also familiar. 9 and 10 may contain some hint of a Middle Bronze Age survival, but there was nothing else in this hearth to show any difference in general age from hearth 1-J. The only other artifact from it was the piece of loomweight shown in fig. 24, a hint of a fairly settled form of occupation.

All the distribution of Late Bronze Age ware in Lincolnshire has been confined to the Lincoln Edge on the west side of the county with finds from Wilsford, Belton, Normanton, Caythorpe, Cleatham, and Scunthorpe.¹ This Giants' Hills material is the first from the Wolds, and no doubt more is awaiting discovery in most parts of the county.

¹ *Arch. Journ.*, xc, 145-9.

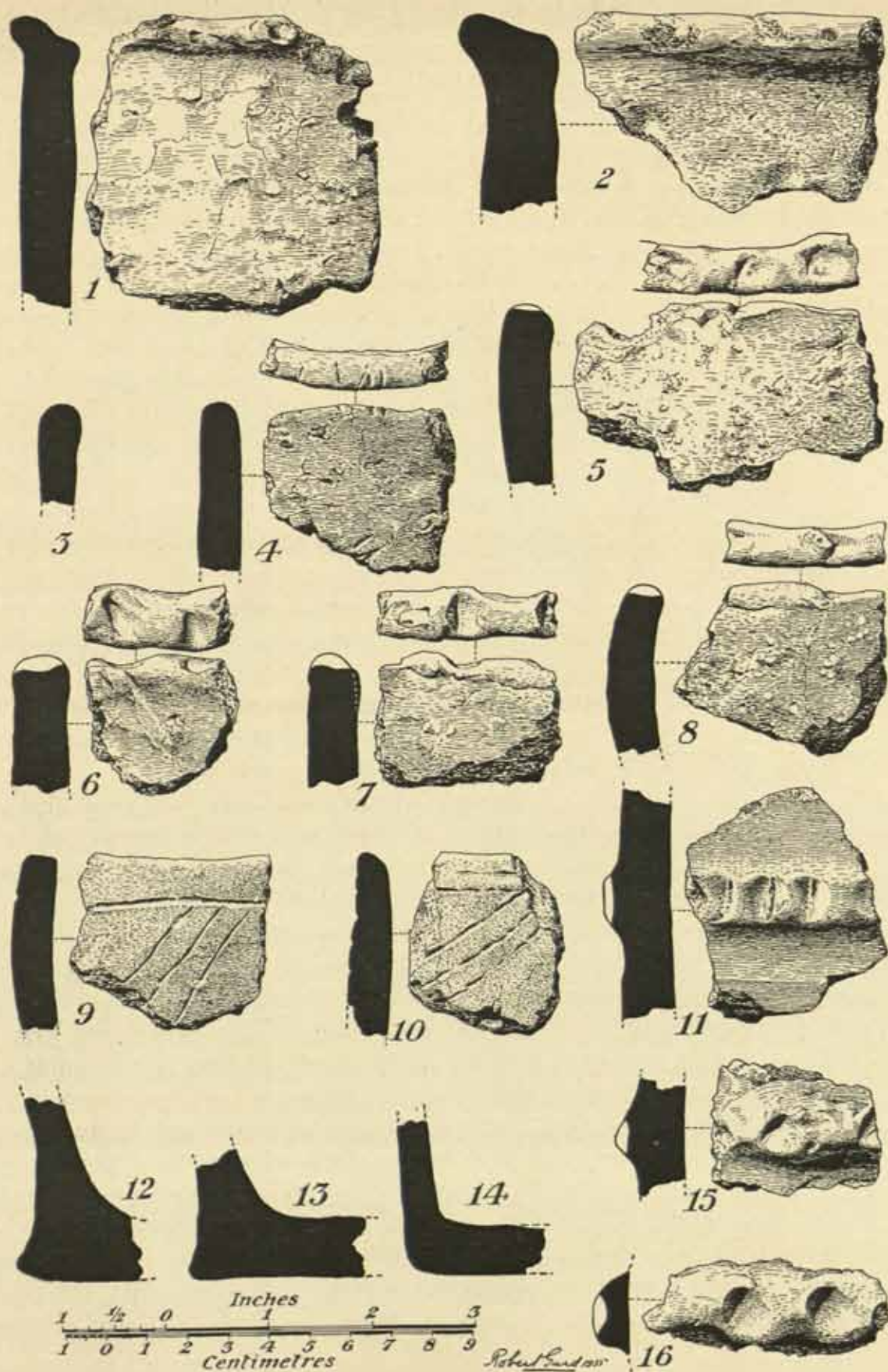


Fig. 23. Late Bronze Age pottery forms from the ditch

THE HUMAN REMAINS

A full report of the anatomical aspect of the bones will be found in Appendix I.

The examination and removal of the mass of bones revealed by the excavation of the burial area (fig. 7) presented a problem of some difficulty. The remains of four, and perhaps of five, complete bodies, and skulls belonging to three others were found closely packed within a narrow compass on a rectangular bed of chalk slabs placed directly on the old ground surface. The arrangement is illustrated by fig. 25. Scattered over the southern half of the mass were other bones belonging to disjointed skeletons, presumably those to be associated with the three skulls, and the largest concentration of these bones was in the south-west corner where there was a closely packed pile. Among these bones were some which could not be attributed to any of the eight bodies implied by the presence of eight skulls in all (see Appendix I), and it is clear that the total assemblage represents remains from more than eight human beings. The implications of this fact will be discussed below.

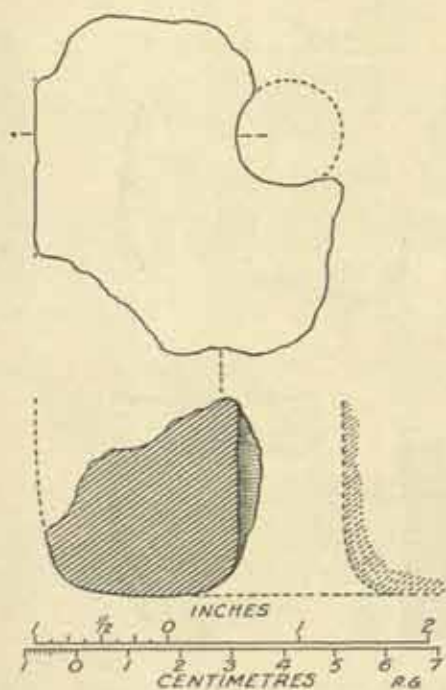


Fig. 24. Fragment of loomweight

Many of the remains were softened and partially rotted by the loam which lapped on to the burial area from the west side, and its influence was particularly felt at the north-west corner where skeleton 7 was in a very bad condition.

Many of the bones had been crushed or snapped across by the heavy weight of chalk piled on them. This was particularly the case with the skulls.

Upon examination it became apparent that four bodies had been placed directly on the pavement in crouching positions. These were: no. 5, a man aged about 35; no. 4, a young woman aged about 18; no. 7, a woman aged about 25; no. 8, a young man(?) aged from 17 to 20.

There can be no doubt that these bodies were put in intact, but there is some uncertainty in the case of a child whose remains gave the impression that the body was only partially intact at the time of burial. A sequence of vertebrae belonging to it occurred behind the heads of 4 and 5, while the skull was some way off between skulls 1 and 3. It is difficult to say anything about the age of this child except that it was not older than 6 at the time of death. The remains were very fragmentary.

It must be assumed that skulls 1, 3, and 6 belonged to persons whose deaths preceded those of 4, 5, 7, and 8, and clearly the scattered and disjointed bones belong to them in the main.

The persons represented by skulls 1, 3, and 6 were: no. 1, a woman aged 18-20 years; no. 3, a woman (?) aged between 25 and 30 years; no. 6, a woman aged between 20 and 25 years.

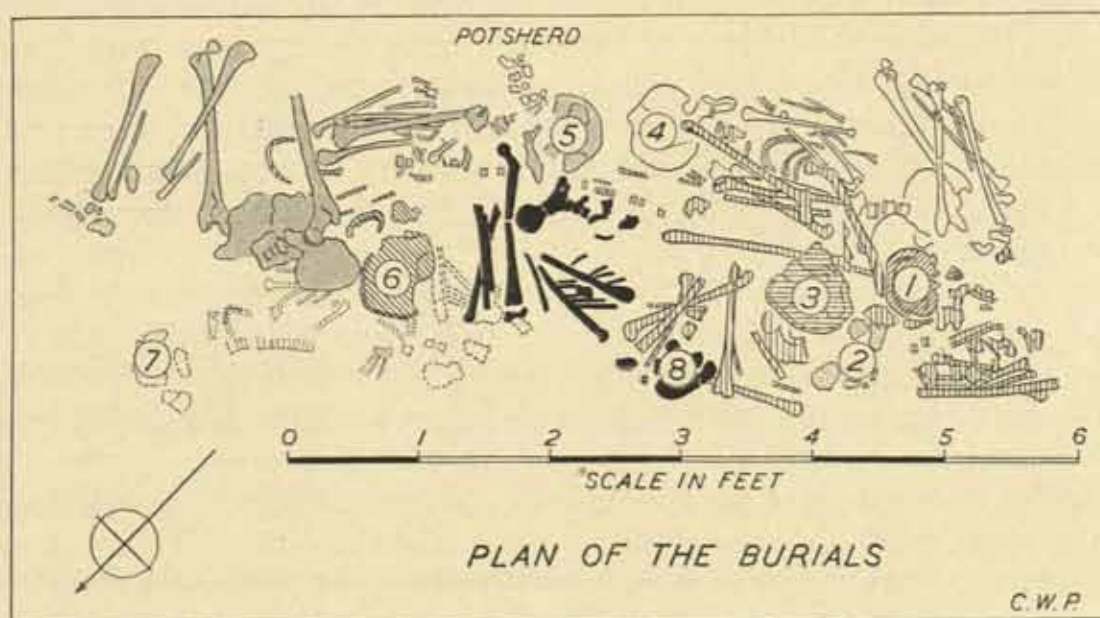


Fig. 25. Plan of the burials

The custom of preserving the skeletal remains of persons for ultimate burial in a long barrow erected some time after their deaths is one which may be inferred from evidence coming from long barrows in many parts of Britain, and this phenomenon at Giants' Hills seems to be another example of it. The conditions under which these bones were prepared and preserved are not known, but there is a hint from skull no. 1 that they may have been exposed for some time in the open air. The contents of this skull were carefully emptied and sent to Mr. A. S. Kennard for examination. Bones of a number of small animals including voles and a snake were found in this material, but these can easily be accounted for since the loose chalk filling over the bones would give easy access to small animals, but a more interesting find was the egg-case of a land snail of a species which Mr. Kennard says never goes underground to lay its eggs. It is suggested that the snail laid the egg in the skull when it was exposed in the open air. This evidence is open to objection on several grounds and need not be considered important, but it is worth putting on record. Dr. Cave has also reported that many of these disjointed bones are weathered.

A further interesting point is the presence of bones which cannot be

referred to any of the eight individuals represented by skulls. Among them is the atlas of an ox which appears to have got in by accident. The conditions which may be envisaged are those of a place of exposure of the dead, not necessarily far from human habitation, where disturbance was possible from human and animal agency resulting in some confusion among the different sets of bones when the time came to take them up for deposit in the barrow.

It must be remembered that there is another long barrow within 200 yards of Giants' Hills, and that this may be older, though there is no way of proving this. If bodies had already been exposed in the place chosen for this purpose, and were then gathered up and interred in the other barrow, carelessness in collecting the first batch of remains might leave bones about which were gathered up later in error with those of 1, 3, and 6, the next occupants of the place of exposure.

The existence of the eight posts across the small end of the barrow is strongly suggestive that the barrow builders considered that they had interred eight persons.

No personal objects of any kind were found with the bodies, and the only artifacts found in relation to them were several tiny scraps of Neolithic A pottery from the surface of the chalk platform underneath skull 6 and skeleton 8, and the smashed fragments of a larger sherd of the same ware in front of and partly under the skull of 5 (see fig. 25). It does not appear that any significance attaches to these scraps.

The arrangement of the bodies precludes the possibility that they were not all deposited at the same time. The whole mass was so closely jammed together on a space too small to accommodate them easily that the deposit of the whole must have been a single act. After they had been placed in position we must assume that the whole was covered with chalk blocks and the trench entirely filled up.

Can we deduce anything about the relations of the buried persons to each other? Dr. Cave has pointed out (Appendix I) that the racial similarities of the group are obvious and striking, and that it is not impossible that they represent a single family group. The predeceased women whose bones were placed in this grave may be relatives of the dead man no. 5 or they might be wives, and there is nothing in the relation of their ages to that of the man to prevent this.

Among the bodies whose deaths were presumably contemporary with that of the man, it is unfortunate that the sex of no. 8 could not be clearly determined, for in the event of 8 being a girl and not a youth, the association of the bodies of three young women with that of the man would strongly suggest a group of wives following their lord into another life. This question must be left open. No other clear evidence of this custom is forthcoming from the other British

long barrow burials, but it must be admitted that there is a strong suspicion that something of the kind occurred here.

There is no evidence of the way in which any of these persons met their death, and, as far as their skeletal remains afford evidence, they were a very healthy and vigorous group.

CONCLUSION

Owing to the fragmentary nature of our knowledge of the British non-chambered long barrows it will be unprofitable, in bringing this account of the Giants' Hills excavation to a close, to do more than draw attention to the chief points of interest revealed by the work, and suggest certain analogies.

The evidence for the cultural affinities of Giants' Hills is as complete as could have been hoped for. We have seen that the builders belonged to a culture using Neolithic A1 pottery which had been brought to an unusually delicate state of development suggesting a later stage, and that at the time of the building of the barrow 'B' beaker was in the district, while not long after the barrow was completed 'A' beaker users frequented its ditch. We do not know the relations of these beaker folk to the barrow builders, but we can guess that they were not friendly. Further, we do not know what these facts mean chronologically, but we may be reasonably sure that they show this long barrow to belong to the end of the British Neolithic period, unless it can be proved that beaker and Neolithic A had a long overlap, which has not yet been done.

The other evidence which is beginning to come in from modern long barrow work at Thickthorn, Holdenhurst, and Notgrove all corroborates this early impact of beaker-using people on the long barrows, and at present it looks as though the average non-chambered long barrow belongs to the latter end of the British Neolithic period. More we cannot say until further evidence is forthcoming.

We will now consider Giants' Hills as it was immediately after its completion. A conservative estimate of the original height of the barrow is 12 ft. The modern profile of the barrow shows two higher points, one at the east end and one at the west, with a slight saddle between. Excavation showed that this depression indicated in a general way the position of the cross-trench containing the burials, although, no doubt, there was no settlement visible when the barrow was first completed.

Attention is drawn to this feature because several more of the Lincolnshire long barrows have this slightly broken-backed profile, notably the very large barrow known as Hoe Hill or Cromwell's Grave in the parish of Swinhope,

and it may be an indication that the burials in them are disposed in the same manner as those at Giants' Hills.

The first unexpected thing revealed by the excavation was that in its completed form the barrow had a 'horned' east end timbered up to present a vertical face concave in plan.

This feature was probably degenerate from the more striking examples found in the stone countries, but it was quite well marked and at present has only one analogy among the earthen long barrows—that of Hanging Grimston in East Yorkshire, where Mortimer's 'underground passage' across the east end of the barrow is clearly a trench for carrying a timber revetment like that at Giants' Hills (fig. 5).

No doubt other long barrows in Lincolnshire could be shown to have a similar feature, though Hanging Grimston appears to be unique north of the Humber. Wiltshire and Dorset have produced nothing like this, and the nearest region where a similar feature appears, though carried out in stone, is the Cotswolds. At Giants' Hills there was no sign of a false entrance or of any particular interest having been taken in the forecourt between the 'horns'. If typology means anything, this fact, coupled with the insertion of the burials in a position analogous to that of a side-chamber, should indicate a late stage in the development of long barrows.

We must next consider the side-posts. These cannot have been very large since the maximum diameter of their holes was 9 in. An exception occurred in the two larger post holes which were found one on each side of the barrow directly behind the 'horns', and these probably carried moderate-sized tree trunks. The side-posts are unlikely to have stood more than 8 ft. high above the ground, and cannot have remained in place very long. No wooden analogies to these are known, though several of the long barrows in the Marlborough district of Wiltshire had peristaliths, the best known being West Kennet. The apparent affinity of the Kentish long barrows with those of Holland and North Germany makes it unnecessary to consider them in this connexion, for across the North Sea the arrangement is different from that at Giants' Hills and encloses the whole barrow in a rectangle. No side-posts have been observed in East Yorkshire.

The eight posts at the small end of the barrow have no known parallel at present. They have no connexion with the side-posts, which stop short some distance from them on each side, and it further appears that they stood clear from the mound of the barrow with a small flat space in front of them bounded by the barrow ditch. It can hardly be an accident that the barrow does not completely occupy the space enclosed by the ditch as at Wor Barrow. It seems a reasonable conclusion that these eight posts were intended to represent the

eight persons buried in the barrow, and the enclosed space in front of the posts gains significance when it is remembered that here was the only causeway across the barrow ditch. Nothing could be found which suggested a cult of the dead at this spot, and we know nothing of the appearance of these posts when first set up. They were only a trifle larger than the side-posts and probably very soon fell down.

We will now consider the interior of the barrow, beginning at the east end and working westwards. The features noticed directly behind the timber revetment of the east end require no further attention here since they were clearly incidental to its construction. Next comes the empty pit in the old ground surface with its traces of a hurdle surround and its piled-up covering of loam and occupation soil. The essential feature of this phenomenon, the hole dug in the old ground surface, is one which occurs either singly or in groups in many of the non-chambered long barrows. It has been observed many times since the days of Cunnington and Colt Hoare, though its position in the barrow is not always constant, and occasional finds of pottery, charcoal, and animal bones have been made in it.

No human bones have ever occurred in these holes except in some of the cremation long barrows of East Yorkshire where small pits occur in the line of the cremated burials and so contain occasional fragments of charred human bone, though it is not clear whether they were intended to be in these pits. Examples are Rudstone, Wass, and Market Weighton. Mortimer's re-examination of the Helperthorpe barrow revealed one pit definitely containing cremated human bones which appear to have been deliberately placed, but the four other large pits in the old ground surface under this barrow contained no evidence of any kind of burials. In view of this general absence of evidence of funerary intention, the recent discovery by Mrs. Clifford of a circular stone-built feature in the chambered long barrow at Notgrove in the Cotswolds is puzzling. Inside this structure there was a cist of stone slabs enclosing some human bones, and the whole was covered in by a rough corbelling. It was clear from the relation of this 'rotunda' to the chamber that it was built first, and it has been suggested with much probability that the cist enclosed the remains of the ancestor of the family buried in the chamber of the barrow. It is possible that this 'rotunda' is in some way analogous to the pits, but they have yielded very little evidence of being the burial places of human beings.

At Tilshead and Winterbourne Stoke Down in Wiltshire charcoal was found in these pits; at Hanging Grimston in East Yorkshire Neolithic A bowls were found; at Helperthorpe some charcoal, animal bones, and pottery occurred, and at Crosby Garrett in Westmorland Greenwell found some charcoal.

Altogether there are seventeen examples of this pit phenomenon known. They are:

Wiltshire: Corton, Durrington, Heytesbury, Knook, Tilshead, Winterbourne Stoke Down.

Yorkshire: Hanging Grimston, Helperthorpe, Kilham, Market Weighton, Rudstone, Wass.

Dorset: Wor Barrow, Thickthorn.

Westmorland: Crosby Garrett.

Lincolnshire: Giants' Hills.

Hertfordshire: Therfield Heath.

In a number of the Wiltshire examples, such as Tilshead, Corton, and Heytesbury, the pits were found close by the burials and covered by the same conical mound of black earth. The arrangement was very similar at Wor Barrow, but at Giants' Hills we find the pit and the burials some distance apart.

The only case where the relation of the hole to the general plan of the barrow is the same as that at Giants' Hills is Hanging Grimston, where the hole stood on the middle line of the barrow behind the revetment trench.

Further speculation about these holes is useless at this stage, and it can only be suggested that they had some important ritual purpose which had to be served in the early stages of the barrow's construction.

We then come to the burial area. This has already been fully described above, but there are certain features which have interesting analogies elsewhere. The most striking feature of the arrangement is the line of stones running by the side of the burial pavement and onwards in a straight line to the edge of the barrow. The only other known example of this is the much smaller line of stones which occurred by the bodies at Wor Barrow. Here it did not extend beyond the burials, and was aligned with the long axis of the barrow and not at right angles to it as at Giants' Hills. It is possible that the arrangement at the small end of Hetty Pegler's Tump shown on Thurnam's plan (fig. 5) may also be something similar. Here the barrow is traversed by a line of stones having no connexion with the burials which were in the chamber, but the idea behind the arrangement may be the same.

The arrangement of the burials across the long axis of the barrow in a filled-up transverse trench in the body of the barrow is unusual, and has only one doubtful parallel in the Upper Swell long barrow opened by Greenwell. His description is not illuminating in the customary absence of a plan, but there are hints of a similar arrangement.

The pavement on which the bodies were placed is also a feature which has been observed in long barrows before.

Sometimes it was not composed of stones but of clay, as in Greenwell's

Ebberston barrow, but in most cases stones were used. A good East Yorkshire example was Westow where the cremations were carried out on a regular bed of flagstones, and in Wiltshire floors of flints were found in both cremation and inhumation barrows. Knook and Tilshead provide examples of each.

Contrary to the expectation raised by the geographical position of the barrow the burials were found to be by inhumation.

East Yorkshire appears to be the home of the cremation long barrow. Eight examples are known there, and outside there are the Crosby Garrett barrow in Westmorland, Cunnington's Wiltshire examples at Knook and Winterbourne Stoke Down, Colt Hoare's doubtful case at Bratton Castle near Westbury, and on the Mendips the unpublished excavation of the Priddy long cairn was inconclusive, but suggested cremation.

The last internal feature is in some ways the most remarkable, the central hurdle fence with its offsets on one side. There are some parallels for this, but not in anything approaching the same form. On the Cotswolds and in South Wales a feature which has been described as 'walls' has been observed in a number of barrows. The known cases in this region are the Randwick barrow, Hetty Pegler's Tump, Greenwell's Upper Swell barrow, and possibly his Lower Swell one also. In the chambered barrow at St. Nicholas, Glamorgan, John Ward noticed a badly preserved example of the same thing. Randwick and Hetty Pegler's Tump are illustrated in fig. 5.

East Yorkshire does not supply us with a clear example, though Greenwell noticed two 'walls' of similar type to those found in the Cotswolds running on each side of the middle line of the Wass long barrow at the opposite end from the cremations.

The hurdle work found at Giants' Hills is strongly reminiscent of a series of sheep pens, and when first set up on the site of the barrow would have been capable of serving some useful purpose. The hope that something might be found in the compartments which would explain their intention was disappointed. If they were intended to have some relation to the pastoral tendency of the society of those days animal sacrifices might have been expected. In the other barrows mentioned the 'walls' were divisions in the build, and never delimited separate enclosed spaces. Witts had the nearest parallel to Giants' Hills in the Randwick barrow, and here he surmised that the divisions marked out the allotted tasks of different gangs of workers building the barrow. This explanation breaks down because divisions might be expected along each side of the centre line if this was the case, but the one-sided arrangement cannot be a mere coincidence since it may be clearly seen at Randwick, Hetty Pegler's Tump, and Giants' Hills, and carried out in two very different media, oolite slabs and wooden hurdles. The suggestion that the hurdles had something to

do with holding the barrow together is also unsound because the lie of the land did not require it, and in the Cotswolds the divisions would be meaningless in this connexion. In the same way the arrangement cannot have anything to do with a vestigial passage since it bears no relation to such a thing in plan and occurs in two chambered long barrows. It may have some indirect relation to the segmented chamber of Ireland, but the connexion is not obvious.

In general the compartments at Giants' Hills were filled up with loamy material which probably was the top soil from the site of the surrounding ditch, but this was not a constant feature, and probably the result of convenience rather than design. We are compelled to recognize in this hurdling the most remarkable feature of the Giants' Hills long barrow and one whose explanation remains for the future.

Now that we have rehearsed the various features of the barrow and the way they compare with those in other British long barrows, we do not find ourselves advanced very far towards a solution of the long barrow problem as a whole. The need is for more scientific excavation in this field and the accumulation of more comparative material. The testimony of the early excavators has considerable value and is borne out by modern experience, but in the year 1936 Pitt-Rivers' work at Wor Barrow still holds the field as the only completed and fully published long barrow excavation. The full examination of typical long barrows in Wiltshire, Dorset, the Cotswolds, and Sussex is very desirable before any attempt is made to pronounce on the non-chambered long barrows of England, their affinities, and their place in the British Neolithic culture.

APPENDIX I

REPORT BY DR. A. J. E. CAVE, ASSISTANT CONSERVATOR, ROYAL COLLEGE OF SURGEONS' MUSEUM, ON HUMAN REMAINS FROM LONG BARROW AT SKENDLEBY, LINCS.

No. 1. Woman aged about 18-20 years. Left side and face much damaged. Maxillary third molars not yet erupted. Right mandibular third molar quite recently erupted. Remaining teeth well formed and healthy; some little crown wearing; edge-to-edge bite; none lost before death.

Cranium long and narrow. Maximum length, 183 mm.; biparietal maximum breadth, 132 mm.; cephalic index, 72—dolichocephalic. Forehead vertical (sex character) with smooth supra-orbital regions. The metopic suture has persisted. Skull pentagonal in *norma occipitalis*. Marked prominence ('bossing') of the supra-inial portion of the occipital bone; fairly horizontal disposition of *planum occipitale*. Mastoids small (sex character) and pneumatic. Vault manifests a slight post-coronal depression.

Face long and narrow, with prominent pointed chin. Naso-orbital region too damaged for analysis. Cheeks (malar bones) flattened laterally. A slight degree of subnasal prognathism is present. Sphenoidal sinus capacious; antra moderately developed.

Length of face: from nasion to prosthion, 65 mm.; from nasion to pogonion, 221 mm.; alveolo-nasal ht.—about 24 mm. Fig. 26 shows this cranium in norma occipitalis, norma lateralis, and norma frontalis respectively, and the more clearly demonstrates its physical characters.

No. 2. Remains of a child. Remains consist of a heap of cranial vault fragments, showing unclosed sutures, a right maxillary fragment with its full complement of milk

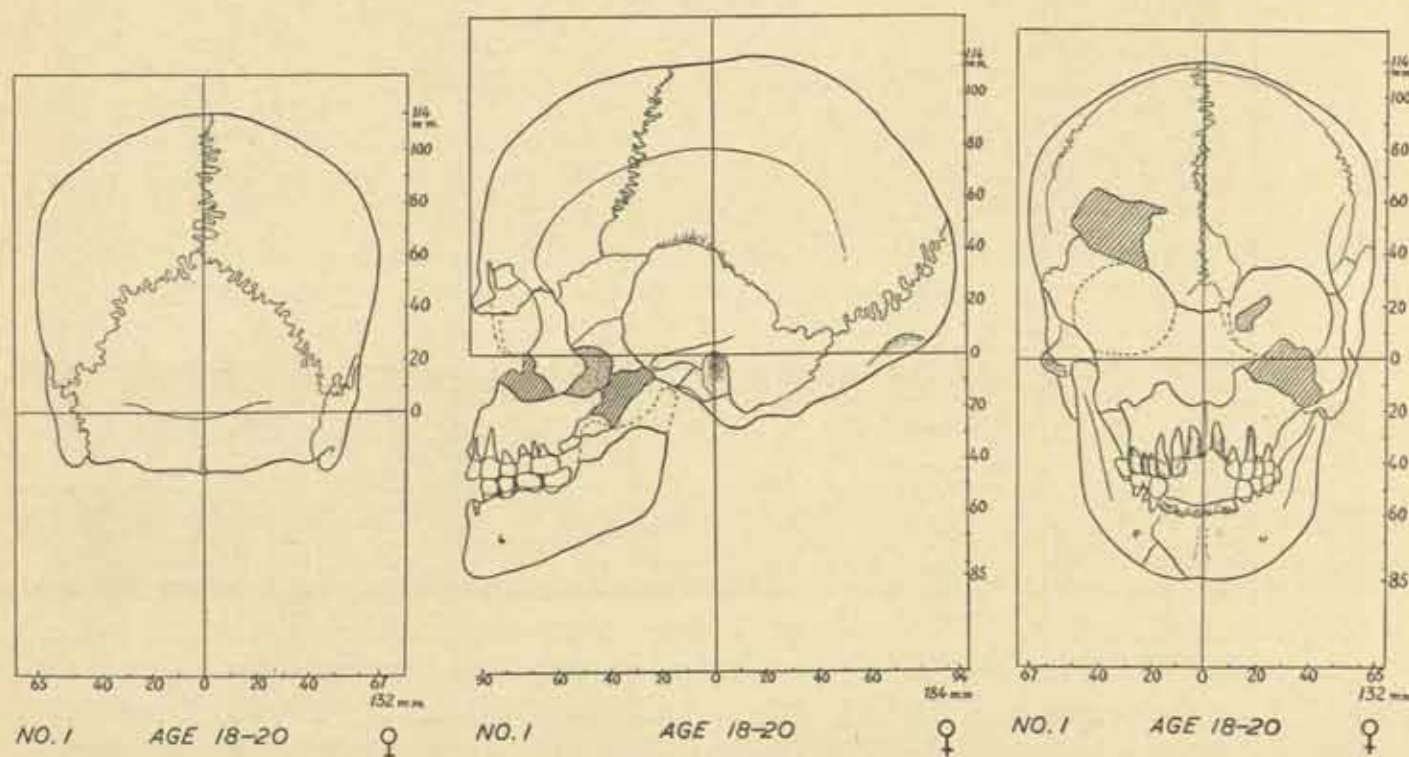


Fig. 26. Skull no. 1

teeth *in situ*, the right petrous temporal, an occipital condyle, some loose deciduous teeth, and a few vertebral chips. Attempts at estimating the precise age and sex of this individual are precluded by the extremely fragmentary nature of the bones available: a maximum age of 6 years can alone be given.

No. 3. The greatly mutilated cranium of an adult between 25 and 30 years old: probably a woman. Also facial fragment. It agrees in characters with no. 1, being long, narrow, and ovoid in norma verticalis, and pentagonal in norma occipitalis. As in no. 1, the forehead is low and vertical, the (left) supra-orbital region smooth and of feminine appearance, the mastoid infantile and pneumatic, the sphenoidal sinus most capacious, the temporal ridges but feebly developed, and the supra-inial occipital protrudes as a boss. The right half of the cranium and almost all the facial skeleton is missing. The basi-sphenoid and basi-occiput are still ununited; the cranial sutures widely open.

Maximum estimated length, 180+ mm.

" " breadth, c. 135 mm.

Cephalic index, about 75.

The facial fragment comprises the lower portions of the maxillae. The alveolar-nasal height is very moderate, the cranial fossae are deep, and the antra capacious. Both maxillary third molars are as yet unerupted. The retained first and second molars and the right first premolar are large, well formed, healthy, and scarcely worn at all. The palate is broad and well formed.

The physical characters and proportions of this cranium are illustrated by fig. 27.

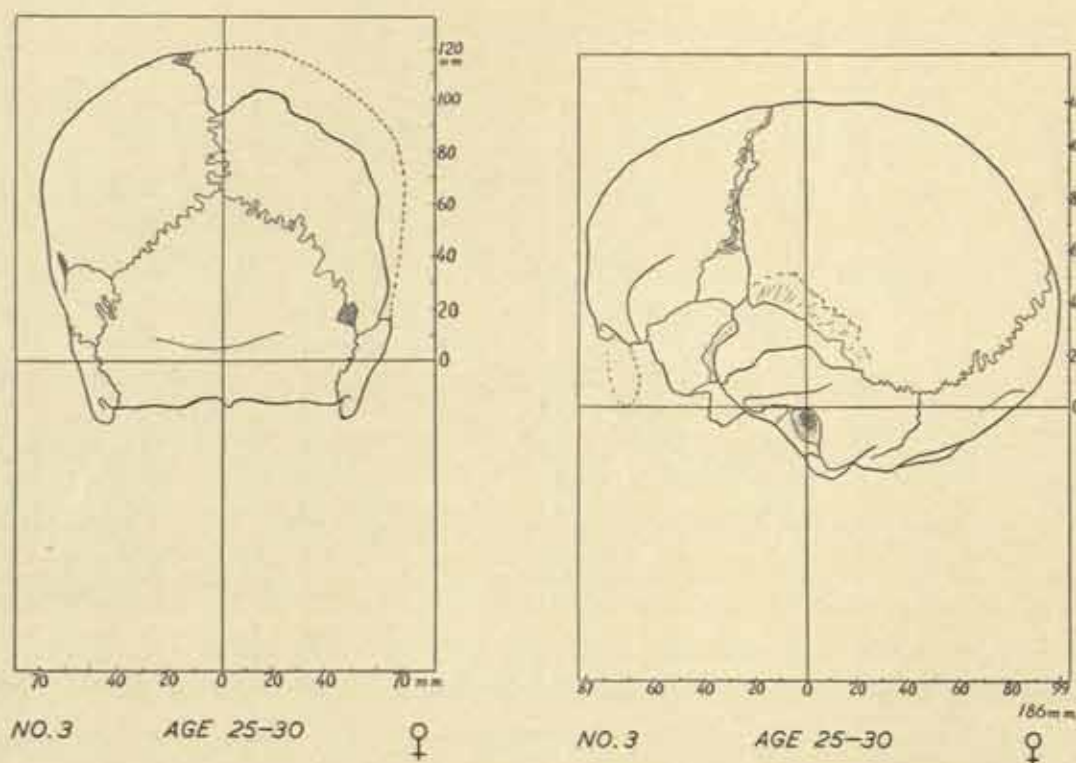


Fig. 27. Skull no. 3

No. 4. Fragmented skull and incomplete skeleton of individual about 18 years and probably a female.

The cranium is represented by portions of the frontal, parietals, and occipital bones, the right glenoid fossa region, the right maxilla, and the broken mandible. All these fragments have suffered considerable 'weathering' and are very friable. The skull has the long narrow form, and the greatly bulging occiput of the preceding specimens—the face is represented by the right maxilla and the mandible only. A full complement of teeth, all healthy and well formed, was retained till death; and edge-to-edge bite is present, and some wearing of the crowns is apparent. This is not at all extreme, but considering the youth of the individual, it is quite decided, especially in the mandibular molars. The mandibular third molar has erupted on the right side (the left side is too damaged for observation); neither maxillary third molar has as yet erupted. The alveolo-nasal height is about 20 mm.

The skeleton is represented by many whole or imperfect vertebrae and ribs, the immature sternum, the right clavicle, scapular fragments, half of a radius, the right patella, the lower end of the right fibula, both calcanea, the right astragalus, the sacrum,

some chips of pelvis and undetermined long bones, a few carpalia, and numerous phalanges. The whole of this material gives the impression of a slightly built, graceful individual, most probably a female. There is nowhere any sign of fracture or disease.

Whilst no criteria exist for the precise estimation of stature, the general appearance of this skeletal material suggests an individual of slender bodily build and small stature—say under 5 ft.

No. 5. The greater portion of the skeleton of an adult male in the fourth decade of life, and about 5 ft. in stature.

Only the vault and hinder part of the skull remains, together with the right half of the mandible and a portion of the corresponding maxilla. It is clear, however, that the cranium is long and narrow, pentagonal in *norma occipitalis*, and characterized by an occipital 'bossing': the mastoid region is extremely pneumatic. At death, apparently, a full complement of well-formed and healthy teeth was present: of those remaining, a considerable crown-wearing is manifested by the upper and lower first molars and by all teeth anterior thereto; the second and third molars, both upper and lower, are relatively unworn. In the left lower canine, and in the first molar of both upper and lower jaws, the wearing has just begun to expose the dentine. The mandibular ramus is square and powerful, with impressions upon it of vigorous masticatory muscles. The 'bite' of the teeth was of the 'edge-to-edge' variety.

Manubrium still independent of corpus sterni; epiphyses for iliac crests, vertebrae and scapular vertebral border all long united: the individual sacral vertebrae have not yet completely coalesced. Forearm bones relatively long and of comparatively delicate build. The right humerus shows a vigorous supinator ridge and a powerful deltoid tuberosity—in contradistinction to the feebler marking on the companion bone. The femora reveal a great degree of functional activity, and their markings indicate the extreme muscularity of this individual. The muscle and ligament impressions on neck, trochanter, and upper third of shaft are all most vigorously pronounced. The upper tubercle of the femoral neck is enormous; the gluteal, ilio-psoas, and lateral rotatory muscles must have been extremely well developed. A third trochanter is produced by the development of the gluteus maximus muscle, and below this is a definite hypotrochanteric fossa. Platymeria is marked. The tibiae are strongly platynemic, and their lower ends evidence the 'squatting facet' of postural habits. The impression of vigour, and of an exceedingly active life, is borne out by the rest of the skeleton. No evidence of disease or injury can be detected in these bones, and all articular surfaces are quite free from rheumatic or other pathological change.

No. 6. The skull, mandible, and incomplete skeleton of a young adult woman, in the first half of her third decade. Estimated stature, about 4 ft. 5 in.

The cranium lacks the left half of both vault and base, and the remaining portions are much distorted by earth-pressure. The characters of the frontal, mastoid, and zygomatic regions are essentially female. Orbits small, more or less quadrangular. Canine fossae markedly concave (i.e. antra small). Some slight degree of subnasal prognathism: chin pointed and projectile. Palate rounded, broad, and roomy. Left lower third molar about to cut the gum: remaining third molars unerupted. Full complement of teeth retained at time of death: these show some wearing (not excessive, but sufficiently

marked, considering the age of this individual) and present a clear edge-to-edge 'bite'.

The cranium agrees in essentials and type with the previously described skulls.

Approximate maximum length, 177 mm.; alveolar-nasal height, *c.* 17 mm.; upper facial length, 55 mm.; total facial length, 103 mm.; approximate bizygomatic breadth, 110 mm.

Fig. 28 shows the frontal aspect of this cranium.

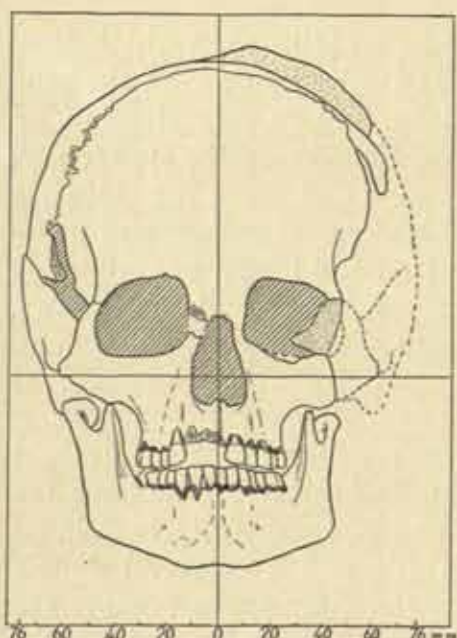


Fig. 28. Skull no. 6

The innominate bones reveal characteristic sexual features. The femora are slender, graceful, and platymetric, and of 39 cm. in length. The femoral head has a large fovea; an incipient third trochanter is present, with a corresponding long narrow hypotrochanteric fossa: the linea aspera is well formed, as is the medial ridge of the shaft. Articular areas are 'clean cut' and perfectly healthy. The tibiae are platynemic, and show vigorous muscular and ligamentous markings, as do the fibulae. Of the arm bones, only the lower ends of the humeri and portions of the right radius and ulna are available; all these are characterized by a slender, graceful build. The manubrium remains independent of the corpus sterni.

No. 7. The incomplete skeleton of a woman of small stature and delicate build, in the third decade of life.

The skull is represented by little more than the left half of the cranial vault and some facial fragments. The chin region is pronounced and pointed; occipital bossing is present, and the general configuration and

proportions of this skull are in agreement with those of preceding specimens. The femora are typically platymetric, and the tibiae are strongly platynemic. On the lower tibial extremities and upon the astragalar neck occur well-marked 'squatting facets'. Great muscular activity is suggested by the modelling of the healthy, clean-cut articular surfaces.

No. 8. The extremely fragmentary and incomplete skeleton of a young adult (? male) aged 17-20 years.

The skull is represented solely by the teeth, the mandible, and a heap of cranial fragments, impossible of reconstruction. Third molars unerupted. Chin prominent and squarish. The femora show marked platymeria, and the tibiae marked platynemia: the fibulae are extraordinarily fluted and moulded by powerful muscle action. In their general features the long bones are in absolute agreement with those of previous skeletons. There exists no safe criterion of sex; the unsatisfactory pelvic fragments suggest a youth rather than a girl. The individual was of slight bodily habitus and small stature, and was accustomed to considerable freedom of muscular and articular activity.

The foregoing remains, then, represent a middle-aged man; a youth (?) of 17-20; a

child; and five women, the eldest 30-35 years, two about 25-30, and two about 18 or 19 years. In physical features these individuals all agree in being of small stature, of lithe and delicate bodily habitus, in having long, narrow skulls of the distinctive Neolithic type, and in being accustomed to the squatting posture. Their racial similarities are obvious and striking; whether they represent a single family group or not is beyond the anatomist's province, but should archaeological evidence suggest this possibility, it would in every way agree with the osteological data submitted.

With these skeletons and from the same barrow, is also a number of further remains, bones complete and incomplete, which cannot be assigned to any one of nos. 1-8. Many of these are much eroded and weathered, and their condition suggests that they represent burials of another date; some of them, indeed, may well represent the re-interment in this barrow of individuals primarily buried elsewhere. From the somatological evidence one can merely state that they are not contemporary with the inhumation of the above series, 1-8, and that, among themselves, they suggest burials within this barrow at different times.

APPENDIX II

REPORT BY J. WILFRID JACKSON, ESQ., D.Sc., F.G.S., ON THE ANIMAL REMAINS FROM
GIANTS' HILLS

Remains from the large section of the upper ditch, 1933

Middle to Late Bronze Age horizon :

Horse. 1 adult upper molar; 1 young upper molar; 1 adult lower molar.

Pig. Distal end of humerus and part of tibia; 1 tooth.

Ox. 2 left upper molars (rather larger than usual) and fragmentary limb bones of small species; many fragments of bones and 3 teeth (small species).

Sheep. 9 teeth and 3 fragments of bones.

Early Bronze Age horizon :

(All much weathered).

Pig. 1 incisor.

Ox. Complete skeleton of *Bos longifrons* (for full report see below); 2 teeth and fragmentary bones. There seem to be a small animal and a somewhat larger one, but not enough to be sure.

Material from 1934 season

Neolithic horizon at bottom of ditch round east end :

Ox. Fragmentary bones.

Red Deer. Worn tip of antler.

Fallow Deer. Part of shed antler with appearance of having been used as a pick.
Note the smoothness of the hand-grip and worn end of tine.

*Early Bronze Age horizon in 'A' beaker hearth :**Ox.* Bone fragments, 3 adult teeth, and 2 lower milk molars.*Sheep.* 2 teeth.*Pig.* A few teeth.*Dog.* 2 canine teeth.*From the foot of material above the Early Bronze Age hearth :**Ox.* Numerous broken bones and a few teeth.*Sheep.* 3 teeth.*Pig.* A few teeth.*Horse.* 1 upper molar and 1 incisor.*Red Deer.* 1 upper molar.*From the Early Bronze Age (?) horizon in the excavated end of the upper ditch at the small end of the barrow :**Ox.* Fragmentary bones and a few teeth.*Roe Deer.* Imperfect left lower jaw with 5 teeth.*From the loam bank immediately N.W. of the burials :**Ox* (small). Os calcis and scraps.*Sheep.* Os calcis and proximal end of radius.*From the loam abutting on the burials on the S.W. side :**Ox.* Hoof core.*From the old ground surface at the west end of the barrow :*

Stag antler (much broken).

*From the large Late Bronze Age hearth in the lower ditch :**Ox.* A few broken bones with adult and milk teeth. Two toe bones.*Sheep.* 6 teeth.*Pig.* Fragmentary jaws, bones, and teeth.*From the Late Bronze Age (?) horizon in the ditch rounding the west end of the barrow :**Ox.* Many split bones and a few teeth.*Pig.* 3 fragmentary bones.*Horse.* 2 lower molars.*Red Deer.* Imperfect humerus.REPORT BY J. WILFRID JACKSON, ESQ., D.SC., F.G.S., ON THE SKELETON OF A SMALL OX
OF BEAKER AGE FROM GIANTS' HILLS

Through the kindness of Mr. C. W. Phillips, F.S.A., I have been able to study the skeleton of a small ox found with Beaker sherds during his excavations at Giants' Hills. The remains are those of an animal of two years six months to three years of age. The skull is badly crushed and the epiphyses of the limb-bones are all loose. It is very unusual to obtain so complete a skeleton, as most animal remains from such sites are in the form of broken and split fragments from food refuse-heaps, etc. As the bones were in rather a soft condition, Mr. Phillips very wisely waxed the whole skeleton *in situ*.

The skull consists of the left half of the frontal with a very imperfect horn-core attached; there are also several crushed pieces. It is unfortunate that the skull has suffered so much damage, as few dimensions are obtainable. One or two have been possible by doubling those of the half frontal. In this way the following have been ascertained. The least frontal width below the horns appears to be about 160 mm.; the least occipital width between the infracornual notches, about 119 mm.; and from the crest to the lower border of the foramen magnum, about 151 mm. The frontal possesses a well-marked mesial prominence between the horns, as in the type skull of *Bos brachyceros* Owen (= *longifrons* Owen) in the Museum of the Royal College of Surgeons, London, and in Early Iron Age skulls of this race from many localities. The occiput is also notched by the temporal fossae, as in the same race.

The Skendleby skull seems to have been a little larger than those I have examined from the Early Iron Age sites of Glastonbury,¹ All Cannings Cross,² Swallowcliffe,³ and other places. It is also larger than the skulls described by Pitt-Rivers⁴ from Rotherley, etc., and those of the recent animals, the Kerry and Alderney, used by that authority as test-animals. The following dimensions are given for comparison:

	Least frontal width.	Least occipital width.
	mm.	mm.
Glastonbury . . .	133-47	101-13
All Cannings Cross . . .	133-46	100-4
Swallowcliffe . . .	135-64	101-28
Kerry . . .	145	95
Alderney . . .	149	108
Rotherley . . .	138 and 153	99 and 119

The two largest of the Swallowcliffe skulls, l.f.w. 158 and 164, l.o.w. 128 and 110 respectively, approximate closely to that from Skendleby, but the occiput appears to be deeper in these.

The horn-core of the Skendleby ox (as far as can be judged from its imperfect state) appears to be of a coarser and rougher type than in *Bos brachyceros* from Swallowcliffe and other places. It has a basal circumference of 150 mm., the basal diameters are 51.7 and 43.5 mm., and the length in its present broken state is about 81 mm. It is not so flattened as in the *Bos brachyceros* type from the Early Iron Age sites.

The lower jaws of the Skendleby ox are in a fairly perfect condition. The length from the angle to the alveolar point is about 330 mm., from the condyle to the same point, about 352 mm. The length of the molars and premolars is 148 mm. The dentition is not quite adult: M 3 shows a little wear on the crown; PM 2 is just appearing; and MM 4 is still in place, is well worn, and on the point of being shed. Jaws of the same length from Early Iron Age sites possess a less length of tooth-row (Glastonbury, 129-32; Swallowcliffe, 121-36 mm.). Compared with a 5-toothed lower jaw, 403 mm. long, from Woodhenge, the Skendleby example is very much smaller. The tooth-row

¹ *The Glastonbury Lake Village*, ii, 1917, 652-5.

² *The Early Iron Age Inhabited Site at All Cannings Cross Farm, Wiltshire, 1924* (Animal remains, pp. 43-50 and pl. LI).

³ *Wilts. Archaeol. and Nat. Hist. Mag.*, xliii, 1925, pp. 91-3.

⁴ *Excavations in Cranborne Chase*, i and ii, 1887-8.

in the former measures 140 mm. A jaw of the same size as that from Woodhenge and coming from Stonehenge (Crater 3, west of south causeway, 1924) has a tooth-row (6 teeth) of 145.5 mm. A much longer jaw from Stonehenge (Ditch, south, 2nd crater, 1924) has a tooth-row of 145 mm.

The loose epiphyses of the limb-bones of the Skendleby ox have made it difficult to obtain correct measurements, but the dimensions given below are correct within a small margin :

	Full length.	Diameter mid-shaft.	Diameter distal end.
	mm.	mm.	mm.
Femur	309	27.4	86.5
Tibia	303	35.0	58.0
Metatarsal	196	24.2	53.0
Astragalus	61		
Calcaneum	113		
Humerus	246	28.5	69.5
Radius	245	34.5	68.5
Metacarpal	171	30.4	56.5

The phalanges, including the hoof-cores, are small and slender. The pelvic bones are too imperfect for measurement. The scapulae are broken and their full length cannot be ascertained; the least diameter of the neck is 44, the glenoid, 52 × 44 mm.

Complete bones of animals are rare in prehistoric excavations so that few are available for comparison. Several were found in the Glastonbury Lake Village and at one or two other places, and these have been useful in the present study. The Skendleby ox bones are quite as small and slender as the remains from the Early Iron Age sites at Glastonbury, All Cannings Cross, Swallowcliffe, etc., and all these are smaller than those of the Kerry cow, 3 ft. 5 in. at the shoulder, used by Pitt-Rivers as a test-animal.¹

Compared with the ox bones from the Middle Bronze Age site at Woodhenge² (unfortunately all broken) the Skendleby bones appear to be much smaller. The former bones, it will be recalled, belonged to an ox with fairly long and robust horn-cores (see figure in Woodhenge report), and similar remains were found at Windmill Hill³ (Neolithic), Whitehawk Camp⁴ (Neolithic), and Stonehenge.⁵

It is of interest to note that in the Skendleby ox the femur is 6 mm. longer than the tibia, and the humerus is only 1 mm. longer than the radius. In the Kerry cow the femur is 35 mm. longer than the tibia, and the humerus about 12 mm. longer than the radius, while in the Chillingham cattle the femur is shorter than the tibia, and the same applies to the humerus and the radius.⁶

General list of animal remains by periods.

Neolithic. Ox, sheep, red deer, fallow deer.

Early Bronze Age. Ox (small and large), pig, sheep, dog, roe deer.

Middle Bronze Age. Ox (small and large), pig, sheep, horse, red deer.

Late Bronze Age. Ox, pig, sheep, horse, red deer.

¹ Pitt-Rivers, *op. cit.*, ii, pp. 218-20.

² Woodhenge, 1929, pp. 64-9, pl. LI.

³ Not yet fully reported upon.

⁴ *Antiq. Journ.*, xiv, p. 127.

⁵ *Ibid.*, xv, pp. 437-9.

⁶ See *Archaeol. Aeliana*, ser. 3, vii (1911), (Animal remains from Corstopitum).

APPENDIX III

REPORT BY A. S. KENNARD, ESQ., A.L.S., F.G.S., ON THE NON-MARINE MOLLUSCA FROM
GIANTS' HILLS, SEASON 1933

From the large section of the upper ditch cleared in 1933:

A number of shells and samples of soil from the various levels was forwarded for examination. Molluscan remains were decidedly scarce, but the results obtained are extremely interesting.

From the lower rubble (Neolithic):

Pupilla muscorum (Linn.), very rare.

Arion sp., very rare.

Vitrea crystallina (Mull.), very rare.

These examples are just subsequent to the erection of the barrow in age. They are too few in number to speak of definitely, but they probably indicate grassland.

Early and Later Bronze Age levels:

Pomatias elegans (Mull.), common.

Carychium minimum (Mull.), rare.

Goniodiscus rotundatus (Mull.), rare.

Cochlicopa lubrica (Mull.), very rare.

Arion sp., rare.

Helicella cellaria (Mull.), very rare.

Vitrea crystallina (Mull.), very rare.

Chilotrema lapidica (Linn.), very rare.

Arianta arbustorum (Linn.), very rare.

Cepaea nemoralis (Linn.), common.

Clausilia rolfii (Gray), rare.

This faunule certainly denotes much damper conditions than the present. There was probably a growth of bushes and rank vegetation to afford shelter for these species.

Lower loams I and II (close of the Bronze Age):

Pupilla muscorum (Linn.), very rare.

Goniodiscus rotundatus (Mull.), very rare.

Arion sp., rare.

Vitrea crystallina (Mull.), very rare.

Too few to speak of definitely, but probably grassland. The damp-loving species are absent.

Early Iron Age level (plough soil):

Pupilla muscorum (Linn.), very rare.

Vallonia excentrica (Sterki), common.

Arion sp., rare.

Trochulus hispidus (Linn.), very rare.

Xerophila itala (Linn.), very rare.

This series certainly supports the view that this was ploughland.

Romano-British levels:

Vallonia eccentrica (Sterki), rare.

Vertigo pygmaea (Drap.), rare.

Pupilla muscorum (Linn.), rare.

Cochlicopa lubrica (Mull.), very rare.

Arion sp., rare.

Ceciloides acicula (Mull.), rare.

Xerophila itala (Linn.), very rare.

Helix aspersa (Mull.), common.

The last named species may owe its presence to human agency, for it was an article of food in Roman times. The remaining species as a whole denote grassland.

We thus see that the history of the ditch is as follows: First grassland, followed in the Early Bronze Age by a growth of bushes and rank vegetation. This was probably replaced at the close of the Bronze Age by grassland. It was ploughland in the Early Iron Age, but reverted to grassland in Romano-British times.

Mr. J. F. Musham informs me that *Ceciloides acicula* (Mull.) and *Clausilia rolfii* (Gray) are not known living from this division (2 South) of Lincolnshire.

REPORT BY A. S. KENNARD, ESQ., A.L.S., F.G.S., ON THE NON-MARINE MOLLUSCA FROM
GIANTS' HILLS LONG BARROW, SEASON 1934

Mr. C. W. Phillips kindly forwarded a large amount of material from many loci, as well as a large number of the larger shells from the excavations at Skendleby. A number of the examples yielded no molluscan remains, and were obviously dug material, but the remainder contained a fair number and I have tabulated the results. In the last column I have noted those species that are known to inhabit the district. It is probable that further research will fill in two or three of the gaps, but at least five species must be considered as extinct.

As a rule grave mounds are very unsatisfactory from a molluscan viewpoint. If constructed of stone, later ingress is very easy and shells of all ages are hopelessly mixed together. A previous exploration will also destroy the validity of the evidence, whilst burrowing animals do not improve matters.

Again, as a rule, the grave is constructed on high ground in a situation not very favourable for snails; they prefer shady and damp conditions. In the present case these difficulties do not exist, with the possible exception of the last, and the obtained results are extremely interesting. There are four loci I have tabulated as contemporary with the construction of the barrow. The soil from the post-hole is clearly of that age and the contained mollusca lived nearby. The conditions indicated are scrub growth and certainly damper than to-day.

Five species were obtained from the earth within skull no. 1 and an egg of a large

snail. I would suggest that they were already in the skull when it was buried. The absence of the carnivore *Cecilioides acicula* (Mull.), though occurring elsewhere in the mound, would lead one to infer that the skull was dry and devoid of all animal matter when it was placed in the barrow. The infilling of the 'empty hole' yielded twenty-three species. The conditions indicated are a scrub growth and very damp. It is clearly 'tip' and was probably brought from lower ground. Practically all the locally extinct species were confined to this sample. The material from the black layer in the tip over the 'empty hole' is also 'tip' and yielded eleven species. This faunule is somewhat similar to that from the post-hole, and the conditions indicated are rather damp scrub with a little grass.

The Early Bronze Age material was obtained from a hearth and the corresponding levels. The former is not a very likely place for mollusca, though the debris of meals would attract them from the surrounding herbage, but I am able to list twelve species which certainly lived on the spot. The faunule is very similar to that obtained from the post-hole and indicates a scrub growth and damper conditions than to-day.

The Late Bronze Age hearth and level yielded twenty-four species, but far more material was sent and it was more prolific in specimens. A scrub growth with abundant herbage and damp conditions is indicated, with a certain amount of grass.

Sixteen species were obtained from the Early Iron Age hearth and levels, and they indicate ploughland with adjacent coarse herbage. In the former the larger species are only represented by fragments, but the shells were perfect in the hearth.

Most of the damp-loving species have disappeared, though one or two manage to survive.

From the Romano-British level I have determined eight species, indicating grassland and conditions of rainfall similar to those of the present day. The presence of numerous examples of *Helix aspersa* (Mull.), many of them broken, may be due to human agency, for this species was commonly used for food during that period. Its occurrence only at this level is additional proof for the view that it was introduced over the greater part of England at that time. There was no clear proof that any of the examples of *Cepeaea* had been used for food at any level.

Band formulae of *Cepeaea nemoralis* (Linn.):

	Beaker.	Late Bronze.	Early Iron.
1 2 3 4 5 .	5	23	4
1 2 3 (4 5)	2	—	—
(1 2 3 4 5) .	2	10	1
(1 2 3) (4 5)	1	7	2
0 0 3 0 0 .	3	5	1
0 0 0 0 0 .	1	3	—

These figures, though not dealing with very numerous examples, seem to show that but little change occurred in the banding from the Beaker period to the Early Iron Age.

It should be noted that, judging from the mollusca, there was not that marked break in Middle Bronze Age times which has been shown to occur in Wiltshire, and the damp-loving species lived on until the Early Iron Age. This may be explained by the fact that the Skendleby faunas were obtained from a deep ditch which would show much damper conditions than the level ground. Depressions filled with leaf mould always

yield far more snails, especially the damp-loving ones, than the surrounding ground. When once established it is surprising how some species manage to maintain their existence under very adverse conditions.

They are just 'relicts' indicating former conditions which have passed away. At Skendleby the deep ditch provided them with the necessary conditions, whilst elsewhere the damp-loving species had disappeared owing to the decreased rainfall. I am greatly indebted to Mr. J. F. Musham for the information relating to the present distribution of the species in Lincolnshire.

	Infilling of 'Empty Hole'.	Post-hole.	From Skull No. 1.	Black layer over 'Empty Hole'.	Early Bronze.	Late Bronze.	Early Iron.	Romano- British.	Living in the district.
<i>Pomatias elegans</i> (Mull.)	R	R		R	C	R	R		X
<i>Carychium minimum</i> (Mull.)	C	VR		VR	R	C	VR		X
<i>Lauria anglica</i> (Fer.)	VR								
<i>Pupilla muscorum</i> (Linn.)				VR		R	R	R	X
<i>Vertigo pusilla</i> (Mull.)	VR								
<i>Vertigo pygmaea</i> (Drap.)				VR				R	X
<i>Columella edentula</i> (Drap.)	VR								
<i>Acanthinula aculeata</i> (Mull.)	VR					VR			X
<i>Acanthinula lamellata</i> (Jeff.)	VR								
<i>Vallonia eccentrica</i> (Sterki)		VR				C	C	R	X
<i>Vallonia costata</i> (Mull.)	VR			R		R			
<i>Cochlicopa lubrica</i> (Mull.)	R			VR	R	R		R	X
<i>Ena obscura</i> (Mull.)							VR		X
<i>Punctum pygmaeum</i> (Drap.)	VR								X
<i>Goniodiscus rotundatus</i> (Mull.)	A	VR	VR	VR	R	C	VR	R	X
<i>Arion</i> sp.	C	C	VR	R	R	C	C		X
<i>Helicella cellaria</i> (Mull.)	C	VR	VR	VR	R	VR	VR		X
<i>Helicella nitidula</i> (Drap.)	VR					R			X
<i>Helicella pura</i> (Ald.)						VR			X
<i>Helicella radiatula</i> (Ald.)						VR			X
<i>Vitrea crystallina</i> (Mull.)	C	C	R		R	C	VR		X
<i>Limax maximus</i> (Linn.)	VR								
<i>Xerophila itala</i> (Linn.)						VR	C	R	X
<i>Trochulus hispidus</i> (Linn.)	R			VR	VR	VR	R		X
<i>Vortex laticosta</i> (Linn.)	VR				VR	VR			X
<i>Arianta arbustorum</i> (Linn.)					R	R	VR		X
<i>Cepeaea nemoralis</i> (Linn.)	C	VR	VR	VR	C	C	C		X
<i>Cepeaea hortensis</i> (Mull.)	VR					VR			X
<i>Helix aspersa</i> (Linn.)								C	X
<i>Balea perversa</i> (Linn.)	VR								
<i>Clausilia rugosa</i> (Drap.)	R					VR	VR		X
<i>Clausilia rolfii</i> (Leach)	VR				R	VR	VR		
<i>Marpessa laminata</i> (Mont.)						VR			X
<i>Cecilioides acicula</i> (Mull.)		R				VR	VR	R	

An ovum of a *Helicoid* was also present in the earth from the skull.

VR = very rare, less than five examples.

C = common, between ten and fifty.

R = rare, between five and ten.

A = abundant, more than fifty.

APPENDIX IV.

REPORT BY J. CECIL MABY, ESQ., B.Sc., A.R.C.S., F.R.A.S., UPON CHARCOALS, SOILS, ETC., FROM GIANTS' HILLS, SECTION A-B, 1933.

Romano-British horizon :

Crataegus sp. (Hawthorn). I am almost certain of this, but the pieces were minute and in bad condition. If not Hawthorn the most likely alternative is *Pyrus* sp. (Apple, Pear, etc.). 4 pieces.

Late Bronze Age horizon :

Corylus sp. (Hazel). Mature wood. 7 pieces.

Crataegus sp. (Hawthorn)? Very small pieces of early formed wood. Might possibly be *Pyrus* sp. (Apple, Pear, Service, Guelder, etc.). I think Hawthorn most probable. 5 pieces.

Fraxinus sp. (Ash). Early formed wood of poor growth. 3 pieces. Mature wood, tangentially collapsed or perhaps compressed. 9 pieces.

Early Bronze Age horizon :

Alnus or *Corylus* sp. (Alder or Hazel). Mature wood in bad state of preservation. Might also be Hornbeam (also very similar structure) but most like Alder. 7 pieces.

Crataegus sp. (Hawthorn). Early formed wood. 1 piece.

Corylus sp. (Hazel). Mature wood. 2 pieces.

Fraxinus sp. (Ash). Mature wood. 2 pieces.

Taxus sp. (Yew). Not well preserved, but the structure agreed with that of Yew better than anything else. Might conceivably be Juniper (*Juniperus communis*); could not be Scots Pine (*Pinus sylvestris*). 8 pieces.

Neolithic horizon :

Corylus sp. (Hazel). Very small fragments, but could not well be any other wood. 3 pieces.

SPECIMENS SUBMITTED IN 1934

The charcoals were an interesting lot as they contained yew, elm, cherry (?), and a few small fragments of what looked very like some 'red oak', which I have not encountered before. There is, however, so much possible structural variation (within a limited range—usually generic, but not specific) in woods such as oak, that I cannot positively vouch for Red Oak; though the structure is certainly typical of the Red Oak group, not Common Oak, White Oak, etc.

As the Turkey Oak (*Q. cerris*) is a native of S. Europe and the Levant, and was only supposed to have been introduced about two hundred years ago, it may be presumed that these samples must be merely typical fragments of the Common Oak, *Q. robur* L. or *Q. sessiliflora* Salisb.; but it is important to record all these vagaries (?) as a matter of ecological and morphological botanical interest. As for the Yew wood, I do not think that there is any reasonable doubt about this, though it is not very common amongst

ancient charcoals. I imagine that it still grows somewhere in the locality. The only other coniferous wood that it might conceivably be is Juniper (*Juniperus* sp.); but the structure, so far as I can make out without resort to costly and lengthy micro-sectioning, is almost certainly that of Yew.

Carbon from loam on old ground surface east of Revetment Trench :

- Corylus* sp. (Hazel). Mature wood. 4 pieces.
- Crataegus* sp. (Hawthorn). Mature and early formed wood. 2 pieces.
- Fraxinus* sp. (Ash). Early formed wood from branch. 3 pieces.

Charcoals from deposit over 'Empty Hole', mainly from black layer :

- Corylus* sp. (Hazel). Early formed wood. 4 pieces.
- Ditto? from branch? 1 piece.
- Crataegus* sp. (Hawthorn). Mature wood. 2 pieces.
- Fraxinus* sp. (Ash). Early formed wood, from branch(?). Contained tunnels of wood-boring larvae. 5 pieces.

Charcoals from Early Bronze Age 'A' beaker hearth :

- Alnus* or *Corylus* sp.? (Alder or Hazel?). Might be Alder, but more likely to be Hazel, unless Alder grows plentifully in the neighbourhood. 4 pieces.
- Corylus* sp. (Hazel). Mature wood. 1 piece.
- Fraxinus* sp. (Ash). Mature wood, compressed or collapsed tangentially. In thin flakes parallel to the growth rings. 10 pieces.
- Prunus* sp. (Cherry or Plum). Probably Bird Cherry, *P. avium*. Mature wood. Some pieces in poor state of preservation, and some rather resembling Hawthorn. 27 pieces.
- Quercus* sp. (Common oak?). Structure of these fragments very closely resembled that of a Red Oak, e.g. *Q. rubra*, or Turkey Oak, *Q. cerris*. 3 pieces.
- Ulmus* sp. (Elm). Mature wood. Presumably Common Elm, *U. campestris*. 4 pieces.

Charcoals from large Late Bronze Age hearth in lower ditch :

- Corylus* sp. (Hazel). Mature wood mostly, some badly collapsed tangentially. 37 pieces.
- Early formed wood. 9 pieces.
- Crataegus* sp. (Hawthorn). Early formed wood. 32 pieces.
- Mature wood. 11 pieces.
- Fraxinus* sp. (Ash). Mature wood. 1 piece.

Charcoals from under cobbled area :

- Taxus* sp. (Yew). Many fragments, all of which may well have come from the same original piece or tree. Some had as many as 200 rings to the inch, others as few as only 10. 45 pieces.

NOTE.—In the latter instance I examined all the largest fragments and a few of the smallest at random, and concluded that the whole lot was the same wood.

The variation in ring width is remarkable, even though Yew is famed for its slow growth. In fact, one small piece showed no less than 55 rings (on the transverse

section) within the width of $\frac{1}{4}$ of an inch. The extraordinary nature of this fact may be appreciated when it is realized that a fast-growing conifer, such as a pine, may produce only one ring per $\frac{1}{4}$ of an inch of cross-section on an average; or the rings may be as wide as $\frac{1}{2}$ or $\frac{3}{4}$ of an inch, as I have seen for myself when some fine pines were cut down during the War in Windsor Great Park.

This is to say that the yew in question grew about fifty to a hundred, or more, times slower than a normal fast-growing conifer of another species; or even more than that, if one takes into consideration that the height as well as the girth growth is typically less in a Yew.

In any case this wood showed the narrowest rings I have encountered personally; and I have had occasion to examine some exceptionally slow-grown trees from time to time. I do not know for certain, but I should say that 200 or more rings per inch must be about a record.

Charcoals from Revetment Trench:

Specimen I. *Quercus* sp. (Common oak). Mature wood. Many small fragments from one original piece.

Specimen II. Condition too poor and fragmentary to allow of certain identification, but dubious external morphology suggestive of coarse-textured, porous wood with large medullary rays—possibly *Quercus* sp. (Common Oak).

Specimen III. Last traces of post from bottom of trench(?). By rough micro-chemical analysis: A vacuolar mass of carbonized organic matter, lacking any clear morphological structure (but resembling Specimen II), infiltrated by a rather greater proportion of calcium carbonate (with a few small mollusca), silicates (clay?), and a little fine, semi-rounded, ferruginous sand.

The whole mass very friable, and disintegrated immediately in water into two portions—the thin (apparently structureless) laminae of carbonaceous matter, and the infiltrated mineral matter. Botanical identification of the former was not possible as the material was internally amorphous.

Charcoal from loam bank on NW. side of Burials:

Corylus sp. (Hazel). Mature wood. 4 pieces.

Salix or *Populus* sp. (Willow or Poplar). Mature wood. Probably Willow. 1 piece.

Fraxinus sp. (Ash). Mature wood, *radially* compressed (very unusual). 2 pieces.

Specimens from a dark layer on the old ground surface round the line of stones by the burials:

Internally, consists of masses of clay and ferruginous sand, with occasional lumps of chalk and a little finely divided calcium carbonate. Also numerous small particles of wood charcoal, five of which were good enough for identification as

Alnus or *Corylus* sp. (Alder or Hazel). Probably Hazel; early formed wood. 4 pieces.

Fraxinus sp. (Ash). Mature wood, well preserved. 1 piece.

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On the surface of the clay lumps was a thin layer of carbonized organic matter, very possibly compressed and rotted wood charcoal; but too amorphous for specific identification. Longitudinal grain and occasional cellular structure was, however, here and there indicated superficially. Probably a fine textured wood such as hazel.

There was also an embedded tubular structure (carbonized) that may have represented a hollow plant stem (e.g. a small rush) or stem of an annual plant with the middle tissues rotted away. In general the deposit struck me as resembling a hearth of charcoal remains, laminated by pressure upon a clay bed, with additional clay on top, and occasional stray (uncompressed) charcoal fragments, etc., in the clay matrix above and below the main hearth level. If it were a fired natural vegetation layer the appearance of wood grain in the main layer and the other scattered charcoal fragments would scarcely be expected.

Carbonized fragments of hazel-nut shell were recovered from the loam on old ground surface immediately to the east of the Revetment trench and also from the black layer in the deposits over the 'Empty Hole'.

Three *carbonized seeds*, possibly *wheat*, were recovered from the same black layer and from a point on the old ground surface some distance west of the burials.

GENERAL LIST OF WOOD REMAINS BY PERIODS.

Neolithic: *Corylus* sp., *Crataegus* sp., *Fraxinus* sp., *Quercus robur* L., *Salix* sp.

Early Bronze Age: *Corylus* sp., *Alnus* sp., *Crataegus* sp., *Fraxinus* sp., *Taxus* sp., *Quercus robur* L., *Ulmus campestris*, *Prunus* sp.

Late Bronze Age: *Corylus* sp., *Crataegus* sp., *Fraxinus* sp., *Taxus* sp.

Romano-British: *Crataegus* sp.

IV.—*The use of Continental woodcuts and prints by the 'Ripon School' of Woodcarvers in the early sixteenth century.*

By REV. J. S. PURVIS, M.A., F.S.A.

Read 9th May 1935

THE number of instances in which it is possible in this country to assign, even tentatively, particular groups of medieval works of art to particular craftsmen is not so great that the addition of another such group can be without interest, or even without importance. Certain evidence exists which may justify the addition, to the list of recognized craft-centres, of a group of woodcarvers working originally at Ripon and dwelling there, but executing work widely distributed, and also imitated, over Northern England. That evidence must first be examined in order to establish the use of such a title as 'The Ripon School'.

For some thirty years, or a little less, it has been pointed out by various writers that the carved choir stalls of certain great churches in the north of England had so many points of resemblance to each other, in style and in design, that some connexion in origin must be indicated. Indeed, these points have been held to furnish collectively a definite 'family likeness'. There was doubt, however, whether a resemblance which was too close and too complete to be accidental might be due to the operations of a travelling band of carvers, or whether the different sets of stalls were executed at a common craft-centre such as York, or the craftsmen at one church had merely imitated the work of carpenters employed at another member of the group. Instances of all three of these methods are well known, of course, in more than one form of medieval art; it will be remembered that the great rood-screen at Newark is attributed on sufficient grounds to the workshop of Thomas Drawswerd, carver and image-maker of York, and Mayor of that city in 1515, who also submitted an estimate for certain image-work in King Henry VII's chapel at Westminster. Professor Lethaby has pointed out¹ how 'the marblers of Corfe, the alabaster men of Nottingham, the masons of Barnack and the bronze-founders of London and Gloucester' conducted 'large distributing trades'. The 'Cheyne atelier' of effigy-sculptors at York provides a similar instance of wide distribution. In the particular case of wood-carving Mr. Howard has illustrated the work in

¹ *Westminster Abbey and the King's Craftsmen*, 241.

the 'Western School' of local centres of carving for churches, and the possibility of identifying, in the 'Eastern School', the work of town centres for churches widely scattered from the place of origin.¹ The screen at Yatton in Somerset is an example of imitation; the screens at Campsall, Yorkshire, and Mobberly, Cheshire, may be accepted as the work of a travelling group. Certain districts, it is generally recognized, have developed a distinctive local and traditional style; Devonshire, Norfolk, South Yorkshire would provide good instances of this. The district round Sheffield and Rotherham shows a style of distinct individuality which affords a useful comparison with what will be called the 'Ripon Group', the more so as the two groups are of approximately the same date; of this Sheffield style the church at Ecclesfield supplies a good example (pl. xxv, fig. 1).

Various writers, then, have detected what they have called a 'family likeness' between the choir stalls of Ripon Minster and Beverley Minster in Yorkshire, of Manchester Cathedral in Lancashire, the bench-ends of Wensley church in Yorkshire, and, very much more dubiously, two bench-ends in Barkstone church, Leicestershire, and certain bench-ends now in Durham Castle but originally constructed for the bishop of Durham's chapel at Bishop Auckland. These writers have found one of the great criteria of the 'family likeness' in the peculiar type of bench-end common to all members of the group. This type, illustrated here by an example from Manchester (pl. xxv, fig. 3), shows a remarkable development of the forward edge of all the principal standards in the set of stalls. Standing free of the bench-end is a shaft square in section, set with an edge and not a face towards the standard; this diagonal shaft standing free appears to have been an architectural innovation much favoured and widely used in the fifteenth century, especially in and near York. In the lowest part of the bench-ends, the shaft is housed within a pierced arcade; in the centre section it rises through a little building with gabled roof supported on two columns; above that it is pierced with one tier, or sometimes two, of small cusped openings and runs up to a heavy, decorated bracket on which squats some heraldic beast. The example illustrated from Manchester dates from the first decade of the sixteenth century; the bench-ends at Wensley (pl. xxv, fig. 4) show the style some twenty years later in its latest and inferior stage. Supplementary, but almost equally distinctive, criteria are a range of magnificent poppy-head designs and the treatment of the main panel of the bench-ends, particularly by free use of heraldry and of suspended shields.

The earliest member of the group, Ripon Minster, has misericords dated 1489 and 1494. In general design, the stalls here are in the direct line of tradition for the evolution of English choir stalls, but examination shows

¹ *English Church Woodwork*, 36, 37.

certain important modifications. At Carlisle, where the stall-canopies date from 1433, the upper pinnacles are somewhat attenuated, the bases of the image-stands are convex, the middle course is of slight projection, and the pinnacles to the lower stage are flat faced. With no intermediate phase, Ripon (pl. xxvi, fig. 1) presents a remarkable change; indeed, Mr. Francis Bond has called the Ripon stalls 'a criticism of Carlisle'. The upper pinnacles have been rearranged and shortened;—this alteration was made presumably in order to allow the better introduction of a new feature, the tester—the image-stands are now concave; the middle course has been strengthened and projects boldly. The pinnacles of the lower stage have been entirely regrouped and greatly enriched. The general effect is to give far greater coherence and variety, and richness of light and shade. This scheme, once elaborated, was fixed and never altered. Manchester (pl. xxvi, fig. 2) shows the design in perfection by having retained the tester which completes the scheme, forming a rich, noble, dignified conception.

The stalls at Beverley Minster, which number no less than sixty-eight, are dated 1520; in some respects they are clearly weaker than those at Manchester. They retain fragments of the original tester, which have been worked up in a modern reconstruction of the organ loft (pl. xxvi, fig. 4). At first sight these fragments seem to show Renaissance influence—almost the only detail in all the works of this group where such elements may be detected—but this appearance of influence diminishes on examination.

But other members may be added to the great group of three from places which have been less fortunate in escaping damage and destruction. Precisely the same features which link the bench-ends of the great sets of stalls may be found in the magnificent pair now in Aysgarth church. Each of these is decorated with a rebus, which connects it with the neighbouring abbey of Jervaulx; one bears the rebus of William Heslington—a W over a hazel-branch fixed in a tun; the other (pl. xxvi, fig. 5) has also a rebus, still uninterpreted—a mitre and crozier of an abbot, the shaft of the latter passing vertically over a shield *guttée* charged with the initials H M; no tinctures are indicated. Perhaps a more correct reading would see the initials as H W; it is difficult to decide with confidence whether M or W is intended. The combined evidence of the carvings suggests that the Jervaulx stalls were executed when Heslington was not yet abbot; his *floruit* as such is generally placed about the year 1510. Perhaps, therefore, they should take a place in the series a little earlier than Manchester, and possibly second only to Ripon, in the first five or six years of the sixteenth century. The same church has also a fine fragment of a parclose screen with doors, in the canopy of which the same initials H M or H W appear as part of the design in several places, particularly in the

centre of the cornice decoration. No abbot of Jervaulx with these initials is otherwise known, but the occurrence of the initials on the screen as well as on the bench-ends is practically conclusive against the view that the screen was originally made for Aysgarth church.

Wensley church, only a few miles distant from Aysgarth, contains, besides the benches of 1527 already mentioned, portions of an elaborate screen, which in the sixteenth century was worked up into the Bolton Pew and much enlarged in the seventeenth century (pl. xxvii, fig. 1). Here, again, the work shows strong affinities to 'Ripon'; the heraldry on suspended shields, the range of crocket-forms, the mouldings are all of 'Ripon' type. In particular the tracery bears a remarkably exact and complete resemblance to that of the Jesus chapel screen at Manchester Cathedral, which was set up by the carvers of the stalls (pl. xxvii, fig. 2). The Rev. H. A. Hudson, F.S.A., in his classical work on the Manchester stalls and screens,¹ states definitely that 'it may be demonstrated by certain clear evidences that Richard Beswicke, the founder, employed the same craftsmen on this work as upon the stall-work which he gave to the quire'. This screen-work at Wensley is identified unquestionably by the inscriptions incorporated in the cornice as derived from a Scrope chantry. In the form given by Dodsworth, who saw the inscriptions in 1622 more complete than they are now, these run:

On the Western face of the screen, as now set up,

HERE LYETH HENRY SCROPE KNIGHT THE THIRDE OF THAT NAME AND RIGHT
LORDE SCROPE OF BOLTON AND ELIZABETH HIS WIEF DOUGHTER . . .

On the Northern and Eastern faces,

HERE LYETH HENRY SCROPE KNYGHT THE VII OF THAT NAYME THE IX LORDE
OF BOLTON ANDE MABELL HIS WYFE DOUGHTER TO THE LORDE DAKERS DE
GRAYSTOCK.

Dodsworth has preserved also a tradition that the screen was brought from 'St. Aggas Monastery', that is, Easby Abbey, beside Richmond, by John, Lord Scrope, who died in 1549; to this Abbey the family of Scrope had long been generous benefactors. The rich display of heraldry fixes the date when this screen was constructed as not far from 1510. When so rescued, the woodwork was re-erected as the Bolton Pew in the former chapel of the Blessed Virgin at Wensley, which had been served by Easby Abbey. The view that the screen was intended, or originally made, for Wensley church seems untenable (pl. xxviii, fig. 1).

The 'family likeness' may also be traced by the study of the canopies.

¹ *The Mediaeval Woodwork of Manchester Cathedral*, III.

The chief screen in Flamborough church has canopies over image-niches, which show a very exact correspondence with the 'Ripon' stall canopies (pl. xxvii, fig. 3); there is reason to conjecture that this screen came from the neighbouring priory of Bridlington, for which the Ripon carvers unquestionably worked. Further, Mr. Hudson speaks of 'a trail of curling leaves (at Manchester), a late form found in a similar situation on one of the Flamborough parcloses, and exemplified also in the stallwork at Beverley Minster'.

There remain certain fragments which on the evidence of style may be assigned confidently to the Northern Group, and these will lead us to the identification of the carvers themselves. In the remote church of Leake, near Northallerton, are two bench-ends of unmistakable 'Ripon' type (pl. xxviii, figs. 2 and 3). Each bears a rebus as its principal decoration. That on the south side of the church has a figure bearing on its left arm a book on which lies a small lamb; the figure stands on a barrel or tun, over which is a label with the letters HOMP; the whole forming a rebus of John Hompton, who was prior of the Augustinian House of Bridlington from 1510 to 1521. Below this figure is a label with the inscription A° Dⁿⁱ M° XIX° HOC OPUS FACTUM EST. The other bench-end has a rebus of two keys in saltire on a suspended shield with the letters HARDE, for Peter Hardy, who is known to have been sub-prior of Bridlington in 1518. The small and secluded church of Over Silton, in the hills three miles north of Leake, has a standard almost identical in design with the Hompton standard, but bearing under a typical 'Ripon' canopy a shield, surmounted by a helm and mantling, *barry of six, or and azure, a bend gules*, the arms of de Gant, who were the founders of Bridlington Priory. This standard is so worm-eaten that it is past rescue (pl. xxviii, fig. 4).

The bench-ends at Leake have been noticed in various publications, more or less reliably, but the bench-end in Over Silton has not been described. Nor had it been noticed that in the comparatively modern altar-rails at Leake certain pieces of earlier carved woodwork had been incorporated. These pieces have been seriously maltreated, the cusping broken away along the curved side, and the upper end of each fragment shortened by the sawing-off of one or two inches; the fragments number sixteen, of which five only bear fitting-numbers: I, II, V, IIIIV, XIII. Unpromising though they may appear in their present state, it is possible to refer them with some confidence to their original position. An examination of the traceried spandrels of the tester over the north side of the Manchester stalls reveals a remarkable similarity, and encourages the supposition that we have at Leake the fragments of the Bridlington tester. Thus the classical and crowning innovation of the 'Ripon style' appears again (pl. xxviii, figs. 5 and 6).

The close analytical study of all this woodwork provides something of an

answer to the question how it was possible for a small group of carvers to execute this very large amount of carved work of high quality between 1489 and 1527, even in the long working hours of the medieval craftsman. Comparative measurements show that the Ripon School anticipated with notable completeness modern industrial methods, for every detail throughout is carefully standardized. The main bench-ends have a standard height of 52 in., a width of 15 in., and a thickness of $3\frac{1}{2}$ in.; the pinnacles are of uniform size, as are the misericord seats and all the members of the construction. Moreover, there is a remarkable economy in design; a limited number of elements is used over and over again in different relations and combinations in different parts of the scheme. The carved canopies on the East returned ends of the Ripon stalls (pl. xxviii, fig. 7) are almost epitomes of the whole style, and may be recognized in part or in whole at Manchester, on the Flamborough screen, the Hompton bench-end, or the Beverley canopies. The same bit of design appears without alteration in a dozen different associations; a flower which is frequently worked into a poppy-head appears as a supporter on a seat-carving; the eighth seat on the South side at Manchester has supporters identical with those of the sixth on the South side at Beverley, except that the dexter is counterchanged for sinister. The whole design of a seat-carving at Ripon occurs without alteration at Manchester and at Beverley. Great versatility has been exhibited in finding new relations for the same bit of design; the number of ways in which the subjects of a gable surmounted by three pellets, or of a pierced shaft, are employed is astonishingly large.

Yet, in general, Manchester shows an advance on Ripon in technical accomplishment, in richness, and in sureness; Beverley exhibits in some points of technique a slight weakness, a hesitation, a decline.

But to point out such economy or repetition in design and standardization in structural details is not to disparage the magnificence of the total achievement. The standardization and methods of mass production, so thoroughly and consistently applied in this case, are perhaps definitely significant of industrial conditions and not confined, amongst craftsmen of this period, to this particular school or to this particular craft. Over and above any such considerations, more notable than manual skill or ingenious variety, this wood-carving is great art; it has the strength with restraint, the richness with simplicity and dignity, the perfect control of material, and the sense of fitness which can only belong to masterpieces produced by sure knowledge and supreme power of execution.

In one important particular the Ripon School showed itself capable of bold originality in departing from the traditional line of evolution. There is no evidence to show conclusively whether Ripon ever possessed a tester as an

essential part of the design for stalls with their canopies, though the balance of probability is perhaps not in favour of such a supposition; the pinnacles of the upper stage are still tall spires. But undoubtedly at Manchester the tester is an indispensable part of the whole scheme, without which the balance of the design would be incomplete. Yet whether introduced in 1489, or more probably in 1508, the tester appears to be an entire innovation, something quite unheralded in the tradition of choir-stall design in this country. Evidence of origin appears to be lacking which would help to decide whether this feature was indeed a creation of the Ripon men or whether perhaps the idea was derived from some foreign model. Certainly the uncompromising horizontal line of the upper edge, closing the design with such finality, comes strangely after the Gothic forest of pinnacles and spires of Chester and Carlisle. Until the stalls of King's College Chapel, Cambridge, were set up in 1531-5, the tester would appear to have been confined in England to the works of the Ripon carvers.

It is perhaps worth while to observe in passing that, with one exception, all the scattered fragments of wood-carving, as distinct from the complete sets of stalls, which can be attributed to the Ripon School are to be found in churches where some member or ally of the family of Scrope of Bolton was influential. Here, also, may be the most suitable place to mention again the stalls now in the Upper Chapel of Durham Castle. In spite of their resemblances to Ripon work, they present such marked differences as to justify the verdict that they were not indeed worked by the Ripon carvers, but were deliberately constructed in imitation of the Ripon model. The debt of inspiration, combined with individual difference, is most notable in the seat-carvings. Similarly, the two bench-ends at Barkstone may be remotely influenced by Ripon, but betray another hand in their unsuccessful proportions. An interesting example of imitation by a less accomplished village carver is to be found in the church of Hauxwell, near Richmond (pl. xxix, fig. 1).

Little can be advanced here which would determine the derivation of the style. There is evidence that both the buttressed bench-end and the detached diagonal shaft were known in East Anglia, probably early in the fifteenth century, and may have originated there (pl. xxix, figs. 2 and 3); on the other hand, the detached shaft set diagonally is used as part of a buttress element in various buildings of about the same date in York, notably in the Church of St. Martin, Coney Street, and in the monument of Archbishop Savage (*c.* 1508) in the Minster there. In Suffolk, also, poppy-heads with a strong general resemblance to those of Ripon may be found, as at Wiggshall, antedating the Ripon examples by some thirty years only. In the absence of definite information conjecture here is not particularly fruitful; moreover, the differences are as great as the resemblances. The Suffolk bench-ends are for pews in the nave of a church, not for

canopied stalls in the quire; the scale and proportion are altogether different. There is little indeed south of Trent which resembles this Ripon work; nearest to it is the elaborate canopy high on the wall of the North Ambulatory of Westminster Abbey, over the door which now leads to the Chapel of St. John. The date of this is probably 1520-1530.

The relation established between the bench-ends at Leake and Bridlington Priory, with the fact that the choir stalls of Bridlington were evidently of the 'Ripon style', has provided the connecting link between the members of the group and the identification of the carvers themselves. In the fourth volume of the *Memorials of Ripon*, published by the Surtees Society (cxv, p. 294), is the text of an Indenture dated 3rd April, 1518, and registered in the Chapter of Ripon on 12th April. The Indenture is between John Ratclyff of Hewyke Bridge, near Ripon, on the one part, and William Bronflet of Ripon, carver, on the other. It provides for the construction and carving of an elaborate loft next to St. Wilfrid's Closet in Ripon Minster. The main ornament of this private oratory was to be a carved figure of St. George upon horseback, with the dragon, and the curious instruction

'... the Georg to hayff towo heds and thre Armes and on the tone hed a Sallet and of the tother hede a Schaplet ...'

This remarkable flight of fancy suggests that wooden figures with movable arms were not always intended only for 'striking Jacks', as some have suggested. The free use and great prominence of heraldry and of decorative texts in the woodwork already noticed as probably the work of one School give a particular importance to a clause in this document where William Bronflet contracts to

'... make the Armes of the said Johan at iiij places in the said loft and over scripts of remembrance ...'

Definite reference is also made to a figure of St. George at Crystall (Kirkstall) Abbey, which William Bronflet was to use as a model. But the chief significance of the contract is in a later provision:

'... Also the said parties are commanded and agreit that incontenent efter that he hays said William fenyschyt his warke at Brydlington that then the said William schalbe gyn wt. the said warke ...'

of the loft at Ripon. The Indenture is dated 1518; the choir stalls at Bridlington were finished in 1519; it is hardly possible that William Bronflet's work there was other than the choir stalls. Other documents published in the *Memorials of Ripon* make it clear that William Carver, alias Bromflet, was the head of a group of craftsmen employed extensively by Ripon Minster about the years 1520 and 1521. The most convincing evidence is supplied by a document printed in vol. iii of the *Memorials* (vol. lxxxi of the Surtees Series, p. 198), a Fabric Roll of date 'about 1520'. The first pertinent entry is for March 14th, 'To

W. Carver, W. Hudson and W. Howyd for various matters with their advice ('cum consiliis suis') 12½d.'

On 24th May, probably, but not certainly, of the same year, William Carver began work in the making of a feretory ('ferrtar'), and in the same week payments were made to Robert Dowyff, Ralph Carver, William Hode, John



Fig. 1



Fig. 2



Fig. 3

Henryson, whose work was 'sawying and clensyng bordes pro floyre', and J. Hogsson. The following week has an entry of a payment 'To William Carver framyng and carvyng i canape pro Corpore Christi per iiiii dies 2s. Radulpho Turett et Roberto Dowyff servientibus dicti Willelmi Carver....' Then follow week by week for a total of thirteen months regular payments to these craftsmen, amongst whom William Bromflet is evidently the chief, engaged on a work of considerable elaboration and extent in Ripon Minster. The final entry in the Roll makes it unquestionable that William Carver and William Bromflet were one and the same:

'William Carver alias Brownflet.

Item pro VI^{xx} fawdom long lyne for the convaans of the shryne with ij lytyll lynys callyed syde ropes, 9s. 8d.'

Eight craftsmen are mentioned by name, with others, perhaps, unnamed, who are included among the 'servants' of William Carver. The William Carver who was wakeman or mayor of Ripon in 1511 was almost certainly William Carver, alias Brownflet (so providing an interesting parallel with Thomas Drawswerd, the almost contemporary carver and mayor of York). Documentary evidence showing explicitly that William and his men worked at Manchester or at Beverley is apparently lacking, but the internal evidence of style, of subject, and of the 'family likeness' is almost sufficiently convincing.

The second division of the subject concerns the attempt to identify the sources of the designs used in the seat-carvings of these stalls. Definite groups of subjects are readily distinguished, some of them by no means uncommon in such medieval woodwork. The closer the study of the art of this period, the more copious are found to be the relations between the various art-forms and the more numerous what may be called commonplaces, the stock subjects and *motifs*, which are independent of local tradition and practice. Comparative analysis of the subjects represented in the stall-seat carvings of English churches reveals at once that certain subjects were used over and over again by successive generations of artists. Subjects which are familiar to us from the decorations of illuminated manuscripts reappear translated into wood, and it is clear that many such were widely accepted as stock designs traditionally popular. One particular group, indeed, that of animal grotesques, or animals engaged in human occupations, has an ancestry far older than any medieval art, for designs of this nature, often strangely similar to those in English manuscripts or carvings, are to be found in Babylon and Egypt or, as Sir Leonard Woolley has lately revealed, in the primitive art of Ur. If, therefore, it is proposed to inquire whence the 'Ripon Carvers' derived the subjects for seat-designs, it would be reasonable to expect, without necessarily charging them with any lack of originality, that traditional *motifs*, such as are found in illuminated manuscripts, will be numerous.

But our purpose is to achieve, if possible, something more precise than a general classification into groups; in addition to such classification, it will be possible to distinguish certain works in one artistic medium as definitely used and reproduced in another by the Ripon Carvers.

There are no designs in the woodwork precisely identifiable as derived from manuscript representations of the months' occupations, or of the seasons, though upwards of thirty elements might be assigned to such groups; neither are there certainly any such from Bestiaries or the *Physiologus*, which provided many subjects for medieval woodwork. Unicorn, elephant, mermaid, camel, pelican in piety, all occur, but with no precise prototype yet recognized. The Romances are hardly represented at all; a scene from the story of Orson appears at Ripon,



Fig. 1



Fig. 2

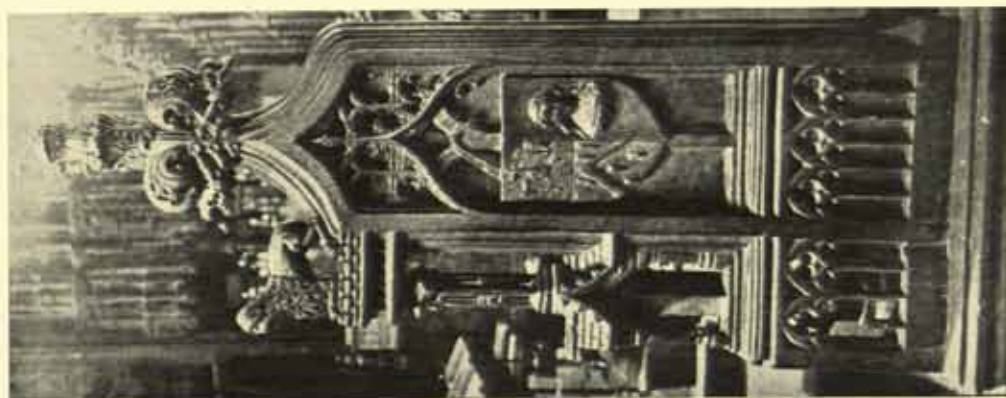


Fig. 3

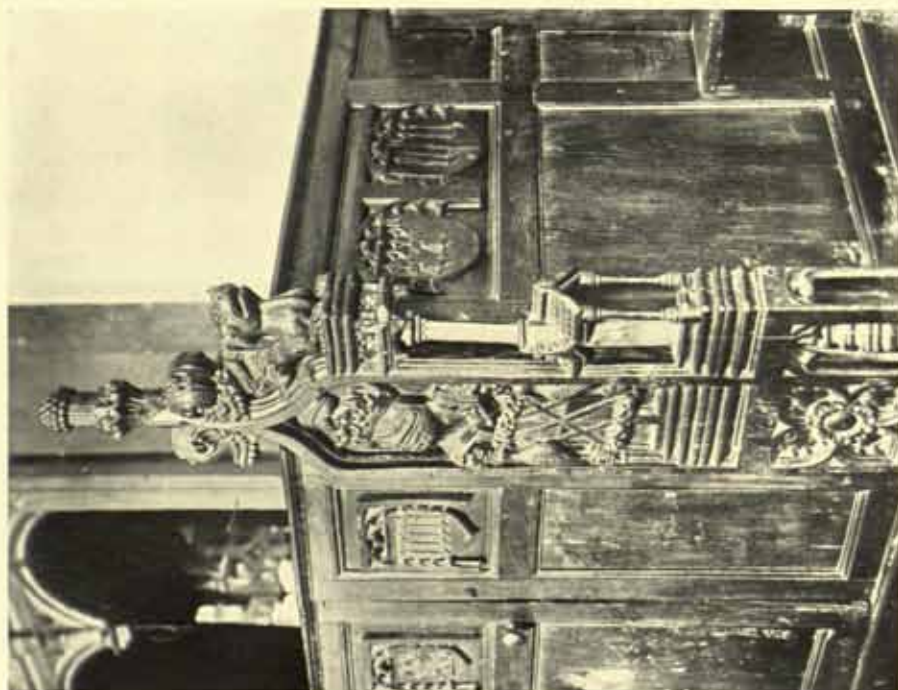


Fig. 4



Fig. 5

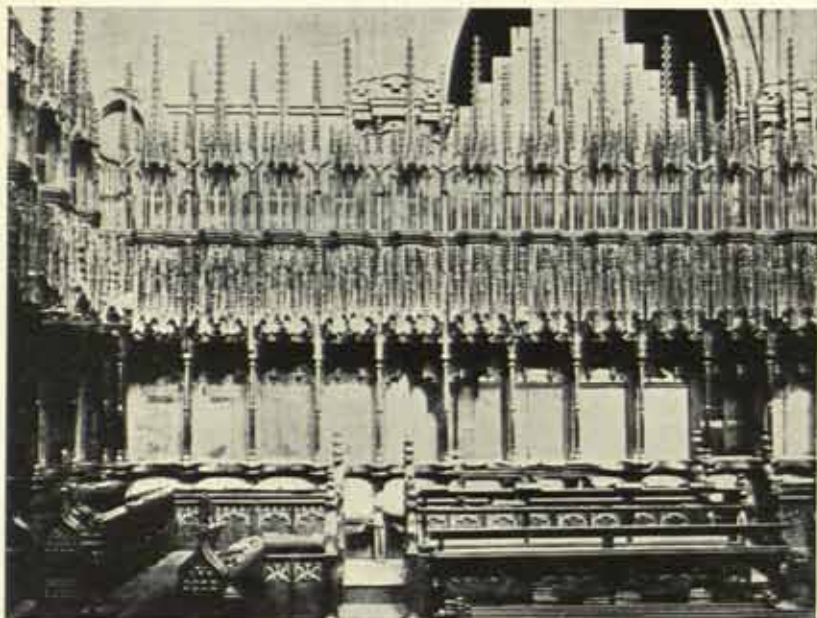
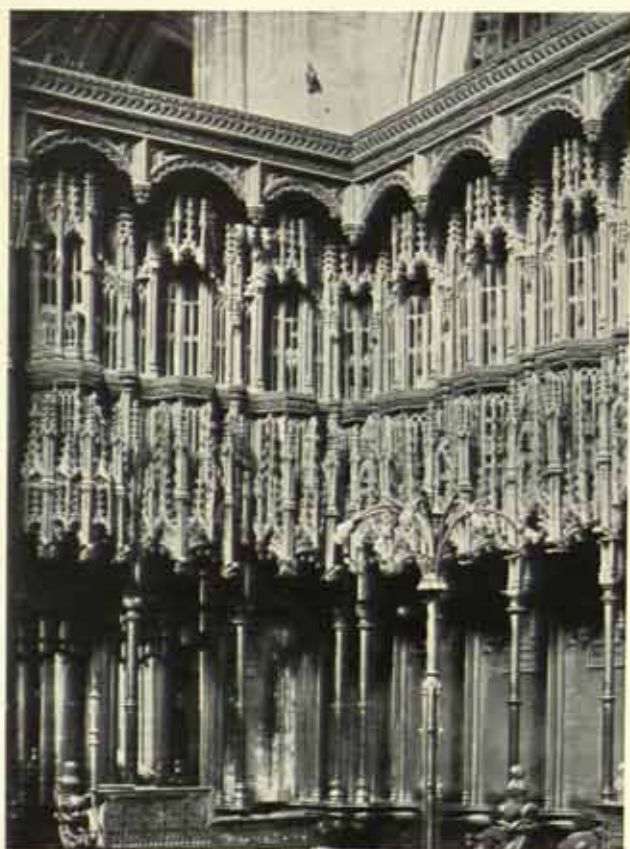


Fig. 1



Fig. 5



By courtesy of Rev. H. A. Hudson, F.S.A., and
Mr. F. H. Crossley, F.S.A.

Fig. 2



Fig. 3

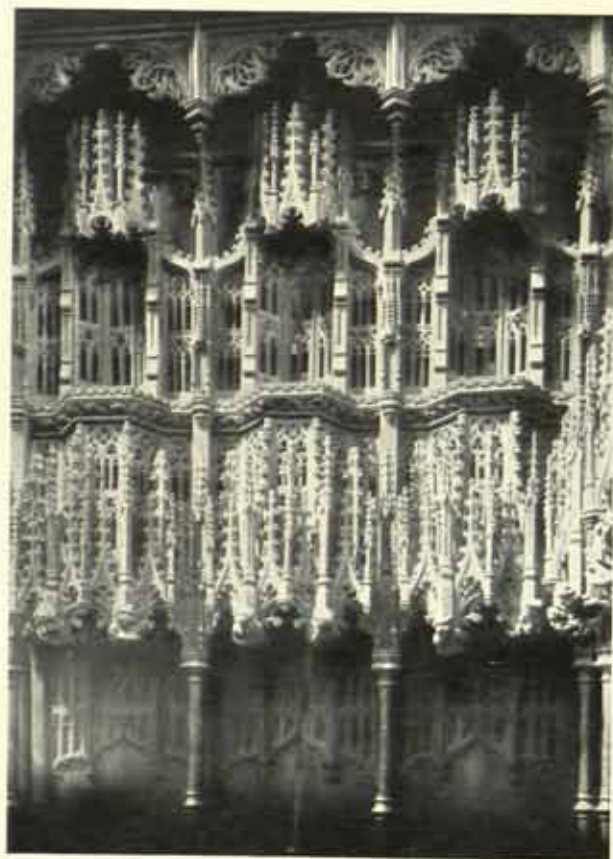
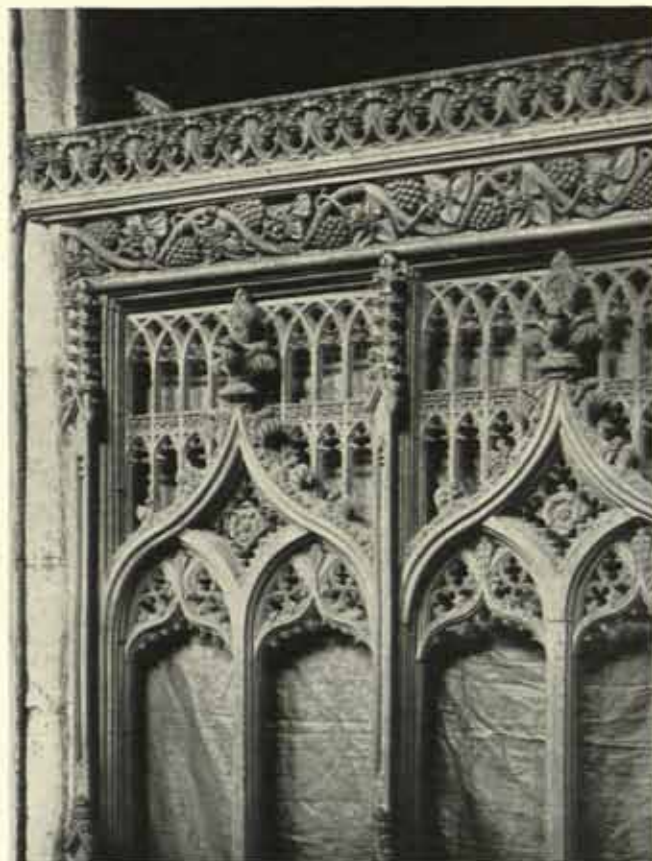


Fig. 4



Fig. 1



*By courtesy of Rev. H. A. Hudson, F.S.A., and
Mr. F. H. Crossley, F.S.A.*

Fig. 2

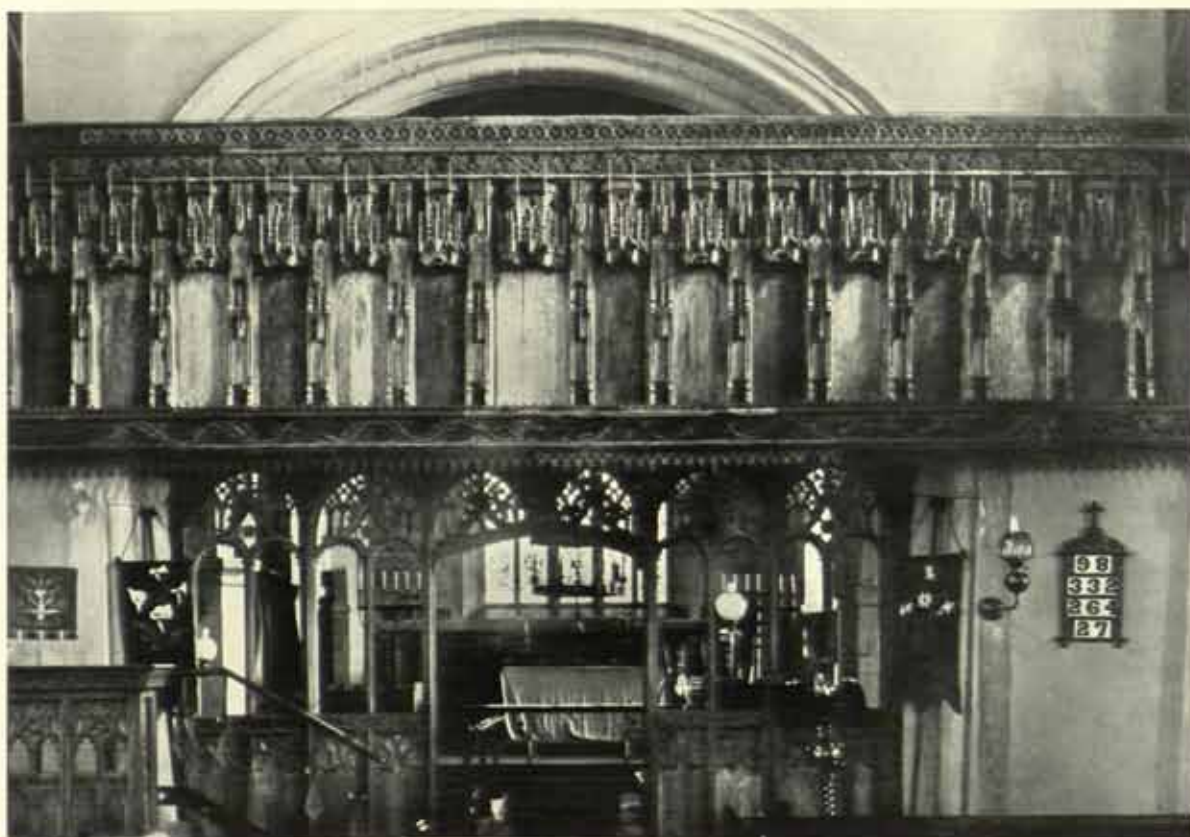


Fig. 3

Published by the Society of Antiquaries of London, 1936



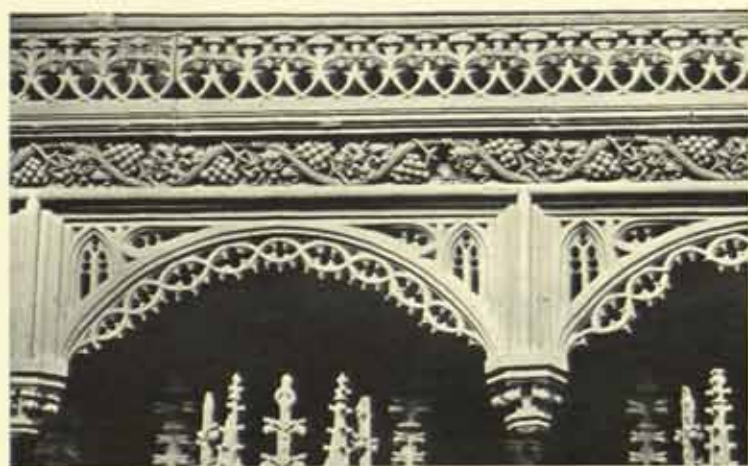
Fig. 1



Fig. 2



Fig. 3



*By courtesy of Rev. H. A. Hudson, F.S.A., and
Mr. F. H. Crossley, F.S.A.*

Fig. 5

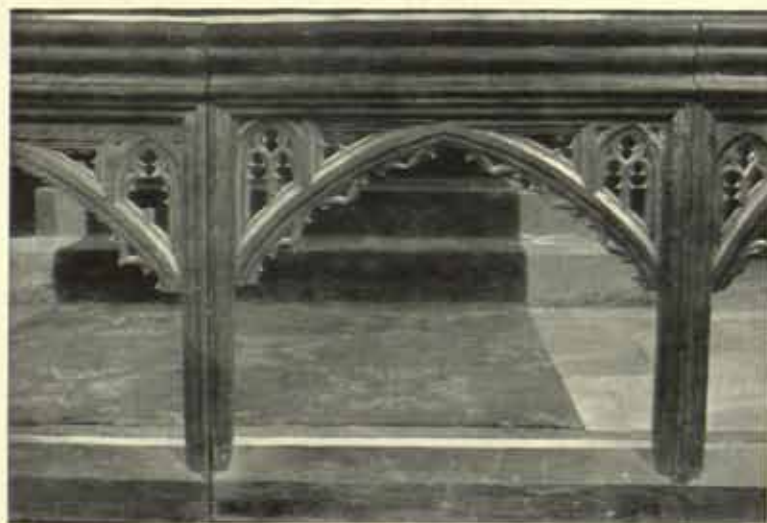
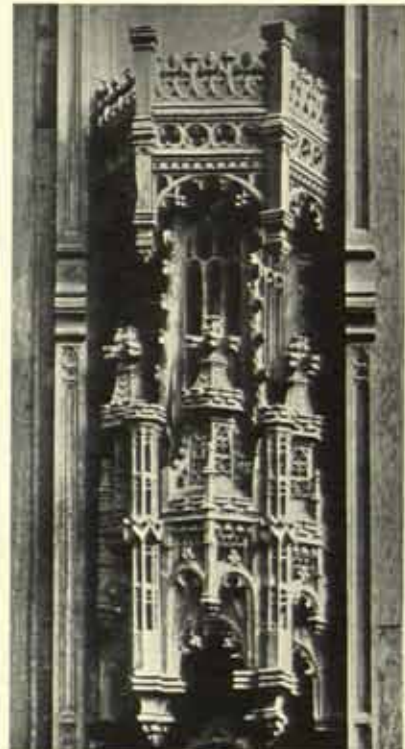


Fig. 6



Fig. 4



T. & E. Cox, Ripon

Fig. 7

another—somewhat more doubtfully—at Beverley; but in neither case has an illustration been found which served as copy to the woodcarver. The scenes which furnished so much material for the humorous element in medieval art are richly represented. Scenes in which apes, or pigs, or cats, are shown as engaged in human occupations—an ape nursing a swaddled baby, an ape as bearward, a hog as minstrel, an ape as doctor—such subjects are numerous in all the three great sets. But again considerable search has failed to identify illuminations which were unquestionably copied by the woodcarvers.

Three stories very popular in medieval manuscripts were popular also with this school of carvers. The satire of the fox preaching to the fowls is illustrated at Ripon and at Beverley; in this instance alone do we find two different treatments of the same subject (fig. 4 and pl. xxix, fig. 4). There seems also to be a definite attempt to associate this story with that of the fox stealing geese and that of the fox hanged by the birds. At least fifteen carvings, either as main subject or as supporter-subject, have some reference to the former episode, and the main subject of a fox running away with a goose slung over his shoulder, while a woman pursues and her child watches from the cottage door, is found in all three cathedrals. This was, of course, a very popular medieval story, and the woodcarvings might almost serve as illustrations to the 'Nuns' Priest's Tale' (fig. 5 and pl. xxix, fig. 5). The subject is found on misericords at Ely (1338) and Carlisle (1401). A useful comparison is with a drawing in the well-known manuscript, Royal 10 E iv; a study of the subjects used by the Ripon Carvers might almost lead to the supposition that at least by 1520, and possibly soon after 1500, the Carvers were acquainted with a manuscript containing a range of illustrations strikingly similar to that in MS. Royal 10 E iv. That manuscript, a copy of Raymund's compilation of the Decretals of Gregory IX with glosses, was written in Italy but illuminated in England (possibly, I suggest, by a scribe with the name of Crane); in the late fifteenth century it belonged to the priory of St. Bartholomew, Smithfield. The illustrations have been reproduced frequently and include the following subjects, which occur in one member or more of the Ripon Group:

Combat of dragons;

Combat between a wodehouse and a naked man who holds a shield shaped like a human face; an unusual subject;

Ape holding flask; this occurs (fig. 6) in identically the same form at Beverley and also at Manchester on the seat where the main carving represents apes robbing a pedlar's pack; so much was the subject a commonplace that it occurs with little difference in Henry VII's Chapel.

Ape leading muzzled bear;

Apes robbing packmen;



Fig. 4



Fig. 5

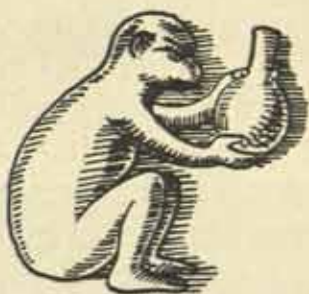


Fig. 6

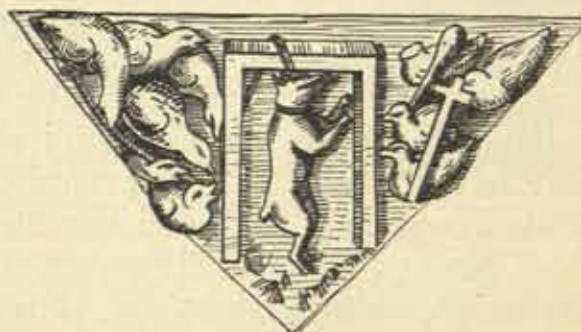


Fig. 7.



Fig. 8



Fig. 10



Fig. 9

Fox preaching to fowls;

Fox stealing geese;

Fox hanged by fowls (fig. 7); the introduction of the mace-bearer in manuscript and misericord is, I believe, entirely restricted to these two instances.

Both MS. Royal E iv and the Ripon Carvers delight in a profusion of columbine flowers. In spite of these remarkable resemblances, however, it would appear rash to suggest any closer connexion between 'Ripon' and this particular manuscript.

Another small but excellent group is provided by direct observation of nature. These are most numerous at Beverley, where such scenes as that of a shepherd patting his dog, a cow licking her side, a hen brooding on four chickens while a fifth sits on her back, are delightful in their fidelity and humour. Beverley, indeed, so late in the series, displays a particular interest in animals and a great felicity in portraying them. It would be pleasant indeed if we could suppose that the learner who tried his apprentice-hand on the birds and puppies of the four Ripon stalls which show such a strong difference from the rest of the seat-carvings there, was responsible, in the days of his more matured art, for these charming little scenes at Beverley.

In a class by itself is the subject of a combat between lion and dragon. Mr. Hudson, to whose labours on the Manchester Cathedral woodwork reference has already been made, has pointed out the connexion between Beverley and the Manchester seat-carving with this subject:

'The likeness to one of the bracket carvings on the Eleanor Percy tomb at Beverley (*c.* 1340) is so striking that it seems certain that the woodcarver here was familiar with this most perfect creation of the mason's art.'

(Hudson, *op. cit.*, p. 52)

A comparison of the stone bracket with the seat-carving undoubtedly gives full support to Mr. Hudson's suggestion (fig. 8 and pl. xxix, fig. 6); the actual shape of the bracket may well have suggested to the woodcarver, by the close resemblance to that of a seat-carving, its easy adaptability as such. It will be noticed that the design at Manchester is a lateral inversion of that at Beverley. There seems a strong probability that one or other of the Ripon Group had made notes of designs at Beverley long before the stalls there were constructed by the Group, perhaps even as early as 1490 or thereabouts, for Ripon has a misericord (21 in Wildridge's numbering) with dragons of the Beverley pattern. The lion-dragon combat on the Beverley stall no. 5 (Wildridge's numbering) is not copied from the bracket on the Percy tomb there.

The rebus and heraldry form the subjects of another group. Examples have been mentioned already of the rebus on bench-ends; Beverley provides

good instances of rebus and heraldry—canting heraldry—combined on misericord seats. The stall of William Wyght, Chancellor of Beverley Minster in 1520, is given a canting shield of a fess between three weights, two in chief, one in base—‘weight’ is still pronounced ‘wight’ in the local dialect—and by a



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15



Fig. 16

favourite trick of the Ripon School, the same idea is carried out on the supporters—men lifting weights—and the little pendants on the back of the stall below the canopy are weights of the same pattern. Also to be included in this group are the rebus-standards from Jervaulx and Bridlington, with other possibly unidentified and unrecognized examples in the three complete sets.

So far, then, recognitions of originals have been tentative and rare; analysis into subject-groups has been easy. But there are carvings which will satisfy both requirements. It has been known for some time that four of the misericord carvings at Ripon were copies of prints in the *Biblia Pauperum*. In each

case, the original print was carefully followed in every essential detail; the few modifications were only those which translation into another medium required. But that translation was most happy, for the flat and somewhat thin wood-print in each case becomes a carving in high relief, full of vigorous life and most satisfying artistically. The carving of Samson carrying off the Gates of Gaza (pl. xxx, fig. 3) follows the original carefully; the attitude and costume of Samson, the form and carriage of the Gates, the walls of Gaza, all are faithful to the woodcut, and this becomes the more evident by a comparison with another treatment of the same subject, approximately contemporary, in the *Speculum Humanae Salvationis* (figs. 9 and 10).

'Jonah cast into the Sea' again follows the woodcut with the utmost fidelity; the whale, the sailors, particularly every detail of the ship and rigging, even to the little flag, are unaltered, while the print of the same subject in the *Speculum* shows obvious differences (figs. 11 and 12, and pl. xxix, fig. 7). So also with the companion picture, of 'Jonah cast up by the whale' (figs. 13 and 14, and pl. xxx, fig. 1). For some reason difficult to conjecture these three subjects of Samson and of Jonah do not occur again in the works of the Ripon School, but the fourth subject, that of the 'Spies with the Grapes from the Promised Land', was popular enough to be repeated at Manchester and also at Beverley (figs. 15 and 16, and pl. xxx, fig. 2).¹ The carving at Manchester is seriously damaged, but enough remains of the feet of the two men and of the staff of the leading figure and the attachment of the bunch of grapes to show that the attitudes of the spies corresponded precisely with those at Ripon; the carving at Beverley is identical with that shown, except for the addition of a small dog which goes before the men. The 'Nobodies', which form the supporters at Ripon only, come from an unidentified source; they are earlier than the somewhat similar figure in the *Nuremberg Chronicle*.

The possibility that other early printed books or single prints had furnished subject-designs to these carvers has led to a search pursued through a large number of volumes of the late fifteenth and early sixteenth centuries, and has produced already results which, though slight, give promise of greater success. Ottley, in his *Collection of Facsimiles of . . . Prints*, London, 1826, figures a woodcut which is identical in design with the carving on Seat 9, in Wildridge's numbering, on the north side of Ripon quire (fig. 17, and pl. xxx, fig. 4). A man, dressed as a peasant in somewhat ragged clothes, and wearing a loose 'Phrygian' cap, wheels in a barrow an aged woman wearing a straw hat with a wide brim turned up in front; she grasps in one hand a long branch and in the other holds up towards the man a flat circular bottle on a strap. The woodcut, exactly followed in the carving, is signed with two initials which were read by Bartsch

¹ It occurs also at Hoogstraten, Belgium. See Bond, *Misericords*, p. 136.

as *B. S.*, and interpreted by him for *Barthel Schongauer*. But Mr. Arthur Hind has pronounced that these are more correctly *B. G.*, an artist who sometimes copied Martin Schongauer's plates; his original work, however, is more closely allied to that of the Master of the Amsterdam Cabinet. It is therefore now possible to assign to this print a date by way of *terminus ante quem* of 1494; the print may have been published, of course, earlier than 1489, when the Ripon stalls were begun, but cannot have reached Ripon later than 1494.

Another print illustrated by Ottley (*History of Engraving*, ii, 661), an engraving by Israel van Meckenen, depicts what may be called the 'Rabbits' Revenge' (pl. xxx, fig. 5). An unfortunate huntsman, fully clothed and with horn at belt, is fastened to a long spit which is being turned before a blazing fire by two rabbits. A third blows the fire with the bellows, and two others also act as cooks, attending to four cauldrons, in three of which portions of the sportsman's hounds are visible; one of these rabbits is taking salt from



Fig. 17

a box suspended on a hook. The engraving is signed I. M.

At Manchester, the fifteenth seat on the north side has an elaborate copy of this engraving, omitting the unsuitable background of foliage (pl. xxx, fig. 6). The supports of the spit have been broken away, but the attachments at each end are clearly visible. The original print is followed very closely, even to the position of the hounds in the cauldrons and the use of the hanging salt-box. The material alterations would appear to be the omission of the animal with the bellows, and the addition of the rabbit-burrows at the outer angles of the composition. Here the *terminus ante quem* must be approximately 1508.

There is a further group of carvings of which it may be said that probably they were derived from woodcuts or prints, but for which undoubted originals have not been identified as yet. Without any undue emphasis on the debt of inspiration, these may be suggested as likely by their unusual style or subject to have been derived from engravings. These are, first, three of the genre type, popular in the late middle ages, of domestic strife.

1. At Manchester, no. 5, north side; a carving much defaced. A woman beats a man; on the ground between them lies a broken pot with liquid running out.

2. At Beverley, no. 25, north side (Wildridge's number) (fig. 18). A woman beats a man whom she holds by the hair; behind her, a dog steals out of a cauldron. This may possibly be after van Meckenen; Bartsch (vi. p. 268, no. 173) describes a similar subject



Fig. 1



*By courtesy of the Director of the
Victoria and Albert Museum*

Fig. 2



*By courtesy of the Director of the
Victoria and Albert Museum*

Fig. 3



T. & E. Cox, Ripon

Fig. 4



T. & E. Cox, Ripon

Fig. 5



Fig. 6



T. & E. Cox, Ripon

Fig. 7



Fig. 1
T. & E. Cox, Ripon.



Fig. 2
T. & E. Cox, Ripon.



Fig. 3
F. Frith & Co., Ltd.



Fig. 5



Fig. 4
T. & E. Cox, Ripon.



Fig. 6



Fig. 7

by that artist, but I have not found a copy. A carving in Henry VII's Chapel, in the lower row, south side, is not unlike this.

3. At Beverley, no. 26, north side (fig. 19). A young man wheels in a barrow an aged woman in a mob cap who clutches him by the hair. Her wrinkled face is a little triumph



Fig. 18



Fig. 19



Fig. 20



Fig. 21

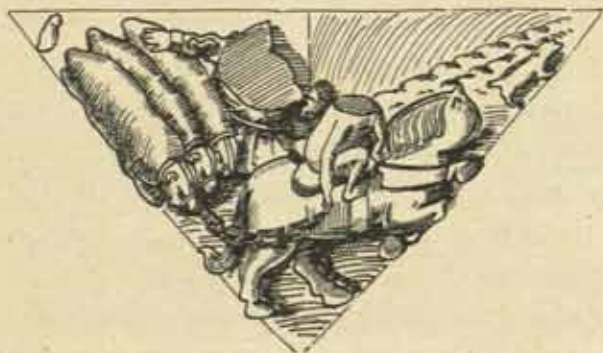


Fig. 22

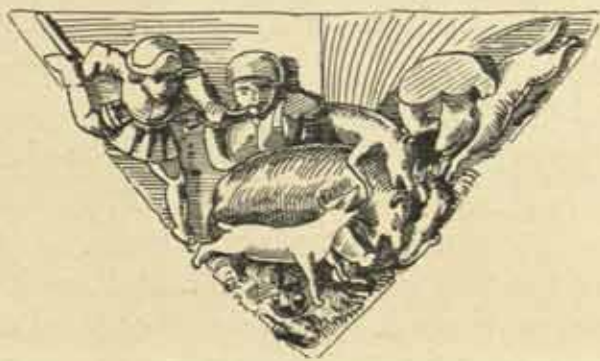


Fig. 23

of carving. The story appears to be continued on the supporters, which show the same young man lifting a heavy log and the same old woman affectionately stroking a cat. For this obvious pendant to the Ripon wheelbarrow scene, no corresponding print has been found; it may be by the same Master, B. G.

Beverley also provides a set of four scenes of bear-hunting which by their individuality encourage the conjecture that they are derived from engravings, possibly from a series of book-illustrations. They should be readily identifiable, but up to the present have defied all research amongst books printed earlier than 1520 or early hunting scenes; neither the 'Modus' nor Gaston de Foix's 'Phébus' shows anything resembling the designs required.

In the first (fig. 20), no. 13, south side, the bear is being hauled into a wheelbarrow by the vigorous efforts of two men; a third hastens up with a large barrow.

The second (fig. 21), no. 10, south side, shows a muzzled bear being hauled along in a sledge-like basket; two men pull, a third uses a lever.

The third (fig. 22), no. 16, south side, shows three muzzled bears chained together and guided by a man. An ape precedes them, seated on a heavy horse and holding the end of a chain of large square links to which the bears are fastened.

The fourth (fig. 23), no. 15, south side, is a bear-baiting scene; the chain and ring securing the bear are quite clear, but the use of the horn and the man running up with a spear suggest that a hunting scene was the original form of the design. A similar subject is found at Manchester (no. 9, south side), but in that case the positions and the number of the hounds are different, and no men appear at all; the scene there is undoubtedly a baiting. An Otto print, A. v. 13 (pl. xxx, fig. 7), has a general but insufficient resemblance to the Beverley carving; the print unquestionably represents a hunt and not a baiting.

There are no less than fourteen hunting scenes in these three sets of stalls: the hunting of the bear, the deer, the fox, and the hare, besides hawking scenes. Some of the designs certainly appear too elaborate, too 'reminiscent', if the term may be used, to be by probability the unaided invention of carvers who were so ready to borrow and apparently set so little value on originality; many of them may ultimately be traced to woodcuts or engravings issued between 1505 and 1520. That such borrowing of inspiration is probable, and that such a practice of utilizing contemporary prints was by no means confined to this northern school finds precise confirmation in two southern instances certainly. In the first case, Mr. C. J. P. Cave, F.S.A., has shown how exactly the printed decorations in 'Books of Hours of the early Sixteenth Century' were followed as exemplars by contemporary stone-masons at Boxgrove Priory, Sussex; a note on his identifications there is, by his kindness, appended to this paper (p. 127). Again, in the second case, the carvers employed on the stalls in King Henry VII's Chapel in Westminster Abbey were indebted for certain of their designs to prints by Dürer and van Meckenlen. This was first noted by J. Langton Barnard, who in an article in *The Sacristy* (i, 266) identified two

carvings as derived from prints by Dürer and one as after van Meckenem. They are:—

1. North side, upper row, no. 3. This group agrees very exactly with the central figures in a print by Dürer, Bartsch 93, except that the floating veil of the woman is omitted in the carving; otherwise the attitudes and costume of the figures are faithfully reproduced. This print is dated 'probably 1496', by most authorities, including Campbell Dodgson and Friedlander.

2. South side, lower row, no. 23, third from west. A man, now headless, seated on the ground to the right, passes his right arm round the waist of a woman who kneels before him; his left arm is stretched out towards her. She turns her head away; her left arm pushes on his breast, while her right reaches down to a branch on the ground. The original here is evidently Dürer's print of date probably about 1495, Bartsch 92, the earliest of the generally accepted engravings by Dürer.

3. South side, lower row, no. 25. A squatting ape, facing right, holds in his right paw one limb of a large leafy branch bearing fruit like apples; with his left he holds out something, now broken, to a female who sits facing him and nursing a young one. Another young ape is seated on the ground below her to the right, a third is in the branches of the tree behind. This was recognized by Barnard as copied in all its main features from a print by Israel van Meckenem, Bartsch 190.

4. South side, upper row, no. 16. This is almost certainly influenced by, if not copied directly from, Dürer's print of Samson tearing the lion, Bartsch 2, of about 1496-1498. The carving more nearly resembles this woodcut than any other of the numerous treatments of the subject, as by van Meckenem.

But besides these, other identifications may be suggested with some confidence. These are:—

1. South side, upper row, no. 15. A man seated, facing right, has his left hand on the bosom of a woman, while his right hand pulls at the skirt of her dress. She, bending towards him, with her right hand clutches his hair, with her left holds down her dress. The figures are clothed precisely as those in the third carving from the west in the lower row, no. 23, already noticed; a notable detail is the shape of the sleeve-ends of the woman's dress, spreading out over the wrists; the man also has the same full-sleeved and full-skirted coat; the woman's cap is the same in both.

We are therefore perhaps justified in regarding this carving too as after a print by Dürer, a companion picture to B. 92, and so a very early work of the artist, of which no actual print may be extant. This is not without importance in fixing the date when the carving of these stalls was executed, or at least in illustrating the degree of rapidity with which such works as the original print were circulated abroad.

2. South side, lower row, no. 21 (first from west). A woman with her back to the spectator vigorously wields a distaff to strike a man who lies on his back on the ground.

This seems derived from a print by van Meckenhen, described by Bartsch (vi, no. 173), 'le démon excitant une femme à maltraiter son mari. Elle est debout à gauche de l'estampe, tenant de la main droite une quenouille dont elle frappe son mari, qu'elle s'efforce de terrasser.' The demon here is omitted, and the composition laterally inverted, as so often.

3. The same, no. 22. The subject and style are very similar to the last, and suggest a companion picture, but no such print by van Meckenhen appears to be known. A woman, standing to the left of the composition, facing right, leans over and birches her husband who crouches before her, holding in his right hand a ball of yarn and in his left a winding-frame. The subject thus falls into that numerous and popular class of genre-pictures which includes the humiliation of Hercules or Aristotle, as well as many late medieval scenes of domestic strife. The next seat-carving to this, no. 23, was recognized by Barnard as copied from Dürer, as already noted above.

Three others on general grounds of subject and style suggest similar translations; no positive identifications have been established.

1. North side, upper row, no. 9. Three scenes—principal carving and supporters—from the Judgement of Solomon. Possibly from a German original very nearly contemporary with the setting up of the stalls. None of the well-known fifteenth-century prints of this subject exactly corresponds.

2. North side, upper row, no. 12. Three scenes of David and Goliath, having a decided look of early fifteenth-century, or even perhaps late fourteenth-century, illumination.

3. The principal (return) stalls on both sides. On the North, bacchanals, on the South, a naked family; both under vine-arbours.

There is little other contemporary woodwork in England which can be studied; that at Winchester and at Christchurch Priory is of totally different style, and obviously much more influenced by the new classical designs. Though it may be considered that the identifications hitherto attempted are neither very numerous nor very positive, yet as evidence accumulates it tends to show more certainly that such reproduction of prints by wood-carvers was of common and widespread use; Bond, for example, has pointed out that at Hoogstraten, Belgium, besides the 'Spies and Grapes' carving already noticed, is a carving copied from a print by van Meckenhen. The subject deserves more extended study by those intimately acquainted with the woodcuts and prints of the period. These instances, then, that schools of carvers in the early sixteenth century used for their designs the work of contemporary Continental artists, may now fall into place in that growing body of evidence bearing on such interrelation of the arts, a subject which cries for careful study and co-ordination. That study would include, for example, to mention a few points only, the relation between such works as the Horn of Ulph in York Minster and other *olifaunts*, and

Oriental art. The winged monsters carved on that Horn, facing each other with the Tree between them, may well represent an artistic tradition mediated by Byzantium to Northern Europe but deriving its ancestry from Mycenaean art and through that from Assyria; it would include the debt of the pre-Conquest artist in stone to contemporary art in manuscripts and possibly in ivories; or approaching more nearly the immediate subject of this present study, the line of evolution and tradition by which the illuminator of manuscripts supplied subject-material and inspiration for the craftsman in wood or in metal, and further, the conscious or unconscious influence of one district or one country on another. It is still a vexed question whether the well-known carved chest-fronts of the fourteenth and fifteenth centuries show more Continental influence on England than English influence on Continental carvers; there is no need to suppose English craftsmen sterile of originality unless inspired by Flanders. More and more, as evidence accumulates, it becomes clear that medieval arts were closely and consciously related one to another; that there was in any one art a line of tradition clearly to be traced yet ever in process of modification by artists of creative originality, who yet could borrow and adapt the creations of others; that there was the influence also of local and temporary fashion. Such evolution, such inheritance of tradition, even such conscious borrowing may be admitted without any hint of depreciation or of plagiarism. For there is evident, no less than these, not only mastery of technique but also consummate artistry and the delight of the craftsman in the wit or beauty or appropriateness which he found in the work of a fellow craftsman, though perhaps of another country and another time, a delight no less in the ingenuity and success with which he himself could translate beauty from the medium of another's work to that of his own.

NOTE

By C. J. P. CAVE, *Esq.*, *F.S.A.*

In Boxgrove Priory, Sussex, is the chantry chapel to Thomas West, Lord La Warr. The chapel is gothic in style but shows some Renaissance influences. There are a number of panels on the sides with shields carried by angels or cherubs below, and some fanciful device above. Some of these designs are taken directly from woodcuts which appear in books of hours published in Paris by Simon Vostre, Thielman Kerver, and others round about the year 1500. Perhaps the most striking example is the panel (fig. 1, and pl. xxv, fig. 2) depicting the three naked figures running away from a two-headed dragon. This picture occurs in woodcuts in numberless books. Another example is the design of two men preparing to attack one another, with a flower between them (fig. 2, and pl. xxv, fig. 5). The same panel has in the right-hand lower corner a figure in a mitre with the sun and moon above; this is taken from a less common figure in the books of

hours representing the Almighty creating the Heavens. A very common design in the printed books is that of two men climbing an apple tree and throwing down apples to a woman who holds out her apron to catch them (fig. 3, and pl. xxvi, fig. 3). This design is found on the north-eastern pillar of the chantry. In nearly all these the picture as sculptured is reversed in relation to the woodcut. A case to the contrary is the Almighty creating the Heavens. I have little doubt that most of the designs on the other panels could be traced to similar woodcuts.

V.—*Dartmouth Castle and other defences of Dartmouth Haven*

By B. H. ST. J. O'NEIL, Esq., M.A., F.S.A.

Read 4th April 1935

I. INTRODUCTION

THE Dartmouth Castle of to-day, the structure which is maintained by the Commissioners of H.M. Works as an historic building, comprises one tower of irregular shape and two adjacent platforms. Until shortly before the Great War it remained in use by the War Department, but in 1910 it was handed over to the Office of Works, since only one battery, a short distance farther south, was any longer of military value. Work of general preservation was then carried out.

This castle was erected in 1481, but there is evidence to show that it was not the earliest defensive structure on the site. There is first the evidence of the royal grant of 1481, as will appear later, and of Leland, *circa* 1539, who states, 'There be two towers at the Haven Mouth and a chaine to draw over' (these are the 1481 structures, which will be described below), 'one of these Towers standith (by) Sir George Carew Castelle called Stoke Fleming ...' Secondly there is the evidence of the great map, 9 ft. in length, of the south-western coast, which is now in the British Museum and which was prepared for Henry VIII at about the same date. It clearly shows a complete or almost complete medieval castle on the west side of the mouth of Dartmouth Haven. Finally there are the existing masonry and ditch, which put the matter beyond all doubt.

It therefore seems advisable to examine the records of the defence of Dartmouth from the earliest times onwards, as far as these are now available, and, whenever possible, to correlate the existing structures with the historical data. It will appear that Dartmouth Castle, as it is known to-day, was but one of at least ten fortified posts (fig. 1),¹ albeit usually the most important. Its importance cannot be accurately gauged without reference to these other fortifications. Some of them were the product of the Civil War and were built against a land attack, but most were erected as defences against foreign invasion by sea.

2. OUTLINE OF THE EARLY HISTORY OF DARTMOUTH²

The estuary of the Dart forms a fine natural harbour sheltered by steep hills and a narrow entry to the sea. The original port was at Totnes, the head

¹ Not all the Civil War fortified posts have been marked on this map.

² The writer is indebted to Mr. C. A. Raleigh Radford, F.S.A., for contributing this section and for much help with the rest of the paper.

of the tidal waters. There a burh was established in Saxon times controlling the lowest crossing of the river. In the eleventh century Totnes ranked equally with Lydford and Barnstaple, the three together being assessed at the same rate as Exeter.¹ The ancient position of the town was still asserted in the thirteenth century, when the lords of Totnes claimed right of wreck from the Black Stone beyond St. Petrox to Totnes Bridge.² In the middle of the century William de Cantilupe, who had acquired this position by marriage, began to levy dues on the trade of Dartmouth, which had formerly been a free port.³ This position continued until 1306, when Nicholas of Tewkesbury acquired from William Zouche all his right over Dartmouth and the estuary.⁴

Dartmouth is first mentioned in 1049-50, when some manuscripts of the Saxon Chronicle place the murder of Earl Beorn at this port.⁵ In 1190 the estuary was one of the harbours used for the assembly of the Crusaders' fleet.⁶ In the following century several records indicate its growing trade and prosperity,⁷ which were doubtless the cause of the imposition of the dues already noted.

The new port lay in the manor of Townstall, held in 1086 by Ralf, a sub-tenant of Walter de Dowai.⁸ In 1166 it belonged to William, son of Stephen of Townstall,⁹ in whose family it descended until the end of the following century, when the lord was Gilbert, son of Richard FitzStephen, whose name appears in documents of *circa* 1290.¹⁰ After a series of involved legal and financial transactions the lordship was acquired by Nicholas of Tewkesbury,¹¹ who in 1327 transferred his rights to the Crown.¹² Nicholas was one of the king's clerks, and Mr. H. R. Watkin, the latest historian of the town, has conjectured that the acquisition of the lordship, its union with the rights over the estuary and their eventual cession to the Crown, were part of a deliberate policy initiated at the time of the royal visit in 1285.¹³

The port was incorporated as a borough in 1341 by a charter granted to the burgesses of Clifton, Dartmouth, and Hardness,¹⁴ the three settlements of which it was composed. Hardness, the northern vill, is named from the long

¹ *Domesday Devonshire*, i, 108 (Record Commission).

² *Rotuli Hundredorum*, i, 83 (Record Commission).

³ *Ibid.*, 90.

⁴ *Cal. Pat. Rolls*, 1301-7, 416 (11th February 1306).

⁵ *Anglo-Saxon Chronicle*, ii, 141 (Rolls Series). Cf. *Hoveden*, i, 95 (Rolls Series).

⁶ *Hoveden*, iii, 42 (Rolls Series).

⁷ *Devonshire Association, Parochial History No. 5, Dartmouth*, 353 (cited hereafter as *Dartmouth*).

⁸ *Domesday Devonshire*, i, 112 (Record Commission).

⁹ *Red Book of the Exchequer*, i, 219 (Rolls Series).

¹⁰ *Dartmouth*, 13.

¹¹ Before 1316, *Feudal Aids*, i, 379.

¹² *Cal. Close Rolls*, 1327-30, 117 (6th May 1327).

¹⁴ MS. at Dartmouth. Translation in *Dartmouth*, 38 ff.

¹³ *Dartmouth*, vi.



Fig. 1. Map of Dartmouth Haven, showing the Castles, Forts, etc. (Scale: 3 in. = 1 mile)
 (Reproduced from the O.S. map with the sanction of the Controller of H.M. Stationery Office)

spur of high ground running from Townstall towards the modern ferry.¹ Dartmouth in the centre formed the nucleus of the town. Farther south lay Clifton, partly in the manor of Townstall and partly in that of Stoke Fleming.² It is probable that the charter of 1341 applied only to the northern portion of Clifton, and that the rest of the settlement was only added to the borough with Southtown in 1463.³ The importance of Dartmouth at this period may be gauged by the record of ships sent to the siege of Calais in 1346, when with 31 vessels it supplied a contingent only surpassed in number by Fowey (47) and Yarmouth (43).⁴

Southtown and the district incorporated in 1463 had formed part of the manor of Stoke Fleming. In 1086 this was held of Walter de Dowai by Ludo.⁵ In 1166 it had passed to Richard son of Hlud the Fleming,⁶ from whom the second part of the name is derived. In the thirteenth century the manor passed to the Mohuns and later to the Carews. The ecclesiastical foundation of St. Petrock by the castle is mentioned as early as 1192,⁷ and the conjecture that it originated as a light to guide ships at the mouth of the harbour is probably correct. In 1331 its antiquity is specially noted in the licence granted to the two priests serving the chapel.⁸ In 1344 a Chapel of St. Mary of St. Petrox is mentioned.⁹ Later the building became enclosed within the walls of the castle (*v. p.* 134).

This church still stands, in a restored condition, close to the castle of 1481. The font is of thirteenth-century character and the tower may be attributed to the later medieval period (*pl. XL, fig. 1*). The remainder of the structure, however, comprising nave with arcades and two aisles, probably dates from the first half of the sixteenth century. It was considerably embellished about one hundred years later, the pulpit and plaque over the west door of the north aisle being dated 1641; the remains of a gallery with heraldic panels, now a war memorial in the tower, is of the same period. Other notable features are the early seventeenth-century brasses at the east end of the south aisle. The character of many of the windows was probably altered during restoration in 1833, when the church was reconsecrated after a period of disuse and neglect.

¹ *English Place Name Society*, viii, 321.

² This is clear from the thirteenth-century documents (*Dartmouth*, pp. 4 ff.), where grants in Clifton are made by the lords of both manors.

³ *Cal. Pat. Rolls*, 1461-7, 307; *Dartmouth*, 155 (4th March 1485) refers only to an *inspeximus*.

⁴ *Dev. Assoc. Trans.*, xii, 575.

⁵ *Domesday Devonshire*, i, 112 (Record Commission).

⁶ *Red Book of the Exchequer*, i, 219 (Rolls Series).

⁷ Pole, *Collectanea*, no. 169 (Devon and Cornwall Record Society, no. 74).

⁸ *Grandisson, Register*, 653 (ed. Hingeston-Randolph).

⁹ *Cal. Pat. Rolls*, 1343-5, 365.

3. THE DEFENCES BEFORE 1481

The earliest extant reference to the defence of Dartmouth occurs in 1336, when Edward III commissioned Hugh Courtenay and Philip de Columbers to take especial measures for the protection of the town and district on account of rumours of attacks by the French.¹ The increased importance of the town, as narrated above, must have led of necessity to the need of defences during the French wars, and the character of the existing remains confirms an ascription of them to this period. The position near the water, and the courtyard enclosed by a curtain with small circular towers, may be compared with the Castle of Plymouth in Lambhay (erected 1361),² but the fact that the hill-side slopes sharply upwards to the south-west of the castle, so that the courtyard would be commanded by long-bowmen, suggests that the building should not be put too late in the century. A date soon after the Commission of 1336 and about the time of the charter would appear to harmonize with the available evidence.

Little of the castle still stands, but with the aid of certain early illustrations it is possible to obtain an idea of its original appearance. Dartmouth Haven appears on the large map of the south-western coasts (now in the British Museum) which was made for Henry VIII *c.* 1540.³ This shows the castle still apparently complete with mural towers and a rectangular gate-tower at the water's edge on the northern side. Amongst many eighteenth-century plans of fortifications (formerly at the War Office, but now in the Public Record Office), there are three of Dartmouth Castle, which were prepared in connexion with the remodelling of the southern battery, then known as Maiden Fort. These show much of the original curtain which is described as 'an old ruined wall which in former ages was part of the Enclosure of a Gentleman's House' (pls. xxxiii, xxxiv, xxxv).

The curtain wall of the medieval castle can best be seen above Castle Square (L on plan, pl. xxxiii). In advance of it here there is a deep but narrow rock-cut moat: this once followed the curtain wall upon its north-western side also, but has been and is still being filled with rubbish. On the south-west side, apart from the portion actually abutting on the cliff, fragments of which have been found during the clearance of a landslide, and one gap near the tower, the curtain wall remains almost intact to a maximum height of *c.* 23 ft. It is 7 ft. 6 in. thick at the base.

¹ *Rymer's Foedera* (Caley and Holbrook), 1821, II, ii, 951.

² C. W. Bracken, *History of Plymouth*, 45 ff. (Castel Quadrante).

³ Lysons, *Magna Britannia*, vi, opp. p. 154. The existing tower of St. Petrock's Church must have been there at the time, but it is not certain which it is on this map. There are other difficulties in reconciling the map with the remains and the ground, but it is invaluable for giving a general impression of the structure.

The corner tower is much overgrown and little is certain about it. It seems, however, to stand almost to its original height. The curtain wall then turned north-eastwards and ran downhill to the north side of the church. Although it is in a very fragmentary state traces of the actual walling can be seen, and part of the present north wall of the cemetery is on its line. The construction of the present road approaching Castle Square must have destroyed much of a small round tower or bastion, visible on the plan of 1740. Fragments, however, probably remain adjacent to the lavatories. During the construction of the latter, a few lengths of water-pipe (now preserved at the Castle) were found embedded in the wall. They are probably drainage pipes to take off the water from the hill-side and prevent it running down to the living quarters below.

The very thick walling immediately on the left at the main church gates undoubtedly represents the position of another round corner tower. Indications of this may also be noted at a lower level adjacent to the present north entrance to the Castle, but later walling has obscured details. The curtain wall then turned eastwards, and ran parallel to the shore for a short distance. Its line is to-day indicated by the high retaining wall flanking the path to the Castle on the landward side. It is doubtful, however, whether any of the original facing remains. The thickness of this wall will be noted within the castle entrance.

The modern brick bridge spans a chasm which is mainly natural but may have been enlarged, and it is interesting to note that the curtain wall is carried over it on arches. This can be seen from the steps to the sea beside the present bridge. The entrance to the Castle at this spot must have been by means of a drawbridge within a rectangular stone tower. Such a tower can be seen on the Henry VIII map and it was probably built right over the chasm. A pair of vertical slots for the supports of this tower can still be seen at each side of the chasm. The curtain then, in all probability, continued on the line of the existing parapet of the northern platform and joined a large round tower, which is now embodied in the semicircular part of the later castle. This is suggested by the character of the masonry of the lower portion of this tower which differs from the work above. The row of gun ports at the basement level and probably also the musket loops above seem to have been cut through the earlier masonry. In the former case this is evident; in the latter the sides have been roughly made good with upright slabs in a manner which contrasts with many similar openings in the newer masonry elsewhere. The curtain then, probably, ran along a line beneath the south platform to the small semicircular tower adjacent to the south-eastern corner of the church. It is difficult to explain the shape of this tower on any other hypothesis. Whether the curtain continued thence in a southerly direction to complete the circuit is uncertain, but the Henry VIII map suggests that it ended at the small tower.

In 1374 the King gave a commission to John Haulegh and others of Dartmouth 'in consideration of the damage and reproach which might befall the town of Dertemouth and the adjacent country through hostile invasion for lack of good governance,—to survey and correct all defects in the said town and port, fortify the same, array the men of the town and do all other things that may be necessary, and arrest all who are rebellious and commit them to prison until the King order otherwise for their punishment; saving always the rights and privileges of the lords of the town'.¹ This commission was renewed in 1377² and 1381,³ when mention is made of 'the towns and port of Clyfton Dertemouth Hardenesse, Southton Dertemouth, Kyngeswere and Hardenesse in the tything of Tunstall'. The Commission was again renewed in 1406.⁴

The necessity of such precaution was well demonstrated by French raids, particularly that of 1377. In 1404 when the French under Du Chatel endeavoured to land, they were repulsed by a defence which may well have been the result of these commissions.

According to the French account⁵ Du Chatel and De Kaille fitted out an armament for a general ravaging expedition on the English coast towns, but particularly, and first of all, against Dartmouth; and this, apparently, for outrages of a like nature committed by the English on the coast of Brittany—in fact a return match. The English had warning of what was in store for them; and when the fleet arrived, 6,000 trained men were in readiness to prevent a landing. Among other preparations for the reception of the invader was a deep fosse in the sandy sea-shore in the centre of which was a narrow approach, defended by the most trustworthy men. This expedition failed against such preparations, but shortly afterwards another force arrived and captured and burnt the town.

In the English account on the other hand no mention is made of the second and successful attempt, and the first is said to have been repulsed by the peasantry of the neighbourhood instead of the 6,000 trained men. According to the *Polychronicon* of Ranulph Higden⁶ the landing was attempted at Blackpool about 2 miles west of Dartmouth. One thing, however, is certain, the names of some of the Breton Knights captured in Du Chatel's expedition are preserved, with those of the persons who held them to ransom.

¹ *Cal. Pat. Rolls*, 1374-7, 32.

² *Ibid.*, 1381-5, 83.

³ *Chronique de St. Denys*, iii, 170-8, and *Dev. Assoc. Trans.*, xii, 576.

⁴ viii, 543 (*Rolls Series*, no. 41) and *Dev. Assoc. Trans.*, *loc. cit.* The name Fosse Street in Dartmouth is suggestive of this account and plans of 1559 and 1619 (*Dartmouth*, pls. 1 and 11) agree in showing a ditch on this line. It must, however, have been made when the dam was built to form the mill pool above. Mr. H. R. Watkin has told the writer that in his opinion the landing of 1404 probably took place at Blackpool.

⁵ *Ibid.*, 486.

⁶ *Ibid.*, 1405-8, 152.

Meanwhile John Corp, who was a prominent citizen of Dartmouth,¹ M.P. for the borough 1411-14² and water-bailiff,³ and obviously trusted by Henry IV, had in 1402 been granted a licence 'to crenellate a lodging of his by the entrance of the port of the town for defence against the king's enemies'.⁴ There is no reason to suppose that Corp had any connexion with St. Petrox, and there is nothing at the Castle which can be attributed to this time. It seems, however, quite likely that this grant refers to the building now known as Kingswear Castle. This is shown on the Henry VIII map as being in ruins, and seems to be mentioned in the document of 1522 mentioned below (p. 143). As it stands now, an inhabited house of three stories (pl. xxxvi, fig. 1), it contains much restored masonry, but there are certain features which might agree with an early fifteenth-century date for the old structure. The small slits, the newel stair, and the corbel table are original, but the gun-ports at ground-level may be insertions at the end of the fifteenth century, for they correspond exactly with those in Dartmouth Castle itself (pl. xxxvii, fig. 2). The other gun-ports are modern. On the other hand it is possible that Corp's 'lodging' was the tower now called Gomerock, which is described below.

In 1462 Edward IV granted to the mayor and burgesses of Dertemouth £30 yearly for twenty years from Michaelmas 1461 'in aid of their expenses in the defence of the borough in chains, boats called "cobbellys", anchors, great cords called "cables", and pulleis, wages of watchmen, and cannons and powder and other habiliments of war'.⁵ In the following year he permitted the borough to annex the township of Southtoundertemouth 'in consideration of the fact that the burgesses keep watches against invaders on the confines of the township and beyond at a place called "Galions Boure" but the inhabitants of the township contribute nothing because they do not enjoy the liberties of the borough'.⁶ This is certainly the site above the Castle, later called Gallant's Bower, but there is no proof that it was then fortified. It was a good look-out post; the fort there is of a later date (p. 146).

So far then there were two fortifications, apart from the fosse of 1404, viz. the medieval Dartmouth (or properly Stoke Fleming) Castle and Kingswear Castle or (perhaps) Gomerock.

4. THE CASTLE OF 1481

In 1481 the Patent Rolls record an 'indenture between the King and the mayor, bailiffs and burgesses of the borough of Clyfton Dertmouth Hardenesse,

¹ The first reference to him in the Patent Rolls is in 1381.

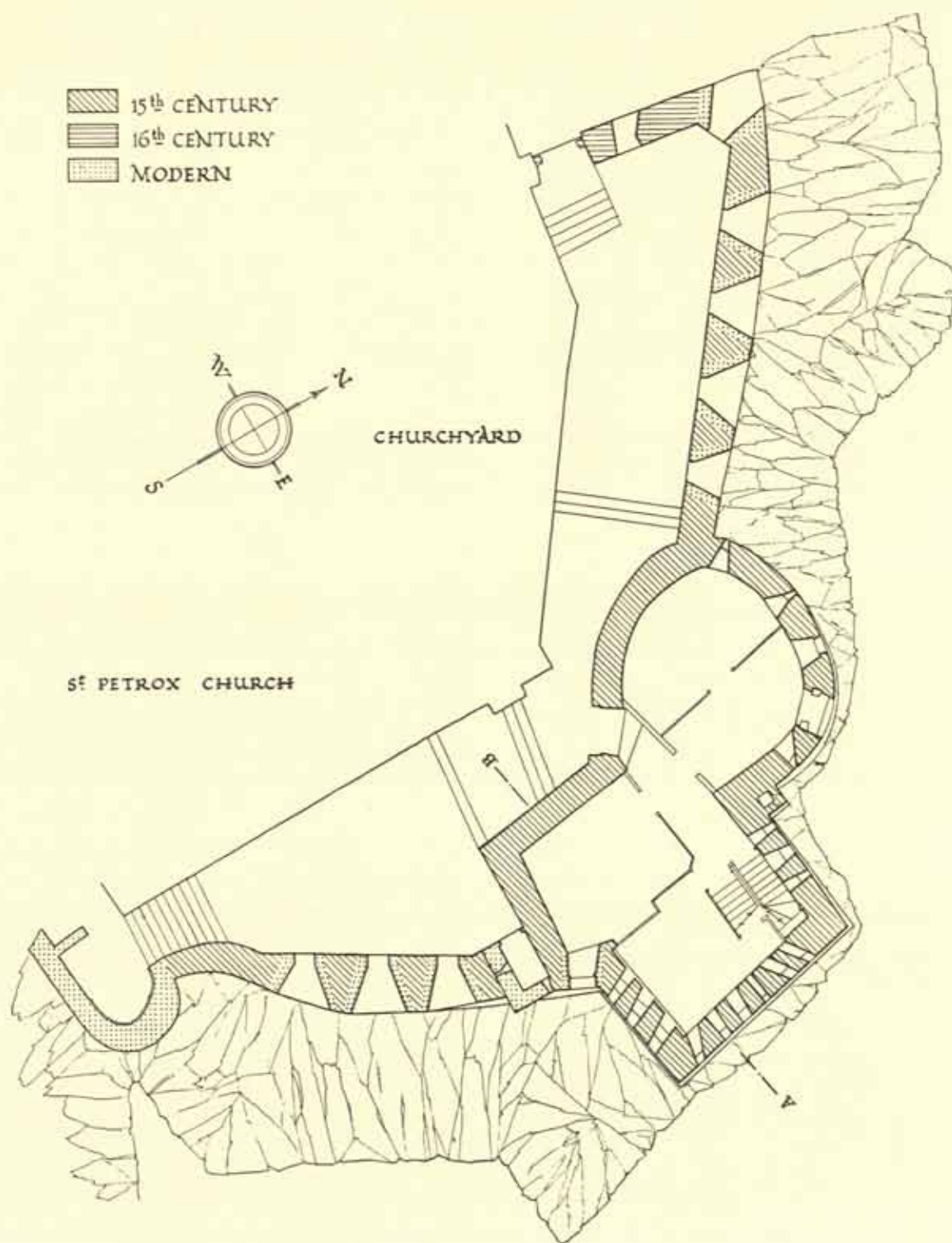
² *Dev. Assoc. Trans.*, xliii, 360.

³ *Cal. Pat. Rolls*, 1401-5, 50.

⁵ *Ibid.*, 1461-7, 75.

⁴ *Ibid.*, 219.

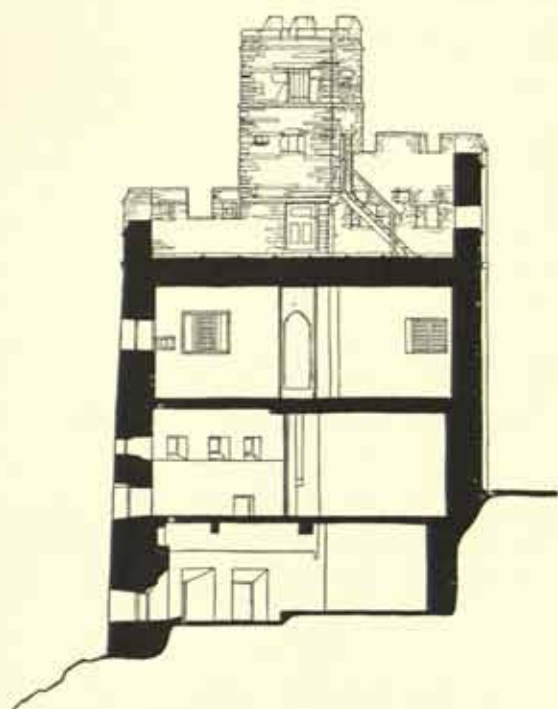
⁶ *Ibid.*, 307.



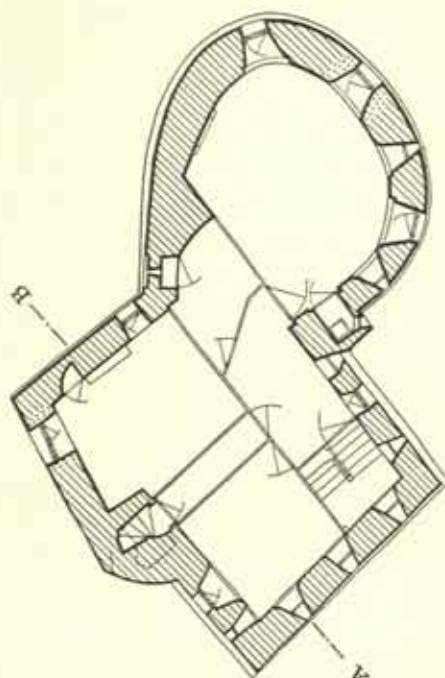
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SCALE of FEET




Dartmouth Castle : Ground-floor plan

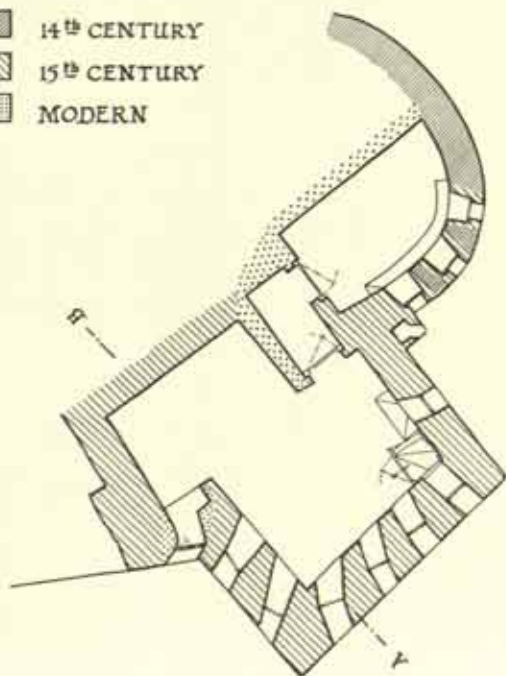


SECTION A-B

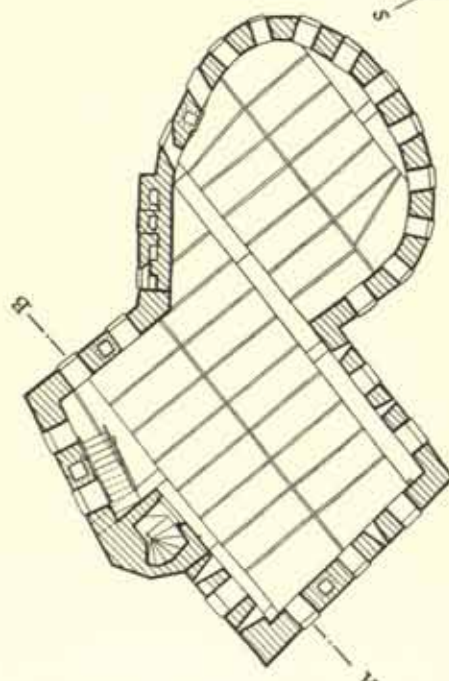


FIRST FLOOR PLAN

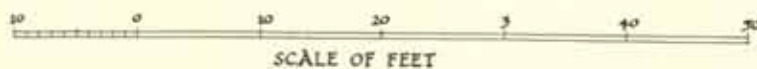
-  14th CENTURY
-  15th CENTURY
-  MODERN



BASEMENT PLAN



ROOF PLAN



Dartmouth Castle: Plans and section

co. Devon, witnessing that whereas the latter for the defence and safeguard of the said town and the port thereof and the parts adjoining have begun to make a strong tower and bulwark of stone and lime adjoining the castle there, they shall finish it with all haste and henceforth fortify, repair and keep it garnished with guns and artillery and other ordnance and find a chain to stretch athwart the mouth of the haven from that tower to another tower there at all necessary times, and the king grants them £30 yearly from Michaelmas last from the customs and subsidies in the ports of Excestre and Dertmouth and £30 more in addition in each of the next four years'.¹

This, of course, was a continuation with temporary increase of the twenty-year grant of 1461. Actually by being dated back to Michaelmas, 1480, it made the period of doubled grant five years. It was confirmed by Richard III in 1484,² and in 1486, shortly after the conclusion of the period of doubled grant, Henry VII increased the sum for maintenance to £40 per annum.³ It was also confirmed in subsequent reigns. Henry VII's grant states that the borough 'will in all godly hast finish the making [of the tower] and they and their successors will garneesh the same with gonnes, artillarie and other ordinances defensive, and find a chain sufficient in length to be laid overthwarte or a travers the mouth of Dartmouth haven from the one tower to another tower there'.

These grants refer to Dartmouth Castle, as it is now known, a strong tower for a chain. The chain is shown in operation on the Henry VIII map, and an exact parallel can be cited from Fowey, of which place Buck made an excellent plate. The towers there seem to be slightly earlier in date; at least the eastern (Polruan) tower has no large gun-ports.

The strong-tower at Dartmouth is really a double tower, a semicircular part for the chain and a rectangular part for the defensive weapons, with two flanking platforms (pl. xxxi). The shape of the semicircular part seems to have been conditioned by the fact that a semicircular tower of the medieval castle already stood on the spot, as has been already mentioned.

The two platforms probably encase the medieval curtain, and the shape of the small tower or bastion at the southern end of the castle (pl. xli, fig. 1) is best explained by supposing it to be medieval in origin. The present masonry at its summit is modern, as are all the embrasures in the platforms. The paving all along is considerably above the original level. The doorway on the south-west side of the northern platform must have given access to a flight of steps leading to St. Petrox church; it has been blocked, and the filled-in area utilized for graves at least from 1780 onwards.

The tower has three floors—basement, ground floor, and first floor (pls. xxxi,

¹ *Cal. Pat. Rolls*, 1476-85, 251.

² *Dev. Assoc. Trans.*, xliii, 128; *Cal. Pat. Rolls*, 1476-85, 458.

³ *Cal. Pat. Rolls*, 1485-94, 111.

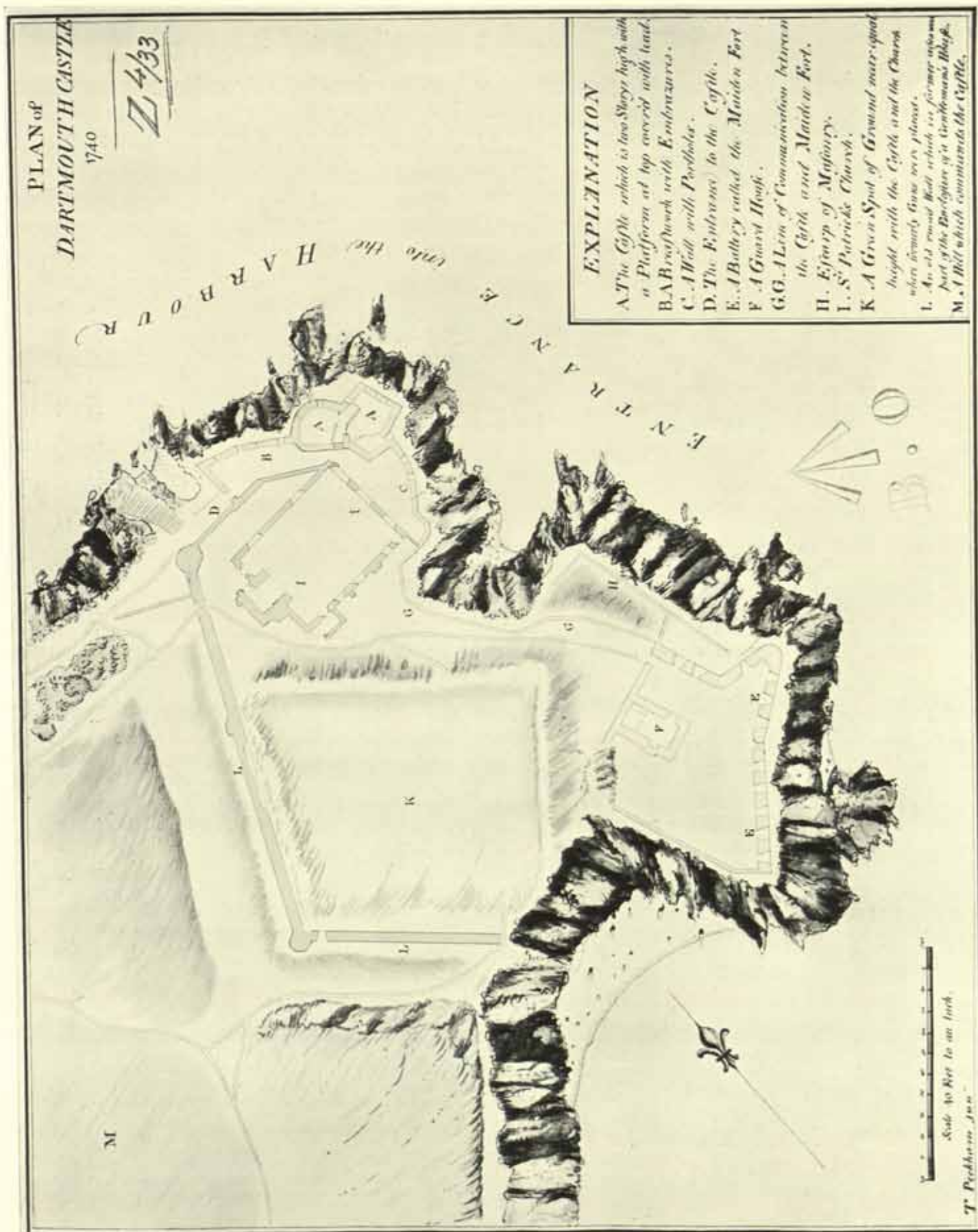
xxxii). The uppermost probably contained most of the living quarters, the two below being used mainly for defensive purposes. The roof, which is flat, could also be used for defence; above it rises a turret, 18 feet in height.

The present door, although at a higher level, is on the site of the original entrance, the mutilated relieving arch of which is still visible (pl. XLIV, fig. 2). The window in the first floor on the right above this door is in the position of an original opening, as is shown by the relieving arch.

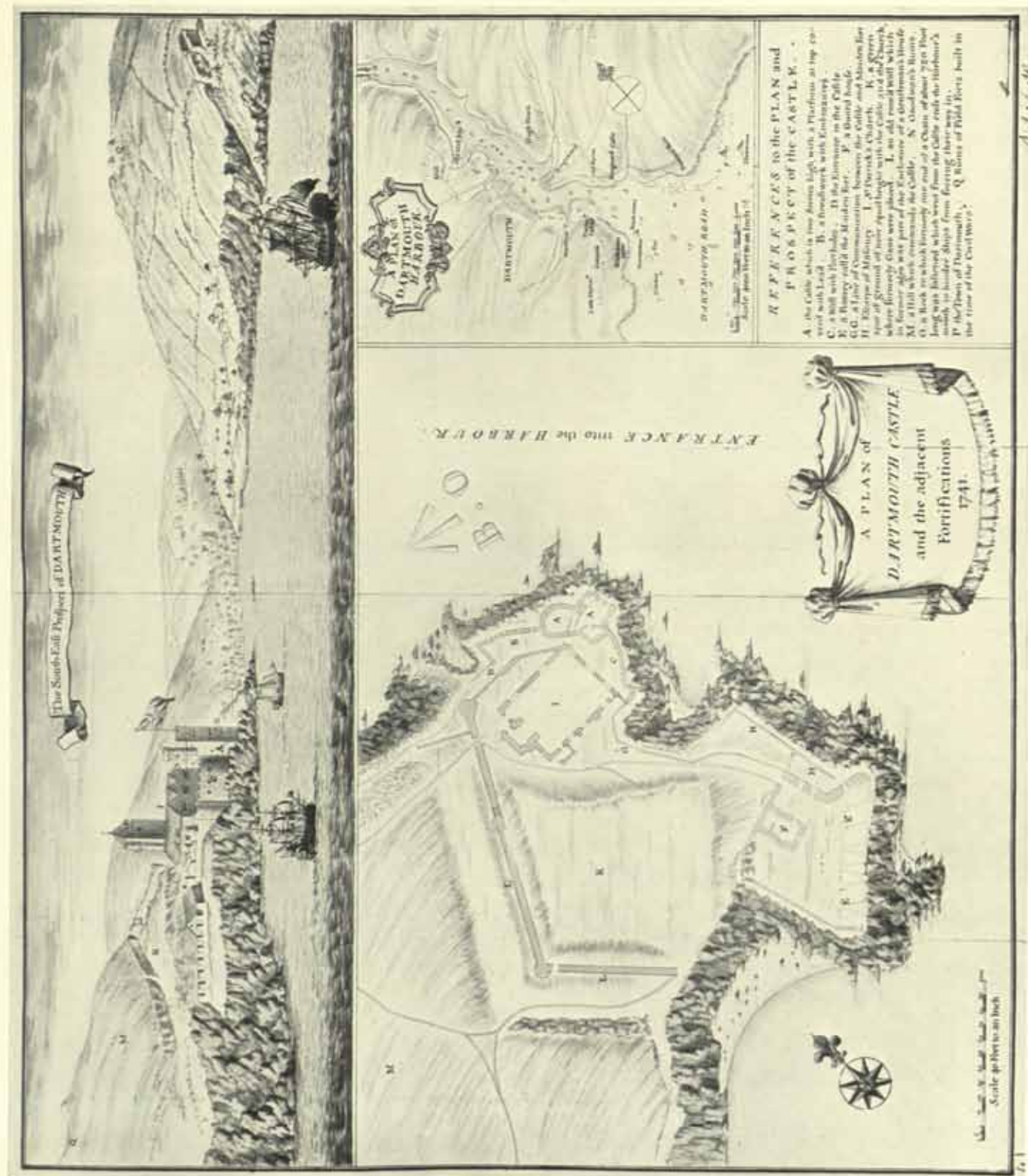
The arrangements of the basement are much obscured by later alterations of level. In the rectangular room the original floor is the rock (which, as can be seen at the back, has been cut and levelled), about 3 feet below the present floor. The original ceiling was also lower by 3 feet or more. The ledges upon which the beams rested can be seen on the south and east sides, whilst on the other two sides are holes or slots for beams, some of which have been filled in with plaster. In the walls facing the sea are seven openings for guns; all have internal splays, and upon the exterior face a stone-relieving arch, an indication of original work in this building (pl. XLII, fig. 2). The original fireplace is visible at the back of this room; the window is modern, but above it are indications of the ground-floor garderobe shaft. The semicircular room at this level has been partially blocked up with brick, and the other half has been utilized as a magazine with a modern brick vault and copper door. It is, however, clear that the floor and ceiling levels, the latter in line with the top of the upper openings in the wall, were the same as the original levels of the rectangular room. The four upper openings are narrow slits for muskets, which must have been reached from a fire-step. The three lower openings have been roughly cut through the medieval masonry, and must have been for use as gun-ports (pl. XLII, fig. 1).¹

The level of the whole of the ground floor is now 3 ft. above the original level. The rectangular room (now the Museum and portions of two staircases) contains eleven openings for muskets, all with slight internal splays and red sandstone quoins. These could not be reached from the old floor-level, and must have been used from a wooden fire-step. The middle opening on the north side above the present staircase is larger, and was probably intended merely as a window (pl. XLII, figs. 1 and 2). The other openings in this room, all at the present floor-level, are of a later date. The three on the east wall with external splays and brick arches were certainly intended for additional guns, which stood upon the original floor of this room. They are probably Elizabethan, the other two lower openings being perhaps of late seventeenth-century date. The semicircular room contained at least three openings for muskets of the usual narrow type, and the present window over the sink is on the site of an original opening. The chief feature here is, however, the large opening below the present floor-

¹ See above, p. 134.



Dartmouth Castle: Plan of 1740, now in the Public Record Office
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Dartmouth Castle: Plan of 1741 (?), now in the Public Record Office
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level (pl. XLII, fig. 1). The condition of the timber framing here suggests that the chain passed through this opening over a pulley, and may have been raised by a capstan either here or in the room below. The marks of successive slots for the axle of the pulley can be seen in the vertical timbers. It is probable that in wartime, when the chain was in use, one end was kept permanently fixed at the Kingswear side within a small shed, the beam holes of which can be seen from the castle (p. 140). It could then be worked from the castle and raised at night or in time of blockade, at other times being allowed to rest on the bed of the sea.

The first floor (pls. XXXII and XLII, fig. 1) is at its correct level. The rectangular room has three narrow loops towards the sea, one of these being visible above the staircase; on the north side are two similar openings, one with a single sandstone quoin, and between them a window, which has a relieving arch above it. On the opposite side there is one window and a small square opening similar to those in the room below, both with sandstone dressings (pl. XLI, fig. 1). The semicircular room has two narrow openings, but the central window is, probably, not original, the other two each having the usual relieving arch (pl. XLI, fig. 2). On the east side of this room is a garderobe chamber, lit by a very small opening; a similar chamber for the ground floor probably once existed at the south-western angle of the rectangular tower, since traces of the shaft can be seen in the basement at this position. This floor probably formed the main living quarters, the back of the rectangular room on the ground floor being used as a kitchen.

The roof (pl. XL, fig. 2) is approached by a newel stair, entered through a pointed sandstone arch. The present level of the lowest of the lead gullies is approximately the original level. The battlements on the north and east sides are carried on corbels (pl. XLI, figs. 1 and 2), and upon the rectangular tower consist of normal embrasures and loops, although the latter are of the small variety suitable for muskets. Embrasures (without loops) continue at the level on the north side of the semicircular tower, and in all probability were carried in this manner round the whole structure. Over the entrance to the tower are four machicolations. The existing battlements and the smaller openings on this side must have been added subsequently (pl. XLIII, fig. 1), when additional protection on the landward side was considered necessary; they are certainly later than the turret, against which they abut with a straight joint (pl. XLIV, fig. 2). The turret rises above the head of the staircase (pl. XLIII, fig. 2). Almost all the facings of the windows, the battlements, and the corbels upon which it is carried on the outer face are of red sandstone. It has two string courses. Access to it must have been by a wooden ladder, as at present, and it was, probably, intended primarily as a look-out to seaward.

The moulded lead plaque, bearing the date 1773 (pl. XXXVIII, fig. 1), on the

west side must refer to a releading of the roof, and perhaps also to a repair of the chimneys.

It remains now to consider the chain and the gun-ports. The evidence for a pulley and capstan on the Dartmouth side has already been mentioned. Doubtless the chain was only used in time of war or fear of war: at the outbreak of the Civil War there is an item in the Town accounts 'for carrying the Chaine to the Old Castle 2/-'. Normally in daytime it would rest slack on the bed of the sea, but at night, or on the occasion of hostile attack or blockade it would be drawn up by means of the machinery at the Castle. This means that it was fixed on the Kingswear side, and the site of the shed which housed this end can still be seen. On a clear day it is visible from Dartmouth Castle across the quarter of a mile of water (pl. xxxviii, fig. 2). The rock has been cut back and levelled, a low front wall with central doorway has been erected to the west, and a lean-to roof added against the rock. The beam-holes in the rock suggest that there were two floors and perhaps a shelf 4 ft. from the ground (pl. xxxvi, fig. 2). A rectangular hole in the rock-floor at the centre of the back of this area may indicate the place where the chain was fastened. This small shed would merely contain the end of the chain. Any tower or barrack for its protective garrison must of necessity, owing to the steepness of the slope, have been placed higher up the hill-side. There is a very overgrown tower of late medieval character a short distance to the east. This is now called Gomerock, which is said to be a corruption of 'God, my rock'. It is to be regretted that, although much of the tower still stands, a plan is quite out of the question on account of its overgrown condition. The only moulding visible (of a door facing the sea) is probably of the fifteenth century (pl. xxxvii, fig. 1).

This tower is certainly the other tower of the grants of 1481 and 1486, but it will be recalled that those grants merely refer to the 'other tower'; they do not say that it 'is being built', or that it 'will be built'. It may, therefore, have been already in existence, and those portions of it, which are now visible, suggest that it is earlier in date than 1481. Possibly this tower, rather than the present Kingswear Castle, is John Corp's crenellated lodging. Unfortunately it does not seem possible to reconcile all the documentary and pictorial pieces of evidence regarding the Kingswear side of the Dart.

The other remaining feature for discussion is the gun-ports. The original gun-ports in the strong tower, Dartmouth Castle, dating as they do from 1481, are the earliest of their kind in this country which the writer has so far been able to locate. They are rebated externally for shutters, hinged on one side or the other, as can clearly be seen in pl. xli, fig. 1, and are flat-headed with a relieving arch above. Similar openings have been noticed already in the case of Kingswear Castle, where they must be insertions in an already existing structure.

The chief feature, however, is the internal splay of the openings. It is only natural that artillery, when first introduced into warfare and used in the defence of castles, should have been adapted to the normal medieval methods. Thus the earliest gun-ports are merely a variety of the arrow-slit. It is not possible to discuss here the various types of loops which appear to have been designed for the use of handguns, and the development traced in the present case is only of openings for larger weapons. The former are to be seen in the Polruan Tower at Fowey,¹ already mentioned (p. 137), although only one is original, at Cowling Castle, Kent, at the west gate of Canterbury, at Carisbrooke Castle gatehouse, at Ravenscraig Castle, Fifeshire,² and elsewhere.

In some cases, as at Caerlaverock Castle in Dumfriesshire, a stone with a simple round hole was inserted into earlier masonry. There is not a vestige of external splay. Except in shape the opening is entirely medieval and contrasts with the later gun-ports in the same tower.³

The same medieval shape is perpetuated at Kirby Muxloe Castle near Leicester. This was erected in the year 1481,⁴ the same year which saw the building of Dartmouth Castle, by Lord Hastings, a man of great power and great wealth, who would naturally build in the very latest style. It is provided with gun-ports throughout, and they are obviously part of the original scheme of the existing structure. Each tower has several, and those on the flanks—the towers project in front of the curtain—command the next stretch of curtain exactly as do medieval arrow-slits. The actual openings for the guns are not quite so primitive as the Caerlaverock example. They have slight rebates of uncertain purpose externally and there is a narrow slit in the brickwork above each, presumably for observation, but they are splayed internally in the medieval fashion. The result was that only a slight traverse or field of fire was possible; the position of the muzzle was fixed, the only movement possible being the shifting of the back of the gun through a short arc.

At Dartmouth, as stated, the splays are still internal for the most part, but a beginning has been made in the development of gun-ports. The external third of the opening sometimes has sides parallel. The advantage is obvious, and it can only be supposed that the idea was adopted from the Continent by the men of Dartmouth, who must by their flourishing trade have been well aware of foreign improvements.

¹ Attributed to Edward IV's reign.

² Not earlier than 1460, *Trans. Glasgow Arch. Soc.*, New Series VIII, iv, Suppl., 49.

³ Personal observations of the gatehouse.

⁴ The account book, now in the British Museum, details expenses between 22nd October 1480 and 6th December 1484.

5. SIXTEENTH-CENTURY DEFENCES

The next step in the fortification of Dartmouth Haven was the erection of another fort, this time at the southern end of the town itself. It is now known as Bearscore Castle, but seems formerly to have been called Berescove, although the name of the locality in the middle ages was Bayard's Cove. The first actual mention of this structure is in 1575, when the mayor and burgesses granted a lease to Thomas Came, shipwright, of the Tower or bulwark called the New Castle adjoining Berescove Key with a proviso that it might be resumed if the defence of the town required it; it was surrendered in 1598.¹ Clearly, however, it is of earlier date. It appears on the Henry VIII map and is mentioned by Leland as 'a faire bulwark made of late'.² He attributes it to Henry VII, but most of his dates are slightly inaccurate in dealing with Dartmouth. Actually Bearscore Castle must be the structure referred to in 1509/10, the first year of Henry VIII, in an indenture between the king and the bailiff of Dartmouth for a tower to be built and furnished with artillery to protect the harbour mouth.³ The form of the structure agrees with this dating.

It is of irregular shape, measuring 58 ft. from north to south and 70 ft. from east to west (pl. xxxix, fig. 1). The north-east and south-east angles are rounded, and the south-west angle projects somewhat to give additional command over the haven. A drawing by J. M. W. Turner, R.A., suggests that the north-west corner projected in a similar way, but that is now obscured by a modern building. There is one entrance at the water's edge on the north side through a pointed arch, rebated for shutters like the gun-ports, beneath a rectangular hood moulding. This was widened to admit carts late in the nineteenth century. The east wall at gun-port level is 6 ft. thick; it stands 15 ft. to the level of a wall-walk, access to which was by a stair, now broken, at the side of the north wall. There is no evidence of beams to support a roof. A western portion of the castle, of which the purpose is now obscure, is approximately 23 ft. higher, the main portion having been levelled by cutting back the rock.

The gun-ports (pl. xxxix, fig. 2) have shutters similar to those at Dartmouth Castle, and they still have only an internal splay (they are 25 in. wide at the external face, and 60 in. at the internal) although the larger size betokens some development. In this connexion they may be compared with those of St. Catherine's Castle, Fowey, with the earlier work at Little Dennis Fort, Pendennis Castle, which was for the most part disguised or blocked by Henry VIII's later work, and perhaps also with the half-moon battery commanding the gate into the inner ward of Carlisle Castle.⁴

¹ *Dev. Assoc. Trans.*, xliii, 145.

² *Dev. Assoc. Trans.*, xliii, 143.

³ ed. L. T. Smith, i, 221.

⁴ From a photograph only; not visited by the writer.

PLAN of

DARTMOUTH CASTLE

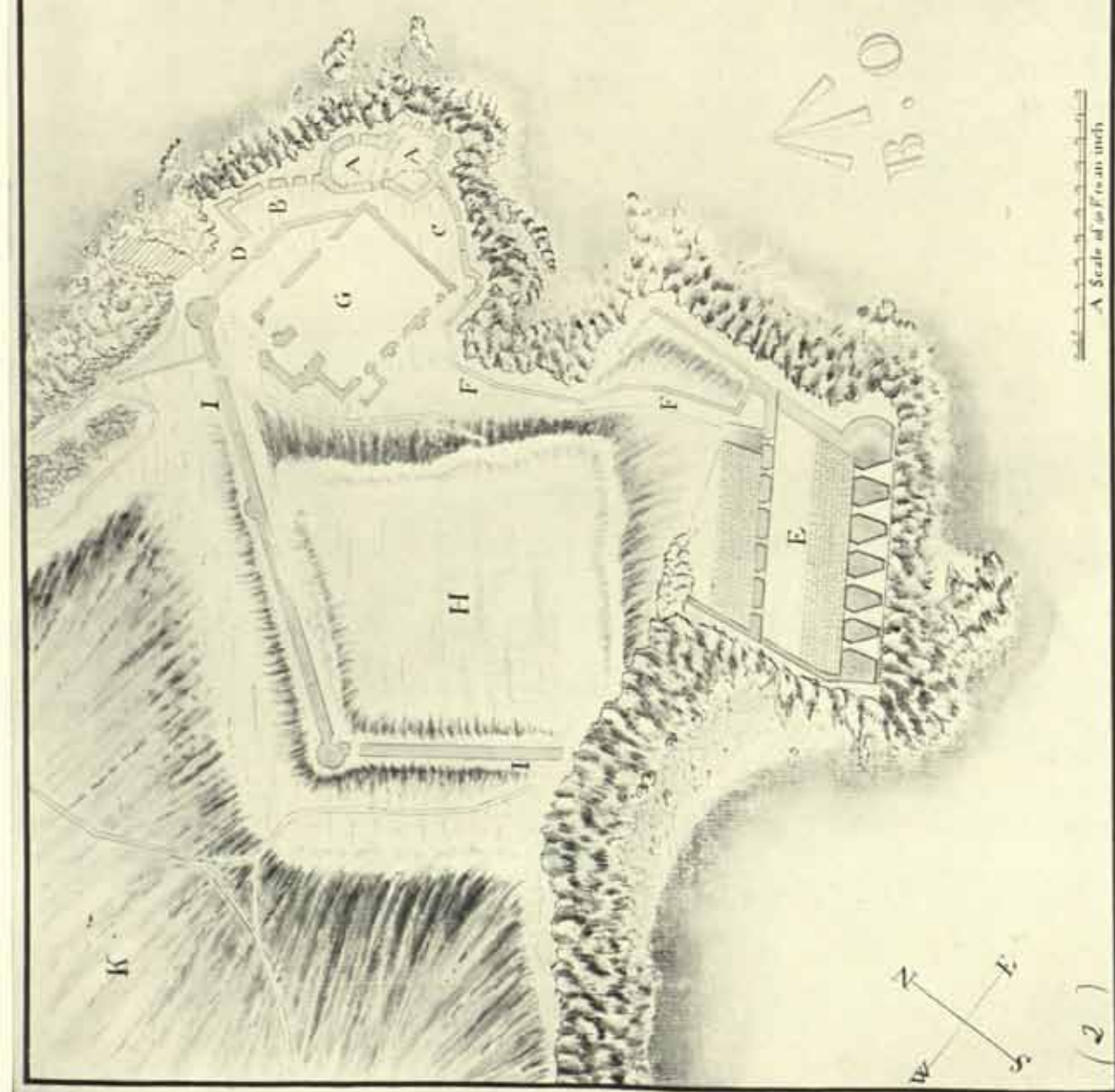
1751

EXPLANATION

- A The Castle House kept in repair by the Corporation of Dartmouth
 B A Breast work with Embrasures
 C A Wall with Portholes
 D The Entrance to the Castle
 E The Grand Battery with two Tier of Cannon, built in the year 1747
 F A Line of Communication between the Castle and Grand Battery
 G St. Patricks Church
 H A Green spot of Ground of near equal height with the Castle and the Church where formerly Guns were planted
 I An Old Runid wall which in former Ages was part of the Enclosures to a Gentlemans House
 K A Hill which commands the Castle.

B. 3. 5. 59

Dartmouth Castle: Plan of 1751, now in the Public Record Office
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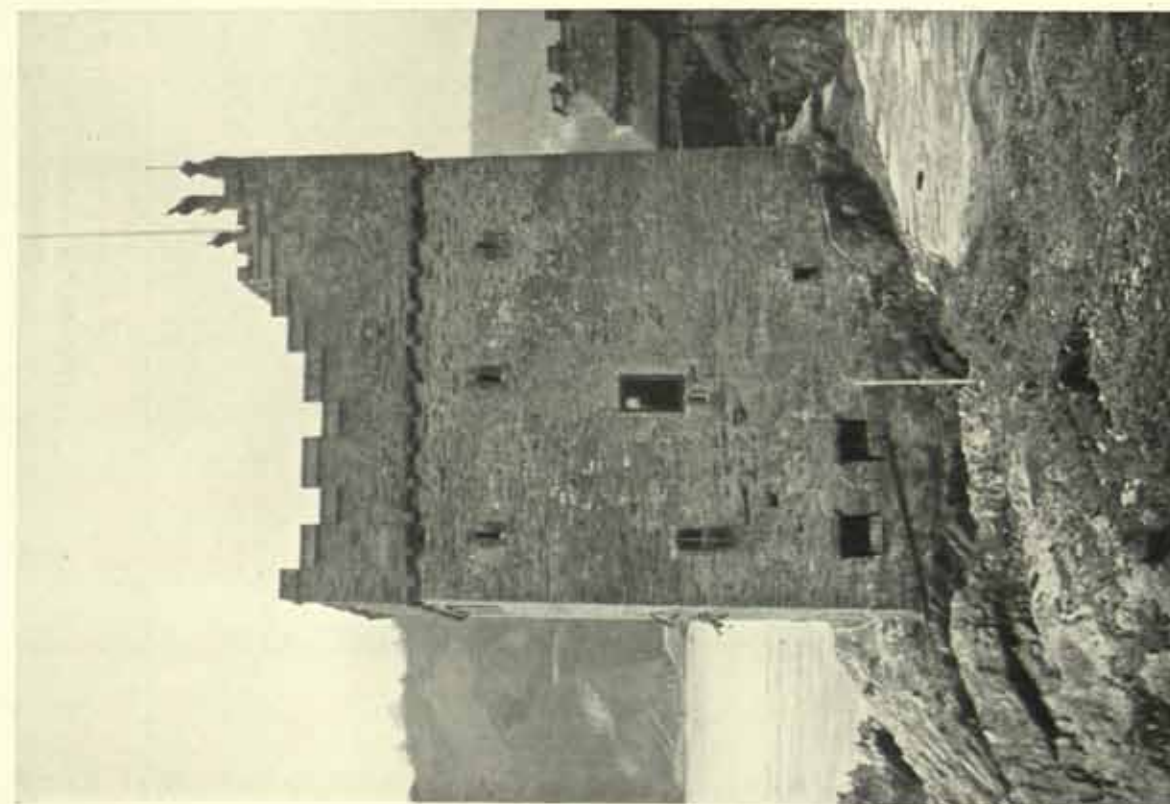


Fig. 1. Kingswear Castle from the south



Fig. 2. Remains of the Chain Tower at Kingswear (v. p. 140)

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A further stage in the development is illustrated by the paintings executed in connexion with Henry VIII's journey to the Field of Cloth of Gold, now at Hampton Court. The 'Embarkation at Dover'¹ shows two forts with guns firing from within and from the roof. The gun-ports below resemble those of Bearscore, etc., whilst some of those on the roof clearly anticipate the larger and more finished examples of Henry's later works. In both cases, however, there is at most a very slight external splay.

The many forts erected c. 1540 exhibit more advanced features, which must have been introduced by the foreign architects employed by the king. Of this class St. Mawes and Pendennis Castles near Falmouth (Cornwall), designed by a German called Stephen the Almayne, are excellent examples. A definite external splay had been introduced, sometimes only by the elaboration of the window mouldings, but the internal splay is still longer than the external. The long internal splay is still very marked in the plans of the castle and blockhouses at Hull, which were begun on 22nd February 1541.²

In 1522 the earl of Surrey was commissioned to examine the coastal defences and harbours. He wrote to Henry VIII as follows: 'took a boat and went into Dartmouth, to see what places we could find to lay in your great ships this winter. Never saw a goodlier haven after all our opinions. At the entry there is a blockhouse of stone, with an old castle on the same side, and another old castle on the other side, besides another blockhouse, and a chain ready to be laid. The town is not two arrows' shot thence, and the ships may lie two miles further within the haven, under John Gilbert's house . . .'.³ The report comments on the fact that the haven could be assailed by an enemy who landed in undefended Torbay, but the defect was not remedied, for Torbay was still without defence in 1539 when John Lord Russell held a similar commission from the king.⁴ In 1540 there is indeed a record of recent expenditure upon fortifications, the list of which includes Bulwarks at Torbay and Dartmouth, but it is unlikely that any addition was made to Dartmouth Castle.⁵ The expenditure may have been upon Bearscore Castle or upon a new fort, Paradise Fort, which no longer exists, but it is quite as likely that the money was merely to pay for a survey of a site. It is at least certain that there is no fortification of the style of this period now extant on Dartmouth Haven.

In 1547 Edward VI confirmed the annuity to the town for the maintenance

¹ Reproduced by the Society, Historical Print no. 3; see also S. R. Gardiner's *A Student's History of England*, ii, 370.

² *The Blockhouses of Kingston-upon-Hull and who went there* (J. H. Hirst, 1913).

³ *Letters and Papers, For. and Dom.* 1519-23, 997.

⁴ *Ibid.*, 1539, 173, 330, 340. It is likely that the great map or 'plate' of the south-west coast (cited here as 'Henry VIII map') is a product of this commission.

⁵ *Ibid.*, 1540, 221.

of the towers and chain, but in the same year the mayor and corporation are found petitioning the Privy Council and praying for redress against Sir Peter Carewe, the vice-admiral in Devonshire, who amongst his oppressive acts had taken possession of the castle, making new locks and keys, and had expelled the petitioners. The town regained possession.¹

In 1583 Commissioners were again investigating the defences of Dartmouth² and in 1590 certain works were proposed.³ The nature of these is disclosed by the accounts of the town for 1596/7.⁴ Under the heading 'Charges of town business' 59*l.* 13*s.* 7*d.* was spent, whilst almost as much (49*l.* 12*s.*) was expended under the heading 'Charges of the Castle'. Certain items are specified: lime, mason's wages, mending the bridge, timber for the bridge, bricks near the bridge, rails for the bridge and work upon the wall by the castle. It is likely that at the entrance to the castle the rectangular gate-tower, which is shown on the Henry VIII map, had collapsed. The only vestiges which certainly indicate its position are grooves in the side of the rock chasm which it must have spanned. These were probably for arches supporting the tower. The adjacent masonry also looks as if it may have been patched. The present entrance is a simple door with brick arch and moulding, which must be part of this Elizabethan rebuilding (pl. XLIV, fig. 1). Close to it is a single gun port with external splay and brick arch. The three gun-ports in the east wall of the rectangular part of the tower on the first floor resemble this example near the gate, and must also be of Elizabethan date. They have an external splay; the science of artillery defence had been developed to some extent, but was not yet perfected. It is difficult to state exactly when the change from internal to external splay took place, but it must have been during the earlier part of Elizabeth's reign.

The appearance of the castle and the other defences of the haven shortly after this date is shown by the declaration of one Hortensio Spinola, apparently a captured Spanish spy. In 1599 he stated: 'Thence I went to Dartmouth, a large port for 600 vessels, and at low tide five yards of water; at the entrance a bastion of earth with six or eight pieces of artillery; further in, a Castle, with 24 pieces and 50 men; and then another earth bastion, with six pieces. The place is large, but not walled, the mountains serving for walls; the people are warlike . . .'.⁵ This description suggests that all the defences Spinola saw were

¹ *Dev. Assoc. Trans.*, xliii, 144.

² *Cal. State Pap. Dom.*, 1581-90, 131-2, 139.

³ *Ibid.*, 651.

⁴ Examined by the writer by the kind permission of the Town Clerk. This and many other documents relating to the town are preserved in the Guildhall at Dartmouth. The pre-Reformation documents have recently been examined afresh by Mr. H. R. Watkin and form the basis of the Parochial History, here cited as *Dartmouth*.

⁵ *Cal. State Pap. Dom.*, 1598-1601, 178.

on one side, the west. The castle is Dartmouth Castle and the earth bastion beyond, i.e. nearer to the town, may mean Paradise Fort, the position of which is uncertain, but which was certainly in existence before the Civil War.¹ On the other hand it may simply refer vaguely to Bearscore Castle. Spinola's outer bastion of earth (with 6 or 8 pieces) must be a fort, probably of earth and stone, quite usual materials at this period, on the south side of the castle promontory. This appears on the earliest War Department plan (pl. xxxiii) as Maiden Fort (E) with 9 gun-ports. Three of these are splayed internally only, and this fact coupled with the name suggests a date in Elizabeth's reign. It may be, indeed, that the fort is of earlier origin and received its name from repairs or extensions in 1596. The second plan (pl. xxxiv) shows the proposed new battery, and the third (pl. xxxv) shows the completed scheme, now styled Grand Battery. Buck's view shows Maiden Fort prior to this rebuilding with the guard-house (F) still standing. This battery was rebuilt again in 1860/1 and the only possible traces of the earlier structures are first a short length of wall at the cliff edge underneath the south-east corner of the battery, and secondly a portion of masonry of different character utilized in the west wall of the modern building.

6. SEVENTEENTH-CENTURY DEFENCES

On 30th July 1626 the mayor and others of Dartmouth wrote to the council with 'thanks for permission to fortify their town'. They 'pray for a gift of further ordnance. If an enemy were to land at Blackpool or Torbay, he might take the hills, and beat them out of the town'.² This argument had been used to the Tudors a century earlier, of course without effect, and even in 1404, as already mentioned (p. 135), the French appear to have landed at Blackpool.

In March of the year following George, earl of Totnes, wrote to the council requesting a 'warrant that six demy culverins and four sakers may be sent to Dartmouth for the defence of that port'.³ On 20th June Andrew Veysey, mayor of Dartmouth, wrote to the council, 'that most men of ability in body and purse have left that town for fear of the plague . . . Many others are at sea—etc., etc. The Castle and fort not a sufficient defence against an enemy. Desires that order may be given either for the return of the officers and inhabitants . . . or that the men of the adjoining parishes be required on all occasions to be ready to impeach the landing of an enemy, which they may do

¹ Later, however, this fort was certainly in the form of a large circular tower and was visible as such in 1822. Its site is now uncertain, although it may exist under the house known as 'The Wilderness'. The O.S. map marks it under another house 'Ravensbury', but nothing is visible there now.

² *Cal. State Pap. Dom.*, 1625-6, 389.

³ *Ibid.*, 1627-8, 83.

without fear of infection, the town being far distant from the fittest landing places'.¹

By 14th September he was able to state that fortifications had been erected: 'In obedience to the commands of the council, they had erected fortifications for defence of their port, and had repaired their iron chains, but the fortifications were unfurnished with ordnance, and the town had incurred debt, besides being much weakened by great losses in the Cadiz expedition, and in the late visitation. Pray for power to assess a sum for completing the fortifications; and that the landsmen of the town might be exempted from impressment for some time to come'.² Guns were sent to Dartmouth in answer to this appeal but, owing to delay en route, did not arrive until 1628.³

It is obvious that these fortifications, occasioned by the war with France, were not at the castle, which with the fort, presumably Maiden Fort, was described as inadequate. Moreover, as so much was said about danger of attack on the flanks, the haven itself being already well protected, it is only natural to suppose that, as the corporation did the work and paid for it, the forts would be put to guard the most vulnerable parts. Communication with the flanks, Blackpool and Torbay, the two most suitable landing places, must at that time have been by the roads along the respective ridges of high ground. On each of these there is a bastioned fort, and there can be no doubt that they are the fortifications of 1627.⁴ It may have been the fashion in the past to describe them as Civil War forts, but, although they were used at that time, they were certainly not built then, as the expenses of the town, which will be discussed, plainly show. Moreover, Gallant's Bower at least was hardly in the right place to resist attack from the inland part of the country, the very quarter of suspected danger in the Civil War.

One of these forts is on the ridge above the castle and is mentioned in the Civil War as Gallant's Bower. This must be the place called Galions Boure in 1463 (p. 136), when it was already used as a look-out, but was not, apparently, fortified. The other was known in the Civil War as Mount Ridley or Kingsworth (i.e. Kingswear) fort, and is now partially occupied by a large house called The Redoubt. Gallant's Bower has suffered so much from rabbits that the original plan cannot be ascertained with accuracy. Mount Ridley could perhaps be planned, but so far no opportunity has occurred. The outlines here reproduced (fig. 2, p. 157) are, however, sufficient for the purpose. Certainly in the case of The Redoubt and probably also at Gallant's Bower the flanks of the bastions are perpendicular to the line of the curtain.

The increased power of artillery led during the sixteenth century to the

¹ *Cal. State Pap. Dom.*, 1625-49, add. vol., 217. ² *Ibid.*, 1627-8, 342. ³ *Ibid.*, 1628-9, 225.

⁴ They may be compared in date with Landguard Fort in Suffolk (p. 147, note 5).



Fig. 1. Door-jamb at Gomerock, Kingswear



Fig. 2. Kingswear Castle : Gun-ports at ground level



Fig. 1. Dartmouth Castle: Lead plaque on roof



Fig. 2. Dartmouth Castle, from the Chain Tower at Kingswear

final abandonment of the medieval idea of the castle. The blockhouses of Henry VIII's reign had already sacrificed height for solidity, but even these must shortly have become obsolete. In their place engineers constructed forts and larger works, sometimes even town defences, of an entirely novel character. The type was evolved on the continent, and when introduced into this country was already well developed, but the process of this evolution cannot be pursued in the present context. It must suffice to refer to the account given in the *Encyclopædia Britannica*.¹ The defences being of no great height, the material was frequently earth, usually faced with stone, although more substantial structures were sometimes entirely of masonry. The essential feature was the bastion, usually lozenge-shaped. Normally one was placed at every corner of the line of defence, but intermediate bastions also occur frequently. The purpose of this type of fortification was to cover every part of the enceinte with cross fire from another part, usually the flank of the next bastion.

The system in its early form is best seen in this country in the fortifications erected at the end of Elizabeth's reign. Those of Berwick and Carisbrooke Castle² were the work of an Italian engineer, Federigo Gianibelli, and one may be certain that they embodied the latest ideas on the subject at their time. At Carisbrooke each pair of casemates in the flanks of the bastions entirely commands the adjacent curtain and one face of the next bastion. Although the actual flank of the bastion is at right angles to the curtain, the front of the casemates is set at an obtuse angle to enable the covering of the line of defence to be complete. The contemporary defences at Pendennis Castle, Falmouth,³ and at Elizabeth Castle, St. Helier, Jersey,⁴ were the work of Paul Ivy. They lack the elaborate casemates of Gianibelli's work, but otherwise secure a good command, usually having the flanks of the bastions forming an obtuse angle with the curtain.

In spite of these examples of the best method of fortification engineers in this country seem to have persisted until and even during the Civil War in building the flanks of their bastions at right angles to the curtain. Examples of both types can be found, sometimes in the same fort, and the difficulty is not lessened by the method of portrayal of such works in contemporary drawings. Thus the report of 1626 on Landguard Fort near Harwich,⁵ then being built, describes the four bastions as square, whilst the drawing suggests that at least some of them have flanks set at an obtuse angle to the curtain. A similar plan of

¹ 9th edition (1879), ix, 443 (article, 'Fortification').

² Official Guide, *Carisbrooke Castle*, H.M. Office of Works, publ. H.M. Stationery Office.

³ Official Guide, *St. Mawes Castle and Pendennis Castle*, plan facing p. 16.

⁴ N. V. L. Rybot, *The Islet of St. Helier and Elizabeth Castle*, fig. 14.

⁵ J. H. Leslie, *The History of Landguard Fort in Suffolk*, pp. 13-15, and pl. iv.

St. Augustine's Fort at Galway (1609-10)¹ on the other hand shows the flanks at right angles to the curtain, and the same feature seems to occur at the King's Sconce, Newark, which was a Royalist fort of the Civil War period.

Possibly this imperfection was of little moment in small works; it may also have been due to haphazard planning and hasty building. Later, however, when Cromwell took in hand the building of strategic citadels in Scotland, e.g. Ayr, Perth, Inverness,² Lerwick, the obtuse angle of the flanks was the rule, rather than the exception. The same is true of the fortifications of the Restoration, such as the citadel at Plymouth (1666-70). Thus it is not possible to use this feature as more than a general criterion of date. These two forts at Dartmouth cannot be earlier than late sixteenth century from their type; general probability and the accounts of the Civil War must be used to place them *c.* 1627.

7. THE CIVIL WAR

At the outbreak of the Civil War Dartmouth declared for Parliament; the existing defences were repaired and various fresh points of vantage against a land attack were fortified. These included Townstall Church and the West Gate, Mount Boone apparently named after the owner of the property, a Mr. Boonds, and Mount Flaggon. The Corporation documents contain an account-book of about 50 pages,³ detailing the expenses of the town in these matters. Little new building of defences was done; the forts at Mount Ridley and Gallant's Bower are included, but there is no mention of their construction, and no additions were made to the castle, which was hardly of much use against attack from the north. The weekly wages of the five men there is given as 1*l.* 3*s.* 4*d.*, and there is an item 'for carrying the Chain to the old Castle 2/-'. A few other items may be mentioned: 'Item towards the Buildings of the Small fort at Paradise yd 10*s.* 0*d.*.' Item for the three month rate for the fortifying of the town at 45*s.* per month is sum of 6*l.* 15*s.* 0*d.*.' Item paid towards the Buildings of Mount Paradise 1*l.* 10*s.* 0*d.*.' paid Samuel Martin and others for dismounting guns at the Bulwarks 2*s.* 0*d.*.' paid 4 deales for dores for Kingsweare Castle 4*s.* 0*d.*.' for 127 deales for Mr. Boonds house 6*l.* 15*s.* 0*d.*.' paid Mr. Spurway (?) for 3 muskets for ye Castle 1*l.* 10*s.* 0*d.*.' paid Mr. William Wootton (?) [for more disbursements at the Castle (another hand)] 10*l.* 0*s.* 0*d.*' The accuracy of the wording in detail is not guaranteed. The whole book is of great interest and would repay longer study than time allowed.

Dartmouth was taken by Prince Maurice in 1643 after a month's siege, and all the fortifications and other strategic points were thereupon strongly

¹ *Journ. Galway Arch. and Hist. Soc.*, xvi, figure opp. p. 30.

² War Department plans now in the P.R.O.

³ Document No. 3070: 'Disbursements by the Town for the Parliament 1642'.



Fig. 1. Bearscore Castle, Dartmouth : Exterior



Fig. 2. Bearscore Castle, Dartmouth : Interior



Fig. 1. Dartmouth Castle from the north-west



Fig. 2. Dartmouth Castle: Roof from tower of St. Petrox Church

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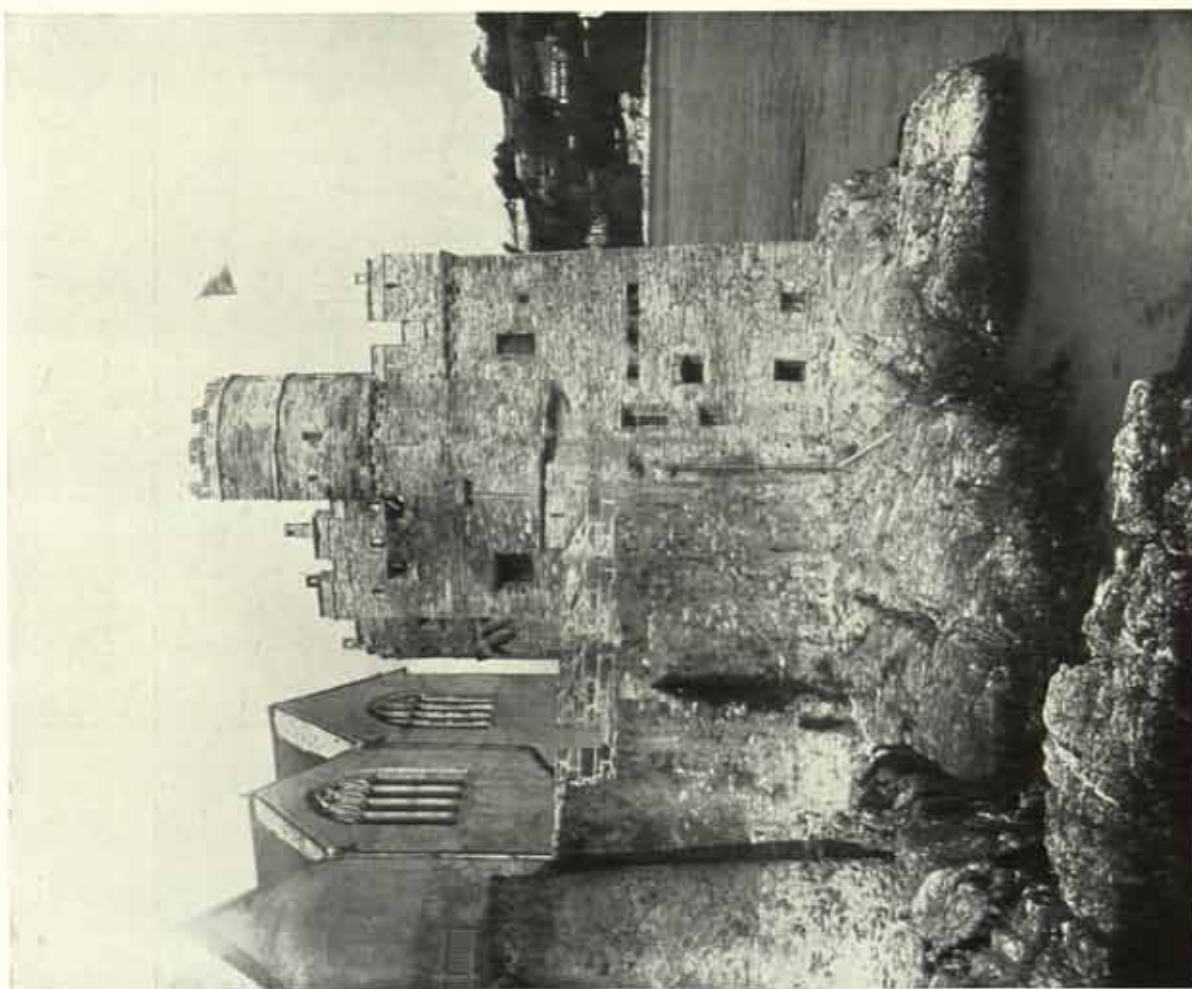


Fig. 1. Dartmouth Castle from the south-west

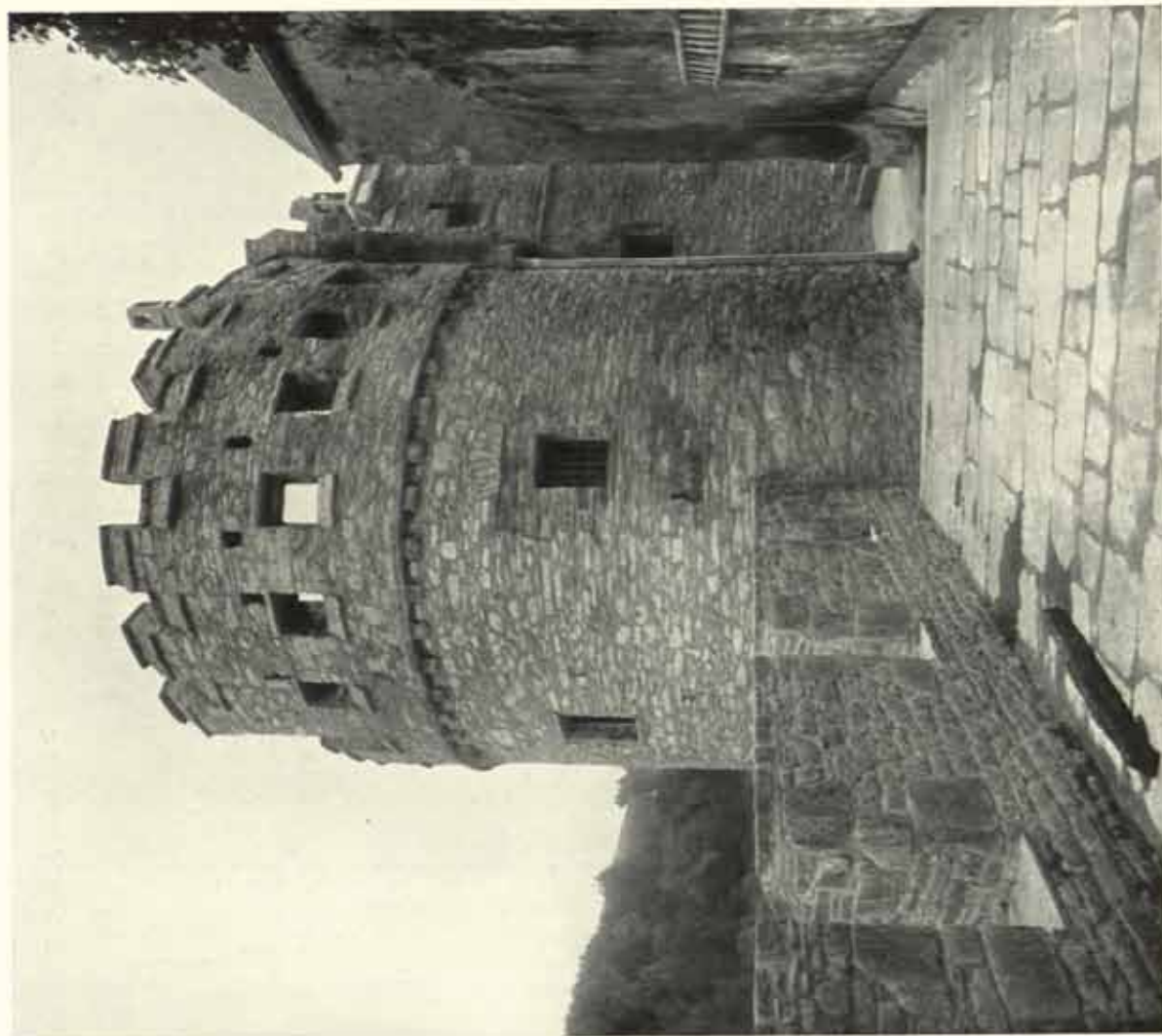


Fig. 2. Dartmouth Castle from the northern platform

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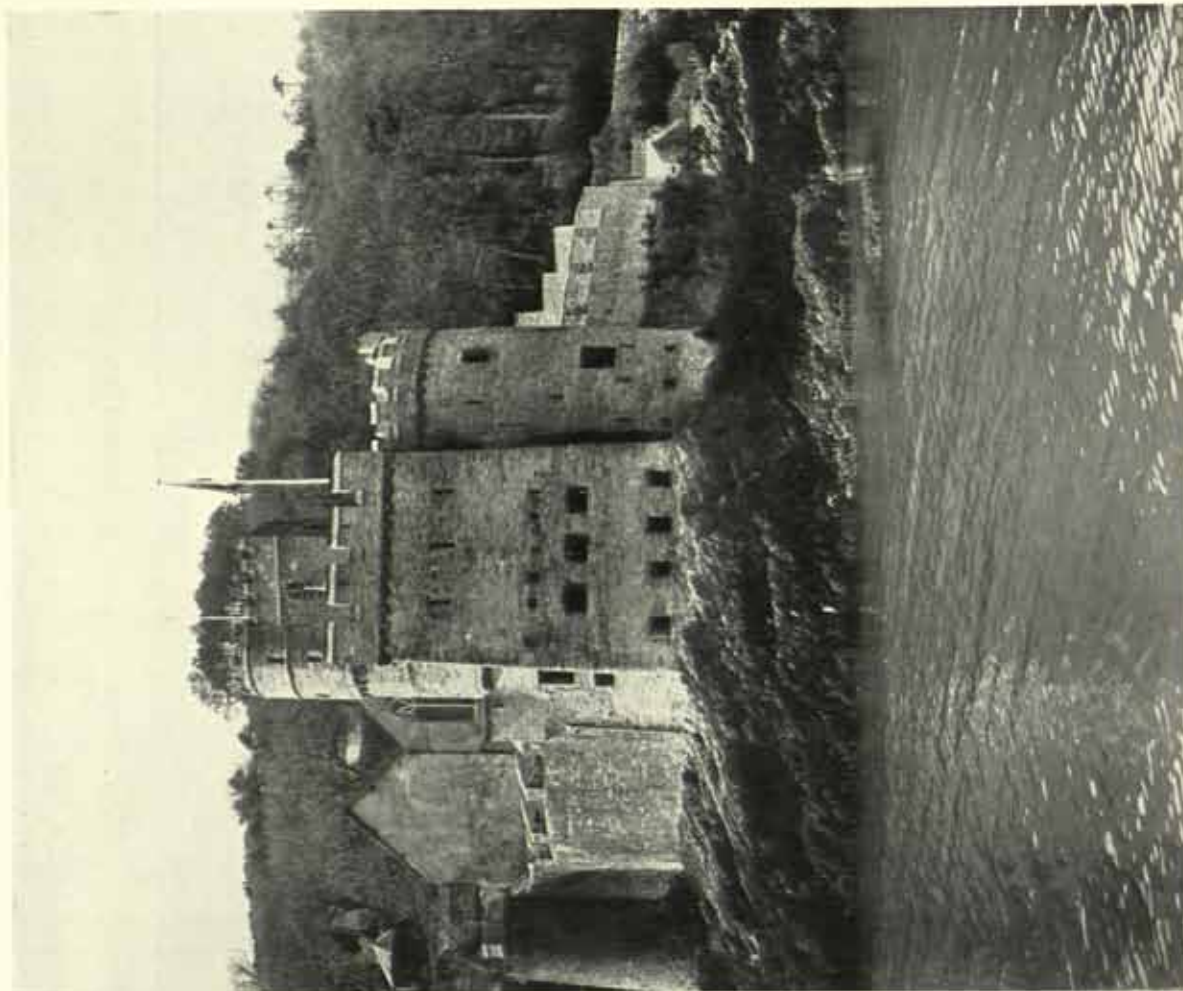


Fig. 2. Dartmouth Castle from the east

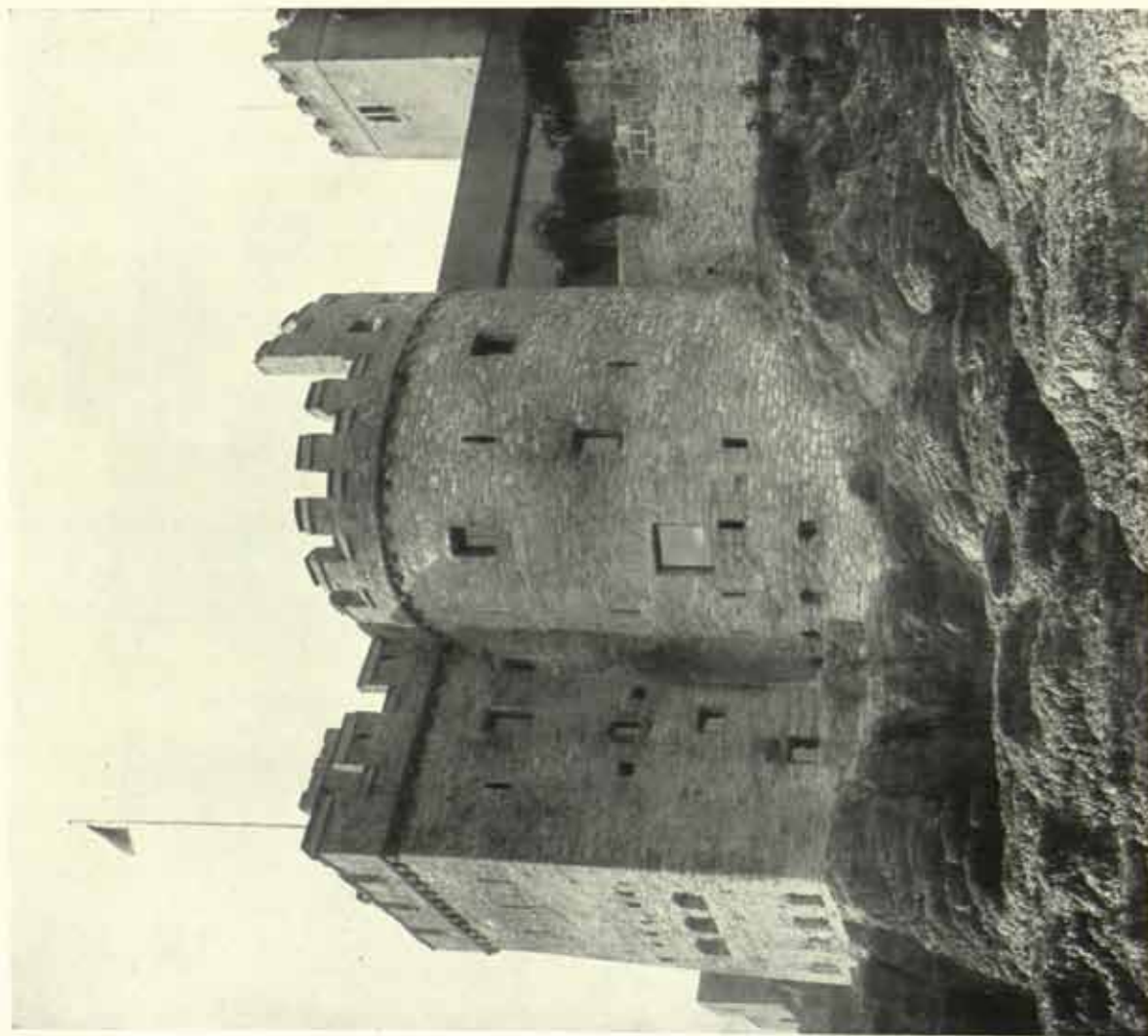


Fig. 1. Dartmouth Castle from the north

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garrisoned and doubtless strengthened by the Royalists. Sir Henry Pollard was appointed governor. On 27th December of the same year there is mention of the arrival at Dartmouth of arms and powder for the king.²

For three years the town remained in Royalist hands, although blockaded more or less effectively by sea, as is shown by various references in the State Papers. On 11th July 1644 Robert, earl of Warwick, wrote to the Committee of Both Kingdoms—'Dartmouth still stands out, but many of the inhabitants have this week fled to the ships for refuge, that they might decline an oath, which the Governor there endeavours to obtrude upon them . . . have ships constantly plying before them.'³ On 21st August he wrote to the Commissioners of the Navy 'The enemy want powder and arms, whereof supplies are daily expected at Dartmouth, and access is only hindered by the ships' attendance there'.⁴ In the following year the same feature is seen from the other side. On 8th May (18th) Henry, Lord Jermyn, wrote to George, Lord Digby, ' . . . 400 barrels of gunpowder I have sent to Dartmouth, having undertaken to pay for it if it be not paid for there, for fear presently there should be a want of it. I have news of the arrival of 200 barrels and the others will be shortly there.'⁵ Another letter from Jermyn to Digby on the following day states, however, that the queen sent the powder. 'She could not get the merchants to undertake the transport of these powder barrels without engaging her credit for them in case they should not be paid in England.'⁶

The blockade was well maintained during the summer of 1645, as is shown by the letter of Captain Edward Hall to the Committee of the Admiralty at Westminster, dated August 2nd—'You may please to take notice that at this present I am riding before Dartmouth with two ships more in company, and have appointed two other ships before Topsham Bar, for here is much preparation of divers people to run away. They say here is one of the queen's children in Dartmouth ready to be transported into France. The distractions of this town are very great at present, there having been within this month three mutinies in the town by the soldiers; the townspeople are generally well affected to the Parliament. There is great store of arms, and near 2,000 barrels of gunpowder in the town at present. Their works [of fortification] are not yet half finished, so that if any forces of the Parliament were to appear before the town I believe it would not hold out two days.'⁷ An incident in the blockade is referred to earlier in the year (January 11th) in a

¹ *Cal. of the Committee for Advance of Money*, 1642-56, ii, 844.

² *Cal. State Pap. Dom.* 1641-3, 507.

³ *Ibid.*, 1644, 342. For the oath compare the case of Andrew Voysey, a staunch Parliamentarian, in *Cal. of the Committee for Advance of Money*, 1642-56, i, 566.

⁴ *Cal. State Pap. Dom.*, 1644, 558, 78.

⁵ *Ibid.*, 1644-5, 466.

⁶ *Ibid.*, 469.

⁷ *Ibid.*, 1645-7, 41.

letter of William Thomas to... any of the Navy Commissioners—'... Postscript. On 23rd December, I was in fight with a King's man-of-war, and shot some 173 pieces of ordnance. It being in Dartmouth range, within command of the Castles, I durst not lay him aboard, a sunken rock likewise being between us.'¹

In the autumn of this year Sir Thomas Fairfax was in the West. On September 22nd he was informed by the Committee of Both Kingdoms: 'Dartmouth is likely to be had upon easy terms, and thereby the enemy deprived of all ports on this side of Cornwall, and the only considerable body of an army which the King hath thereby dispersed, and indeed the whole West reduced.'² In January 1646, Fairfax was before the town. The Committee of Both Kingdoms wrote to the Treasurers-at-War for Sir Thomas Fairfax's army on January 23rd: 'We are informed that you have £24,000 to be sent for Fairfax's army. We desire you that it may be sent by land to Portsmouth by the 28th, whence it may be shipped to Dartmouth for the use of that army.'³ Fairfax found little difficulty in taking the town, and described the action fully in a letter (of January 26th) to Parliament, which is printed at length in Sprigge's *Anglia Rediviva*.⁴

8. LATER HISTORY

Henceforward the defences of Dartmouth were maintained only against possible attack from the sea upon the valuable harbour. In 1650 'the new fort at Dartmouth' was ordered to be slighted.⁵ Later in the same year Dartmouth Fort was 'to be demolished and the two blockhouses repaired and fully manned'.⁶ The fort, probably the same in both cases, may be Gallant's Bower, since it is conceivable that its present condition is partly due to deliberate destruction; the two blockhouses are probably Bearscove Castle (p. 142) and Paradise Fort (p. 145).

At the Restoration the custody of the Castle appears to have been taken away finally from the mayor and corporation, who, until the Civil War, had always been responsible for its maintenance.⁷ Whether they resumed control after the Parliamentary victory in 1646 is uncertain, since there is mention of a governor of Dartmouth in 1650.⁸ The first governor seems to have been Mr. (afterwards Sir) John Fowell, who had command of the Castle and two blockhouses, and was paid £36 8s. per month for the garrison. Presumably the blockhouses are the same as in 1650. A warrant for payment of this sum is recorded in 1662.⁹ It had been pointed out that the value of the defences was

¹ *Cal. State Pap. Dom.*, 1625-49, add. vol., 673.

² *Ibid.*, 1645-7, 153.

³ *Ibid.*, 321.

⁴ 1647, 168 ff.

⁵ *Cal. State Pap. Dom.*, 1650, 60.

⁶ *Ibid.*, 144.

⁷ The annuity was, however, still paid in 1700 in accordance with the patent of Henry VII, see *Cal. Treasury Books*, xv, 273 (£40 per an.) and 301 (£230 for 5½ years to Christmas 1698).

⁸ *Cal. State Pap. Dom.*, 1650, 86, 269.

⁹ *Ibid.*, 1661-2, 317.

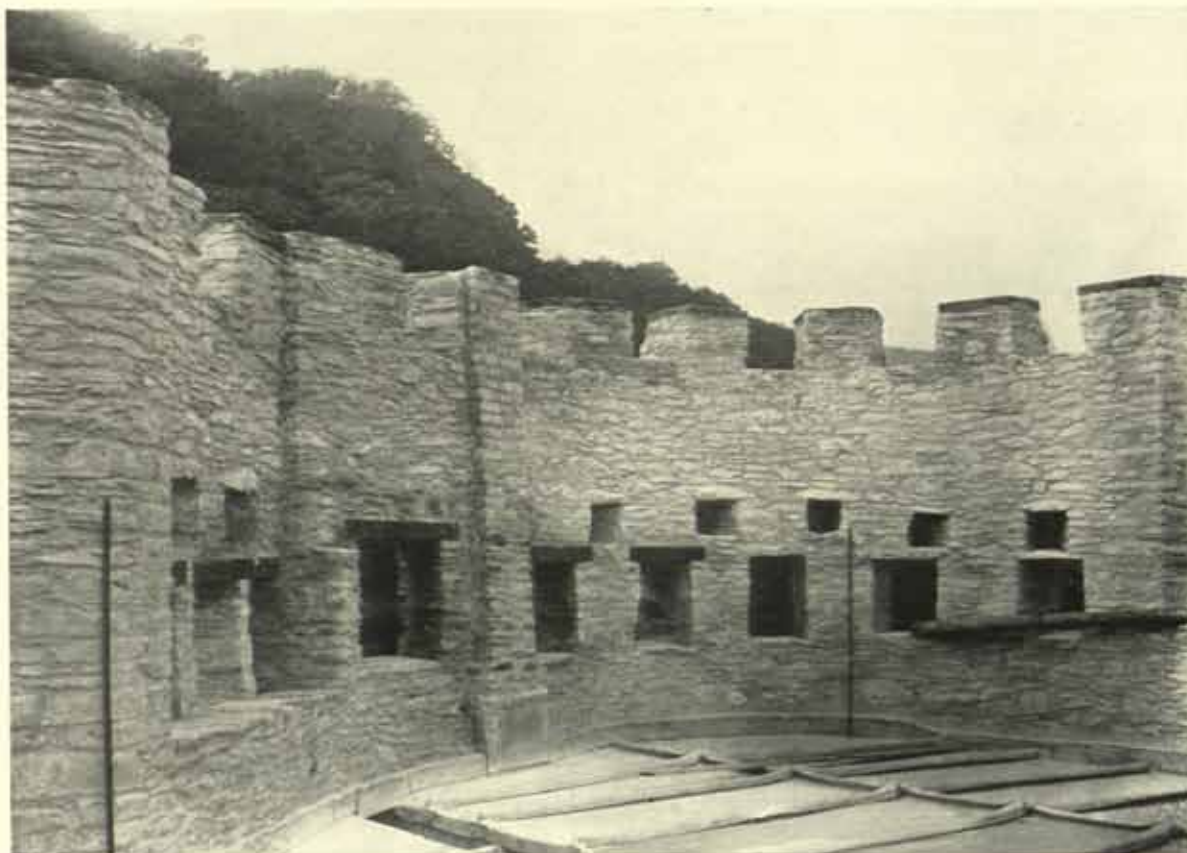


Fig. 1. Dartmouth Castle: the roof, showing the parapet on the northern side and (centre, at base of wall) the lead plaque of 1773



Fig. 2. Dartmouth Castle: the turret and parapet above the entrance

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Fig. 2. Dartmouth Castle from the southern platform



Fig. 1. Dartmouth Castle: the Elizabethan door

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not only to provide against invasion, but also 'against imports of linen, wine, oils etc. uncustomed'.¹

In July, 1667, the Dutch fleet under the command of De Ruyter was cruising off the south-western coast. The English 'Straits Fleet' was secured in Dartmouth Haven,² which was so strongly fortified that the Dutch sailed away without making an attack. On July 23rd the earl of Bath and Sir Thomas Allin left the town 'well fortified', 'having planted 160 guns upon the quays etc.'³ In 1672 an order was signed by the King for an additional blockhouse or fort at Dartmouth.⁴

In 1677 Fowell was succeeded by Sir Edward Seymour, who on February 1st was commissioned 'to be captain and governor of the castles and blockhouses in the town and port of Dartmouth, with one sergeant, one gunner, one matrosse, eighteen soldiers and one boatman as the constant garrison thereof, with power to draw into the said castles and blockhouses such soldiers of the trained bands of the said town, as he shall see cause for the defence of the said town, castles and blockhouses'.⁵ This officer apparently held office until his death, which is mentioned in a letter of 7th January 1688/9.

Upon the accession of William and Mary in 1689 Nicholas Roope (or Roper), a member of a noted family of the district, was appointed governor.⁶ He claimed to have been the first gentleman who went with the King when the latter landed at Brixham.⁷ The fortifications were maintained during war-time, but in 1703 the mayor, bailiffs, etc., of the town complained that the castle and platforms at the mouth of the river had been neglected since 'the late peace with France'.⁸

The next governor was Colonel George Treby, appointed 24th December 1720,⁹ who was followed by Colonel George Grove, appointed 14th September 1727.¹⁰ Lt.-Gen. Thomas Panton was appointed on 14th October 1729¹¹ and died in 1753. The next appointment was of Robert Grylls, 25th July 1753,¹² but almost at once there is another entry,¹³ giving the appointment, dated back to the same

¹ *Cal. State Pap. Dom.* 20.

² *Ibid.*, 1667, 279 and 280.

³ *Ibid.*, 318.

⁴ *Ibid.*, 1671-2, 186.

⁵ *Ibid.*, 1676-7, 531. This garrison is exactly the same as that specified in 1662.

⁶ The history of the governors henceforward is given more fully in the Appendix. Roope was appointed on 8th July (*S. P. Dom. Entry Books*, vol. 165, p. 354), but a certain George Courtenay had already been appointed on the previous 1st May (*ibid.*, 343).

⁷ In 1700 the weekly subsistence of the garrison was £1 11s. 6d. (*Cal. Treasury Books*, xiv, 415). There was also an order to pay £100 10s. 0d. to Roope for fire and candles for the said garrison from July 1, 1689 to Dec. 31, 1694, at 12d. a day (*ibid.*, x, 948), and on July 24, 1695, he petitioned for repayment of £200 expended by him in guarding the coast when the French fleet lay at Torbay (*ibid.*, 1167).

⁸ *Ibid.*, 1703-4, 378.

⁹ *S. P. Dom. Entry Books*, vol. 178, p. 183.

¹⁰ *Ibid.*, vol. 180, p. 316.

¹¹ *Ibid.*, vol. 179, p. 281.

¹² *Ibid.*, vol. 187, p. 274.

¹³ *Ibid.*, p. 287.

day, of Arthur Holdsworth, who had already in 1725 been appointed Fort Major.¹ The Holdsworths were governors as follows:

Arthur Holdsworth, Esq., I	.	.	1753-1760
Arthur Holdsworth, Esq., II	.	.	1760-1777
Arthur Holdsworth, Esq., III	.	.	1777-1787
Arthur Holdsworth, Esq., IV	.	.	1787-1807
A. H. Holdsworth, Esq.	.	.	1807-1857

In 1857 the office of governor was abolished, although the castle continued in use, the existing battery of five guns being erected in 1860-1. By 1886 the garrison consisted only of one master gunner and two men. In 1910 the War Department handed over to the Commissioners of H.M. Works the structure of the Castle in its modern restricted sense, i.e. the strong tower and adjacent platforms, for maintenance as an historic building.

APPENDIX

THE LATER GOVERNORS

(Being a quotation reprinted by permission of the Editor from the *Dartmouth and South Hams Chronicle*, 7th May 1926.)

An interesting account of the Governors of Dartmouth Castle, contained in a booklet published in London in May 1857, has been lent us by Mr. T. Lawson, custodian of Dartmouth Castle. This consists of the following letter to Sir Henry Paul Seale, Bart., from Mr. A. H. Holdsworth, the last Governor of the Castle:

Torquay, May 1st, 1857.

My Dear Sir Henry,

Will you permit me to address you as the Chairman of the Committee appointed by a public meeting at Dartmouth, held for the purpose of obtaining my portrait of Governor of Dartmouth Castle, and express through you to those friends who have so kindly united for that purpose, how greatly I feel obliged and honoured by so flattering a mark of their friendly feeling towards me. As some return, however inadequate, for such kindness, I am gratified at being able to place in their hands an account of the particular line of Governors of which I may be the last; as it forms a portion of the history of our town, and being principally drawn from papers in my possession, may be relied upon as authentic.

¹ The following Fort Majors have been traced: *Thomas Newman*, Esq.; *Nathaniel Terry*, Sen., Esq., appointed 9th November 1723 (*S. P. Dom. Entry Books*, vol. 178, p. 407); *Arthur Holdsworth*, Gent., appointed 25th December 1725 (*ibid.*, vol. 179, p. 77); *Henry Vaughan*, Gent., appointed 25th July 1753 (*ibid.*, vol. 187, p. 287); *Thomas Armstrong*, Gent., appointed 6th April 1770 (*ibid.*, vol. 194, p. 302); *Marshall Wright*, Gent., appointed 23rd January 1779 (*ibid.*, 396). For all the references to *S. P. Dom. Entry Books* the writer is indebted to Mr. A. J. Taylor.

It does not appear from any accounts that I have seen, that prior to the reign of Charles I there had ever been a regular Governor. I am rather induced to believe that the Mayor had charge of the Castle and other defences; as I have seen amongst the papers of the Corporation an account which was submitted to them by the Mayor, entitled, 'Disbursements by me, Lawrence Wheeler, for the town of Dartmouth, towards fortifying and maintaining a garrison in the said town, for the use of Parliament since the year 1642', and there is not any mention of a Governor in that account. It may be right to state that this Mr. Wheeler was three times Mayor of Dartmouth, as is recorded on his gravestone in the aisle in the front of the screen in the Church of St. Saviour's, Dartmouth.

After Prince Maurice had taken the town for the King, Sir Henry Pollard was appointed Governor, and continued in the command until the town was re-taken by General Fairfax for the Parliament in January, 1645. From that time I have not the means of knowing what happened, until the landing of the Prince of Orange, at Brixham; when it appears, from the warrant directing Mr. Roope to take charge of the Castle on behalf of the Prince, that Sir Edward Seymour had been Governor until his death, but it does not show when that event occurred.

It is, perhaps, right that I should state that I found the whole of the commissions, and other papers to which I shall have to refer, tied up together as they had been left by my father; and I can account for those of my relative, Mr. Roope, being also there, by concluding that they came into the possession of my family with the muniments of his property. The warrant to which I refer runs as follows:

'William Henry, by the Grace of God,
Prince of Orange,

'Whereas, information hath been given Us, that since the death of Sir Edward Seymour, Governor of Dartmouth, the Arms and the Ammunition, which are in the two Castles there, are daily inbezelled and carried away; for prevention whereoff, these are to authorise and to require you to take into your Care the said Castles, together with all such Arms and Ammunition as shall be found there, and to place in each of the said Castles or Forts some such persons as you can trust with the care thereof and to make them such a reasonable Allowance for their Attendance as you shall judge fitt till we shall give further directions into and for so doing, this shall be your warrant.

'Given att St. James's, this 7th day of January, 1688-9.

WILLIAM P. ORANGE,

By his Highness command,

C. HUIJGENS.

'To our Trusty and Well-beloved Nicholas Roope, Esq.'

This warrant, it will be seen by the date, was issued by the Prince within a very short time of his reaching St. James, and was followed by a regular commission when the Prince had become Prince of England. It runs thus:

'William R.

'William and Mary, by the Grace of God, King and Queen of England, Scotland, France and Ireland, Defenders of the Faith, &c. To the trusty and well-beloved Nicholas Roope, Esq., greetings. We, reposing special trust and confidence in your Loyalty, Courage, and conduct, Doe, by these presents, constitute and appoint you to be Captain and Governor of our Castles and Block-houses in our Port and Town of Dartmouth, in our County of Devon. You are, therefore, to take

into your care and charge, the Said Castles and Blockhouses, as Captain and Governor thereof, and also the Ordnance, Arms, and Ammunition and other furniture of war, which you shall find in them and any of them. And we doe hereby Authorise and require you, from time to time, to place and draw in Such men and Soldiers of the Company of the trained Band of the Said Town, into our said Castles and Blockhouses as you shall See cause for the maintaining and Defending of our Said Town, Castle, and Block-houses for our Service, wherein the officers and Soldiers of the Said Company, are hereby Strictly required to oblige your Commands, and you are duly to exercise them, and Endeavour to keep them in good order and Discipline. And our pleasure is, That you observe and follow such orders and Directions, from time to time, as you shall receive from us, our Lieutenant of our Said County of Devon, or any other your Superior officer, According to the Rule and Discipline of war. Given at our Court at Hampton Court, the 18th day of July, in the ffirst of our Reign.

‘By his Majesty’s command,
Shrewsbury.

‘Tranford.
William Blathwayt.
Mr. Roope, Governor of Dartmouth Castle.’

We should have been left to conjecture why Mr. Roope was thus selected by the Prince of Orange as the person most fitted to be placed in charge of the Castle at so particular a time, as when the great struggle for Liberty and Protestantism had brought the Prince to our shores, if a letter from Mr. Roope to the Earl of Nottingham, in reply to one from his Lordship, did not at once point out the cause, that Mr. Roope was the first man who had given in his adhesion to the Prince on his arrival in England, and was, therefore, appropriately so rewarded by the trust thus reposed in him.

It will be remembered that in the spring of 1692, the King of France assembled an army on the other side of the Channel, near Cape La Hogue, for the purpose of enabling James II to invade England and recover his crown; and that the French Fleet, under Count de Tourville, was directed to come up the Channel to convey these troops to England. History informs us that Admiral Russel, with his fleet, sailed from Spitshead for the coast of France, in order to attack them, having previously sent some ships thither to discover where the French fleet might be; but we do not find that any historian was aware that at the time when Russel was at Spitshead, Tourville was off Dartmouth, and that the two fleets probably left the coast of England at the same time, and met near La Hogue.

Lord Nottingham’s letter to Mr. Roope and his reply are quite conclusive on this subject. They are as follows:

‘Whitehall, May 24th, 1692.

‘Sir,

‘Complaint having been made to the Queen that you stopped an advice Boat which was going to the Fleet to give notice of the French being under Saile, and of the place where they were, her Majesty would have you forthwith give an Account how the matter of fact was, and what was the reason of doing it.

‘I am,
Your humble Servant,
Nottingham.

‘To Mr. Nicholas Roope.’

Mr. Roope's reply runs thus :

' May ye 27th, 1692.

' Sir,

' Yours of the 24th I received. As to the stopping ye Catch, I wrote my reasons for it presently to my Lord Cornwallis, Humbly desiring him, as A Privy Counsellor, to acquaint her Majesty with it (which I hope is done). I had that day sent two expresses from Dartmouth of the French fleet Coming up Channel to the Lords of the Admiralty and Governor of Portsmouth. Seeing a vessel under sail between ye castles severall hours after these were gone, I commanded the master on shore, who told me he was going out from Mr. Bowers. The Enemy's fleet before ye harbour, Their good ships (I saw one myself) as high almost as Portland. I thought I could not justify the passing a ship or boat at such a time, for it was to me impossible but she must be taken; besides this, Mr. Bowers had been a faithful servant to King James, and Sir John Southcot was Collector there, and made an Alderman of this place to serve a turn, he might as well send to make his peace, as send for our good. Though I was in town, I was not made acquainted with what was done, *though I was the first Gentleman who went into the King*, and I have served him faithfully since, and shall do, God willing. My Lord, I hope these reasons, with what I sent to my Lord Cornwallis, will satisfy her Majesty and your Lordship. If not (as soon as I have done some service I was ordered to do for their Majesties), you shall be waited on by,

' Sir,

Your Honour's

Humble, obedient Servant,

Nicholas Roope.

' To the Right Honourable

The Earle of Nottingham,

Their Majesties' Secretary of State.'

I am not aware of the date of Mr. Roope's death, but it is probable that his successor as Governor was Lieutenant-General Thomas Panton, as I find from commissions to which I shall have to refer, that on the 25th day of December, 1725, at his Court at Helvoet Sluys, George I, appointed 'Arthur Holdsworth, jun., Fort-Major of our Castles and Blockhouses in our town and port of Dartmouth'; and that on the 25th day of July, 1753, King George II, at his Court at Kensington, granted another commission to the same Arthur Holdsworth, appointing him 'to be Captain and Governor at our Castles and Blockhouses in our town and port of Dartmouth, in the room and place of Lieutenant-General Thomas Panton, deceased'. I have another commission to the same person from John Duke of Bedford, as the Lord-Lieutenant in the county of Devon, dated the 2nd day of June, 1757, appointing Arthur Holdsworth to be one of his Deputy-Lieutenants. This Governor died in 1760; and King George III granted to his son, Arthur Holdsworth, a commission as Captain and Governor, which bears date at Saville House the 27th day of October, 1760. At his death in 1777, his son, Arthur Holdsworth, was appointed Governor, who, dying in August, 1787, was succeeded by his near relative, Arthur Holdsworth; at whose death, in 1807, I received my commission as Governor from King George III, dated from St. James the 10th day of September, 1807. I have not repeated the words of several commissions, as they are but repetitions of the first, varying only in detail according to the circumstances of the case.

About the year 1826 I received a communication from Sir Henry Hardinge as Secretary of War, requesting to see me on the subject of my commission as Governor.

He stated to me, that a question had been raised in the House of Commons with regard to my pay as Governor, which some members had urged, should (from motives of economy) be withheld ; but being aware that the appointment was of long standing, and that the pay had always accompanied the commission, also that I had employed myself most actively during the war as a volunteer officer, and was then commanding a regiment of yeomanry, he had prevailed on the House to forego any decision upon the question of my pay, until he could learn from me all the circumstances connected with my real position ; which he would report to the House, in order that it might come to a just conclusion upon it. He then desired me to give him the history of the Governorship, and also to inform him what my duties had been as a volunteer officer.

With regard to the first part, I explained it to him as nearly as may be in the terms which I have given you in this letter. With regard to the second, I informed him that on the breaking out of the war in 1803, when the country was threatened with invasion by a large army assembled in the neighbourhood of Boulogne, and the Government called on the country to enlist volunteers to assist the regular army, I had raised a regiment consisting of 500 men in the Hundred of Coleridge, to the command of which I was appointed with the commission of Lieutenant-Colonel ; this, with three other battalions of the same strength, in the adjoining Hundreds of Stanborough, Ermington, and Plympton, formed a regiment of 2,000 men, under the command of Colonel Bastard, then commanding the First Devon Militia. These men were trained in companies on Sundays, and met together as a regiment monthly, and assembled once a year on permanent duty for twenty-eight days.

The first place at which my regiment so assembled for permanent duty was the barracks at Kingsbridge, but we afterwards assembled at Dartmouth ; and this we continued to do until the year 1814, when the whole of the volunteer infantry of the country—which had consisted of 400,000 men when it was raised, and of which my regiment formed a portion—were disbanded. A regiment of yeomanry had also been raised in the year 1803 by Colonel Montague, then residing at Kingsbridge : the men of which it was composed were drawn from the Hundreds already mentioned. These were not to be disbanded ; and Colonel Montague proposed to me to take the command of it from him, as he was not a native of our county : to this I consented, and the regiment was drilled occasionally in separate troops, and assembled once a year for permanent duty for seven days, and I was still in command of it at the time of my conversation with Sir Henry Hardinge. Sir Henry then desired me to give him this statement in writing, which I did ; and he having reported it to the House, informed me that the House had come to a decision to allow me to retain my pay, upon an understanding, that if the Governorship became vacant a military officer of good standing should receive the appointment.

Nothing more passed upon the subject until the year 1832, when, on going down to the House late one evening, I was informed by a member, that the Chancellor of the Exchequer, on moving the Army Estimates, had congratulated an honourable member (whose name need not now be mentioned) on the decision of the Government, 'that the Governor of Dartmouth should not receive any pay after the 31st of March'. Although this breach of faith to Sir Henry Hardinge was announced to the House in so unusual

a way, I still concluded that the measure would be again justified on a plea of economy; but I soon discovered that it was the result of a very different motive—that of getting possession of my commission, in order, no doubt, at that particular time, to make use of it as an instrument in furtherance of those objects which the Government were then carrying out; as I received the next day a letter from the Treasury, stating that as it had been decided by the Government to withhold my pay, I should probably wish to resign my commission; to this I could make but one reply—that, as I had received the commission from the Crown, I would not resign it until that Crown demanded it at my hands; and as that was a step which the Government was not daring enough to advise, I have retained it undisturbed till the present time, making a series of a half century of years since my appointment in the year 1807.

I have thus endeavoured to give a history of the Governorship of Dartmouth Castle, as far as the papers in my possession have enabled me; but whether I shall be the last of the Governors, as the meeting at Dartmouth appeared to believe would be the case, time only can reveal.

It now only remains for me to repeat my obligation to you, and to my other friends; and to add, that however inadequately this letter may express my sense of your kindness, it will at least have the merit of being a faithful record of those circumstances which have led to so kind a testimony of your feelings towards me.

I am, my dear Sir Henry,
Very faithfully yours,
A. H. HOLDSWORTH.

Sir Henry Paul Seale, Bart.

[NOTE:—Unless otherwise stated, all plans and photographs are reproduced by permission of H.M. Office of Works and of the Controller of H.M. Stationery Office.]

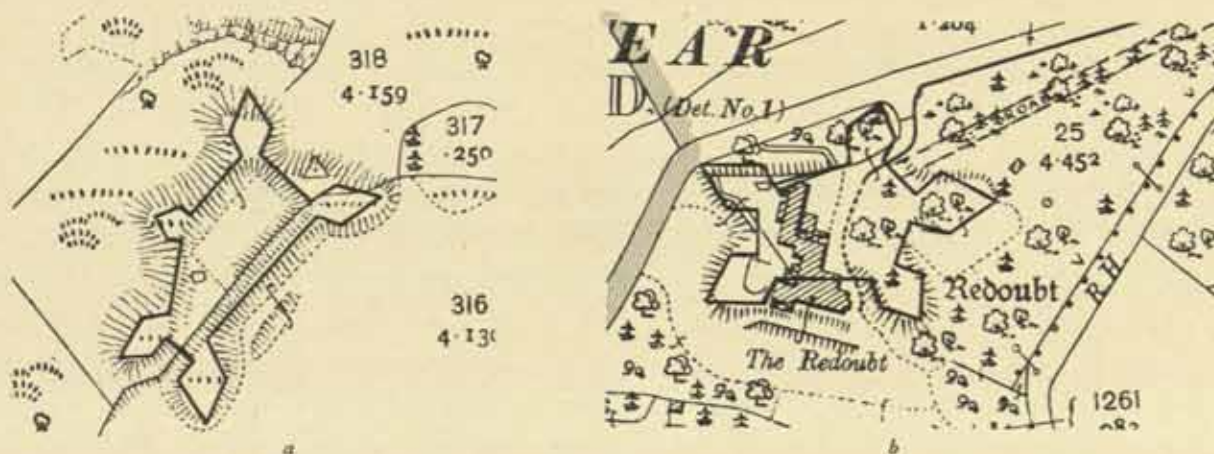


Fig. 2. Gallant's Bower, Dartmouth (a), and The Redoubt, Kingswear (b). Scale $\frac{1}{2500}$

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VI.—*Medieval Figure Sculpture in Winchester Cathedral*

By T. D. ATKINSON, *Esq., F.R.I.B.A.*

Read 24th October 1935

UNTIL within the last few years there lay about on the floor of the north transept of Winchester Cathedral, along with other relics of a miscellaneous character, a considerable number of fragments of medieval sculpture. They had presumably been collected gradually, but no doubt comparatively recently, from various parts of the Cathedral Close. Soon after his installation, however, the present Dean took steps to have these fragments cared for, and he entrusted me with the task of arranging and cataloguing them. They are now, with one or two exceptions, housed in that interesting south triforium of the south transept. It is with this collection of fragments that I deal in this paper, to the exclusion of other sculpture, such as monumental effigies. I am able to illustrate my notes by photographs of several individual pieces kindly taken for me by our friends and your Fellows Mr. C. J. P. Cave and Mr. Arthur Gardner, and by four general views (pls. XLV, XLVI) by my fellow citizen Mr. Salmon, showing the collection as at present arranged. I have been much helped by discussion with friends.

To prevent disappointment I must make it clear at the outset that I am writing of fragments only, not of whole statues. The collection contains between 80 and 90 pieces: heads, bodies, or parts of bodies. But in two instances only are the head and trunk unsevered, and even in these the figure is only a torso or part of a torso. All the rest are either bodies without heads or heads without bodies. The greater number of the figures are about 2 ft. 4 in. high to the shoulder, which would give a total height of 2 ft. 9 in., or about one-half of life-size. There are some statuettes originally about 2 ft. high, and some still smaller. Almost all the fragments have, I believe, been recovered from the garden walls of the Close, in which they had been used as building material. I may briefly explain the process of conversion. The head having probably been knocked off in the interests of religion, the body was laid down and sawn into two or three pieces. These were roughly a foot cube, which is a very useful size for a bonder in a wall built of flint and brick. The flat back of the statue or one of the newly sawn faces was obviously the part to place outwards, and thus the drapery of the vestments, and even in some cases traces of colour and gilding, were buried in the wall and have been preserved.

Four statues were treated somewhat differently. The heads having been knocked off, the parts of the drapery which projected sideways were roughly axed off so that the sides of the figure were straight and parallel. The top and bottom of the statue were then sawn off at angles of 45° to the vertical, so that the new surfaces were at right angles to each other, and the figure was about a foot shorter at the back than at the front. I was a good deal puzzled by this at first, but I presently found an explanation which satisfied me, and I hope will satisfy others. One corner of the great Close wall, at a meeting of two streets, is splayed, the splay being about $2\frac{1}{2}$ ft. long. This surface is built with ashlar. I suggest that these statues were required for a similar but shorter splay in some other wall. Laid on their sides, with their flat backs outwards, they would form excellent double quoins.

It was an interesting task sorting out the fragments of draperied blocks, and seeing which would fit which. Joining them together when they were sorted was laborious and difficult, for one had to guess how much had been lost in the saw-cut, and whether the cut was true or wider on one side than the other. In one case, at least, I feel sure that I have blundered and have not made the mortar-joint sufficiently wedge-shaped. In this work I found a most admirable colleague in Mr. W. H. Breaker, of the city of Winchester, mason.

Four of the figures, the four which had not been sawn up and have been referred to above, obviously formed a group, and at first I hoped that I should be able to carry the grouping through the whole series with fair certainty. In this I was a little disappointed. Grouping would have added to the interest and might have helped one to guess at the places from which each group originally came. But except in a few cases the differences of style are not marked, and almost all are of the same stone, namely Caen. Seldom is there any hint of the shape of the niche. Sometimes the method of attachment offers a suggestion, and I have noted this piece of evidence. But I think that we must not suppose that similarity of treatment, which is the basis of my grouping, necessarily indicates propinquity of position in the church. Sometimes, doubtless, several statues would be required for different parts and would be provided by a single sculptor, or, as I think was generally the case, ordered from a studio.

The identification of the persons represented is, I fear, almost impossible. It has certainly beaten me, with two or three exceptions. The emblems have almost invariably been destroyed. Many figures have the left hand raised, and it obviously held something; but the book or the church or the cup or what not, projecting as generally it would do, has been destroyed. John Baptist is the only one beyond doubt. All are in ecclesiastical vestments or in the robes of patriarchs.



Fig. 1. East bay, looking SE.

Salmon



Fig. 2. East bay, looking SW.

Salmon



Fig. 1. West bay, looking SW.

Salmon

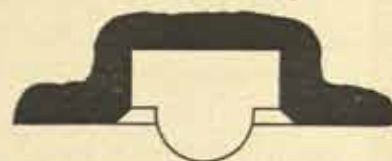


Fig. 2. West bay, looking SE.

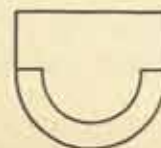
Salmon

It is possible to place one of these statues, and only one, in its original position. The earliest and the best (pl. XLVII) can fortunately be located, and located without a shadow of doubt. The beautiful headless female figure in flowing drapery, so characteristic of the thirteenth century, and yet so reminiscent of Greek or at least of Hellenistic work, came from one of the four niches of the well-known porch of the deanery, formerly the prior's house (pl. XLVII), and I greatly regret that it is not to be restored to its original niche. The proof of its former position lies in its exact fit. That may seem slight evidence until I explain that not only do the height and width suit, but so also does the very peculiar arrangement of the ground on which the figure stands. The niches in question are very shallow, giving a very small floor. The middle part of this floor is widened by a semi-circular corbel. The result is the plan shown in fig. 1. Now the ground on which the figure stands was evidently too large for its corbel, for part of it is carved underneath with characteristic thirteenth-century foliage, showing that it overhung the floor on which it stood. It is of the shape shown in fig. 1. This, it will be seen, is the same as the floor and corbel of the niche, and the two fit to the fraction of an inch. Both porch and figure may, I believe, be placed on the evidence of style in the middle of the thirteenth century.

The figure is moving forward so that the robes stream behind. The left hand is raised to the waist and carried some small metal object which hung downward and backward, and of which the pin-holes for attachment may be seen. The right hand was raised to the bosom and evidently held the loop of the cloak. The garments consist of: (a) an under-coat with sleeves, coming just up to the neck, slightly open in front, but secured by a metal brooch; (b) a very long, full, sleeveless robe confined by a belt, slightly open at the neck, showing the under-coat; it is so long that it spreads over the ground in front and is trodden on by the left foot, so that progress would have been impossible; (c) a cloak hanging from the shoulders, very long, but curiously shortened on the right edge (perhaps the correction of an accidental breakage) and caught up on the left side by the left hand; the cloak seems to have a hood; the loop held by the right hand was of metal, and one of the pins remains embedded in the stone. In no instance are there any remains of the metal-work to which reference has been made. The pin-holes indicate points of attachment and also probably the positions of false jewels. In one or two of them the iron remains.



PLAN OF NICHE



PLAN OF BASE OF STATUE.

Fig. 1. Niche in the front of the Prior's House and the base of the statue

The figure has been hollowed out at the back, doubtless to reduce its weight for its journey from the studio to Winchester. The stone is a fine-grained oolite, not, I think, Caen. The surface of this figure alone shows proof of its exposure to the weather. There is much grace and movement in the attitude. The drapery has been influenced, I think, by some knowledge of classical sculpture, but the anatomy is purely medieval.

It is quite uncertain what the figure represents. Dr. Selwyn, our dean, suggests Fortitude, which it seems to suit in more ways than one. There are now two open niches in the façade of the porch. One other niche, namely that in the east buttress, has been blocked, and it is clear that there must have been a fourth niche in the corresponding west buttress which has been mutilated. Thus we have four niches for the four cardinal virtues: Justice, Prudence, Temperance, and Fortitude. Moreover, the assured pose is appropriate to Fortitude, but by no means to the Synagogue (which has also been suggested), nor is there any indication of the Tables of the Law slipping from her hand.

It is unlikely that a home can be found for any remaining statue of importance. The church itself probably contained about 214 figures at the time of the Reformation. These varied in size from the statuettes of Bishop Fox's chapel, 17 in. high, to the largest figures of the screen, which were about life-size. There were a few statues on the outside of the church, and if we take into account the numerous chapels which a large monastery contained, and the probability that not only the porch of the prior's house, but also the monastery gateway, was decorated with sculpture, we arrive at a total of something like two hundred and thirty. With these facts in mind it seems mere waste of time to guess the *provenance* of any particular statue.

If collecting the figures into groups cannot be carried very far ecclesiastically, something of the sort can be done from the sculptor's point of view. If we cannot arrange a series which will fit a corresponding series of niches, we can, I think, class them according to the period which produced them. I will briefly note the groups into which I think the figures fall according to their style.

We will, therefore, begin by making the thirteenth-century figure already described the nucleus of group A, of which we have no other example.

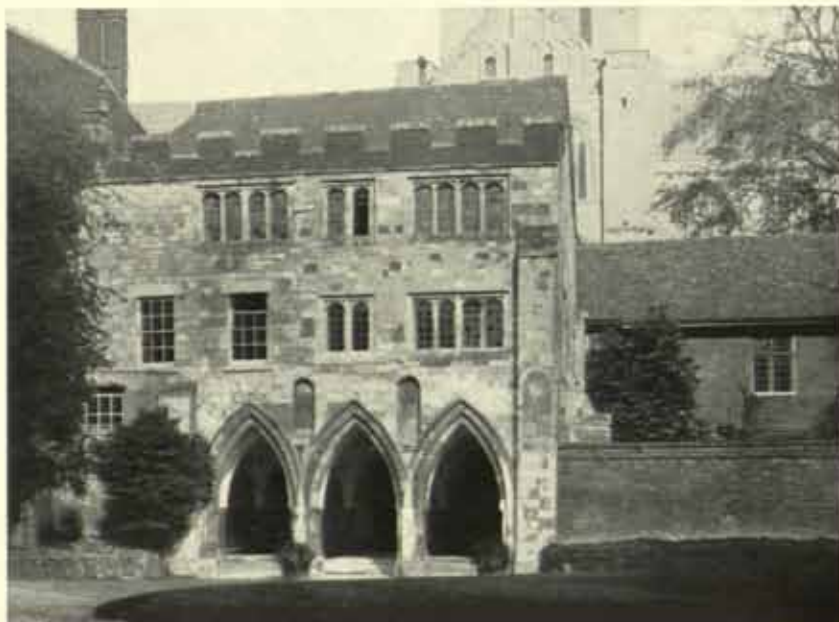
The next in date is a small statue in long robes, forming the nucleus of group B (pl. I, fig. 4). The conventional poise of the body, giving it a sinuous curve, and the artificial treatment of the drapery suggest a fourteenth-century date. It has been sawn across, but the two parts were joined again at some period unknown to me.

Then there comes a series of four tall figures, group C (pl. XLVIII, figs. 1, 2, 4, and 5). They must have been about 42 in. high, or nearly two-thirds of life-size.



Cave

Fig. 1. Fortitude?
Group A. Thirteenth century



Salmon

Fig. 2. The Porch of the Prior's House showing niches for statues



Cave

Fig. 1. John Baptist
Group C. No. 1. Fourteenth
century



Cave

Fig. 2. Elizabeth?
Group C. No. 2. Fourteenth century



Cave

Fig. 3. A Monk
Group E. Fifteenth century



Cave

Fig. 4. Group C. No. 3
Fourteenth century



Cave

Fig. 5. Group C. No. 4
Fourteenth century



Cave

Fig. 6. A Nun
Group E. Fifteenth century

One is unquestionably John Baptist; note the camel's skin with the head on the ground. At St. Cuthbert's, Wells, there is a statue of the Baptist, in which the camel's legs are shown with the bones protruding, and indeed this sort of treatment is usual. Another figure wears a belt, which is unbuckled and is falling down. This (as Mr. Clapham points out) is the accepted representation of pregnancy. It will be noticed that the front of the body was hacked away by the masons who used the statue as building material; this suggests that there was a protuberance here which gave the figure a shape inconvenient for their purpose, thus slightly supporting Mr. Clapham's suggestion. A staff was held in the left hand as is shown by the points of attachment on the drapery. The most obvious identification is St. Elizabeth, possibly in the Visitation conventionally treated, by which I mean that the figures were placed in separate niches. This seems appropriate to a group in which John Baptist appears. Besides the third and fourth figures which give no clue to identification or even to sex, we have a fragment of a shoulder. It is that of a woman; there is a slight suggestion of the breast and a fragment of hair. It seems to belong to a fifth figure, for I cannot make it quite fit on to any of the others.

These figures show accomplished craft and have great beauty. But there is a certain slickness about them; they may be, and have been, described as rhythmic, but it must be confessed that the details of the drapery in one figure are repeated in another with an almost mechanical accuracy. There is no hand left, but the feet appear to me to be treated in a rather perfunctory manner, not unskilful, but very different from the interesting fragment (group U) consisting of a foot only (pl. LI, fig. 4). The figures are cleverly flattened, for the saving of material and to avoid difficulties of transport, and perhaps also to fit them into shallow niches. They are placed by Prior and Gardner at about 1300,¹ but are perhaps later.

I now come to another figure which must be put in a class (D) by itself, namely, that of the Virgin and Child (pl. XLIX, fig. 4). It is placed by Edward Prior in the fourteenth century, but it is, I believe, now generally agreed to be of the fifteenth century. Prior rightly describes it as 'a work of great delicacy and distinction, with smooth draperies that have a different handling from those on the torsos', those, namely, which I have described above, the group of four which includes John Baptist. Mr. Gardner first photographed the figure as he found it,² with its left hand resting on an orb, but I am convinced that this was a mistake, and that the two stones belonged to different statues. They have, therefore, been separated.

After this follow two figures (pl. XLVIII, figs. 3 and 6) which by size, treatment of drapery, and by shape of pedestal, form a group which I call E: (a) a nun

¹ *Medieval Sculpture in England*, 346.

² Prior and Gardner, p. 413.

with a pleated wimple: the sawing up was begun and interrupted; (b) a monk: the long, simple folds of his frock make it one of the most attractive of the lot.

Group F includes seven monks and ecclesiastics, more or less complete, and a large number of fragments (pls. XLV, XLVI, XLIX). I class them together because of their equality of size and similarity of treatment, and because the method of fixing and the character of the base are uniform. Two of the best are: one in a long robe which he holds up in his left hand and shows below his short tunic a carefully finished booted foot (pl. XLVI, fig. 2, right-hand figure), and one a deacon with maniple hanging from his wrist, and holding a book in his right hand (pl. XLV, fig. 2, second from right). The remaining four wear the almuce, two of these with scalloped edge and buttoned on the right shoulder. The furred almuce with tails hanging down in front is seen in several smaller fragments, looking, as I thought at first, like a woman's hair (pl. XLIX, fig. 2). I include in this group a figure which may be St. Christopher, for there appears to have been a small figure on his right shoulder though his left hand does not hold a staff, and two fragments of angels with remains of gilding (pl. LI, figs. 3 and 5).

That, perhaps, brings us to the close of the fifteenth century. I have, on account of the fuller treatment of their vestments, placed several ecclesiastics in the sixteenth century and called them group G (pl. I, fig. 1).

Class H contains one figure only (pl. I, fig. 3). It is difficult to group it with any other, and it is difficult to fit into a niche because it is kneeling on one knee, and because it is finished and evidently meant to be viewed all round. It is hardly more than a fragment, being only from the waist downwards, no body and no hand or foot remain; there is another small fragment, the lower arm and wrist, which clearly belongs to it, but just does not fit on to the larger stone. And yet it is an interesting figure—one of the most interesting. For one thing the colour is very well preserved (blue with a gold fringe) and the attitude is arresting. The vestment is the dalmatic of a deacon. The dalmatic is fringed all round, which is said to be indicative of a bishop, but this is a nicety which I understand was often neglected by the sculptors of the middle ages. Our figure belongs, I suppose, to the late fifteenth or sixteenth century. It has been suggested by Mr. Arthur Gardner that it may be that of the Angel of the Annunciation, who is often represented in the vestments of a deacon. This is the identification which has most commended itself to me. The Virgin must have been seated or kneeling if an acceptable composition was to be obtained, and must, too, have been in a separate niche.

The next group (I) includes the only figure, other than that of the Virgin and Child, that has a head (pl. XLIX, fig. 3). It is that of a queen; the greater part of her crown has been destroyed. It is a small statuette of no great merit; the features are heavy and the drapery is monotonous and almost identically



Cave

Fig. 1. An Ecclesiastic
Group F. Fifteenth century



Cave

Fig. 2. An Ecclesiastic
Group F. Fifteenth century



Gardner

Fig. 3. A Queen
Group I. Sixteenth century



Gardner

Fig. 4. Virgin and Child
Group D. Fifteenth century



Cave

Fig. 1. Group G. Sixteenth century



Cave

Fig. 2. An Ecclesiastic
Group F. Fifteenth century



Cave

Fig. 3. Kneeling figure
Group H. Sixteenth century



Gardner

Fig. 4. An Ecclesiastic
Group B. Fourteenth century



Cave

Fig. 1. A Woman
Group I. Sixteenth century



Cave

Fig. 2. A Woman
Group K. Sixteenth century



Cave

Fig. 3. An Angel
Group F. Fifteenth century



Gardner

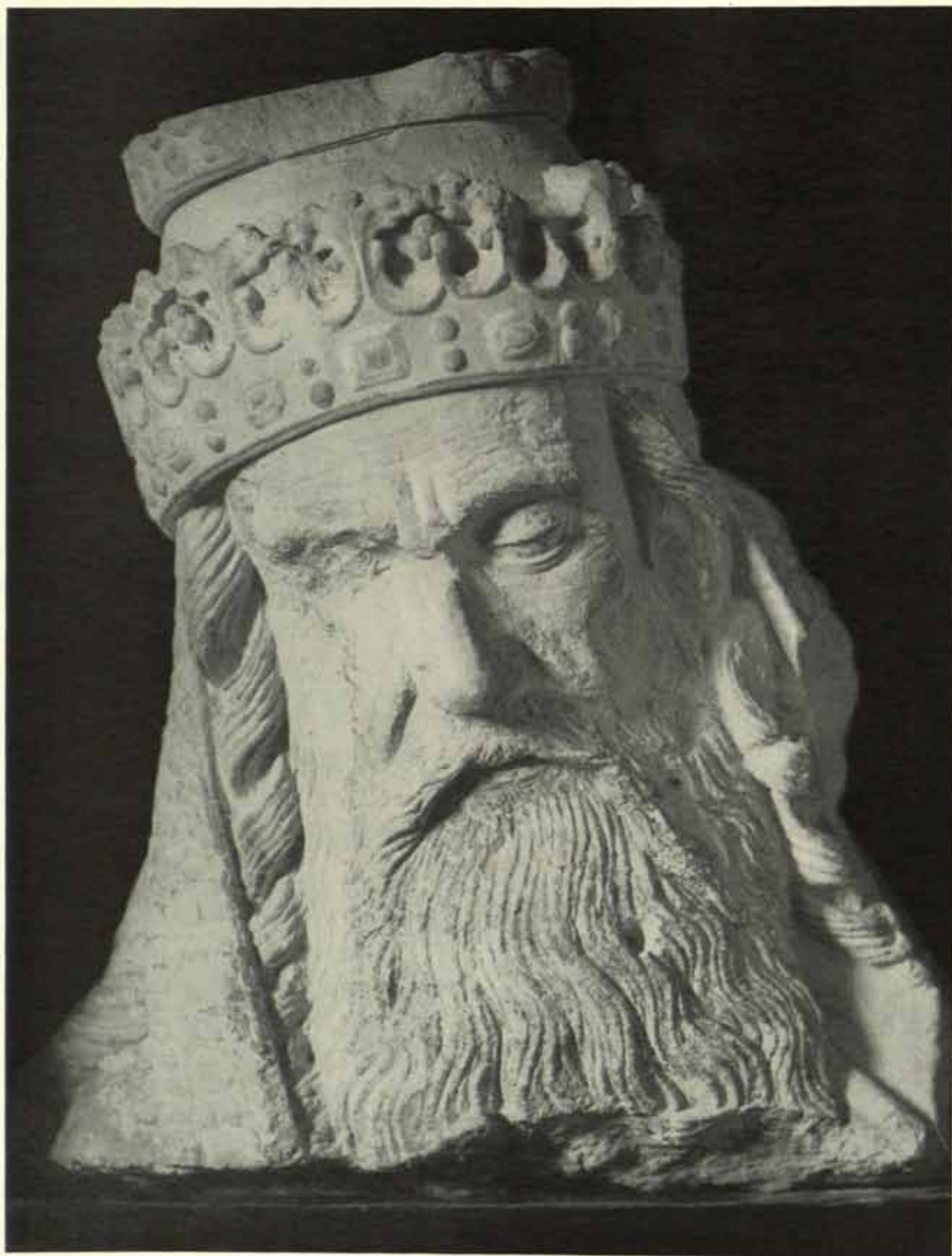
Fig. 4. A foot
Group U. Sixteenth century



Gardner

Fig. 5. An Angel
Group F. Fifteenth century

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Cave

The Almighty
Group Q
Fifteenth or Sixteenth century

the same as that of several other fragments of this group (pl. LI, fig. 1). The undergarment is gathered in by a waist-band.

Group K is also of women (pl. LI, fig. 2). The dress is different from that of the last; there is no waist-band, and the treatment of the figure is freer and more individual.

The last group, L, consists of fragments of small figures (pl. XLV, fig. 2).

We may now turn to the Heads, of which there are about twenty. The large bearded head of Christ is placed by Prior in the fourteenth century (pl. LIII, fig. 2), and the heads of two Queens (pl. LIII, figs. 4 and 5) are also, I suppose, of the same period (group P); but I prefer to consider the whole of group P as early fifteenth century.

The grand head of the Almighty (pl. LI), one of the greatest things we have, belongs to the late fifteenth or early sixteenth century (group Q). He wears the papal triple crown. Others are of very great beauty and interest, and are strongly suggestive of portraiture; it is maddening to look at these smashed but still lovely features. One head may be put in a class by itself in the sixteenth century. There is a sort of realism about it, but it seems to me to be very dull, if not actually bad.

There is a very remarkable group (S) of five heads, all from the same sixteenth-century studio, if not by the same hand (pl. LIV, figs. 1-3). They are modelled with extraordinary vigour, have strongly marked features, bulging eyes, parted lips, and free, heavy hair. Four of them are heavily bearded, and one is clean-shaven. They are nearly life-size. I am unable to offer a suggestion as to this rather villainous-looking set, unless it is that they are of foreign, perhaps Flemish, workmanship. Such faces are sometimes seen as corbel-busts for statues, but these are completely in the round and cannot it would seem be explained in this way.

Group T contains two colossal heads from the apexes of some lofty gables.

Among the smaller fragments is the interesting foot (pl. LI, fig. 4), to which I have already referred (group U). It is very well modelled. It is also remarkable in being cut out of the same stone as the niche in which it stood.¹ In this it is different from all the other Winchester figures, and from most other medieval sculpture which I have seen illustrated. I like to think that this is evidence of its being by a local artist, or at least carved on the spot. If so, the fragment, small as it is, is of some importance. I have, therefore, placed it in a class by itself. It is, I suppose, of late date. I rather think that the foot and niche have been painted with oil-paint. I have already referred to traces of colour

¹ It may be noted that one of the treasures of the cathedral was a foot of St. Philip. Although I believe that no similar instance can be quoted, it is just possible that the sculpture refers to this relic.

on some of the sculpture. It must be understood that these are but faint, nothing like the fresh brilliance of the fragments at St. Cuthbert's church at Wells.

Such, broadly, are the characteristics of our Winchester fragments. I submit these notes and suggestions with all diffidence and shall be very grateful for correction.

APPENDIX I

LIST SHOWING PROPOSED CLASSIFICATION

<i>Figures</i>			
<i>Group.</i>	<i>Century.</i>	<i>Number of pieces.</i>	<i>Principal subjects.</i>
A	13th	1	Prior's porch.
B	14th	1	Ecclesiastic.
C	14th or 15th	5	John Baptist and four others.
D	14th or 15th	1	Virgin and Child.
E	15th	2	Monk and nun.
F	15th	35	St. Christopher, two angels, and thirty-two ecclesiastics.
G	16th	3	Ecclesiastics.
H	16th	1	Kneeling deacon.
I	16th	3	Queen and two other women.
K	16th	5	Women.
L	16th	16	Statuettes: St. Paul and fifteen other fragments.
<i>Heads</i>			
P	14th or 15th	11	Christ (larger than life). Christ (half-size fragment). Pope, two bishops. Two kings, two queens. Man wearing skull-cap. One other head.
Q	15th	2	The Almighty (in Library). Bishop (face destroyed).
R	16th	6	Christ (small). St. Paul? A head with luxuriant hair, face destroyed. Three other heads.
S	16th	5	Vigorous sculpturesque.
T	16th	2	Colossal heads.
<i>Other fragments</i>			
U	—	—	Foot, three hands, other fragments.
V	—	—	Two large corbel-figures.



Cave

Fig. 1. A Pope
Group P. Fifteenth century



Cave

Fig. 2. Our Lord
Group P. Fifteenth century



Cave

Fig. 3. A Bishop
Group P. Fifteenth century



Cave

Fig. 4. A Queen. Group P. Fifteenth century



Cave

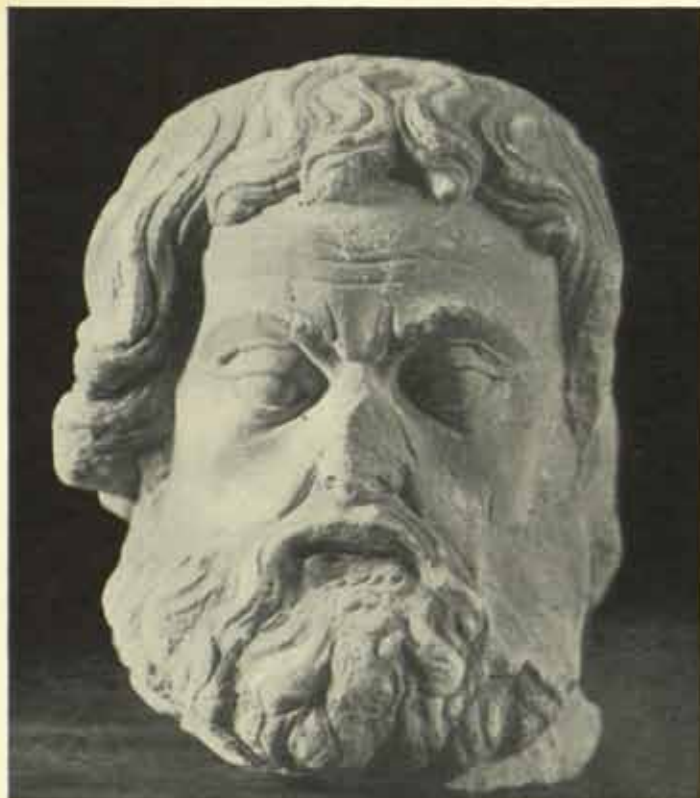
Fig. 5. A Queen. Group P. Fifteenth century



Cave

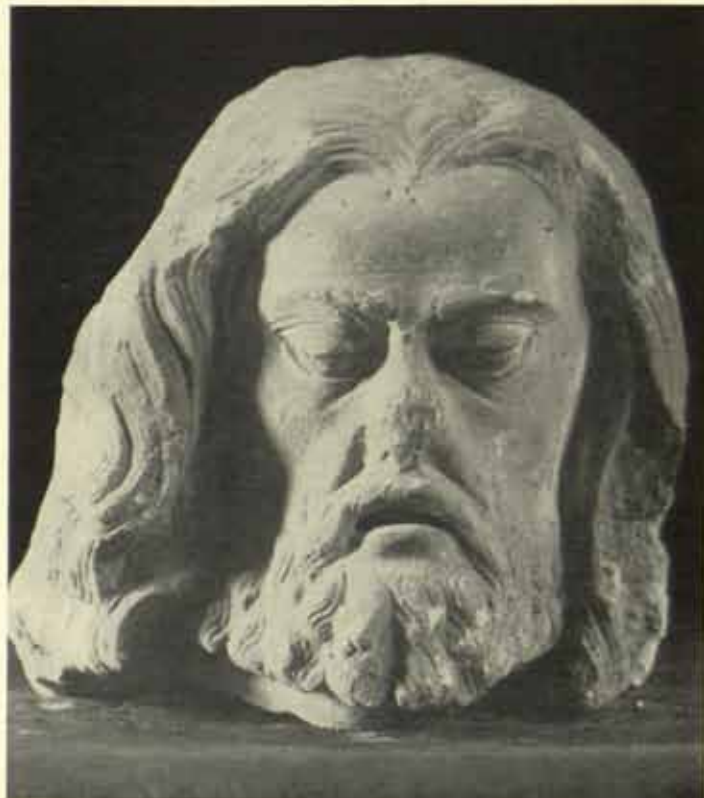
Fig. 6. Man wearing skull-cap
Group P. Fifteenth century

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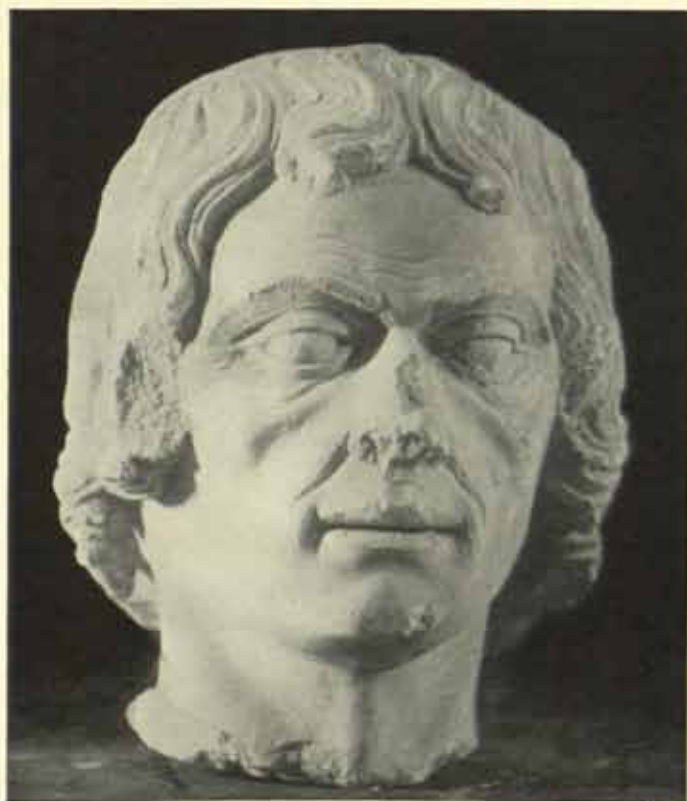
Cave

Fig. 1. A Man
Group S. Sixteenth century.



Cave

Fig. 2. A Man
Group S. Sixteenth century



Cave

Fig. 3. A Man
Group S. Sixteenth century



Cave

Fig. 4. A Man
Group R. Sixteenth century

VII. *On Some Later Funeral Effigies in Westminster Abbey*
By L. E. TANNER, Esq., *M.V.O.*, *F.S.A.*, and J. L. NEVINSON, Esq.

Read 18th October 1934

ON the 31st January 1907 the late Sir William St. John Hope read a paper before the Society 'On the Funeral Effigies of the Kings and Queens of England, with special reference to those in the Abbey Church of Westminster', and to this paper our Fellow the late Dr. Armitage Robinson, then dean of Westminster, appended 'A Note on the Westminster Tradition of Identification'.¹ In this paper the origin and history of the earlier effigies—the 'Ragged Regiment'—were dealt with in detail, but the later effigies, familiarly known as the 'Wax-works', were outside its scope, and their history was only lightly sketched in a few sentences by the dean of Westminster.

These effigies have attracted, however, a certain amount of public attention owing to the fact that the dean and chapter recently decided that they should be cleaned under the supervision of the authorities of the Victoria and Albert Museum. For the first time it has been possible to submit them to a careful and thorough investigation, and they have proved to be sufficiently interesting to invite further research into their history and to lay the results before the Society.

The result of the cleaning has in fact exceeded all expectations, and the dean and chapter are profoundly grateful to our Vice-President Sir Eric Maclagan, to Professor A. J. B. Wace, *F.S.A.*, and to the other officials of the Textile Department of the Museum for the unfailing interest, care, and skill which they have bestowed upon these effigies. No one had any idea that when the cases were opened it would be found that most of the figures were fully clothed. As a result, not only has every one of these garments been separately cleaned, but a detailed and careful description has been made of them, and in almost every case they have been photographed.

Sir William St. John Hope has dealt so fully with the history of funeral effigies that it is unnecessary to do more than to remind you that those which have been preserved at Westminster are 'the last survivors of a custom now fallen into disuse, of carrying upon the coffin in the funeral procession a [life-size] representation or "picture" of the dead King or Queen [or other great

¹ *Archaeologia*, lx (1907), 517-70.

person] arrayed in apparel befitting his or her dignity, and with the face and hands modelled in wax or carved in wood and painted to the life'.¹

The effigy was then placed upon a hearse set up under the Lantern in the Abbey, where it remained for a week or so. Afterwards it was placed in a glass-fronted press, and usually stood by the grave of the person whom it represented. In 1839² all these effigies were collected and placed in Abbot Islip's Chantry Chapel. The older ones—the 'Ragged Regiment'—which by that time had become very dilapidated, were removed from public view, and it was not until 1910 that they were placed in cases in the Abbey Museum, in the Undercroft, where they can now be seen. The later ones, the 'Waxworks', have always been one of the popular 'sights' of the Abbey, but it is perhaps only recently, and as a result of the cleaning, that their value and interest, both as portraits and from the point of view of costume, have been realized. Even Charles Kingsley, then a canon of Westminster, writing in 1874, did not hesitate to call them 'old trumpery not worth . . . looking at'.³

There are eleven of these effigies and they fall roughly into two groups. The first of these groups, which consists of the effigies of King Charles II, the duchess of Richmond (La Belle Stuart), the duchess of Buckingham and her sons, the marquess of Normanby and the last duke of Buckingham of that line, may be termed genuine funeral effigies, in that they were either carried at the funerals of the persons whom they represent or were made in connexion with the funerals.

The second group consists of the effigies of Queen Elizabeth, King William III and Queen Mary II, Queen Anne, William Pitt, earl of Chatham, and Lord Nelson. Owing to the fact that the effigies in this group were frankly bought from time to time in order to keep the collection up to date, their history has never hitherto been seriously examined, and they have never received the attention to which they are certainly entitled.⁴

It will be convenient, perhaps, to deal with these groups in chronological order, beginning with the genuine funeral effigies.

¹ *Archaeologia*, lx (1907), 517.

² *Art Journal*, 1866, article by F. W. Fairholt, 'The Westminster Abbey Wax Works'.

³ See a letter from the Rev. J. M. Wilmot Brooke in *The Times* (4th July 1933) where the original letter is quoted.

⁴ Articles by one of the present writers on the effigies as each was cleaned and returned appeared in *The Times* for 7th April, 29th June, 20th November 1933; 26th March, 9th October 1934; 21st January, 4th June, 30th September 1935; and 14th January 1936. Further illustrations of the effigies can be found in the *Illustrated London News* for 22nd April, 1st July, 25th November 1933; 31st March, 13th October 1934; 26th January, 15th June, 5th October, 1935; and 18th January 1936.

I. KING CHARLES II (pls. LV, LVI)

The earliest and most important of these is the effigy of King Charles II. It does not appear that an effigy was actually carried at the king's funeral. In none of the detailed official accounts¹ of the ceremony is there any mention of it, nor is there any reference to it in the records of the Lord Chamberlain's or other departments concerned with the expenses of the funeral. It will be remembered that Evelyn records on 10th February 1685, that 'the King was this night very obscurely buried in a vault under Henry VII's Chapel . . . without any manner of pomp, and soone forgotten after all this vanity'. As a matter of fact the king's conversion made a public funeral inadvisable. The body, however, lay in state in the prince's lodgings at Westminster, and the funeral took place at night by torchlight in the presence of all the great officers of State. King James II was not present.

The effigy must have been made very shortly after the funeral, for, on the 8th June 1686, Henry Guy, secretary of the Treasury, authorized the payment of £18 10s. to Philip Packer, paymaster of the Works, 'for a Press for the late Kings Effigies'.²

It is unfortunate that a search at the Record office and elsewhere has failed to bring to light the actual account for the making of the effigy. The modelling of the face is so remarkable and the effect is so lifelike, that it could only have been done by an artist of exceptional powers. There can be no question that this is one of the most interesting and authentic likenesses of Charles II in existence. It is perhaps worth noting that the so-called 'Hapsburg lip' which Charles derived from his Hapsburg great-grandmother is unmistakably apparent in the effigy, and so also is the rather strained expression, the 'fierce countenance' which Evelyn noted as characteristic of the king.

The face is not a death-mask, but it may have been taken from a cast made during life. In this connexion we may recall the interesting account which Pepys gives of his visit to 'the plaisterers at Charing Cross' on 10th February 1668-9:

I had my whole face done but I was vexed first to be forced to daub all my face over with pomatum; but it was pretty to feel how soft and easily it is done on the face, and by and by, by degrees, how hard it becomes, that you cannot pull it off, and yet so easy, that it is as soft as a pillow.

It is true that at first he had 'little pleasure' in the mould, but a few days later when he saw the cast he found it 'admirably like'.

¹ e.g. B.M. Add. MSS. 38141, H 62, 64.

² *Cal. Treas. Books*, 1685-9, p. 769 (Disposition Book IV, pp. 194-5).

It is quite evident that whoever dressed the effigy had before him the frontispiece representing Charles II in Ashmole's *Institution . . . of the Order of the Garter* which was published in 1672. The figure tallies almost exactly even to the characteristic, but rather awkward, pose of the left foot.

The effigy is 6 ft. 2 in. in height and this agrees with the official description issued after the battle of Worcester which stated that 'Charles Stuart is still in England . . . obscured and under disguise' and that he was 'a tall man above two yards high'.¹ It is dressed in the robes of the order of the Garter. Ashmole gives a full description and the exact measurements of the robes of the order as laid down in the regulations issued by Charles II in 1662.² With these the measurements of the robes on the effigy closely correspond. There would seem no reason to doubt, therefore, that these are genuine Garter robes, and as such they, and those preserved at Lennoxlove, which belonged to the duke of Richmond (d. 1672), are probably the earliest in existence in this country, although, in the Danish royal collections in Rosenborg Slot at Copenhagen, there is the purple velvet mantle of the order which belonged to King Christian IV, the brother of the queen consort of James I of England.³

As will be seen below, the whole of the clothing of this most interesting effigy would appear to be contemporary. The wig, however, is known to have been renewed in 1729.⁴

Description. The figure consists of a wax head and hands, a stuffed body stiffened with wood, and iron and wooden legs, held upright by two cross-shaped pieces of iron which support vertical staples passing through the soles of the shoes.

The wax of the head had dried, and the nose had been broken, and the eyelids were also damaged; the head is well modelled (apart from the ears) and the eyebrows are painted, the eyelashes and small moustache are of hair; the eyes of glass. Some of the fingers of the hands were detached, and had been mended at earlier dates. The body is stuffed with hay and tow, and covered with coarse canvas; there was more stuffing between shirt and doublet. The arms are padded about an iron wire; the wooden legs are carved from single blocks to mid-thigh, above which there are cylindrical pieces which, in their turn, are glued to a cross-piece; from this rises an iron socket into which the central wooden post of the bust fits. The feet are similarly carved, and have been glued to the legs. N. 68763, 68767 (head), 68768 (profile).⁵

I. MANTLE. Blue silk velvet with cut pile, lined with white silk taffeta. The cut and measurements closely correspond with those given in Ashmole (p. 211). L. (front) 63 in. (Ashmole 'the length of the foreside one yard and three quarters'). L. (train) 108 in.

¹ *Cal. of State Papers (Dom.)*, 1651, p. 476.

² Ashmole, vii, 202 *et seq.*

³ I am indebted to Miss Joan Evans, D.Litt., F.S.A., for calling my attention to this mantle.

⁴ *Precentor's Book* (1729) which has a note that it was supplied at this date at a cost of £3 3s.

⁵ This and subsequent entries refer to the numbers of the photographic negatives at the Victoria and Albert Museum.

(Ashmole 'three yards'). Hem (from front to centre seam of train) 144 in. (Ashmole 'from the foot along the bottom to the setting on of the train is 2 yards; and from thence the length or compass of the train is 2 yards'). N. 68774.

There is a standing band collar (19½ in.) with two large button-holes surrounded with silk. The skirts on the right are looped to the shoulder with a white silk ribbon bow; on the left shoulder are the tears where the badge (Garter cross) has been removed. It would appear to have been a pearled cross enclosed by the garter, without a glory, of the dimensions given by Ashmole (H. 10 in. W. 7 in.). The mantle is without facings and the cords and tassels for fastening no longer remain.

2. SURCOAT. Red silk velvet, lined with white silk taffeta. Compare with Ashmole's descriptions (p. 211) and plate. L. (front and back) 46 in. W. (shoulders) 19 in. Skirts (lower edge) 106 in. Sleeves, L. 32½ in.; W. 9½ in. N. 68769.

There is a band collar (18 in.) without fastenings. The body is cut full and straight. The sleeves, though lined and open at the wrist, are false, and the arms pass through a slit in front of the shoulder. The upper seam of the sleeves is also slit from shoulder to elbow. Ashmole gives the length as 'one yard and a half', and the length of the sleeves as 'one yard wanting a nail'. Another contemporary surcoat is preserved in the Johanneum, Dresden.

3. HOOD. Red silk velvet, lined with white silk taffeta. Compare with Ashmole's description (p. 214) and plate. Diam. of ring, 4½ in. L. (band) 53½ in. W. 6 in. N. 68770.

The hood consists of a stiff padded ring covered with velvet, to which a cape-like flounce 10½ in. deep is attached. From the ring hangs a long band of the same materials. This (see Ashmole, p. 215, and pl. to face p. 223) represents the medieval hood¹ and the streamer which fell from it, and was often wrapped about the neck. The hood is worn on the right shoulder, resting on the mantle; on this effigy it was found placed on the left shoulder to hide the place where the star had been, and the band had been tucked in under the sword belt.

4. SWORD BELT. Blue velvet, lined with white silk. L. 50 in. W. 1¼ in. N. 68770.

The belt has silver-gilt fringes and buckles, and two hangers each with two straps. As found, it was worn round the waist over the surcoat. Most portraits of the period show a red sword-belt; but the colour was probably not definitely prescribed at this date.²

5. DOUBLET. Cloth of silver (tissue of silk and silver thread, 'silver tabby'), trimmed with silver bobbin lace. L. (front) 16 in. W. (shoulders) about 17½ in. N. 68771.

The collar is missing, and the front meets over the top of the chest, where there are seven small buttons; below, the doublet falls apart, leaving an opening in the form of an inverted V, in which the ruffles of the shirt show. The front is decorated on either side with a vertical row of small buttons and braiding; the latter is continued up over the shoulders and down the back, which has an 8½ in. slit in the centre, to secure freedom for the shoulders while keeping a tight fit. The doublet has been cut from here to the neck when it was fitted to the effigy. The waist is cut square, and about it are six wide,

¹ See *Zeitschrift für hist. Waffenkunde*, iii, 2, p. 39 (1929).

² An exactly similar sword-belt appears in the picture of Charles II by John Michael Wright in the National Portrait Gallery.

shallow ($\frac{1}{2}$ in.) tabs, edged with silver lace; about these is a row of false eyelet holes set close, a survival of the period (before 1630) when the breeches were attached by points. The sleeves are short and full (13 in. long), and have an ornamented slit down the front seam and braid on the outside. Covering the elbow there is a wide fall of silver (silver-gilt) bobbin lace. The doublet is stiffened with canvas and lined with white silk. This doublet would be of the form prescribed by Charles II in April 1661 (Nicolas, *Orders of Knighthood*, ii, p. 348, on the under habit, 'Cloth of silver doublet or vest, and trunk hose'), and shows the attenuated form, which the Elizabethan doublet had assumed by that date. The waist had shortened until a roll of shirt appeared between doublet and breeches, the sleeves had shortened to the elbow, and the two sides barely met across the chest. Clearly the doublet is of the early Restoration period; the collar, now cut away, would have been, on the analogy of the doublet at Lennoxlove, a plain band of silk braid.¹

6. BREECHES. These are of the same material as the doublet. Waist 32 in. L. 11 in. N. 68771 and 68762 (doublet and breeches as worn).

These are in the form of a short petticoat, and have no division for the legs; they button from top to bottom at the back, and have a single button in front. The material is not paned, but set in very full pleats, which pouch and hang over along the lower edge; there is an inner stiffening of buckram. At the waist in front there are two bunches of white and silver figured ribbon, and there are three similar bunches under the pleats on the lower edge. At the sides are two vertical bands of silver braid and ornamental buttons which mask the openings of two silk-lined pockets. The pair at Lennoxlove has a division for the legs, and it is possible that the Westminster garment was mutilated when the effigy was mounted.

7. DRAWERS (pl. LVI, 3). White silk. Waist about 37 in. L. about 13 in. N. 68773 (with no. 10).

These are cut full and square; they fasten with ribbons in front, and have a small slit and ties behind; the stockings are sewn to the legs.

8. STOCKINGS; bluish-white silk, knitted. L. 31 in. Foot 10 in. N. 68765.

The legs, heels, and upper part of the feet are made in one piece, and the soles, with narrow gores running up to a point on the ankle, are sewn in. Above the points of the gores there are small figured flowers. The feet have been slit for mounting, and the tops are sewn to the drawers. The silk is much faded.

On the right leg, below the knee, is tied a small garter of white silk ribbon; on the left a broader bright blue ribbon to represent the Garter itself.²

9. SHOES, the uppers of white kid. L. 11 in. H. (heel) 1 in. N. 68772.

These shoes have not been worn, and are rather roughly made. The toes are slightly square, but do not project much. The tongue has two eyelet holes, and the

¹ Compare a portrait of Charles II in the possession of the earl of Mar.

² Cf. Guillim, *Display of Heraldry*, 4th ed. (1660), p. 271: 'When a Knight of the Garter is booted for to ride, it sufficeth to wear upon the left leg under his boot, a Blew Riband of silk in signification of the Garter'.

upper part has been cut: the leather latches are fastened with ribbon, to which is attached a bunch of white and figured ribbons. The heels are small, and are pierced to take the staple which supports the figure. The sides are covered with white leather, while the sole is lengthened backwards and moulded over the heel. The shape of these shoes suggests a later date, towards 1700, but they lack the large square heel of the eighteenth century. Shoes of the Charles II period normally had square toes, but it cannot be definitely stated that these are not contemporary.

10. SHIRT (pl. LVI, 3). White linen. L. 43 in. Neck: about 16 in. N. 68773 (with no. 7).

It is cut very full, both in the body and the sleeves, and is finely gathered to neck and wrists. The neck has been cut out and mutilated—the narrow band has two button-holes on the left—and the sleeves cut off in two places. The latter are gathered in two full puffs by white silk ribbons at the elbow and on the forearm. To the wristbands, which have four button-holes, are attached the ruffles of Venetian 'gros point' lace, and strips of similar lace edge the opening down the front of the shirt. The shirt has been underlaid and repaired.

11. SLEEVE RUFFLES. Venetian 'gros point' lace. L. 7 in. D. 3 in.

Four bands of lace, mounted on linen strips, which are sewn together to form a wristband.

12. CRAVAT. Venetian 'gros point' lace. L. 34 in. W. 6 in. N. 68766 (with no. 11).

The lace is gathered about three sides of a narrow oblong strip of cotton. This is drawn together lengthways so that the lace forms a knot at the throat. The cravat had been loosely refixed to the head by a strip of loosely woven cotton, and might seem to be a later arrangement. The engraving in Ashmole shows a broad falling collar of similar lace, and this cravat may have been made up from a collar of this sort. On the other hand the cravat was being worn by 1680, especially by soldiers.

13. HAT (pl. LVI, 4). Black velvet, lined with black silk. H. 6 in. Diam. 11½ in. N. 68764.

The shape is cylindrical, with a flat top and close pleating down the sides; there is a small brim, which has been sewn up where the plume is fixed. The plume consists of ten white ostrich feathers attached in fan shape to a piece of card, and there is an aigrette of narrow black and white heron's feathers. The band—no doubt of gold or jewelled—is missing (the marks of the stitches are visible), and the brim was probably caught up to secure the plume when the band was removed. Compare Ashmole's plate to face p. 202 and frontispiece.

14. WIG. Human hair, chestnut brown. L. about 20 in.

A full wig rather lightly curled, made of human hair made up in long 'tresses' and attached to the corded foundation, which is partly lined with pink silk. It is slightly moth-eaten, and is certainly the 1729 restoration: a very similar wig (black) was in the possession of Messrs. Clarkson. A contemporary wig of Charles II would undoubtedly have been black, since he is known to have been a very dark man.

II. FRANCES THERESA STUART, DUCHESS OF RICHMOND AND LENNOX, d. 1702
(pl. LVII)

Frances Stuart, duchess of Richmond, commonly known as 'La Belle Stuart', was a daughter of the Honble. Walter Stuart, a younger son of Walter, 1st Lord Blantyre, and was born in 1647. She was brought up in France and in 1663 was appointed maid of honour to Catherine of Braganza. Partly to escape the attentions of the king, who was genuinely in love with her, she eloped in 1667 with Charles Stuart, 6th and last duke of Richmond and Lennox of that line. She died on 15 October 1702, and was buried in the Richmond vault in Henry VII's Chapel. She left her estate at Lethington to her cousin, Alexander Stuart, 5th Lord Blantyre, with a request that it should be called 'Lennoxlove to Blantyre', and as 'Lennoxlove' it is still in the possession of his descendants. She was a great beauty and sat for the original figure of Britannia on the coinage.¹

In a codicil to her will, dated 7th October 1702, she desired 'to have my Effigie as well done in Wax as can bee and set up . . . in a presse by itselfe . . . with cleare crowne glasse before it and dressed in my Coronation Robes and Coronett'.² Her wish was carried out, and the figure was modelled by Mrs. Goldsmith, 'the famous woman for waxwork', at a cost of £260 (the bill has been preserved at Lennoxlove), and was placed in Henry VII's Chapel in August 1703.³

The figure, without wig but standing in shoes, is 5 ft. 8 in. in height, and is dressed, as she desired it to be, in the duchess's robes which she wore at the coronation of Queen Anne.

The face of the effigy is cleverly and carefully modelled and 'the little Roman nose', which Mr. Pepys so much admired and which caused him to have a sleepless night for thinking of it, is a prominent feature.⁴

On a contemporary bracket, by the side of the duchess, has always been perched the stuffed parrot which 'had lived with her Grace for 40 years and only survived her a few days'. The authorities of the Natural History Museum kindly inform us that it is a West African grey parrot (*Psittacus erithacus*) of

¹ See *Complete Peerage*, G. E. C. vii, pp. 612-13; *D.N.B.*; and *La Belle Stuart*, by C. H. Hartmann (1924).

² P.C.C. Hern f. 166.

³ 'On Wednesday last Mrs. Goldsmith, the Famous Woman for Waxwork, brought to Westminster Abbey the Effigies of that celebrated Beauty the late Dutchess of Richmond, which is said to be the richest Figure that ever was set up in King Henry's Chappel,' *Daily Courant*, Friday, 6th August 1703. For Mrs. Goldsmith see *Social Life in the reign of Queen Anne*, by J. Ashton, pp. 213-14.

⁴ 13th July 1663.



Fig. 1. Effigy in under-habit of the Order of the Garter



Fig. 2. Effigy in robes of the Order of the Garter

King Charles II, *d.* 1685



Fig. 1. Head: full face



Fig. 2. Head: profile



Fig. 3. Shirt and drawers (nos. 10, 7)



Fig. 4. Hat of Order of the Garter (no. 13)

King Charles II

which Dr. John Ray, writing in *Synopsis Avium* in 1694, states that there were many in London at that time. It would appear to be the oldest stuffed bird in England.¹

Description. The head, bust, fore-arms, and legs from above the knee to the ankle are of wax, formerly tinted pink; the ears are only roughly modelled; the eyes of glass with eyelashes of hair. The body is stuffed and covered with canvas, which is sewn along the seams; it is supported on a wooden upright between the legs, so placed that the feet just touch the ground; the square base was covered with white silk, and has four wooden rollers on its under side. Some of the fingers were broken and one leg cracked, but the wax was in fair condition. N. 69688, 69689 (head and shoulders), 69690 (profile).

1. ROBE. L. (front of corsage) 15 in., (back) 17½ in. L. (back, including train) 82 in. Greatest W. (train) 81 in. L. (sleeves) 12½ in.

The robe is of plain red silk velvet, the edges trimmed with a 2 in. band of ermine. The bodice laces behind, and is pointed at back and front; the neck is cut almost horizontal and trimmed with ermine (in which are set pastes in silver mounts) and narrow lace. The skirt is partly pleated to the waist, but most of the fullness is obtained by cutting (gores); the edges are undulating and trimmed with ermine. The short sleeves (which had been separated from the body when the figure was mounted and were loosely pinned) have a double rouleau of ermine trimmed with silver-gilt bobbin lace and galloon bows below the shoulder; they are finished above the elbow with velvet tabs similarly trimmed. The robe is lined with white silk, and stiffened with cane at the back of the bodice. As worn, the skirt is caught back on the hips, and gives a basque effect below the waist in front.

2. STOMACHER. L. 14¾ in. W. (at top) 7 in.

Ermine mounted on thin card and set with pastes in silver mounts. It is stitched to the bodice of the robe and is of the usual narrow triangular shape. The pastes were removed for cleaning. To the top is attached the large silver clasp (no. 21), and the bodice of the robe is decorated with a line of pastes on either side.

3. TRAIN. L. 117 in. W. (shoulders) 16 in. Greatest W. 84 in. L. (of cape) 13½ in.

Red velvet uniform with the robe, but trimmed with a wide band of ermine; the edges are straight; part of the fullness is gathered to the shoulders but much is obtained by the cutting. There is a turn-down ermine cape-collar lying flat on the shoulders. The train was sewn to the shoulders of the robe, and has no cords for attaching. It is lined with white silk. Although the above three items are roughly made, they may be actual duchess's robes.

4. PETTICOAT. L. 43 in. Circum. (hem) 92 in. Waist 29 in.

Woollen cloth, striped blue and white, with linen waist-band and ties. On this is mounted a large piece of brocaded tissue of silk and metal thread (French; late seventeenth century); silver-gilt on a cream ground, floral tendril pattern repeated three times in the breadth. The lower hem is edged with galloon (covering all except 9 in. of the woollen material); above this a brocade flounce headed with an undulating band of galloon

¹ Cf. G. D. Rowley, *Ornithological Miscellany*, 1876, pp. 164, 172.

with wide gilt bobbin lace on either side. Nearer the top, where the brocaded silk is narrower, are two similar flounces with the same trimming, but set with the flaps upwards. There are no pocket slits, and it seems probable that this petticoat was made up for the effigy. It would have been expected that the back and top of a petticoat would be of cheaper material than the part which showed; in this case, however, the sides of the brocaded silk have been carelessly cut, and the galloon is often only roughly pinned into position.

5. PETTICOAT. L. 42 in.

Wool, woven with a herring-bone twill pattern in pale blue and white. Similar in cut to the preceding; about the hem are attached, very roughly, pieces of blue and white striped silk (L. of each about 26 in.).

6. UNDER PETTICOAT. L. 43 in.

White flannel, much stained by dust. Similar in cut to the two preceding.

7. CORSET. L. (front) $16\frac{3}{4}$ in. L. (back) 20 in. N. 69606.

Canvas stiffened with cane, and has been covered with dark blue silk. The front has been embroidered with gilt metal thread, but all the embroidery except the tabs at the peak of the stomacher and small portions on the shoulders has been torn away. The corset laces at the back, where there are two thick canes running up high on to the shoulders; at waist behind are two 2 in. hooks, now misplaced. About the waist are long narrow basque-tabs, some with pairs of eyelet-holes. The shoulder-straps are defective, and the corset has been cut under the arms when fitted to the figure. It is lined with woollen cloth.

8. PART OF SHIFT(?) AND PAIR OF SLEEVES. L. 34 in. Circum. (lower hem) 66 in. Circum. (top) 46 in. Sleeves, L. 11 in. Diam. 9 in. N. 69603 (with no. 9).

Both are of cambric; the first piece has been hemmed, and may be from the skirt of a shift. The short sleeves are full, and are gathered to bands above and below.

9. SLEEVE RUFFLES ('Engageants'). Greatest D. 7 in. N. 69603 (with no. 8).

A triple flounce of French bobbin lace (point de Paris); the two under strips of lace are mounted on muslin. To the lowest are attached five bows of gilt ribbon.

10. GIRDLE AND SHOULDER KNOTS. L. of girdle 10 ft.

Both are made of plaited silver thread; the girdle has large tassels at either end.

11. CORONET (pl. LVII, 2). H. 3 in. Diam. 5 in. N. 69607 (with no. 12.)

Silver-gilt with eight strawberry leaves set on by rivets. Mark: WH and leopard's head (?) in a shield. The mark is that of an unknown London goldsmith working from 1664 onwards.

12. CAP. H. (over all) $5\frac{1}{2}$ in. Diam. (at base) $6\frac{1}{2}$ in.

The upper part of red velvet pleated at sides; the top nearly flat and with a knot in gilt bullion work; about the base a thick wadded roll covered with ermine to support the coronet. White silk lining.

13. STOCKINGS. L. (foot) 8 in. N. 69605 (with no. 14.)

Knitted green silk, with white striped tops, and no provision for a garter. The foot and gores at the ankle are of a separate piece. There are no clocks.

14. INNER STOCKINGS. L. 21 in.

Knitted pale blue wool, and are of the same dimensions and make as the outer pair. They were probably put on in order to prevent the wax of the legs from staining the silk stockings.

15. SHOES. L. $8\frac{1}{2}$ in. Heel, 3 in. N. 69604.

White kid, embroidered with narrow lines of cream silk braid, and the edges bound with yellow silk. The toes are pointed, and have a strip of gilt galloon running down them. The tongues have large spread ends, and are lined with striped silk; the latches have a single eyelet-hole, and are fastened roughly across the tongue with straps of gilt braid. There are no buckles. The large high heels are covered with black leather. The shoes show no signs of wear on the heels, but the uppers are slightly worn.

16. PAIR OF GLOVES. L. 16 in.

Plain white kid, made up inside out and resembling suede. Long narrow gauntlets. The gloves were pinned to the right side of the petticoat (no. 4).

17. FAN. L. 11 in. N. 69691.

The nationality and date of the fan are uncertain, but it would appear to be rather later than the effigy. The sticks are of ivory, pierced and gilded; on the paper mount is a classical scene, flanked by peacocks, showing a group surrounding a dying youth (? Venus and Adonis); on the left is a goddess, on the right a chariot. The back of the fan is painted with a bunch of flowers.

The fan is now shown spread out at the side of the case, and another eighteenth-century fan was procured to be hung closed up on the effigy.

18. PAPER FLOWER. L. 7 in.

A rose with wrapped wire stalk.

19. WIG AND HEAD-DRESS (FONTANGE; pl. LVII, 2). H. (from forehead) $7\frac{1}{2}$ in. Total L. 29 in. N. 69689, 69687 (ornament).

The wig is built up from a wire frame pinned to a cotton skull-cap; among the curls is a large ornament with pastes set in silver mounts or on metal springs, and above, bows of metal braid. The curls at the back are held in position with rolls of black paper, and two large hanging curls are similarly fixed, but the four smaller hanging curls are not stiffened. The hair is brown, and has been heavily powdered with white (?) powder. The wig and head-dress were taken to pieces and cleaned separately.

20. EAR RINGS (2 drop) AND NECKLACE. L. (necklace) $11\frac{1}{2}$ in. N. 69685, 69686 (back) (with no. 21).

Both consist of pastes in metal mounts, of which the backs are enamelled and painted with a small sprig of flowers on a white ground. The necklace has three rather widely separated rows in front. These are threaded on two strings.

21. CLASP ON CORSAGE. L. $4\frac{1}{2}$ in. H. 2 in.

Silver, set with pastes; the back engraved. Flattened lozenge shape, made in three pieces, those at sides hooking to the centre.

III. CATHERINE, DUCHESS OF BUCKINGHAM, d. 1743 (pl. LVIII)

Catherine, duchess of Buckingham, was the illegitimate daughter of King James II by Catherine Sedley. She married first, in 1699, James, 3rd earl of Anglesey, whom she divorced, and, secondly, in 1706, John Sheffield, 1st duke of Buckingham,¹ the friend and patron of Dryden and the builder of Buckingham House. She died on 14th March 1743, and was buried with her husband in Henry VII's Chapel.

She was in many ways a remarkable person and was totally unable to forget, or to allow others to forget, her semi-royal birth. Even when she was dying she made her ladies promise, that if she should lie senseless, they would not sit down in her presence until she was dead. Horace Walpole tells many stories about her pride which verged upon insanity.

One story of her is so characteristic that it may, perhaps, be repeated. Lady Huntingdon endeavoured to interest her in the early Methodist preachers. She was persuaded to go and hear one of them, and could only wonder that Lady Huntingdon 'should relish any sentiments so much at variance with high rank and good breeding'. She added 'their doctrines are most repulsive and strongly tinged with impertinence and disrespect towards their superiors. It is monstrous to be told that you have a heart as sinful as the common wretches that crawl the earth.'²

Walpole states that the effigy was made during the duchess's lifetime and that it was dressed under her personal supervision.³

There is in fact little doubt that it was made at the time of her son's death in 1735, and was probably modelled by the same artist. It was the last effigy which was actually carried at a funeral. Walpole writes on 14th March 1743: 'Princess Buckingham is dead or dying; she has sent for Mr. Anstis [Garter-King-at-Arms] and settled the ceremonial of her burial'.⁴ Our Fellow Mr. Butler, Windsor Herald, kindly informs us that the notes taken by Garter on this occasion have been preserved at the College of Arms, and that among the items are the following: 'The Coronet and Cushion carried by a Gentleman in a Scarfe, Silk Hatband and gloves' to which a note is added in another hand 'The Coronet cannot be carried, it being on the head of the Effigies'. This agrees with the account of her funeral in the *Gentleman's Magazine*, which states that 'her Effigy in wax (which she had by her ever since the Duke her Son's Funeral) dress'd up in her Coronation Robes, was placed under a Canopy of

¹ He was created 'Duke of the County of Buckingham' and is therefore sometimes called duke of Buckinghamshire.

² Quoted in G. E. C. *Complete Peerage*, ii, 400 n.

³ *Letters* (ed. Toynbee), i, 331 and note.

⁴ *Ibid.*

State, with two Ladies of her Bedchamber at her head and feet, and drawn in a car by six horses cover'd with black velvet'.¹

The effigy is 5 ft. 9 in. in height. The face is skilfully modelled and is evidently intended to be a careful portrait. It has the interest that it must have been 'approved', if we may use the term, by the duchess herself. It resembles a portrait of the duchess as a widow at Southill House.²

Description. The figure consists of a wax head and arms, and a stuffed bust, mounted on four irons, two passing through the legs, which are separate from the body. The wax head is finely modelled; the ears, which are partly hidden by the hair, are only treated in outline. The eyes are glass, with blue irises, the eyelashes of human hair. The scalp is smooth, the back of the head is covered with discoloured silk. The wax, which is rather yellow, continues as far as the middle of the bust. The body is stuffed with tow, and covered with coarse white linen canvas; the upper arms are similarly made and stiffened with iron rods, and there are marked projections over the hips. The canvas is secured by pins in most cases. The fore-arms and hands are of wax, formerly painted, two fingers on the right hand were broken, and showed a core of pinker wax. These have now been made good. The body is set on a square wooden base through which the four irons are bolted. The irons have staples for two screws at their lower ends. The legs, which are separate, are of stuffed canvas above; below the knee a stiff surface has been produced by pasted paper over linen and a lime wash finish. N. 68306-7.

1. ROBE. Plain red silk cut-pile velvet, trimmed with ermine, silver bullion work and pastes. It is so defective that it is hard to decide whether it was made for the effigy or was altered from an actual robe. L. of bodice (front), 14 $\frac{3}{4}$ in. L. of front skirts, 41 $\frac{1}{2}$ in. W. (shoulders), about 24 in. L. (train), about 69 in.

The bodice fastened behind, the back is missing. In front there is a stomacher of fur, decorated with lines of ermine tails, and over these are sewn pastes in gilt and silver mounts in groups upon black velvet (stiffened with old playing-cards).³ The sides of the bodice are of velvet and there is a rounded basque at waist. A strip 8 in. wide, edged with fur, alone remains of each side of the skirt, and the train consists of a strip 20 in. wide with the same trimming. The sleeves are short (12 in. over all) carefully finished with tabs edged with fur and silver bullion work, and there is an applied band of similar work at the top of the arms.

The bodice is lined with black canvas, the sleeves with white silk; the seaming is made with silk or rough linen thread.

2. PIECE OF BROCADE, to serve as petticoat front. L. 44 in. W. (three pieces), 63 in. (each piece 21 in.) N. 68313 (detail).

Silk tissue brocaded with silk and silver-gilt thread (French; late seventeenth century). On a gold ground there is a large polychrome floral pattern and a conventionalized scene with a lake, balustrade, and two busts above.

¹ Vol. xiii (1743), 191.

² Reproduced on p. 15 of H. Clifford Smith's *Buckingham Palace* (1931).

³ These have been removed and have been framed and placed in the case.

The piece has been gathered in loose folds at the top and stitched with yellow silk for fitting to the effigy. Placket slit on upper edge, showing that the piece originally formed part of a petticoat.

3. PETTICOAT. Rose-red satin, quilted in lozenge patterns. L. 40 in. Waist, 48 in. (fixed band, 36 in.). Hem, 142 in. N. 68315 (detail).

Gathered to fixed waist-band with smooth panel down the front, and bunches on the hips above pocket slits; there are short draw-strings behind.

4. UNDER-PETTICOAT. Quilted linen. L. 32 in. Waist 41 in. Hem 94 in. N. 68310 (detail).

The lower part consists of a strip of linen, quilted in floral patterns, stained and mildewed, and above, a strip of dimity gathered to a band.

Worn and probably altered.

5. STOCKINGS. Knitted pink silk, not worn. L. 25 in. L. (foot) 9 in. W. (top) 7½ in. N. 68312.

Seam at back, shaped to leg, wide tops. There is a large figured clock with a stylized floral pattern. The upper hem sewn over for draw-string to be inserted. No garters.

6. SHOES (pl. LVIII, 2). L. 9 in. H. 5 in. H. (of heel) 3½ in. N. 68309.

The uppers are covered with green satin with narrow lines of green silk braid and metal lace trimming. There is a wide spreading tongue with a band of gilt braid running down to the point of the toe; similar braiding on the heels. The latches are of medium width with pointed ends; the buckles of silver and steel, set with pastes.

7. CORONET AND CAP. Coronet; silver gilt. Diam. 5 in. H. 3½ in. N. 68314.

It is of *repoussé* work with border of conventionalized strawberry leaves above (two points broken). The inner cap (H. 5 in., Diam. 5 in. over all) is of red velvet pleated at the sides; it has a flat top with a large knot of corded gilt bullion work; the lower edge is trimmed with fur, now very much moth-eaten.

Lined with white silk, and with four tabs for attaching.

8. WIG. Human hair (pale brown). L. about 17 in.

It is composed of long narrow tresses made up and bound to a knotted linen foundation with mauve silk. There are four long curls on each side, and a small peak over the forehead. The top much moth-eaten.

9. SLEEVE RUFFLES. Point lace (Burano (?) about 1700). Diam. (as gathered) 13 in. Depth about 5 in. N. 68308 (with no. 10).

The ruffles are double and slightly deeper behind the elbow; the lower ones are mounted on stiff gauze; they are attached to a white silk sleeve for pinning into the robe.

10. BERTHA. Point lace (as ruffles). L. as mounted about 40 in. D. 2½ in.

Several pieces of lace joined, pleated on stiff gauze and gathered over shoulders. In front there is a vertical band with eight small rosettes.

11. SHIFT. White linen. L. (back) 45 in., (front) 37 in. W. (neck) 11 in., (shoulders) 23 in. Sleeve, L. 12 in. Diam. 14 in. at gusset. Cuff, 10 in. N. 68311.

The shift is longer at the back than at the front, the neck is cut very low and has a draw-string. On each shoulder are two pairs of strings for holding the décolletage low. The quarter sleeves are full, gathered towards the elbow to a small frilled band.

12. TWO FLOWERS. Wire and painted (?) cotton. (a) Rose and bud. L. 8 in. (b) Carnation (stem broken). L. $2\frac{1}{2}$ in.

13. TWO SHOULDER KNOTS, silver bullion work.

14. GIRDLE (L. 102 in.) with tassel at each end, silver bullion work.

15. TWO EARRINGS. L. $1\frac{1}{2}$ in. Copper-gilt, each set with four pastes (three pendants). N. 68316.

16. NECKLACE, 6 HAIR PINS and 3 STARS, etc., set with pastes similar to those on the stomacher of the robe.

IV. ROBERT SHEFFIELD, MARQUESS OF NORMANBY, d. 1715 (pl. LIX)

By the side of the duchess of Buckingham stands the effigy of her little three-year-old son, Robert, styled marquess of Normanby. He was born on 11th December 1711, and died on 1st February 1715. He was buried first in St. Margaret's, Westminster, but was afterwards removed in 1721 to the family vault in Henry VII's Chapel.

The effigy is 3 ft. 3 in. in height and is dressed in clothes which seem actually to have belonged to the child. At his feet is couched a small carved and painted wooden unicorn ($11\frac{3}{4}$ in. high)—'powdered with ermine and gorged with a wreath of roses'—one of the supporters of the family coat of arms.

Description. The head and bust are of wax and were formerly coloured (H. $10\frac{1}{2}$ in.). The ears, which are concealed under the wig, are modelled in wax. The eyes are of glass; eyelashes are formed of bristles; the eyebrows are indicated by incised lines coloured black. There is a wig of pale brown human hair (couched on net) curled at edges.

The body is of yellow canvas stuffed with tow and other materials. The legs and feet of the same yellow canvas. The arms, of the same material, stiffened with wire and re-covered with white (more modern) canvas.

The hands and half the fore-arms are of modelled wax, hollow to wrist, the palms still showing traces of pink colour; they are secured by pins and canvas to the wires in the arms.

The figure is now supported on an iron bar, bolted to the base; originally it may have been fixed by nails through the soles of the shoes. The iron bar, as being liable to rust, was replaced.

The base is more modern and consists of a deal box, covered with quilted blue silk; this had been re-covered with nineteenth-century white satin, which was much stained, and has been removed; the figure now stands on its original quilted base.

The head has been broken off at the neck and carefully repaired; part of one finger is missing; the wax is in fair condition but has been damaged by pins. All this was made good. N. 67951, 67952 (side view), 68546 (unicorn).

1. ROBE. L. 27 in. N. 67452.

Plain cerise-coloured cut-pile silk velvet. The seams covered with silver braid and with froggings; the lining is of pink silk. The front is straight with five froggings of silver braid, the side skirts full, with short slit running up from the hem and a false pocket-slit trimmed with braid (above this there are small projections on the hips). The collar is plain, the back rather narrow, and the tails full and undivided; behind the shoulders are two slits for leading strings. The sleeves rather more than elbow length, with medium-sized cuffs, which are slit at the back, pointed in front, and have a brocade lining. In pink silk lining there are three silk ribbon loops at the back of the waist. As worn the robe¹ does not meet across the chest. It and the other garments were almost certainly not made specially for the effigy.

2. LONG COAT (pl. LIX, 2). L. 26 in. N. 67453 (back), 67454 (side).

In the 'Polish' style, Italian silk tissue, brocaded with silk and silver-gilt thread on blue satin ground, and of yellow figured silk. The pattern is of small naturalistic floral sprigs on large conventionalized scrolling leaves. The front (of brocade) is made to overlap (left over right); the skirts very full, without trimming or pockets. The back (of yellow silk) is cut the same as robe, with slits for leading strings and gussets under the arms; the tails joined in the centre. The sleeves are of silk (11½ in.) with slit cuff of brocade, four inches long, in the 'cheat'² style of the contemporary men's fashion. The coat is lined throughout with pale fawn silk. The sleeves are pieced and may perhaps have been lengthened.

3. CAP. H. 5½ in. N. 67457.

The elaborate cap is round and close fitting. The crown of brocade, similar to that of the coat, has a silver-gilt tassel. There is a turn-up brim of brocade with undulating edge trimmed with silver-gilt braid and caught up by cords to paste-buttons set on a sort of upper brim of pale blue satin with similar trimming. The cap is shaped downwards a little over the ears and has two small silk ribbons behind. The foundation is of purple canvas; the lining pale blue silk.

4. SASH. L. 64½ in. W. 3 in. N. 67455 (detail).

Silk warps and silver-gilt weft, patterned with floating warp threads of silk.

5. SLEEVELESS SHIRT. L. (front) 9½ in. Neck 10 in. N. 67456 (with nos. 6-8).

Fine linen showing traces of wear down the front. It has a standing band collar about one inch high with buttonholes and pale blue ribbon ties. The front is shaped as a bib, and opens about 6 in. down over the chest and has narrow edgings of bobbin lace. The back is rounded over the shoulders, with a cape effect, and is pleated to the neck all round; the lower edges have original hems and probably have not been cut down.

6. CRAVAT. L. 16 in. W. (3 pieces) 5½ in.

Composed of three ribbons of Valenciennes bobbin lace folded in three.

¹ Cf. a similar robe, *Bulletin de la Société de l'histoire du Costume*, p. 175, ill. (1907).

² See below William III, No. 3.



Fig. 1. Effigy



Fig. 2. Profile, showing coronet and fontange (nos. 11, 19)

Frances, duchess of Richmond, La Belle Stuart, d. 1702

Published by the Society of Antiquaries of London, 1936



Fig. 1. Effigy

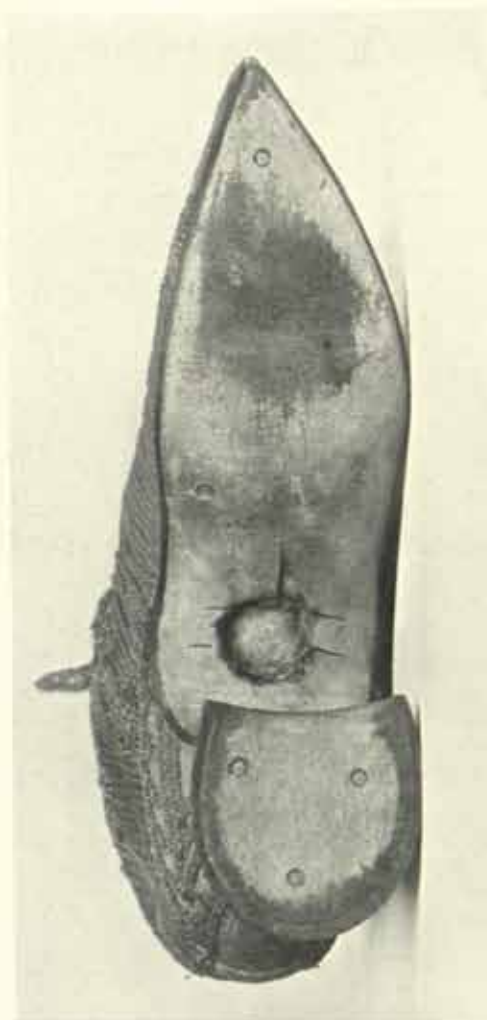


Fig. 2. Shoe (no. 6)

Catherine, duchess of Buckingham, *d.* 1743
Published by the *Society of Antiquaries of London*, 1936

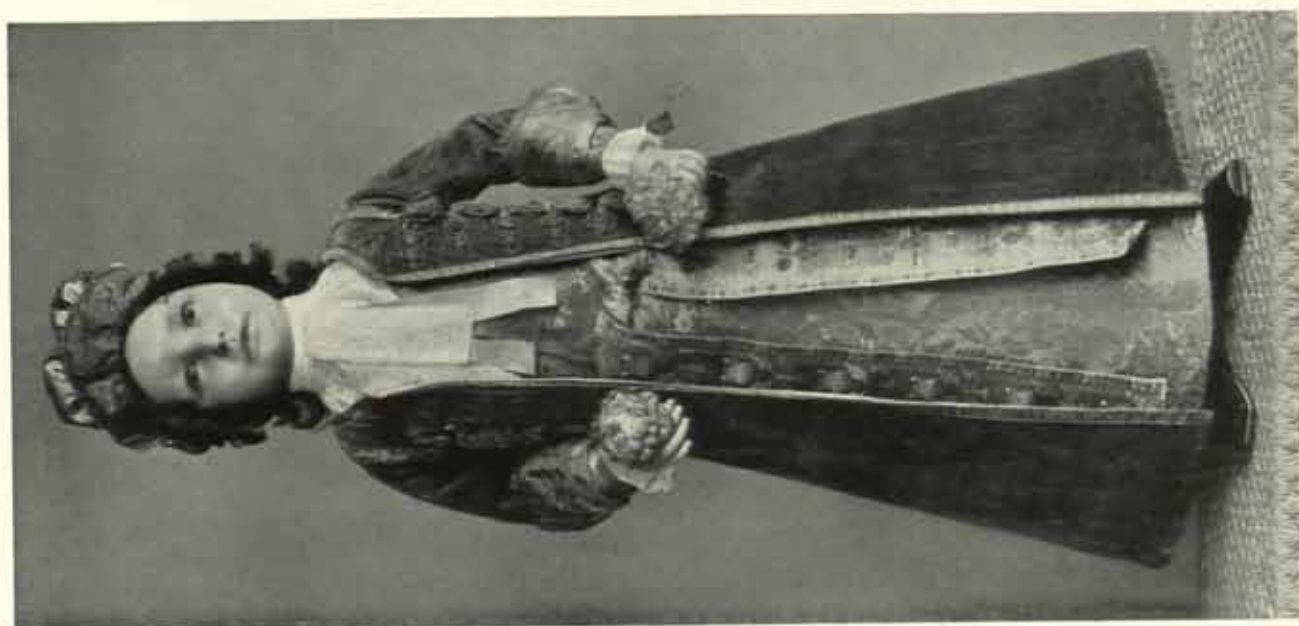


Fig. 1. Effigy



Fig. 2. Long coat (no. 2)

Robert, marquess of Normanby, *a.* 1715

Published by the Society of Antiquaries of London, 1936



Fig. 1. Coat (no. 6)

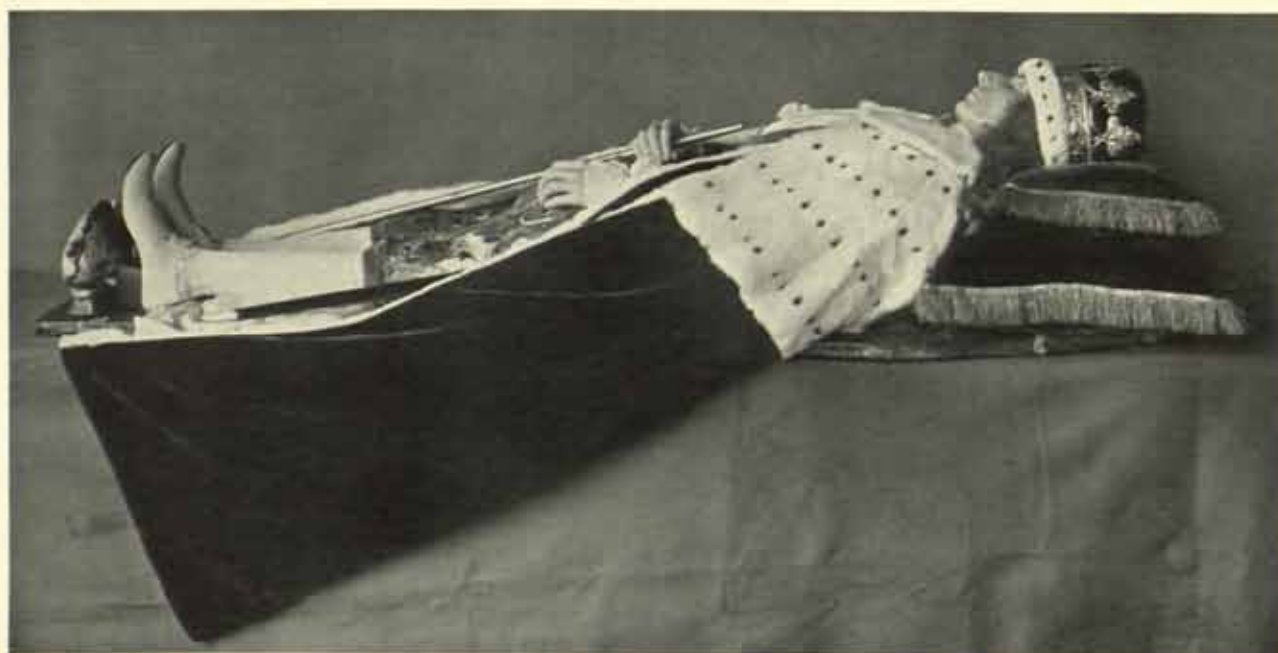


Fig. 2. Effigy

Edmund, 2nd duke of Buckingham, *d.* 1735

Published by the Society of Antiquaries of London, 1936

7. STOCK BAND. L. (about) 11 in.

Linen, closely pleated (about 1½ in. wide in front) and joined to two ½ in. bands behind. The buckle is missing.

8. CUFFS. 5½ in. by 3 in. Linen, with bobbin lace frill, two buttonholes, and silk ribbon ties.

9. CORSET.¹ L. 11 in. N. 67763.

Canvas quilted with yellow silk, and is stiffened with cane. In front the point is very low; there are straps with ribbons over the shoulders and four tabs over the hips. The corset is laced in the centre of the back with a string of plaited coloured silk with metal tags.

10. PAIR OF SHOES. L. 6 in. H. 2¼ in.

Black tanned leather, with square toes and low broad heels. There are large tongues in one piece with the upper, and latchets with iron buckles. The heels are worm-eaten; there are nail-holes through the sole.

11. TWO FLOWERS.

Tinted paper with wire stalks, and appear to be a carnation and a chrysanthemum. The latter flower (*C. Sinense*) seems to have first been introduced in 1798, though the name had been used previously by herbalists for the corn marigold (now *C. Segetum*).² The flowers are, therefore, probably of nineteenth-century date.

V. EDMUND SHEFFIELD, 2ND DUKE OF BUCKINGHAM, d. 1735 (pl. LX)

He was the only surviving son of the 1st duke by his third wife, Catherine, whose effigy has been described above (no. III), and younger brother of the little marquess of Normanby (no. IV). He was born on 3rd January 1716. For a short time he was at Queen's College, Oxford, but left, as Hearne remarks, because 'he didn't like them as 'tis given out'.³ He then saw active service in Germany under his uncle, the duke of Berwick. Ill health, however, forced him to retire to Rome where, on 30th October 1735, he died of consumption at the age of nineteen. He met his death with great fortitude, exclaiming that 'he would ride out the storm in the chair in which he sat'. With his death all the family honours became extinct.⁴ He was buried in Henry VII's Chapel on 31st January 1736. The funeral was of exceptional magnificence. His mother characteristically endeavoured to borrow the triumphal car which had been used at the funeral of the great duke of Marlborough. 'It carried my Lord Marlborough,' replied duchess Sarah, 'and shall never be profaned by any other.' To which the duchess retorted, 'I have consulted the undertaker and he tells me that I may

¹ See F. Libron, *Le Corset* . . ., 1933, p. 40, ill.

² *Encyclopaedia Britannica* and *O.E. Dictionary*, under *Chrysanthemum*.

³ *Collections*, xi, 235.

⁴ G. E. C. *Complete Peerage*; cf. *The Orrery Papers*, ii, 314.

have a finer for twenty pounds.'¹ Pope wrote a touching epitaph on 'gentle Buckingham' and 'sadly told how many hopes' lay buried with him.

The effigy (H. 5 ft. 4 in.) is of considerable interest, for it is the only recumbent one and remains exactly as it was carried at the funeral. For over a hundred years it lay, incongruously enough, in the Confessor's Chapel.²

The head of the effigy is most remarkable and is quite evidently from a death-mask. Both the face and the hands are beautifully modelled; the hands are indeed the best on any of the effigies.

The duke is dressed in his robes. At his feet is couched a small roughly carved wild boar in wood, one of the supporters of the family coat of arms.

Description. The head and hands of wax (cast from life); the body of canvas, stuffed with straw, and stiffened with wood supports (worm-eaten) and wire; the legs of canvas, stiffened with glue and plaster and covered with silk. No feet. The wooden parts have been replaced. N. 71343-4, 71345 (head), 71346 (profile), 71795 (hands).

1. MANTLE (duke's coronation). L. 59 in. N. 71688.

Red velvet, trimmed with miniver and lined with white silk. Red canvas foundation and back. Only one breadth of velvet (23 in.) and a gored piece 16 in. wide remain on either side. There is a 16-in. miniver cape (with four lines of tails) falling over the shoulders, and a 4½ in. falling collar of ermine lined with red velvet. Small white silk ribbon ties.³

2. FRAGMENT OF SURCOAT. L. 50 in. N. 71689.

Red velvet, edged with ermine. Strip of left front with 8 in. falling collar. Lining and part of canvas back as preceding number.

3. SWORD-BELT. L. 48 in. W. 2 in.

Red velvet, lined white silk; gilt metal buckles and slides, two hangers.

4. SWORD (dummy). L. 39 in.

Gilt hilt and sheath covered with red velvet. Hilt repaired.

5. CORONET. H. 6½ in.

Gilt metal with strawberry-leaf edge. Inner cap of red velvet (H. 10½ in.), poor quality, faded, pleated to crown and lined with linen. The tassel is missing. No doubt the original coronet was stolen.⁴ The ermine trimming at the base of the coronet is too large (28 in.) and is turned in at the back.

6. COAT (pl. LX, 1). L. 38 in. W. (skirts) about 21 in. N. 71690.

Red silk (part faded), embroidered with silk and metal thread, long and short stitch and couched work; floral patterns. No collar; the front is slightly curved and has

¹ Walpole, *Reminiscences of the Courts of George I and II*, p. cxli.

² B.M. Add. MS. 33379, and Malcolm, *Londinium Redivivum* (1803), p. 99.

³ A mantle and surcoat dated 1715 are preserved at Welbeck Abbey.

⁴ 'On Monday night last some villains concealed themselves in Westminster Abbey and having broken the glass case which was over the Effigy of the late Duke of Buckingham found means to carry off the Flap of his gold Waistcoat; some of the Blood of their Fingers was perceived on his Ruffles' (*Daily Gazetteer*, 15th June 1737).

buttons from neck to hem, but only five buttonholes, one at neck and four at waist. The skirts not very wide, the tails plain; shaped pocket flaps with ornamental buttons. Tight sleeves, cuffs missing, the left cuff replaced by small piece from skirts, both of which have been mutilated, that on the right seriously. The coat has been slit down the front on both sides. Silk lining. This coat is strictly a sleeved waistcoat; it would have been hardly possible for a peer to wear mantle, surcoat, coat, and waistcoat.

7. BREECHES. L. 23 in. Waist, 30 in. N. 71691.

Red velvet; gathered to waistband which has eyelet-holes to lace at back. Fly front; the legs tight with silk-lined slit, five buttons set vertically and strap and buckle at knee. Five horizontal pockets at waist, lined washleather. Breeches lined with thick canvas.

8. SHIRT. L. (front) 36 in. N. 71692 (with no. 9).

Linen, trimmed bobbin lace (Valenciennes). Band collar, with three linen-covered buttons at front of neck; $8\frac{1}{2}$ in. slit edged with narrow lace. The full pleated sleeves (L. 21 in.) are gathered at waist-band and have lace cuffs. Tails slit at sides and marked with coronet in blue.

9. STOCK BAND. L. $13\frac{1}{2}$ in. N. 71692 (with no. 8).

Linen; full pleated centre with torn slit, gathered to tab at either end, one with three buttonholes and the other to run through buckle (missing). Marked with coronet in blue. No lace attached to the stock band.

10. SHOES. L. 11 in. Heel, $1\frac{3}{4}$ in. N. 71693.

White leather with large red heels nailed with wooden pegs; the toes rounded and slightly up-turned. Large tongues with rounded ends; the silver buckles are set with pastes: the iron chapes of the buckles have rotted the leather. The shoes have not been worn.

11. STOCKINGS. L. 23 in. Foot, 9 in. N. 71694.

Knitted white silk. The feet and narrow pointed gores running up the ankles are made in a separate piece and stitched in. The stockings are rotted away at the ankle, owing to the rust and damp from the shoes and buckles.

12. WIG. L. (about) $13\frac{1}{2}$ in. N. 71695.

Human hair powdered with orris-root. The tresses couched down on a net foundation which is strengthened with linen at sides and back. The confused curls at sides barely cover the ears. Behind is a short twisted queue between two large curls with knotted ends. Paper label inside with 'FRANCIS CARAFFA. PERUKE MAKER, next door to the Rummer Tavern in Gerrard Street St. ANNE'S SOHO' and written in ink 'H. G. ye D. of Buckingham. 1735.' It has been cleaned and re-powdered with orris-root.

13. WOODEN STICK, gilt. L. 44 in.

Held in right hand.

14. COFFIN BOARD. L. 74 in. Greatest W. 20 in.

Covered with canvas and roughly painted with crude flowers on a tarnished silver ground.

15. FIGURE OF A BOAR. L. $11\frac{1}{2}$ in. H. 7 in. N. 71697.

Carved wood, gilt on green base, which has been very roughly sawn. This stands at the feet of the effigy.

16. WAISTCOAT (used for padding the body). L. 36 in. N. 71696.

Black woollen cloth, lined with white silk. No collar. Front slightly curved, with buttons to hem with the buttonholes not cut below the waist. Small plain skirts (15 in. deep) and tails. Two horizontal pockets with shaped flaps and five buttons and vertical buttonholes, the centre three false. Long tight sleeves, not seamed under arm, with slit and one button at wrist.

This is of good quality and no doubt belonged to the duke. The lining is of the same pattern as the silk filling the slits at the sides of the breeches knees. It has been cleaned and mounted in a separate frame attached to the back of the case of Charles II's effigy.

17. TWO CUSHIONS. Red velvet with gilt fringe. (a) $23\frac{1}{2}$ in. \times 17 in. (stuffed with tow); (b) $8\frac{1}{2}$ in. \times 13 in. (stuffed with down); there is also a small plain linen cushion supporting the right arm of the effigy.

18. MATTRESS. L. 81 in. W. $29\frac{1}{2}$ in.

The top has a breadth of silk on either side, plain linen band down centre; check canvas underneath.

19. CASE LININGS: fragments of white silk, part fringed: quilted in back stitch. N. 71796 (detail).

This figure completes the group of what we have termed genuine funeral effigies. We may now turn to the second group. During the eighteenth century and until early in the nineteenth century the salaries paid to the chanter, organist, minor canons, lay clerks, sacrists, and vergers of the Abbey were very small, and, in consequence, 'the society', as they were called, were allowed to augment their salaries by sharing among themselves the money paid by those who came to see the tombs. It was therefore to their advantage to attract visitors to the Abbey, and it became the custom from time to time for them to add to the genuine funeral effigies other effigies of topical interest. These were shown to the public for a small extra fee. It was in this way that the figure of Queen Elizabeth was remade, and the figures of King William and Queen Mary, Queen Anne, Chatham, and Nelson were added to the collection. It will be convenient to take them also in chronological order.

VI. QUEEN ELIZABETH

This figure was made in June 1760 at the expense of the chanter, the gentlemen of the choir, and others, and was set up in Henry VII's Chapel, by permission of the dean and chapter, to commemorate the bicentenary of the

foundation of the Collegiate Church.¹ It has always been an Abbey tradition that parts of the original figure, which was made by John Colte for the funeral in 1603, were utilized for the new effigy.² A thorough examination has shown, however, that the figure, with the possible exception of the wooden legs, was entirely remade in 1760. It is a great pity that the original head was destroyed, for Vertue, who saw it in 1725, described it as 'cutt in wood, a little wrinkley her face, tho the truest countenance of her face'.³ The present wax head was modelled, no doubt, from the tomb effigy in the Abbey; the clothes appear to be a cheap and tawdry attempt to represent the dress said to have been worn by the queen at the Thanksgiving Service for the defeat of the Armada in 1588.⁴ It is worth noting that beneath the embroidered petticoat there was found a genuine eighteenth-century pannier of red, blue, and white check cotton stiffened with cane, and with cushions on either side of the same material stuffed with hay. There was also an eighteenth-century canvas corset.

Description. The head and hands are of wax. The wax is thin and set on a plaster base. The feet are of cast lead, possibly made from actual eighteenth-century shoes with pointed toes and large heels. The core of the figure is of tow stiffened with wood, and arms and legs of carved wood (the latter painted white). The sceptre and orb are wood, re-gilt. Nothing of the early effigy appears to remain. N. 70422, 70428 (profile).

1. PARTS OF A SLEEVELESS ROBE. Purple velvet of poor quality, trimmed with broad galloon and imitation ermine edging. The latter was much moth-eaten, and proving uncleanable was replaced by new.

2. SLEEVES, STOMACHER FRONT, and part of PETTICOAT of red satin (mounted on cotton) heavily embroidered with silver wire and decorated with coloured glass pastes and imitation pearls.

3. CROWN, NECKLACES, and HAIR ORNAMENTS set with similar pastes; the crown has an under cap of red velvet.

4. PANNIER. W. 25 in. D. (back to front) 16½ in. N. 70430.

Red, blue, and white check cotton, stiffened with cane. The pannier is attached to the waist by tapes; at either side are two cushions of the same material stuffed with hay.

¹ *Chapter Book*, 3rd June 1760: 'The Gentlemen of the Choir having requested leave that they may set up a waxen Effigy of Q. Elizabeth within the Tombs at their own expense, the said request was agreed to, and it was ordered that the College Carpenter do make a wainscot case for the same at the College expense, as hath formerly been done on the like occasions.' Cf. *W. A. M.*, 33791, 47867 A. The effigy cost £56 2s. 3d.

² See a full account in *Archaeologia*, lx, 553-4. The effigy is clearly shown in the pictorial record of the funeral procession in B.M. Add. MS. 35324, where there is also a representation of the original hearse.

³ B.M. Add. MS. 23069.

⁴ Cf. *Connoisseur*, xci (1933), p. 361, where the drawing at Windsor Castle, by I. Oliver, of the queen in this dress is reproduced.

5. CORSET. L. (front) 17 in. N. 70429.

Canvas, bound with wash leather and to lace in front. The corset, which has rather a long front, is of a common eighteenth-century type; it was roughly tied in front with string.

6. WIG. Fair hair, short and curled.

7. COLLAR. Net and bobbin lace, stiffened with wire. Much of the net was replaced by new.

8. TWO SILK AND BRAID BOWS ON THE SHOES.

VII, VIII. KING WILLIAM III (pl. LXI, figs. 1, 2) AND QUEEN MARY II

An entry in the account book kept by the chanter of Westminster Abbey states that 'The Figures of K. Wm. and Q. Mary were open'd to be shown on Monday, March 1st 1725', and that there was expended upon them from 'Mony taken out of the Tombs', in all £187 13s. 2d.¹ No detailed bills have survived, but there is a further note that £5 was 'paid out of the Scaffold Mony at the Installment for Q. Mary's Petticoat'. This was the installation of the Knights of the Bath in June 1725, after the reconstitution of the order.

It is possible, and indeed probable, that the effigies were modelled by Mrs. Goldsmith, who had made the effigy of the duchess of Richmond. There is no doubt that the modeller achieved a somewhat remarkable portrait of King William which seems to be based on something more than the merely conventional representations of him.

Macaulay's well-known description of the king, which he derived from Bishop Burnet and from other contemporary sources, might well have been written with only this effigy before him.

His name (he writes) at once calls up before us a slender and feeble frame, a lofty and ample forehead, a nose curved like the beak of an eagle, an eye rivalling that of an eagle in brightness and keenness, a thoughtful and somewhat sullen brow, a firm and somewhat peevish mouth, a cheek pale, thin, and deeply furrowed by sickness and by care.

The king, who is 5 ft. 6½ in. high, is dressed in a coronation mantle. He stands upon a footstool to make him nearer to the height of the queen.

The queen (5 ft. 11 in.) is no less satisfactorily portrayed. The somewhat ample proportions and the gracious good temper and amiability for which she was noted are well shown, and help us to realize how greatly she was beloved and how genuine was the sorrow at her untimely death in 1694 at the early age of thirty-two.

¹ The money for the effigies seems to have been advanced by 'the society' and repaid to the members from the money derived from showing the tombs.

From the first these figures seem to have stood in the Islip Chantry Chapel.¹

Description of William III. The head and hands are of wax, the body of canvas (re-covered in the recent cleaning) stuffed with straw and stiffened with wire; there is a wooden post running up the back on which the head is fixed. The legs are of canvas, plaster, and glue, bound round with strips of black woollen cloth. N. 72859, 72638 (head profile).

1. MANTLE (Coronation mantle). L. (front) 59 in. Back 74 in. Cape 22 in. Collar 7 in. Neck 19½ in.

Purple woollen velvet, trimmed with rabbit fur and gilt braid, and lined with coarse blue canvas. The mantle is roughly semi-circular in shape, gathered to the neck; there are strips of velvet (about 34 in. wide) down either side of the front, which is faced with fur and has an inner border of wide galloon. The back is of linen. The deep cape with rows of close-set tails is of fur, as is also the small collar; the cape lies flat, but the collar is stiffened with brown paper and stands out; there is a white silk tie on either side of the cape in front. The plain band collar has two buttonholes through which a thick cord of purple and yellow wool (L. 10 ft.) with 4-ply string centre is passed. There are no tassels. The garment, which has clearly been made for the effigy, has attached to the inside of the train at the back a small piece of fur (14 in. by 10 in.) which is probably intended to show between the legs.

2. SURCOAT. L. (front) 44 in. Collar 10 in. Hem 31 in. Sleeve L. 43 in. (25 to elbow slit). W. (below shoulder) 8½ in. Sleeve W. at end 7½ in.

Purple woollen velvet trimmed with fur and gilt braid to match the mantle. It consists of two side pieces without back. The front is edged with fur, and within this are borders of one narrow and one wider stripe of galloon. The irregular shaped collar pieces are loosely attached to the neck with a point forward. Behind them are attached long false sleeves, hanging to the hem; these have slits at the elbow, trimmed with fur, through which the arms project. Some of the braid and fur has been stripped, but the garment was certainly made for the effigy and would never have been complete.

3. WAISTCOAT CUFFS. L. 8 in. W. (spread out), cuff 9 in. Top 14 in. N. 72639.

Yellow silk and silver tissue, lined with white silk. One has six uncut buttonholes, the other six round buttons loosely attached. Sleeved plain waistcoats of the period were often finished with these tight false cuffs (or 'cheats') of richer materials which showed inside the wider coat cuffs (cf. Pitt, no. 3, a pair of later date, and Lord Normanby, no. 2).

4. SHIRT SLEEVES. L. 17½ in. W. (shoulder) 12 in. Wrist (W.) 6 in. N. 72643 (with no. 11).

Linen, evenly gathered at top and at wrist; the wristband has two buttonholes and black silk ribbon ties. Single ruffles of North Italian bobbin lace. Tape ties at top.

5. STOCKINGS. L. 21 in. W. (top) 7 in. N. 72640 (with no. 6).

Knitted white silk, with long gore-clocks and large figured crowns above them.² The feet have been cut away. No garters.

¹ Cf. *W.A.M.*, 46287 B, 46395.

² The device under the crown may be a W. monogram. If so the stockings may have actually been made for William III.

6. UNDERSTOCKINGS. L. $22\frac{1}{2}$ in. W. (top) 7 in.

Knitted white cotton with small geometrical figured clocks. The tops have been cut, the feet are defective and turned in.

7. SHOES. L. 10 in. H. (heels) 2 in. N. 72641 (buckle with Q. Mary no. 10).

White leather, the seams covered with white silk braid; there are long latches to which small silver buckles, set with pastes and with a single stud at back, are attached, and the tongues spread at the top. The heels are large, covered with dark leather (? originally red) and the toes are broad and square. The heels are pierced vertically for the supports of the figure, but the shoes do not show signs of wear.

8. SWORD BELT. L. 40 in.

Leather, with a plain hanger all in one piece. The parts about the waist which show when the belt is worn are covered with gilt braid and have a narrow centre line of purple velvet. Gilt buckle.

9. SWORD. L. 30 in. L. (hilt) $6\frac{1}{2}$ in.

Large gilt cross hilt with wire binding; leather sheath with gilt chape and tip. The sword is a dummy and does not draw; the hilt is disproportionately large.

10. WIG. L. about 23 in. N. 72642.

Light brown human hair, curled and powdered, set on a net foundation, with a pink cotton band about the edge. There are short curls over the ears. Long curls at sides, and a short closer-rolled curl at back. No maker's name.

11. JABOT. L. $19\frac{1}{2}$ in. W. 14 in. N. 72643 (with no. 4).

White muslin, to either end of which two large oblong pieces of North Italian bobbin lace (late seventeenth century) are attached. The jabot is folded lengthwise in ten and secured by a piece of plain muslin, doubled and pleated, and by a small bow of black silk ribbon.

12. SCEPTRE. L. $35\frac{1}{2}$ in.

Gilt wood surmounted by a fleur-de-lys from which rises a Maltese cross. Repaired in recent cleaning.

13. ORB. H. $7\frac{1}{2}$ in. Diam. 5 in.

Gilt metal and glass pearls. Incomplete at back.

On the pedestal between William III and Mary II:

1. CROWN. H. 8 in. Diam. 6 in.

Gilt wood and glass pearls; the inner cap of red woollen velvet with fur edge and inner lining of red cotton. Cross broken but was repaired in recent cleaning.

2. CUSHION. L. 15 in. W. 12 in.

Covered with red woollen velvet and decorated with gilt leather strips. Centre patched with green baize and brocatelle.

THE CASE. Lined, and the pedestal covered with a white striped material (cotton and silk) decorated with strips of gilt leather. This may well be of a later date than the effigies.



Fig. 1. King William III, *d.* 1702, effigy



Fig. 2. King William III, head profile



Fig. 3. William Pitt, earl of Chatham, *d.* 1778
head profile



Fig. 1. Effigy

Horatio, viscount Nelson, *d.* 1805



Fig. 2. Head, full face



Fig. 3. Shirt (no. 4)

Description of Queen Mary. The head and bust and hands of wax, the body of canvas stuffed with tow and stiffened with a wooden post running up the back and with wire. The legs similarly stuffed, but no stockings or shoes have ever been added. N. 72860, 72644 (head profile).

1. BODICE. L. (front) 16 in. Sleeves L. 13 in.

Purple woollen velvet, trimmed with rabbit fur and glass pearls. This is not a garment but merely a patchwork of velvet attached to the corset. In front there is a narrow V-shaped piece of fur to which three clasps are attached. The sleeves are cut plain and square and tacked to the shoulders. No lining to bodice.

2. TWO STRIPS (for a skirt). L. 50 in. W. 15 in.

Same materials edged with fur, and with an inner border stripe of gilt braid. These strips are attached to the waist, and fall apart to show the petticoat.

3. TWO STRIPS (for a mantle). L. 64 in. W. (hem) 18 in. Neck, 12 in.

Same materials, edged with fur. Loosely attached by pins to the shoulders.

4. PIECE OF BROCADE (for petticoat). W. 20 in. L. $44\frac{1}{2}$ in. N. 72646 (detail).

Two widths of silk tissue brocaded with silk, symmetrical floral pattern on white satin ground. Probably French weaving of about 1700.

5. PETTICOAT. L. $45\frac{1}{2}$ in. Waist, 28 in. Hem, 92 in. N. 72645.

Brown leather with large stylized baroque patterns (with some small Chinese figures) painted in gold. Broad stripe above hem; the petticoat is roughly gathered to the waist, and cannot have been an actual garment.

6. HOOP PETTICOAT, part. 37 in. Lower hem $50\frac{1}{2}$ in.

Coarse linen, with three iron wires running horizontally at about equal distances.

7. PAIR OF SLEEVES. L. 14 in. W. (shoulders) 6 in. W. (elbow) 5 in. N. 72647 (with nos. 8, 9).

Linen, with tapes at shoulders, the centre full and gathered to band at elbow.

8. PIECE OF LACE ABOUT CORSAGE-NECK. L. $32\frac{1}{2}$ in. W. 3 in.

Point plat de Venise.

9. PAIR OF SLEEVE-RUFFLES. L. about 10 in.

Triple, gros point de Venise pieced out with some point plat de Venise, mounted on linen.

10. THREE CLASPS. L. $3\frac{1}{2}$ in. W. $3\frac{1}{2}$ in. N. 72648.

Silver set with pastes. The three sections of each have been wired together and a long, flat pin added.

11. WIG, parts of. Narrow band of brown human hair on net foundation tied over the head from ear to ear; glass pearls, etc., in the curls. The hair at the back of the head is fixed by pins to an inner linen cap which has been roughly covered with brown crape, now much decayed.

12. SCEPTRE. L. $35\frac{1}{2}$ in.

Gilt wood; at the top, a fleur-de-lys and Maltese cross.

13. ORB. H. 7 in. Diam. $4\frac{1}{2}$ in.

Gilt metal, and glass pearls. Very roughly made with cavity at back.

14. CORSET. Brown canvas, roughly cut for the effigy; it has never been covered or finished.

IX. QUEEN ANNE

The chanter's Account Book states that £13 14s. 3d. was spent sometime in 1714-15 'for the head and hands of Queen Anne', and these must be those forming part of the existing effigy. It would seem, however, that the effigy was not immediately set up for it was not until 1740 that the chanter and the other officials spent £67 5s., apparently in buying the existing robes. Some repairs to these robes became necessary in 1765 and 1768, and at that time the present black wig was added by 'Young, the Barber'. It should have been dark brown.

The effigy, which is the only seated one, represents the queen as she appeared towards the end of her life. The round and comely face with the rather petulant expression, so often described by her contemporaries, and the hands—'the most beautiful hands in the kingdom', as Kneller called them—are modelled carefully if without much distinction.¹

Description. Head and hands of wax, the seated figure stuffed and covered with canvas. There are no legs. N. 71309, 71310 (head and shoulders).

1. ROBES (not parts of a wearable garment). Purple woollen cut-pile velvet. Plain canvas front and lining with open lacing at back. The bodice is roughly shaped and the skirt pieces consist of two strips with mock-miniver edging (black velvet *appliqué* on white satin, which has now been renewed) and gilt galloon. Tight half sleeves with scallops at elbow; also two long strips attached to shoulders to suggest a full train. The star of the Order of the Garter, of silk and metal thread and leather on the left breast, with rays; it is perhaps a genuine one, not specially made for the effigy.

2. STOMACHER. L. 15 in. White silk (now renewed) set with pastes mounted on cards covered with black velvet (cf. duchess of Buckingham). A sample of the original silk was preserved and has been framed and hung in the case.

3. Additional STOMACHER (? older) completely hidden by no. 2. L. 10 in. Metal thread and gilt leather *appliqué* on black velvet. Edge cut.

4. PETTICOAT PANEL. L. 35 in. W. 42 in. (two widths of 21 in.). N. 71312. Two lengths of French Louis XV yellow brocade (silk brocaded with silk) gathered to pink waist tape.

5. UNDER-PETTICOAT PANEL. L. 35 in. W. 40 in. (two widths of 20 in.) Yellow satin, with floss silk braid *appliqué*. Lined with coarse canvas, cut at waist.

6, 7, 8. PAIR OF DOUBLE RUFFLES AND BERTHA. L. 8 in. N. 71311. The bobbin lace, Flemish (?), ruffles mounted on cotton band.

¹ One hand is in fact larger than the other.

9. WIG. Human hair on knotted foundation. Much moth-eaten. New front purchased and added. Curls re-attached.

10. PARTS OF IMITATION COLLAR OF THE ORDER OF THE GARTER. Gilt metal, painted, and pendent figure of St. George in painted lead.

11. ORB. Gilt metal set with pastes.

12. SCEPTRE. Gilt wood, set with pastes.

13. CROWN. H. 9½ in. Gilt metal, set with pastes. Piece of red silk velvet, set under to imitate cap.

X. WILLIAM PITT, EARL OF CHATHAM, d. 1778 (pl. LXI, fig. 3)

This effigy was purchased 'at considerable expense' shortly after the death of Chatham and was set up in the Abbey in 1779.¹ It was placed in one of the older presses in the Islip Chantry Chapel. The roof of this press and that of the adjoining one consisted at that time of what was described as 'a refuse bit of old board' with some 'very old painting' on it. In preparation for the reception of the effigy the portion forming the roof of this press was ruthlessly 'blacked out' and otherwise irretrievably defaced. The existence of the painting was known, however, to Ayloffe, Pownall, Carter, and other antiquaries, who endeavoured not very successfully to make investigations with the aid of a wet handkerchief and a penknife. It was not until 1827, however, that Edward Blore, the then Abbey surveyor, had the curiosity to remove the top of the presses and found that the 'very old painting' was, in fact, the thirteenth-century Retable of the High Altar which now stands in the Ambulatory, and is recognized as one of the finest examples of medieval painting in England.²

The effigy was modelled by Mrs. Patience Wright, an American, who came to England in 1773 'to make figures in wax of Lord Chatham, Lord Lyttelton, and Mrs. Macaulay'.³ She had a considerable reputation in America for her life-size wax figures of Washington, Franklin, and other celebrities, but none of these seems to have survived. In England she was patronized by the royal family and others, and her work was very much admired.⁴ She was evidently a woman of considerable intelligence, and by her 'incessant volubility' she successfully masked the fact that she was making use of her opportunities to act as a spy on behalf of Benjamin Franklin, with whom she was, as is now known, in constant correspondence.⁵

¹ Stanley, *Memorials of Westminster Abbey* (5th ed.), pp. 324-5.

² For the full story see article in *The Times*, 20th August 1931.

³ *Walpole's Letters* (ed. Toynbee), viii, 237.

⁴ Cf. Wesley's *Journal*, 24th January 1774: 'I am desired by Mrs. Wright of New York to let her take my effigy in Waxworks.'

⁵ For Mrs. Wright see *D.N.B.*; *London Magazine*, 1775, pp. 555-6 (with portrait); article by E. S. Bolton, in *Antiques*, October 1931, p. 207; *Franklin's Correspondence*, i, 34.

The effigy of Chatham was finished by November 1775.¹ It represents him standing in his parliamentary robes holding a scroll of paper in his right hand. He leans slightly forward and this gives an impression of shortness which is unjustified, for the figure is actually 5 ft. 11 in. high. The robe is certainly a genuine one of the period, and it has been asserted more than once that it is the actual robe which he was wearing when he made his last great speech in the House of Lords.²

The modelling of the face is most remarkable. The 'eagle face', as Macaulay called it, with the prominent nose, sensitive and even humorous lips, and those magical eyes which no one could face when he was angry, are rendered with a skill which makes the effigy extraordinarily alive and impressive. It is, indeed, a masterly representation of the great Chatham, and perhaps comes nearer to the man himself than any of the existing portraits.³

Description. The head of wax is attached to the shoulders by cardboard strips. The trunk of wood has been cut and lengthened at the waistline; the shoulders are pieced out with softened cardboard (set in glue) of papier-mâché consistency. The left leg is in one piece with the trunk, the right leg has been cut and turned outwards, and the thigh made up with small pieces of wood, held by string. The upper arms are carved to match the trunk to which they are fixed by large screws, but the forearms are of cardboard, glue, etc. The body is supported at the back by an iron which fastens to a wing screw in a cavity in the trunk. The hands are of wax, veined and tinted by coloured underslips, and with hairs on the surface.

Before remounting, the bust was made up, the front cavity filled, and a staple fixed in the back. The shoulders were reinforced and the upper arms made rigid: the forearms were replaced in wood, so as to be detachable at the elbow. It is noted that the upper arms were mortised, but not to hold the forearms in the present position. N. 74179, 73850 (head), 73849 (head profile), 73847-8 (head without wig), 73851 (hands).

1. ROBE. Red woollen cloth. L. 56 in. N. 73841.

Cut in a sort of chasuble shape, the right side open to the shoulder, the left side looped up with black silk ribbon. There is a large opening for the neck with 20 in. slit in front trimmed with rabbit fur and white ribbon ties. The right side in front and the left back have three wide horizontal stripes of gilt braid headed with fur. There is a small turn-down cape collar, hiding a large eyelet-hole at the back, through which the black silk ribbon passes to loop up the left side. There is also a small pennon-shaped bag hood. The robe is part lined with silk, the back is defective.⁴

2. COAT. Sleeve, L. 20 in. Front, 33 in. Collar (no band), 17 in. N. 73842.

Fragments of purple silk velvet (from a waistcoat) in very poor condition. Two sleeves with false turn-back cuff made for the effigy, and both fronts and neck-piece of a

¹ *London Magazine*, 1775, p. 555.

² Cf. Malcolm, *Londinium Redivivum*, i, 122.

³ Through the kindness of the present owner of the death-mask of Chatham, we were able to place it side by side with the head of the effigy. The resemblance was most striking and convincing.

⁴ Nineteenth-century robes were trimmed with ermine and had black ribbon ties.

waistcoat from which the galloon has been stripped and the whole cut out and mounted on brown paper (on which is written in ink the name Miss Wright).¹ There are wide shaped pocket flaps, all button-holes are cut, and four velvet-covered buttons remain near the top. The front of the waistcoat is slightly curved and may date from about 1760-70. The fragments were remounted on casement-cloth in the recent cleaning.

3. TWO WAISTCOAT SLEEVES, L. 15 in. N. 73843.

Green figured woollen material (Calimanco) with attached cuffs of green watered silk. No buttons. The type is that in vogue before 1750.

4. STOCKINGS. L. 26 in. Foot, 11½ in. N. 73844.

White silk, machine-knitted. Of the usual cut, the legs, heels, and upper part of the feet made in one piece, the sole of the foot and two gores running up the ankles made separately and sewn in. Small figured clocks; on the turn-over (for a draw-string?) at top is the mark in blue cross-stitch 'P. 12'. To the thighs, above the stockings, are stitched scraps of black cloth to suggest breeches. The stockings were extremely fragile after they had been washed and repaired; modern understockings were added to save rubbing against the wood.

5. Fragment of a pink silk stocking, probably of an earlier date, used for padding out one of the feet.

6. SHOES. L. 11½ in. N. 73845.

Black leather, rounded toe. Broad 1¼ in. heel, and wide leather latches. Square chased gilt buckles with iron chapes.

7. SHIRT, part. Neck, 15¼ in., collar, 3¾ in. deep. Front, 13 in. N. 73846 (with nos. 8, 9).

Linen. Standing collar with three thread-covered, metal-rimmed buttons. The front is open (a strip of bobbin lace attached by pins) and the lower edge hemmed in front but cut away at back. There are no arms. A mark 'E.Y. 6' in blue cross-stitch on front seam of the neck may have been in the linen before it was made up as a collar band.

8. STOCK BAND. L. 17¼ in. Linen. N. 73846 (with nos. 7, 9).

Pleated with shaped ends of coarser linen and four button-holes. Shows signs of wear and carries no mark.

9. SLEEVE RUFFLES. L. 8 in.

Bobbin lace, with narrow cotton band and holes for links or ties.

10. WIG. L. (about) 11 in. N. 73849-50.

Greyish brown human hair, heavily powdered, moth-eaten, couched on the usual type of net foundation; the edges bound with pink silk. The crown of the head is smooth, there is a small fluffed toupet (damaged) and five rows of rather tight curls at either side. No maker's name.

XI. HORATIO, VISCOUNT NELSON, d. 1805 (pl. LXII)

The effigy of Nelson was purchased in the spring of 1806 in the hope that it would prove a counter-attraction to the tomb and funeral car which were drawing large crowds to St. Paul's Cathedral.² It was originally placed in a

¹ This has been preserved separately.

² Stanley, p. 325.

glass case against the west wall of St. Andrew's Chapel.¹ It was described in *The Times* of 22nd March 1806 as 'a very striking resemblance to Lord Nelson... which has been seen by an illustrious personage, and several of the nobility and gentry, and is considered by them to be a strong and exact representation of our departed hero'.

The effigy was modelled by Miss Catherine Andras, 'Modeller in Wax to Queen Charlotte', the adopted daughter of Robert Bowyer, a miniature painter to whom Nelson is known to have sat for his portrait. There is some evidence to show that at that time, or subsequently, Nelson also gave sittings to Miss Andras either for this effigy or for a small profile in wax.² It is quite obvious, however, that the modeller depended in the main on the full-length portrait of Nelson, by Hoppner, now at St. James's Palace, of which there is a replica at Greenwich. The pose and setting of this portrait are exactly followed in the effigy.³

The face itself is an extraordinarily interesting and attractive portrait of Nelson. His nephew, George Eyre-Matcham, who as a boy knew him well, always said that the effigy was far more like his uncle than any of the portraits.⁴ Lady Hamilton, too, on being shown the effigy, declared 'that the likeness would be perfect if a certain lock of hair was disposed in the way his lordship always wore it'. She was allowed to make the alteration.⁵ Unfortunately no trace of her rearrangement remains, but in removing the undress cocked hat to settle the point an interesting discovery was made. Inside the crown there was found a paper label with 'James Lock, Hatter, St James's Street, London', and also a stamp showing that hat-duty had been paid upon it. Attached to the

¹ Neale and Brayley, *Westminster Abbey*, ii, 200; *W. A. M.* 57571, is the bill (dated March 1806) for making the case for the effigy. The words 'Victory or Westminster Abbey' were formerly inscribed upon the glass front of the case in gold letters.

² W. T. Whitley, *Art in England, 1800-1820*; A. Earland, *John Opie and his Circle*, pp. 69-70; cf. letter from Charlotte B. Wolstencroft in *The Times* (10th June 1935), quoting MS. family reminiscences of Robert Bowyer and Miss Andras which state, 'On the death of Lord Nelson, who had previously sat to her for his model (at the same time when Mr. Bowyer was painting his miniature), she was requested to furnish a full-length figure for Westminster Abbey, for the robing of which his family furnished a suit of his own clothes, including the shoe buckles he wore when he fell.' The reference to the shoe buckles would appear to be a mistake. There is a small wax profile of Nelson by Miss Andras at Greenwich and there are others in private hands.

³ We are indebted to our Fellow Professor Geoffrey Callender, Director of the National Maritime Museum, Greenwich, for pointing this out to us and also for much valuable assistance with regard to this effigy.

⁴ Private information; cf. a letter, dated 1806, of Elizabeth Foster (afterwards duchess of Devonshire) which says 'there is a wax figure of Lord Nelson put up in Westminster Abbey which is as if he was standing there', Vere Foster, *The Two Duchesses*, p. 263.

⁵ Benson E. Hill, *Recollections of an Artillery Officer* (1836), pp. 12-14, where he relates how he escorted Lady Hamilton round the Abbey on this occasion.

brim was what appeared at first to be a crescent-shaped piece of green silk lining. Messrs. Lock courteously allowed their records to be examined, where it was found not only that Nelson frequently ordered cocked hats from that firm but that he usually ordered a green eyeshade to be attached to the hat. There can be no doubt therefore that the hat actually belonged to Nelson.

Dean Stanley² preserved a tradition that some of the clothes on the effigy also belonged to Nelson, and this was confirmed in the recent cleaning. Both the frilled linen shirt and the white silk stockings were found to be authenticated by his initials and coronet in blue cross-stitch. The full-dress vice-admiral's coat also probably belonged to him. Its dimensions exactly correspond with the coat (now at the National Maritime Museum, Greenwich) which Nelson wore at Trafalgar. It is curious that while the coat is a full-dress one, the hat is an undress uniform hat. Such a mistake could hardly have been made if both hat and coat had been supplied for the effigy from a naval outfitters, and the irregularity at least suggests that not only the hat but the coat also belonged to Nelson.³ There is nothing to identify the white waistcoat and breeches. The measurements of both are slightly larger than those of the genuine waistcoat and breeches preserved at Greenwich. On the other hand, the Greenwich breeches have probably shrunk owing to the washing to which they have obviously been subjected, while those on the effigy have probably stretched owing to having been pulled over the rigid wooden legs of the effigy.

There is one further point which may be mentioned. Robert Bowyer, Miss Andras's adopted father, was the only artist who attempted to show Nelson's 'blind eye'. By an extraordinary mistake, however, he showed it as the left instead of the right eye. Probably there was no actual disfigurement visible. But, as Professor Callender has pointed out to us, there is the same mistake in the effigy, where the left eye 'appears to be dimmed by something like a film spread over the cornea'. N. 72311, 72312 (head and shoulders), 72308-9 (head and profile), 72305 (wooden body).

Description. The head and left hand are of wax, the body of wood, carved with some skill. Two fingers broken and partly restored.

The figure (H. 5 ft. 5½ in.) stands against a painted rock background of wood, the left hand and right foot resting on ledges.

¹ e.g. '10th September 1805, Cocked Hat, Green Shade, £2 6s. od.'. A similar hat, with the shade in position, appears in the portrait painted by Devis just before the *Victory* sailed for Trafalgar.

² p. 325.

³ Professor Callender kindly allows us to quote from an unpublished letter from Sarah, 1st countess Nelson, dated 13th February 1806 and now at the National Maritime Museum, which also suggests that the coat was Nelson's. Writing to Lady Hamilton about the coat which Nelson was wearing at Trafalgar, she adds 'tis thought a glass case hermetically sealed (the same as Miss Andras will do hers in Westminster Abbey) will be the best mode of preserving it from the injuries of the external air'.

1. VICE-ADMIRAL'S COAT (full dress: this pattern of uniform went out of fashion about 1811). Blue woollen cloth, silver-gilt braid, gilt buttons. L. (front) 41 in. (back, including collar) 45 in. Collar, 3 in. W. (shoulders 12½ in.) Sleeves 20 in. (cuffs 4 in. deep), 9 in. wrist. Chest about 32 in. N. 72298.

High standing collar outlined with a broad stripe of braid; the front is curved at top, then cut away, fastening with two gilt hooks. There is a braid edging, on the right a small button on the collar, then three froggings each with a gilt button, bearing an anchor in a circle and a wreath below (inscr. at back 'J. & M. HUNTER'); then a gap (where the coat is covered by the sash), then four more froggings; on the left six froggings at top (one button missing) then a gap, and one small frogging without a button.

Orders on the left breast. N. 72306.

1. Star of the Order of the Bath. Three crowns and TRIA JUNCTA IN UNA on a red ground. Lord Nelson was elected 27th May 1797.

2 (below and near the front of the coat). Star of the Order of St. Ferdinand and Merit (Two Sicilies). Figure of St. Ferdinand, border of six bundles of rods separated by Bourbon lilies and FIDEI ET MERITO. Lord Nelson was Senior Knight Grand Cross of the Order.

3 (next to 2, nearer the arm). Star of the Order of the Crescent (Turkey). Oval, surrounded by rays, enclosing crescent and star in silver on green velvet ground (Turkish work). Lord Nelson was created Senior Knight of the Imperial Order at its institution in 1799. This order was only conferred on foreigners.

4 (below). Star of the most Illustrious Equestrian, Secular, and Chapteral Order of St. Joachim. Silver cross, enclosing a green cross paté, surrounded by a wreath and JUNXIT AMICUS AMOR. 1755. Lord Nelson was elected Knight-Grand-Commander of the Order in 1801.

There are shaped pocket flaps, with two (out of three) false buttons but no pockets. The back is very narrow, partly slit; the skirts are small (only 13 in. deep). The sleeves are tight, apart from some fullness at the shoulders, the band cuffs have three horizontal braid stripes, and three vertical bands with ornamental buttons. The epaulettes (L. 7½ in., W. 2 in.) are covered with gilt braid, and have two sizes of curled gilt fringe hanging on the shoulder; each has one small and one larger star on the strap; the under pad is covered with yellow silk, and there are two eyelet-holes in the coat for attachment. The coat tails, part of front and collar are lined with white silk. The buttons are detachable. On the left shoulder is a gold pin to mark the place of the fatal wound.¹

2. WAISTCOAT. White woollen cloth (Kerseymer). L. (front) 21 in. (including 2½ in. collar). L. (back) 27 in. Chest about 34 in. N. 72299.

The collar is rather high, the front almost straight, with eleven (out of twelve) gilt buttons, each stamped with anchor, and at the back 'B. BUSHBY IN (?) ST. MARTINS LANE'. The skirts are 12 in. deep, slightly pointed. There are shallow side pockets with shaped flaps, and two (of three) false buttons. The cotton back is slit and has two ties. The front and pocket flaps are lined with silk. Pieces of morocco leather were found in the pockets.

3. BREECHES. White woollen cloth (as waistcoat). L. 30 in. Waist about 33 in. N. 72300.

¹ Added in 1822 (Precentor's Book).

There is a broad waist-band, with two eyelet-holes at back and fall front; the legs are rather long and tight, with four gilt buttons (anchor type as waistcoat), and strap and buckle on outside of knee. There are three plain gilt buttons in front, two pair on each side, one for the flap and one for braces, and two buttons at back for braces. Two long pockets in front, and a watch pocket in the band. The breeches are part lined cotton and linen; the back has been slit. On the left is a silk ribbon bow to represent a fob.

4. SHIRT (pl. LXII, 3). Linen. L. (front) 37 in. Collar 5 in. Neck 15 in. Front slit $10\frac{3}{4}$ in. Sleeve (left) 22 in. Stump (right) 6 in. N. 72307.

High standing collar with three buttons (linen thread over a metal rim). The slit in front is edged with a linen frill; the body is full, tails slit at sides, marked with 'HN. 24.' in blue cross-stitch. There is a gusset on each shoulder towards the neck, and again under the arms. The left sleeve is long and full, gathered at shoulder and wrist, the centre part ironed into pleats; at the wrist there is a band, with slits for link. The right arm is only a stump, the fullness is caught in with a draw-string.

5. STOCKINGS. Knitted white silk. L. 25 in. Foot $9\frac{1}{2}$ in. Circum. (top) 13 in. N. 72301.

There is a seam down the back and under sole of foot; the long narrow clock is also in white. There is a pink stripe along the top of the stockings and a sewn-over band, probably not for a draw-string garter. Mark 'HN. 2.' with a coronet (the H appears erased, and the coronet is set over the N). To secure a tight fit the back seam had been gathered behind the ankle. Condition poor.

6. SHOES. Black leather. L. $10\frac{1}{2}$ in. N. 72302.

The toe is narrow but rounded, the heel very low. The shoes are straights, with no distinction for left and right. There is a small tongue and short latchets. The gilt buckles (stamped T.F.) have leather insets on their spring-hinged tops, and the chapes and points are of steel. The shoes correspond to those in the Hoppner picture.

7. COCKED HAT (undress). Black beaver. H. 9 in. W. 18 in. N. 72310, 72303 (in side).

The rounded crown is hidden by two high flaps at front and at back, held by hooks. On the left is a cockade of sequins, metal thread (not a very successful imitation of the 'chelenk'), with black glazed cloth rays and black silk braid and button below. Hat lined with cotton and leather. Paper label with 'JAMES LOCK HATTER, St. James's Street, LONDON'. Stamp in white 'STAMP OFFICE No. 57. HAT DUTY. VALUE ABOVE TWELVE SHILLINGS NOT EXCEEDING EIGHTEEN SHILLINGS. TWO SHILLINGS'. In the centre under the brim is a crescent-shaped green silk shade. (L. 9 in. Greatest D. 3 in.) This is creased and turned in so as not to show where the hat is worn.

8. WIG. Light brown human hair on net foundation; there is a short tight queue behind, bound with black ribbon (L. about 19 in.). No label. The wig has been powdered, but is hardly curled at all.¹

9. DRESS SWORD. L. 38 in. N. 72304.

Ivory hilt with gilt finger guard, cut with an anchor above the insertion of the blade. There is also a gilt band with a crown engraved above an anchor. The blade is unworked

¹ Nelson himself, though he lived in an age of wigs, did not wear one himself.

towards the tip, but near the hilt is engraved on either side with crown and Royal Arms. The sheath is of black tooled leather, with a gilt chape and two gilt bands with rings, one with a stud.

10. SWORD FROG. Metal covered with black leather, and two short leather straps, with steel split spring fasteners.

11. MEDAL (a gilt bronze cast). Worn about neck on a white silk ribbon edged with blue. Obverse: Victory standing on a promontory, and holding olive-branch, anchor, and shield with portrait bust of Nelson 'EUROPE'S HOPE AND BRITAIN'S GLORY'. Margin inscribed 'REAR ADMIRAL LORD NELSON OF THE NILE' signed C. H. K. Reverse: The battle of the Nile. ALMIGHTY GOD HAS BLESSED HIS MAJESTY'S ARMS. VICTORY OF THE NILE. 1798. C. H. KÜCHLER. FEC. Davison's medal for the battle of the Nile was distributed in 1802 to all officers and men who fought in the battle (a special medal was presented by George III to Nelson and his captains).¹

12. RIBBONS. (a) Over right shoulder. Blue moiré edged with pink (of St. Ferdinand and Merit). L. 66 in., W. $4\frac{1}{2}$ in. (b) Over right shoulder. Red (of the Bath). L. 38 in., W. 4 in.

13. PIECE OF VELVET. Round the neck is a small piece of black velvet stiffened with paper; this is not an original stock, though from his portraits Nelson appears to have worn a black velvet stock-band.

The effigy of Nelson was the last to be placed in Westminster Abbey. Neither it nor the effigy of Chatham has the remotest claim to be considered a funeral effigy. The last effigy to be actually drawn through the streets to the Abbey in a funeral car was that of the duchess of Buckingham on 8th April 1743, and with that 'pompous parade',² as Horace Walpole called it, there ceased a custom which can be traced with certainty to the funeral of King Henry III on 20th November 1272.³

¹ An example of this would have been difficult to obtain for the effigy in 1806.

² 'Next Thursday we are to be entertained with a pompous parade for the burial of old Princess Buckingham. They have invited ten peeresses to walk; all somehow or other dashed with blood-royal, and rather than not have King James's daughter attended by princesses, they have fished out two or three countesses descended from his competitor Monmouth.' *Walpole's Letters* (ed. Toynbee), i, 336. Cf. the account of the funeral in the *Gentleman's Magazine*, 1743, p. 191.

³ *Archaeologia*, lx (1907), 527.

VIII.—*Faience Beads of the British Bronze Age*¹

By H. C. BECK, Esq., F.S.A., and J. F. S. STONE, Esq., D.Phil.

Read 5th December 1935

INTRODUCTION

OF the many objects of the Bronze Age which have defied decay in these Islands, few can rank in interest and importance with a number of small coloured beads which have been found associated with barrow burials and in other contexts. So well known are they, that it seems almost needless to add that their importance lies in the possibility of using them as datum points in the Absolute Chronology of this period. The question of their origin is thus one of extreme importance and one which we propose here to examine.

The majority are blue cylindrical beads having corrugated surfaces. They are confined almost entirely to the British Isles, though a few isolated specimens have been found in western Europe. The fact that many of them resemble, in colour, form, and material, numbers found in Egypt appears first to have been vaguely recognized by the Rev. J. Skinner in 1826.² Their ascription to a Nilotic origin has, since that date, been couched in no uncertain terms. Thus Sir Arthur Evans has noted that some 'answer to those of a special Egyptian fabric within approximately fixed chronological limits. Although this type may well have existed before the eighteenth dynasty, the earliest examples known to me are from a foundation deposit of Queen Hatshepsut, c. 1500 B.C. They are also found at Deir-el-Bahri. In the Palace of Tell el Amarna (c. 1380-1350 B.C.), they are especially abundant, and they continue awhile under the nineteenth dynasty (1320-1200 B.C.).'³ Professor Sayce was no less definite.⁴ After seeing some of the beads in the Devizes Museum he ascribed them without hesitation to Egypt, and noted further that similar Egyptian beads belong to the latter part of the XVIIIth and the earlier part of the XIXth dynasties. Dr. H. R. Hall⁵ sums them up thus: 'We are not here dealing with imitations; these are actual Egyptian beads.' We must also not omit to mention that Sir Flinders Petrie deposited a number of genuine

¹ S. followed by a number throughout this paper refers to the site number in the appended Annotated List. B followed by a number represents the reference number in the Beck Collection.

² *British Museum Add. MS.*, 33690, f. 279; see also S. 11 in List.

³ *Proc. Soc. Antiquaries*, xxii (1907-8), 123.

⁴ *Journ. Egyptian Archaeology*, i (1914), 18.

⁵ *Ibid.*, 19.

Egyptian beads some years ago in the Devizes Museum for comparison with the Wiltshire specimens, the most similar, according to him, belonging to the reign of Mer-en-ptah (1234-1214 B.C.). The Hon. J. Abercromby in an early paper,¹ whilst agreeing that the British beads bore a distinct resemblance to those from Tell el Amarna, likened them also to certain ribbed beads of XXVIth dynasty date, and concluded from a study of association evidence that they had been imported into Britain between 900 and 600 B.C. This view was followed by M. Louis Siret² who, however, preferred to leave open the question of their place of origin.

An Egyptian source of origin is, however, not the only one that has been suggested. Somewhat similar glazed beads were found by Sir Arthur Evans in the Temple Repositories at Knossos and assigned by him to the close of the Middle Minoan period, *c.* 1600 B.C.³ Their discovery raised in Sir Arthur's mind the possibility of an Aegean origin for the British beads, an alternative origin which has never been settled. We thus see that a considerable range in date has been attributed to these beads.

In 1870 M. Figuier propounded his Slag Theory for the origin of glass, wherein he maintained that glass was a necessary accompaniment of bronze manufacture.⁴ This thesis was noted by Mr. Ludovic McL. Mann, who made use of it to explain the origin of certain star, quoit, and segmented beads of 'vitreous paste' found in the British Isles.⁵ He suggested that 'Selected portions of this slag could easily be poured when molten into moulds, or otherwise manipulated to produce beads and bead-like objects of various shapes'. In other words, the possibility that some, if not all, of the beads under discussion might be of local origin was mooted, a view which has recently been maintained by Mrs. B. H. Cunningham.⁶

Needless to say this view has not gone unchallenged. Fowler, in a paper on the 'Process of Decay in Glass' in 1878, dismissed it as chemically anachronistic;⁷ whilst Déchelette summed the subject up as follows: 'En fait, cette solution polygéniste doit être écartée: l'uniformité des premières verroteries de l'âge du bronze établit l'origine commune des prototypes.'⁸ We should also note M. Louis Siret's experience in Spain, noted by Abercromby:⁹ although he found abundance of scoriae at spots where copper had been smelted, none of the refuse had a glassy appearance.

We must point out here, however, that the views expressed above on the

¹ *J.R.A.I.*, xxxv (1905), 256.

² *Les questions de chronologie et d'ethnographie ibériques*, 1913, i, 121.

³ *Op. cit.* and *Palace of Minos*, i, 490.

⁴ *Primitive Man*, English ed., 1870, 261.

⁵ *Archaeology of Wiltshire*, 1933, 106.

⁶ *Manuel*, 1910, ii, 371.

⁷ *P.S.A. Scot.*, xl (1905-6), 396.

⁸ *Archaeologia*, xlv, 79.

⁹ *Bronze Age Pottery*, 1914, ii, 66.

local origin of the British beads are based upon a misconception of the material of which they are made. Had the beads been made of glass or of a semi-glass-like slag such an interpretation might not have been impossible; but, as we shall show later, *all* the beads which we have examined from Great Britain, Ireland, France, and Holland, are made of a particular material known as *Faience*, which, in the great majority of instances, has been subsequently covered with a bluish or a greenish glaze.

In past years the subject has been studied entirely from the visual standpoint. We should therefore explain at the outset that the object of the present paper, whilst being in the nature of a preliminary survey, is an attempt to collect together relevant data and to subject these to various analytical methods in an endeavour to locate the country or countries of origin, and to consider the validity of the beads as absolute dating points. The commonly accepted divisions of the British Bronze Age together with their typical ceramic forms are as follows:

Early	1800-1500 B.C.	Beakers and Food Vessels.
Middle	1500-1000 B.C.	Overhanging-rim Urns and Pygmy Vessels.
Late	1000-500 B.C.	Biconical, Cordoned, and Encrusted Urns with some Pygmy Vessels, and later, urns of Deverel-Rimbury types.

It will therefore be seen that the general consensus of opinion has placed the beads in the Middle Bronze Age.

The study has many aspects, but, before describing these in detail, it will first be necessary to define the groups into which the beads fall.

BEAD GROUPS

Group I. Segmented

(a) *Normal* (pl. LXIII, fig. 1, nos. 1-10). These are by far the most numerous, and have previously been described as pulley, notched, or ribbed cylindrical beads. The number of segments varies from two to ten, and the dissimilarities existing between separate beads, combined with their general symmetry, suggest very strongly that they have not been made in moulds but on the butter-pat principle. This we have been able to demonstrate experimentally. In diameter the beads vary considerably and appear to fall into two series, a larger and a smaller (cf. pl. LXIII, fig. 1, nos. 1 and 6). The perforation is, in all specimens examined, very large, being equal to or more than one half the diameter of the bead itself. This we consider a very important matter, and probably has some very real bearing on the question of the origin of this class of bead. The two finest necklaces of these beads come from Upton Lovell (S. 28) and Figcheldean (S. 22).

(b) *Scottish* (pl. LXIV, fig. 3, nos. 1-15). A type apparently confined to Scotland. These beads were early recognized as a distinct variety, but their characteristics were not specifically recorded. In size they are similar to the Normal but their appearance is altogether different. Apparently they were made by crimping either an unfired or a semi-molten tube of faience, thus yielding an unsymmetrical and very crudely shaped bead. In no bead examined in the National Museum of Scotland at Edinburgh did the notches continue regularly right round the bead. Mr. Ludovic Mann tells us, however, that the Ardeer Cairn, Stevenston beads (pl. LXIV, fig. 1, nos. 1-3 and S. 41) possess continuous but irregular notches, and that there is a slight trace of flattening along one side as if cast in a mould. Further, the Scottish beads appear to be coloured throughout, and the colour varies from a dirty greenish-grey to turquoise-blue. In point of size the perforations vary from very small to large. In the great majority of instances these beads have been surface finds without associations.

(c) *Barrel* (pl. LXIII, fig. 1, no. 3). Two examples only are known in the British Isles and these come from Cornwall (S. 2). They are segmented as in the Normal variety and may be compared with a somewhat similar bead of six segments from the Castello de Pragança, Portugal (see below, p. 221, footnote 1).

Group II. Star

(Pl. LXIV, fig. 1, nos. 2-18). A type of bead in which the rays or points vary from five to nine. The perforation is in all cases very large, and sometimes a slight raised band or moulding occurs round both ends of the perforation. Their colour varies from dirty green to turquoise-blue.

Group III. Quoit

(a) *Normal* (pl. LXIV, fig. 2, nos. 1-4). Beads in which the longitudinal section consists of two triangles, sometimes with concave, sometimes with convex sides. The perforation is large, as in the Star beads, and is more than half the diameter. Also, a similar moulding can sometimes be seen around both ends of the perforation.

(b) *Pendant* (pl. LXIV, fig. 2, nos. 5, 6). Two examples only are known in faience and these are from Sussex (S. 59, 60). Both resemble the Normal Quoit beads in shape and material, except that they are provided with a projection on the edge, through which is the perforation for suspension. Their colours are greenish and blue.

Group IV. Sundry Types

(a) *Oblate and Spherical*. We do not propose to deal with these in great detail; a number of possible ones have been recorded by Mr. Mann.¹ In the

¹ *P.S.A. Scot.*, xl (1905-6), 397-8.

appended Annotated List a few are noted. That from Ringwold, Kent (pl. LXIII, fig. 2, no. 4 and S. 73), is definitely of faience and possesses a slight moulding round the perforation at each end. It may be compared with four hard faience beads from Lakenheath, Suffolk (pl. LXV, fig. 5, no. 1 and S. 76), which are surface finds. The Gilchorn, Angus, bead (S. 64) appears to be similar in substance to those found near Dorchester (S. 71) and is probably not faience but glass. So-called Melon beads, made of a very soft faience, have been found in considerable numbers at Southwark and other London sites (pl. LXV, fig. 5, no. 2). They are found with Roman remains and are considered to be Roman.

(b) *Cylindrical* (pl. LXIII, fig. 2, no. 3). The bead from Stanton Moor, Derbyshire (S. 69), is of reddish coloured faience.

(c) *Spiral* (pl. LXIV, fig. 3, no. 16). Three spiral beads have been recorded by Mr. Mann:¹ two from Ayrshire (S. 65, 66) and one from Wigtownshire (S. 77).

(d) *Spacing bead* (pl. LXIII, fig. 2, nos. 1, 2, and S. 72). The blue faience spacing bead from Holywell, Flintshire, a recent find, is a unique and most interesting bead.

MATERIALS OF WHICH THE BEADS ARE MADE

Faience

The great majority of the beads found in this country, of the types mentioned above, are made of faience. Originally this term was applied to a glazed ware made at Faenza in Italy, but it is now generally used for many kinds of glazed earthenware and porcelain, and is especially applied to the material manufactured in quantity by the ancient Egyptians. In the latter sense faience is a composite material consisting of a core and a glaze. It has been used from an extremely early date in Egypt, Mesopotamia, and India, and its composition seems to have been very similar in these three countries.

The core consists almost entirely of finely ground quartz grains cemented together by means of some other material, probably either an alkali or lime or both. Silica bricks, extremely similar to faience, are made to-day from powdered quartz or quartzite with very little soda and about 2 per cent. lime. Such bricks examined microscopically are almost identical with faience in appearance, but it needs a great heat to form them. The fusing or binding point can be greatly reduced by the use of more soda, a material the Egyptians could easily have obtained from natron which occurs naturally in Egypt. The fact that so little soda has been found in analyses of Egyptian faience has been explained by Mr. A. Lucas, who shows that a large amount of this substance would volatilize away during manufacture.² Further, the core may be either white or coloured,

¹ *P.S.A. Scot.*, xl (1905-6), 399.

² *Ancient Egyptian Materials and Industries*, 2nd ed., 1934, 101.

depending upon whether a small amount of coloured glaze has been mixed with the quartz grains before firing or not. It may also possibly, but very improbably, be caused by mixing powdered faience which had originally been glazed. The core when glazed can also be coloured throughout by very prolonged heating at an excessively high temperature, but it is improbable that such a temperature could have been reached at that date.

Usually the core is covered with a glaze, and it appears to have been necessary to refire the object for this purpose, thus involving a two-stage process. In composition the glaze is practically identical with coloured glass, but it has been used in a different way, having been applied either in powder form or in aqueous suspension as a slip. The British beads in common with most blue faience beads of other countries are coloured with copper compounds.

Microscopic examination of a section of faience shows that it consists of a large number of minute angular fragments of quartz cemented together by some isotropic material. In some cases this material is only just sufficient to hold it together, whilst in others there is so much of it that the quartz fragments appear to be floating in a lake of glass. Sometimes the glaze permeates the core of the bead, making it blue throughout; at other times the coloured glaze penetrates for a short distance only and shows as a fine blue line round the white core.¹

All the English segmented beads which we have examined, and also the star and quoit beads, belong to the latter type, and show a white, red, or grey core below the glaze. The glaze of the Scottish segmented beads, on the other hand, is diffused throughout the whole bead. This penetration of the glaze is so complete that many people have mistaken these beads for glass beads. A microscopic section shows at once, however, that they are not glass, which is an isotropic material, but are full of crushed angular fragments of quartz reaching right to the surface of the bead. It has frequently been stated that faience is partly made glass, but this is not correct. Although the same materials are used, a much smaller proportion of silica is present in ordinary glass than in faience. Faience, even when heated for a considerable period at 1300° C., shows no signs of losing its shape, whilst almost all glasses melt completely at temperatures from 700° C. to 1000° C.

Sometimes the core of faience possesses dark red marks which appear to be due to copper. A large patch of this is present in a broken quoit bead from Ayrshire (S. 57), and the coloured core of the Stanton Moor beads (S. 4, 49, 69) is probably due to the same cause. We have been able to reproduce this colour by heating blue faience in a reducing flame, which shows that its occurrence is probably a matter of control of firing only.

¹ For further remarks on faience see H. C. Beck, *Qau and Badari*, ii, 22.

The identity of glazed faience from different sources is well exemplified by a study of its specific gravity. We have carried out a large number of determinations in the Devizes and Ashmolean Museums and in the National Museum at Edinburgh. As is to be expected this property depends mainly on the quartz content, but variations occur which are probably due to occluded air bubbles, amount of glaze, and possibly tridymite content, the last being formed from quartz on heating at a high temperature. The results are shown in Table I.

TABLE I

<i>Source.</i>	<i>Type.</i>	<i>No. of beads.</i>	<i>Average sp. gr.</i>	<i>Variation.</i>
England	Segmented	34	2.56	2.41-2.64
Scotland and Ireland	Star and Quoit	7	2.57	2.48-2.63
Scotland	Segmented	10	2.54	2.38-2.65
Egypt	Segmented XVIIIth dyn.	33	2.55	2.47-2.69
Egypt	Cylindrical XIXth dyn.	12	2.54	2.42-2.60
Egypt	Ibid. Frit	4	2.82	2.79-2.85

The frit beads are included in the table to emphasize their dissimilar nature. Egyptian frit is a copper-lime silicate made from the same materials as faience but containing a higher percentage of lime and copper.

A long series of chemical experiments has been undertaken with the object of finding out how these beads were made and what materials had been employed. Although the results were not in all cases convincing, they proved several important facts; but very extended research would be necessary to prove all the points chemically.

In the first place a low temperature glaze had generally been used, one which melted below 700°C. On heating a bead of glazed faience above this temperature the surface blackened, and this continued to increase in intensity until 900°C. was reached. On raising the temperature to 1000°C. the black colour completely disappeared and the bead regained its blue colour, but the glaze was found to have penetrated the core completely. Increasing the temperature to 1300°C. had no further effect. This experiment was first carried out with Egyptian XIXth dynasty beads, but the same results were obtained with a Maltese disc bead and a Wiltshire segmented bead.

A mixture of commercial powdered silica with 10 per cent. of a colourless glaze (which glaze consisted of about 65 to 70 per cent. silica, 20 per cent. soda, and 10 per cent. lime) produced a hard faience on firing at 990°C. for half an hour. This yielded a material which contained 96 per cent. silica, 2 per cent. soda, and 1 per cent. lime (approximating to the composition of Egyptian faience) and which appeared to be very similar to that used for making the

Wiltshire beads. Before firing, the powdered materials, with a little added water, could be easily moulded and, after drying, could be handled with ease. After firing, the material could be glazed with a blue glaze added in the form of a powder.

Analyses of quartzites and ganisters occurring in Great Britain, published by H. H. Thomas, A. F. Hallimond, and A. G. Radley,¹ show that some of these have a composition identical with the composition of Egyptian faience. For this reason a number of specimens were obtained from the Geological Survey of Scotland for experiment. A specimen of Laganha china stone from Kentallen, Argyllshire, was ground to powder, but, as was to be expected, no binding occurred on heating the material alone. On the addition of some glaze, which had been previously fused and ground, the material when fired resembled very closely that of the Scottish segmented beads, but by so doing the ultimate composition was changed. This mixture of materials could be moulded in the same way as with commercial silica, but it must be borne in mind that such a method of manufacture presupposes a knowledge of glaze or glass. Unfortunately chemical analysis of a Scottish bead is not possible without destruction, and therefore we have been unable to determine the alkali content for comparison with that of Egyptian faience.

In order to make the experiments as real as possible, trials were also made with materials from districts in Scotland where beads have been found. Thus some of the celebrated Glenluce sand was experimented with, since star, quoit, and segmented beads have all been found on that site. Without previously grinding the sand to a fine powder nothing resembling Scottish beads could be obtained. Further, the use of a pre-made glaze for binding purposes produced a faience more similar to that of the Scottish beads than did the addition of soda and lime alone.

The method of manufacture of the normal segmented beads has also been partly elucidated, and successful beads (pl. LXVI, fig. 3) have been made by means of a wooden tool like a butter-pat. For this purpose the powdered materials must be rendered plastic by a suitable admixture of water. The careful use of such a tool enables the material to be moulded into either segmented or spiral beads and other forms. The Wiltshire beads possess differently shaped grooves between the segments, and these can all be reproduced by this method. The use of any form of gum in place of water for plasticizing the powdered materials was found to be impossible since, on firing, the gum decomposed and caused the bead to swell and lose all shape through the evolution of gases. When the bead is formed on stout copper wire, subsequent heating causes the copper to oxidize and scale, with the result that we found it impossible to remove the bead

¹ *Memoirs of the Geol. Survey*, xvi, 'Refractory Materials', 1920.

from the wire without breaking it and without much scale adhering to the perforation. It appears very probable that such beads were formed on hollow reeds or straw which, on firing, would disappear without leaving a trace, in much the same way as is still done by natives in West Africa.

A number of early segmented beads from Mesopotamia and Egypt exhibit this method of manufacture in a marked manner (see below, p. 223). Whilst it is recognized that in the manufacture of faience beads the beads sometimes stick together through the applied glaze, there is on that account no reason to believe with Mrs. Cunnington that such beads originated through, and were made by, the fusion of separate small beads.

Glass

No segmented, star, or quoit beads of true glass, referable to the Bronze Age, are known. Glass segmented beads do, however, appear in later periods. Thus, in a settlement on Cold Kitchen Hill, Wiltshire, which has been shown to have been inhabited from the Early Iron Age to Romano-British times, a large number (some 500 or so) has been found, and these are coloured green, blue, brown, and black¹ (pl. LXV, fig. 1, nos. 1-3). We have determined the specific gravities of a number of these, the averages for 12 beads of three of the colours being: green 2.53, blue 2.43, and black 2.49. Similar beads have also been found in Stockton Earthworks nearby,² and by Pitt-Rivers at Woodcuts.³ Large glass segmented beads are frequently found in Irish bogs (pl. LXV, fig. 3). Although there is some difference of opinion as to the date of these, there is no doubt that they belong to a much more recent period than the Bronze Age faience beads. They are generally considered to belong to the Early Iron Age, about 200 B.C., but it has been suggested that they belong to the Viking period. The glass beads found in the long barrow at Pen-y-wyrlod, Brecknockshire⁴ (pl. LXV, fig. 4, no. 4), have been mistaken for Wiltshire faience beads, but they are of true glass. These have been stated to be Saxon, but since the discovery of the Cold Kitchen Hill beads we think it not impossible that these beads from Pen-y-wyrlod are of a somewhat similar date.

The Saxons also made a large number of segmented beads.⁵ Some of these were relatively large whilst others were very small. All, however, were made of glass, sometimes blown glass, and some had elaborate patterns on them

¹ *Wilt. Arch. Mag.*, xliii (1924), 185, 330.

² *Ibid.*, 392.

³ *Excavations*, i, 126, pl. XLIV, 18.

⁴ O. G. S. Crawford, *Long Barrows of the Cotswolds*, 1925, 62.

⁵ The following references are not intended to be exhaustive: *Ancient Wilts.*, i, 236, pl. xxxiii, and *Devizes Museum Cat.*, i, 200; *Inventorium Sepulchrale*, 1861, pl. v; Mortimer, *Forty Years' Researches*, figs. 783, 851, 865, 884, 888; *Wilt. Arch. Mag.*, xxviii, 104, and *Devizes Museum Cat.*, ii, 119, pl. LVI; T. C. Lethbridge, *Anglo-Saxon Cemeteries in Cambridgeshire*, 1931, figs. 8, 9, 11.

whilst others were quite plain. Specimens are illustrated on pl. LXV, fig. 4, nos. 1, 2, 3.

Blue glass beads of spherical and oblate form and referable to the Bronze Age are, however, known. In two instances they have been found associated with bronze hoards in Scotland: at Glen Trool, Stewartry of Kirkcudbright,¹ and at Adabrock, Lewis;² also on amber necklaces of Bronze Age date, one in the Beck Collection from Antrim, and another in the Murray Collection at Cambridge.

There is little, if any, evidence for glass manufacture in Great Britain and Ireland during the Bronze Age. A piece of brown glass slag was found in the ditch of barrow-circle IV at Woodhenge.³ This is the only well-authenticated piece ever found and, if really of early date, would point to early glass manufacture; but it must be borne in mind that it was found at the shallowest part of a very shallow ditch, and Romano-British objects from a nearby settlement occurred in the surface mould at the site. Pieces of slag have also been recorded from the Culbin Sands, Morayshire,⁴ but here there is no evidence of date, as objects of all periods are found lying on the surface. A fragment of a globular vessel of glass is recorded from Carn Creis, Cornwall (S. 2), but this was probably of blown glass, in which case it could not be pre-Roman. Thus, very little evidence exists to suggest that glass was made in any shape or form in this country prior to the Early Iron Age, the few spherical blue beads probably having been imported. In this connexion it is worth noting that small blue glass beads are recognized as occurring in the Late Bronze Age and earlier Hallstatt period in central Europe: Reinecke thinks that they may have been made locally and cites a number of examples,⁵ but this is outside our province.

Bone

Segmented beads of bone have been recorded from Cop Head Hill, Wilts.⁶; Filkins, Oxfordshire;⁷ Farway, Devon⁸; and from Stanton Moor, Derbyshire.⁹ The last two are perforated transversely, possibly for the suspension of pendants. Miss L. F. Chitty, in her recent paper on bone segmented objects from western Europe, is inclined to think that these beads are more akin to the segmented faience beads than to the Eneolithic segmented bone pin-heads,¹⁰ a view with which we agree.

¹ *P.S.A. Scot.*, lv (1920-1), 29; V. Gordon Childe, *Prehistory of Scotland*, 1935, 149.

² *P.S.A. Scot.*, xlv (1910-11), 27; lvii (1922-3), 123; Childe, *op. cit.*, 165.

³ *Woodhenge*, 1929, 48, 76.

⁴ *P.S.A. Scot.*, xl (1905-6), 403.

⁵ *Allertümer unserer heidnischen Vorzeit*, 1911, v, 67-8, taf. 14.

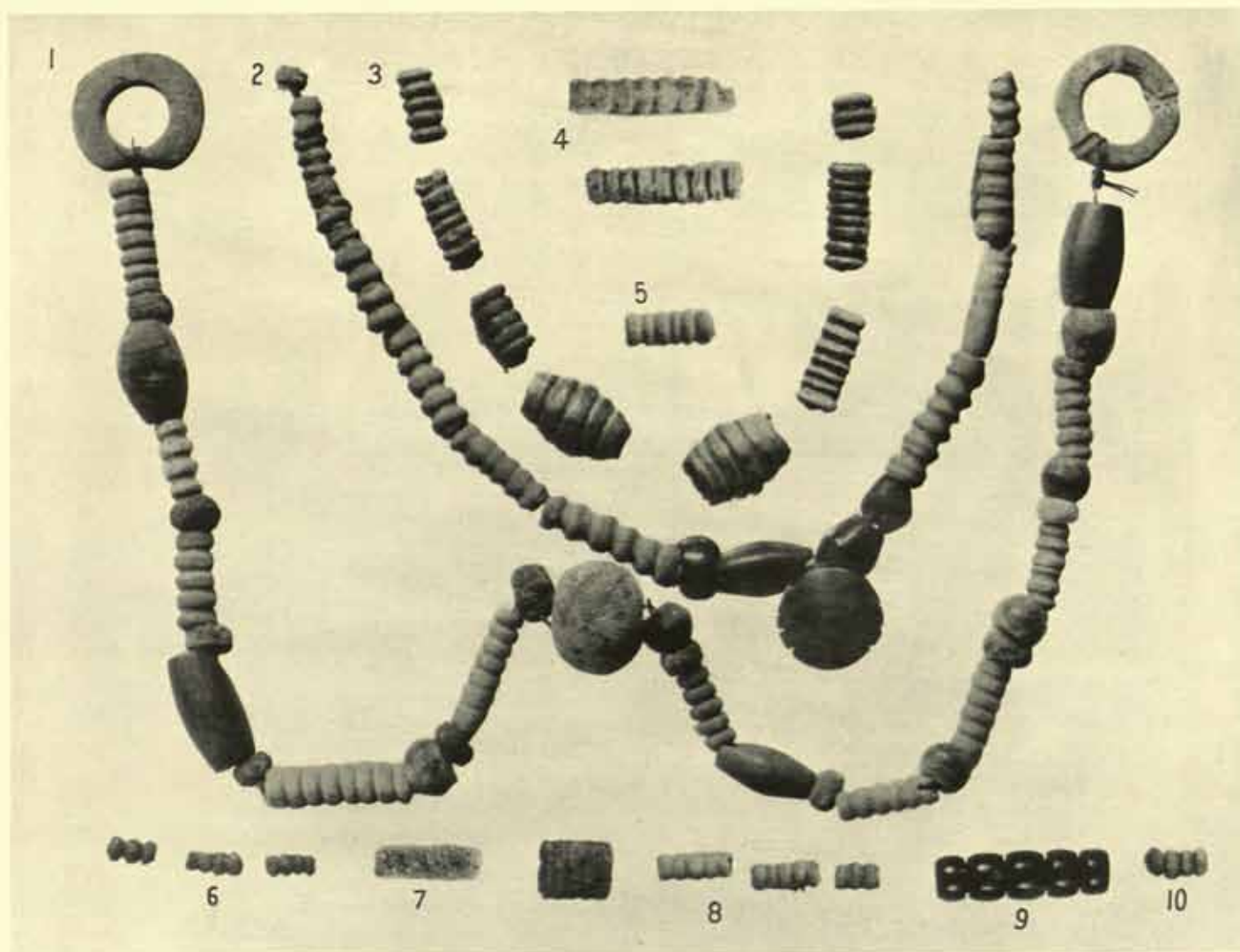
⁶ *Ancient Wilts.*, i, 68; *Devizes Museum Cat.*, i, no. 224.

⁷ Ashmolean Museum.

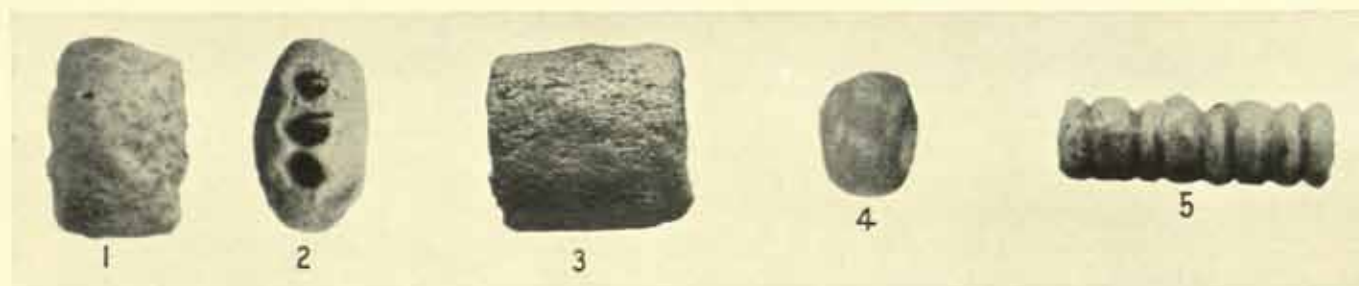
⁸ *Archaeologia*, xliii, 440, fig. 141.

⁹ Information from Mr. J. P. Heathcote.

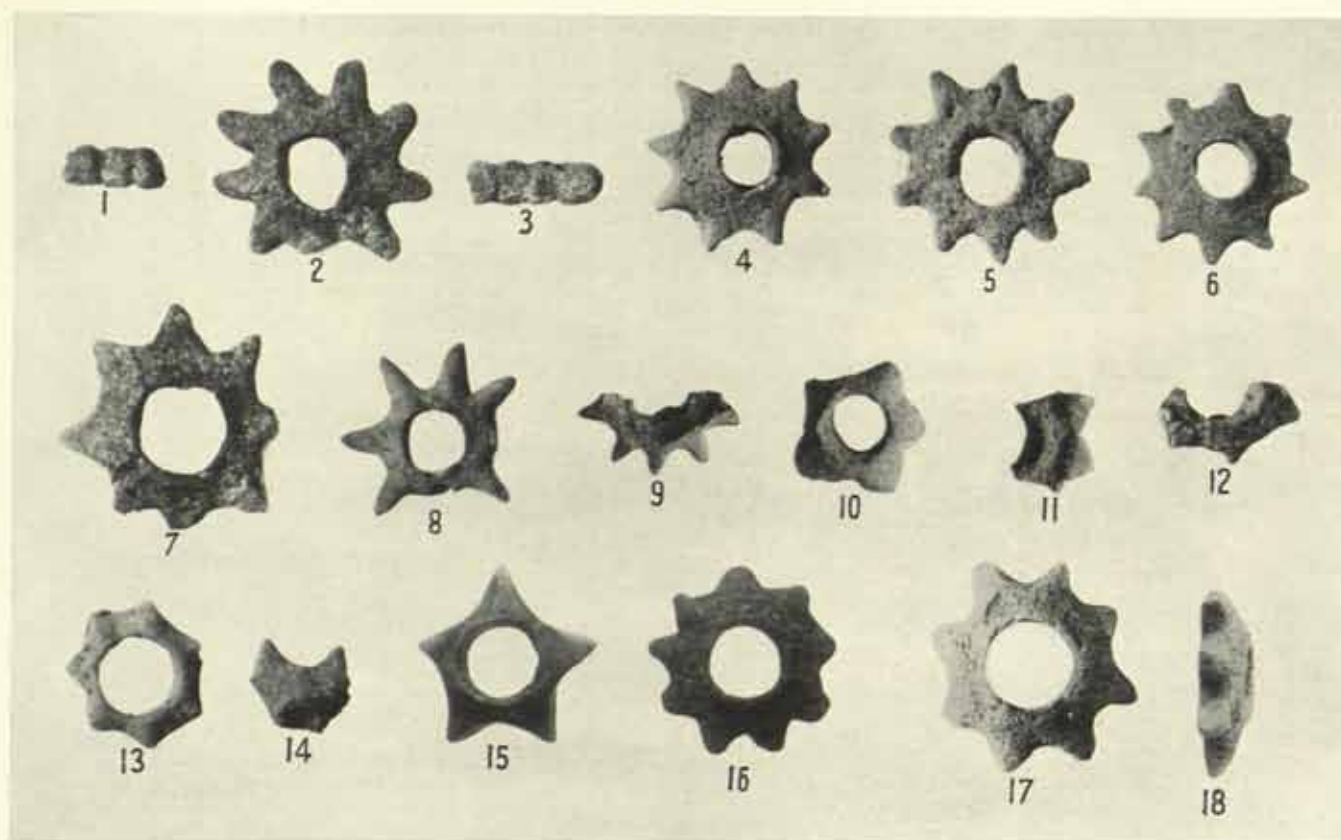
¹⁰ *Journ. Galway Arch. Soc.*, xvi (1935), 130.

Fig. 1. British Segmented Beads. $\times 1$

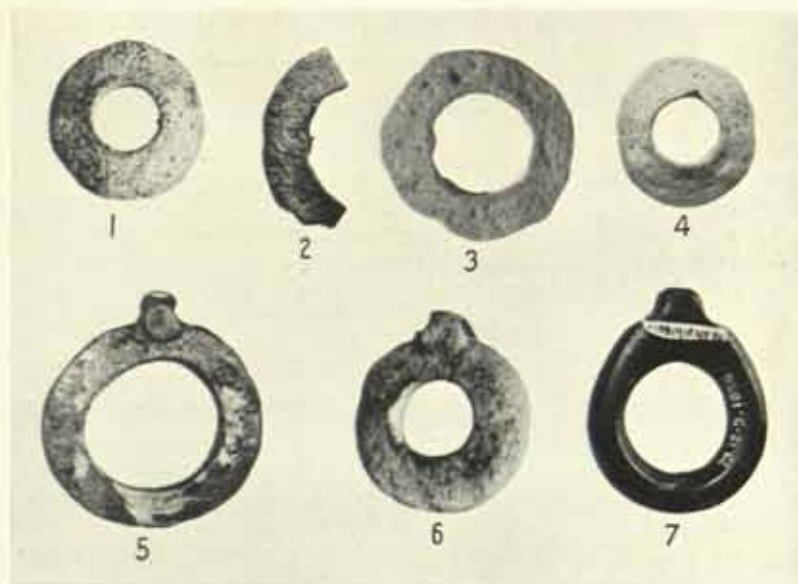
1. Upton Lovell, Wilts. Devizes Museum.
2. Figheldean, Wilts. British Museum.
3. Boscregan, St. Just in Penwith, Cornwall. British Museum.
4. Wilsford G. 54, Wilts. British Museum.
5. Easton Down, Winterslow, Wilts. Salisbury Museum.
6. Amesbury G. 54, Wilts. Devizes Museum.
7. Doll Tor, Stanton Moor, Derbyshire.
8. Crinoid and associated beads. Aldbourne G. 5, Wilts. Devizes Museum.
9. Jet bead. Lockton Pastures, Yorkshire. Yorkshire Museum, York.
10. Segmented bead. Brynford, Holywell, Flintshire.

Fig. 2. Sundry British Faience Beads. $\times 2$

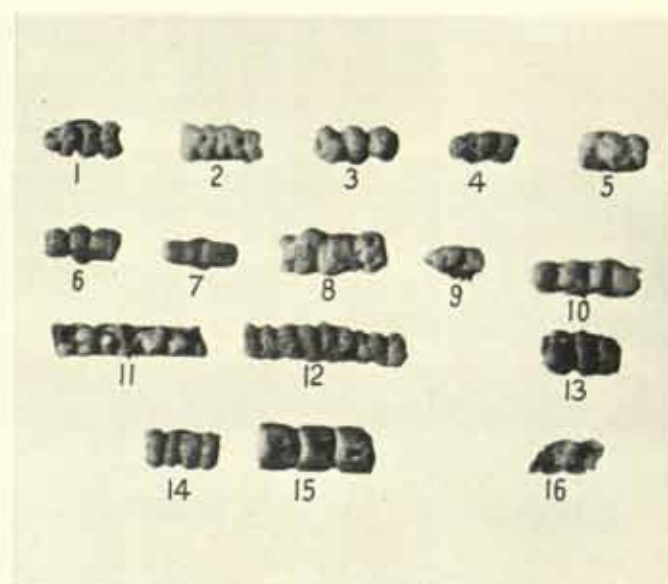
- 1, 2. Spacing bead. Brynford, Holywell, Flintshire.
3. Cylinder bead. Stanton Moor, Derbyshire.
4. Oblate bead. Ringwold, Kent. Maidstone Museum.
5. Segmented bead. Gilling, Yorkshire.

Fig. 1. British Star Beads. $\times 1$

- 1, 2, 3. Associated beads. Ardeer Cairn, Stevenston, Ayrshire. Kelvingrove Museum, Glasgow.
 4, 5, 6, 9, 10, 11. Glenluce Sands, Wigtownshire. National Museum of Scotland.
 7, 8. Glenluce Sands, Wigtownshire. Kelvingrove Museum, Glasgow.
 12, 13, 14. Culbin Sands, Morayshire. National Museum of Scotland.
 15, 16. Ireland. Ashmolean Museum, Oxford.
 17, 18. Doll Tor, Stanton Moor, Derbyshire.

Fig. 2. British Quoit Beads. $\times 1$

1. Balneil, New Luce, Wigtownshire. National Museum of Scotland.
 2. Ardeer Sands, Stevenston, Ayrshire. National Museum of Scotland.
 3, 4. Ireland. Ashmolean Museum, Oxford.
 5. Quoit pendant. Oxsett Bottom, Sussex. British Museum.
 6. Quoit pendant. Clayton Hill, Sussex. Lewes Museum.
 7. Lignite pendant. Aldbourne G. 5, Wilts. British Museum.

Fig. 3. Scottish Segmented Beads. $\times 1$

- 1-12. Culbin Sands, Morayshire. National Museum of Scotland.
 13. Mill of Marcus, Breechin, Angus. National Museum of Scotland.
 14, 15. Glenluce Sands, Wigtownshire. National Museum of Scotland.
 16. Spiral bead. Wigtownshire. Kelvingrove Museum, Glasgow.

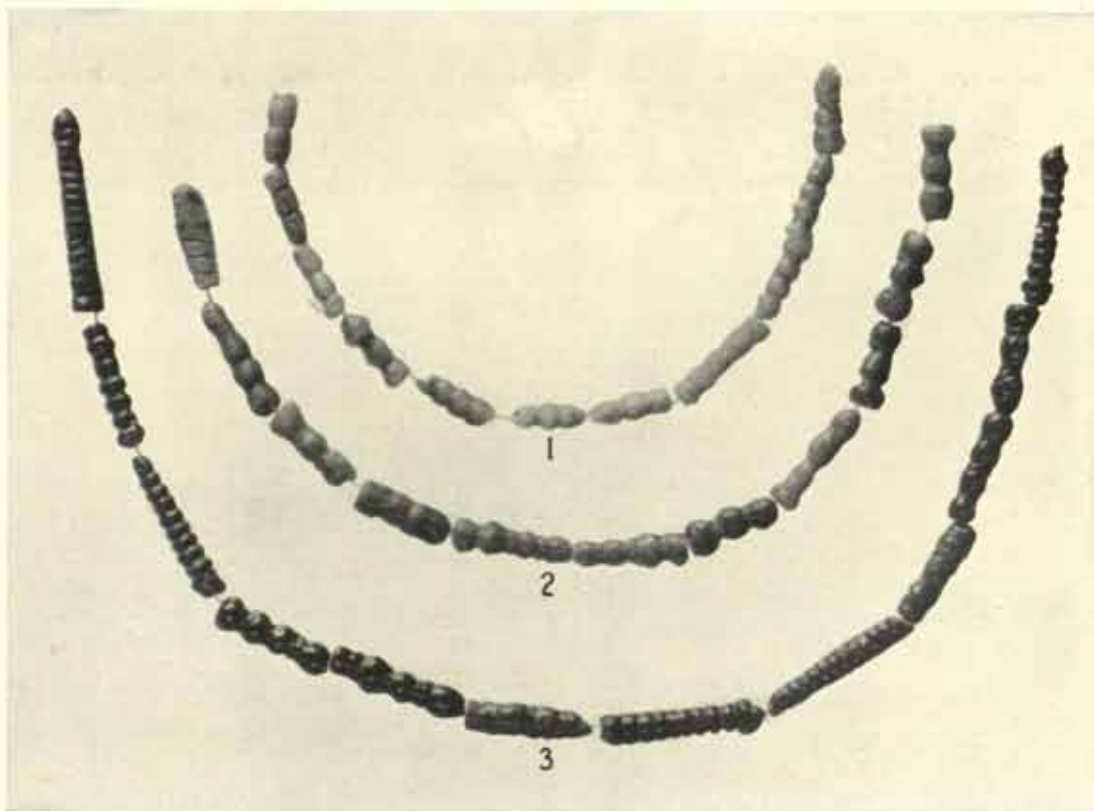


Fig. 1. Glass Segmented Beads from Cold Kitchen Hill, Wilts. $\times 1$
1. Blue glass. Devizes Museum. 2. Green glass. Devizes Museum. 3. Black glass. Devizes Museum.

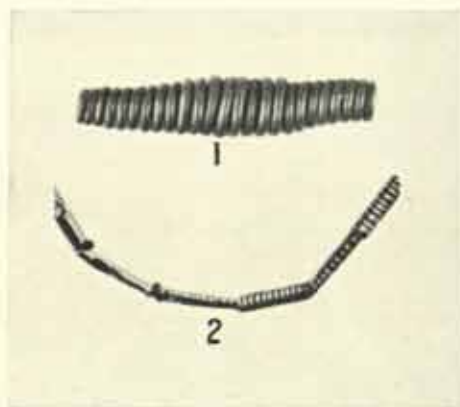


Fig. 2. Gold Beads. $\times 1$
1. Gold spiral bead. Co. Clare, Ireland. B/291.
2. Gold segmented beads from Ireland (?).
British Museum.

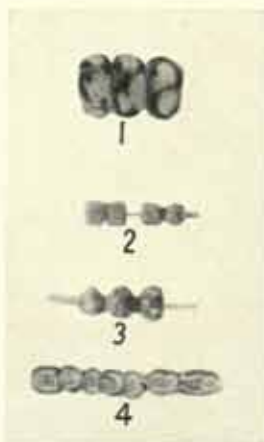


Fig. 4. Saxon Glass Segmented beads. $\times 1$
1, 2, 3. Stouting, Kent.
600-700 A.D. B/1706, c,
1802, 1803. 4. Pen-y-
wyrld, Brecknockshire,
B/1695.

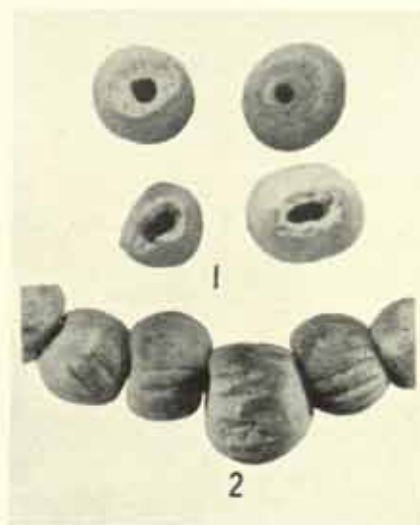


Fig. 5. Various Faience Beads. $\times 1$
1. Lakenheath, Suffolk. B/177. 2. Melon
beads, Roman. Southwark, London. B/49.

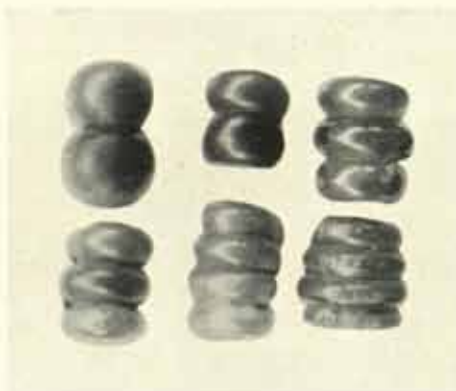


Fig. 3. Irish glass segmented beads, Co.
Antrim. 250 B.C. (?). B/1320. $\times 1$



Fig. 6. Oblate blue faience bead,
Tel el Amarna. B/1121.

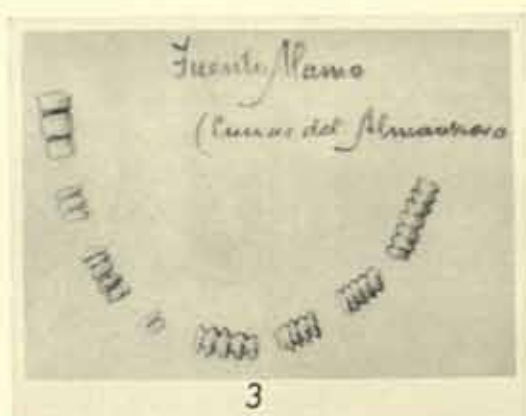
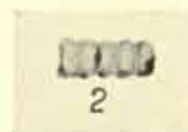


Fig. 1. Continental Segmented Beads. $\times 1$

1. Necklace from Odoorn, Drenthe, Holland. Assen Museum. 2. Parc Guren, Carnac, France. Carnac Museum. 3. Tracing of beads by M. Siret from Fuente Alamo, Spain.

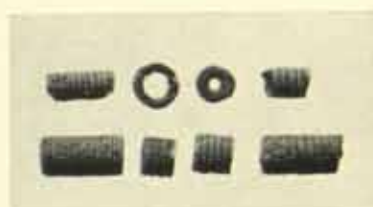


Fig. 2. Natural fossil crinoids from the Mendips. $\times 1$

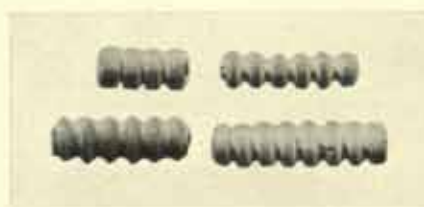


Fig. 3. Modern beads made by the butter-pat method. $\times 1$

Tin

Colt Hoare records a tin segmented bead from a disc-barrow associated with a cremation, bronze awl, and two conical buttons at Sutton Veny, Wiltshire.¹ This may be compared with the pure tin beads found associated with faience segmented beads in Holland (pl. LXVI, fig. 1, no. 1 and S. 38).

Bronze

Two bronze tubular beads or leaf cylinders have been recorded from Roke Down, Bere Regis, and Bere Regis Down, Dorset.² They possess peripheral corrugations and were found in horseshoe-handled urns of Late Bronze Age type.

Gold

A necklace of gold segmented beads, probably from Ireland, exists in the British Museum (pl. LXV, fig. 2, no. 2). Two minute beads, possibly of faience, are on the same string. A gold spiral bead, made from coiled wire, comes from co. Clare, Ireland (pl. LXV, fig. 2, no. 1). In the Vannes Museum, Brittany, there is a similar bead, but solder has been run along the edge of the wire where it touches, thus making it a solid barrel bead. The Irish specimen was associated with a small gold penannular ring consisting of a core of copper covered with gold plate.³ This type of ring, so-called ring-money, belongs apparently to the Late Bronze Age, and identical gold rings have been found in Egypt.

Jet

In the Yorkshire Museum, York, is a jet segmented bead (pl. LXIII, fig. 1, no. 9) from a barrow at Lockton Pastures. This was associated with eighteen other jet ornaments including a quoit pendant very similar to the Aldbourne, Wiltshire, specimen (pl. LXIV, fig. 2, no. 7 and S. 13). Mortimer illustrates an unperforated jet segmented object from Garton Slack.⁴ Quoit-shaped rings of lignite or shale have been noted from Wiltshire, associated with segmented beads of faience (S. 21, 33).

Stone

No carved stone segmented beads are known in Great Britain though they have been found in many places abroad. But fossil crinoids, which have been used as beads, have been recorded; and at Aldbourne, Wiltshire (pl. LXIII,

¹ *Ancient Wilts.*, i, 103, pl. xii.

² Abercromby, *B.A.P.*, ii, 39, figs. 374, 375. The beads are in the Durden Collection, British Museum.

³ B/292.

⁴ B/293. See also E. C. R. Armstrong, *Catalogue of Irish Gold Ornaments* (1920), 34.

⁵ *Forty Years' Researches*, 218, fig. 559.

fig. 1, no. 8 and S. 13), one was actually associated with faience beads. Others have been found at Winterbourne Stoke¹ and at Normanton,² Wiltshire, and on a shale or lignite necklace from Upton Pyne, Devon.³ These fossils are remarkably similar in shape and size to segmented beads (pl. LXVI, fig. 2) in that they not only possess marked segmentation but, when found, are often naturally perforated, thus lending themselves to such use. They consist of the stems of fossil star-lilies of the class Crinoidea belonging to the group Echinodermata, and are abundant in the Carboniferous limestones. In districts where they occur it seems natural that they should have been used as substitutes for the more highly prized faience variety. Thus their use in funeral ceremonies on the Mendips is well attested. In barrows T 10 and 11 it appears certain that numbers were deliberately placed in the urns,⁴ an interesting coincidence, since barrow T 12 of the same group contained faience segmented beads (S. 10). It is also interesting to note that these fossils are still popularly known on Holy Island as St. Cuthbert's beads.

OBJECTS ASSOCIATED WITH THE BEADS

In the appended Annotated List will be found all objects directly associated with the faience beads. For convenience of reference these have been abstracted in the form of tables (Tables II and III), and from these certain general inferences can be drawn.

First, as regards the contemporaneity of the bead groups, it may be noted that the normal segmented beads are contemporary with pendent quoit beads in Sussex (S. 12), segmented barrel beads in Cornwall (S. 2), a faience oblate bead in Kent (S. 9), and a faience spacing bead in Flintshire (S. 8). A reddish variety of such segmented beads in Derbyshire (S. 4) is almost certainly contemporary with a reddish variety of star bead (S. 49) because, although not in the same deposit, they were found in the same barrow on the original ground surface. In Ayrshire, Scottish(?) segmented beads have been found with a star bead at Stevenston (S. 41): an association of great importance, since all other segmented beads of the Scottish variety, excluding that from Mill of Marcus (S. 40), have been surface finds only. Further, a star and a quoit bead have been found together in the same urn in Dorset (S. 50). Such equations seem to prove that the groups defined above are approximately of one period and date.

An examination of the objects found associated with the beads would suggest, however, that whilst the normal segmented variety is found in both Middle and early Late Bronze Age contexts, the other faience beads would

¹ *Devizes Museum Cat.*, i, 67.

² *Ibid.*, 146.

³ *Archaeologia*, xliii, 516, fig. 210 b.

⁴ *Proc. Bristol Univ. Spel. Soc.*, ii, 139, 141; iv, 75, 78, 79, 88, 92, 93.

appear to be confined to the latter and transition period only. Let us consider first the associated pottery. The vessels illustrated (figs. 1 and 2) are the only ones known to survive or which have been illustrated before.

TABLE II
Normal Segmented Bead Associations

Site no.	Type of barrow.*	Skeleton or cremation.	Cinerary urn.	Pygmy cup or small food vessel.	Beaker.	Bronze knife-dagger.	Bronze awl or pin.	Other bronze objects.	Shale, jet, or lignite.	Amber.	Gold.	Bone.	Other objects. F = faience.	No. of beads.
S 1	B?	C	..	..	..	..	x	..	..	..	..	x	Flints	6
S 2	B?	C	..	x	..	..	..	..	x	..	..	..	F. barrel beads	12
S 3	B?	C	x	x	..	..	..	..	..	..	..	..	..	2
S 4	B	C	..	..	..	..	..	..	..	..	..	..	..	1
S 5	D	C	x	..	..	..	..	..	..	x	..	x	..	8
S 6	D	C	x	..	..	..	..	..	..	x	..	..	..	?
S 7	D	C	..	x	..	..	x	..	x	x	..	..	..	?
S 8	B?	C	x	..	..	..	..	..	..	..	..	..	F. spacing bead	1
S 9	O	C	x	x	..	..	..	..	..	..	..	..	F. oblate bead	3
S 10	B	C	..	..	..	..	x	..	x	..	..	..	..	2 or 3
S 11	B	C	x	..	..	..	..	..	..	..	..	..	..	2
S 12	B?	C	..	..	..	..	..	x	x	x	..	x	F. pendant	2 or 3
S 13	B?	C	..	x	..	x	x	..	x	x	..	..	Crinoid bead	3
S 14	T	C	x	..	..	x	x	..	x	x	x	..	Spherical beads	?
S 15	D	C	..	..	..	..	..	..	..	x	..	..	Stone beads	3?
S 16	B	S	..	x	x?	..	..	..	..	..	..	..	..	7
S 17	?	..	..	..	..	..	..	..	..	..	..	..	..	2
S 18	?	S	..	..	..	..	..	..	..	x	..	..	..	?
S 19	B	C	..	..	..	..	..	..	x	..	..	..	..	1
S 20	?	..	..	..	..	..	..	..	..	..	..	..	..	1
S 21	B	C	..	..	..	..	..	..	x	..	..	..	..	1
S 22	B	C	..	..	..	x?	..	..	x	..	..	..	..	8
S 23	D	C	x	..	..	..	..	..	..	..	..	..	..	1
S 24	B	S?	x?	..	..	..	..	..	..	..	..	..	..	1
S 25	D	C	..	x	..	..	x	..	x	x	..	x	..	?
S 26	B	C	..	..	..	..	..	..	x	x	..	x	..	?
S 27	(B)	..	..	..	..	x?	x?	..	..	x?	..	..	..	1
S 28	Bl	C	..	..	..	..	..	..	x	x	..	..	..	16
S 29	D	C	..	..	..	..	..	..	x	x	..	..	..	2?
S 30	T	C	..	..	..	..	x	..	..	x	..	..	Stone bead	4
S 31	(B)	S?	..	x?	..	..	x?	..	..	x?	x?	..	..	13
S 32	D	C	..	..	..	..	..	..	x	x	..	..	..	?
S 33	B	C	x	..	..	..	x	..	x	x	..	..	..	3?
S 34	D	C	x	x	..	..	..	..	x	x	..	..	..	4
S 35	U	C	x	..	..	..	..	..	x	x	..	x	..	1
S 36	B	C	x	..	..	..	..	..	x	..	..	..	..	2

* B = bowl, D = disc, O = oval, T = twin, Bl = bell, U = urnfield.

No bead has ever been found with a beaker, with the very doubtful exception of one from Wiltshire (S. 16), so doubtful that it cannot rank as evidence.

It is interesting to note, however, that the beads ascribed to this burial are the smallest that have been found in this country (pl. LXIII, fig. 1, no. 6), and somewhat resemble certain small beads from Egypt of the XVIIIth dynasty

TABLE III
Scottish Segmented, Star, and Quoit Bead Associations

Site no.	Type of barrow.*	Skeleton or cremation.	Cinerary urn.	Pygmy cup or small food vessel.	Beaker.	Bronze knife-dagger.	Bronze awl or pin.	Other bronze objects.	Shale, jet, or lignite.	Amber.	Gold.	Bone.	Other objects. F = faience.	No. of beads.
<i>Scottish Segmented Bead Associations</i>														
S 40	B ?	C	x	..	..	..	..	..	..	..	..	..	.. ..	1
S 41	O	C	x	..	..	..	..	..	..	..	x	..	F. star bead	2
S 42	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	2
S 43	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	1
S 44	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	12
S 45	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	5
<i>Star Bead Associations</i>														
S 46	?	C	x	..	..	..	..	..	..	..	..	..	.. ..	1
S 47	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	1
S 48	O	C	x	..	..	..	..	..	..	..	x	..	F. seg. beads	1
S 49	B	C	..	..	..	..	x	..	..	..	..	..	.. ..	1
S 50	B	C	x	..	..	..	..	..	..	..	..	x	F. quoit bead	1
S 51	..	..	..	..	..	..	..	..	..	..	..	..	.. ..	1
S 52	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	3
S 53	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	1
S 54	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	8
S 55	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	2
S 56	..	..	..	..	..	..	x	x	..	..	..	..	L.B.A. hoard	1
<i>Quoit Bead Associations</i>														
S 57	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	2
S 58	B	C	x	..	..	..	..	..	..	..	..	x	F. star bead	1
S 59	?	C	x	..	..	..	..	..	..	..	..	..	.. ..	1
S 60	B ?	C	x	..	..	..	..	x	x	x	..	x	F. seg. beads	1
S 61	B ?	C	x	..	..	..	..	..	..	..	..	x	(Bronze chisel)	1
S 62	Sur.	..	..	..	..	..	..	..	..	..	..	..	.. ..	6

* B = bowl, O = oval, Sur. = surface find.

(pl. LXVIII, 7). Also, no bead has ever been found with a food vessel of the typical northern variety.¹ We do not consider, therefore, that there is any evidence of an Early Bronze Age date for any of the beads.

¹ Note, however, the two little 'links of beads' of some mineral substance of bluish colour found in a food vessel at Lug na curran, Queen's County (Abercromby, *B.A.P.*, 1912, i, 118, 123). This vessel probably belongs to the end of its series and may be a late survival in Ireland.

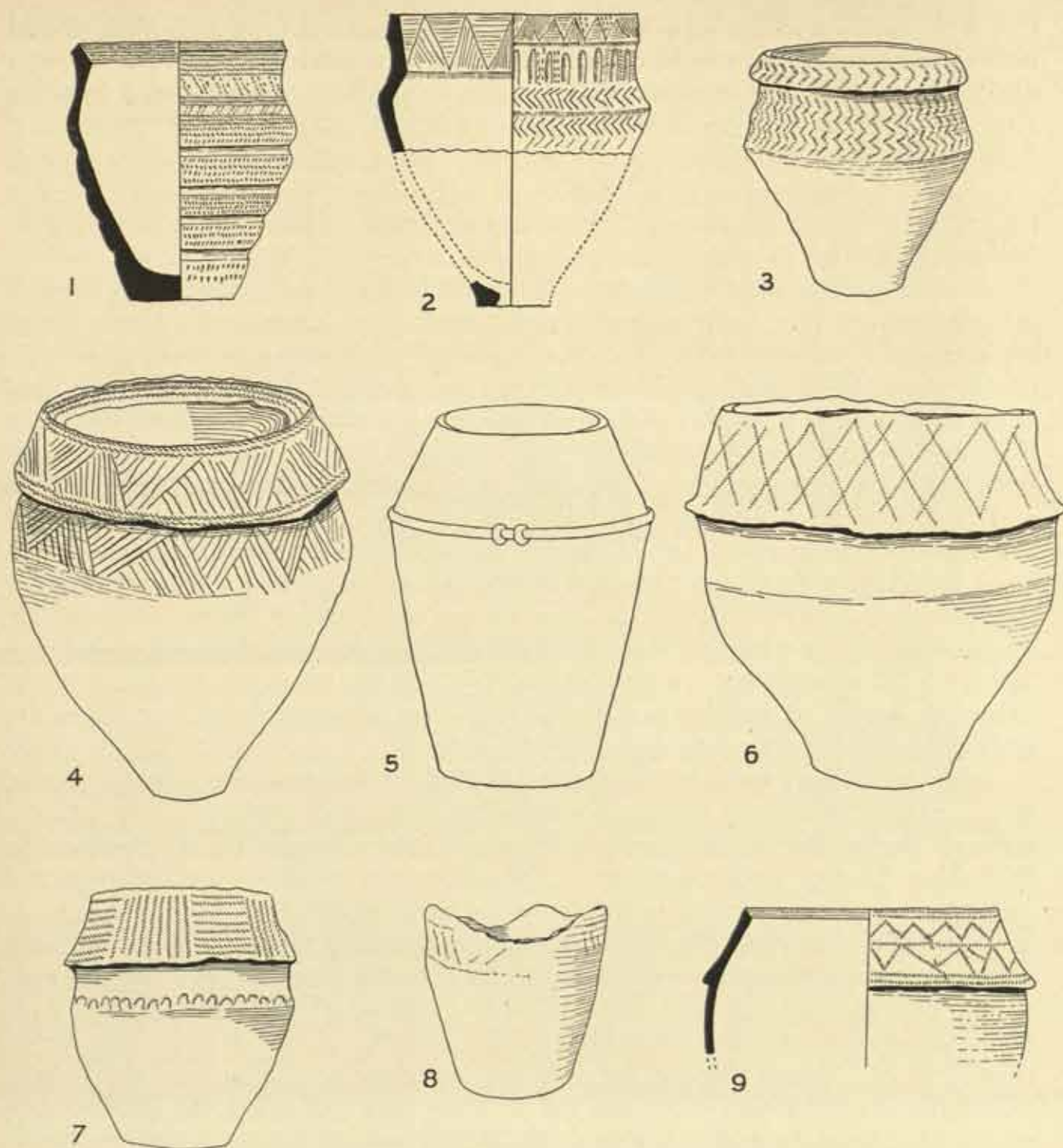


Fig. 1. Objects associated with British Faience Beads

- | | |
|--|---|
| 1. Llangwm, Denbighshire. After the Rev. Ellis Davies. $\times \frac{1}{2}$ | 5. Near Dorchester, Dorset. After <i>Archaeologia</i> . $\times \frac{1}{2}$ |
| 2. Llangwm, Denbighshire. After the Rev. Ellis Davies. $\times \frac{1}{2}$ | 6. Bloxworth Down, Dorset. $\times \frac{1}{2}$ |
| 3. Tynning's Farm, Blackdown, Somerset. After <i>Proc. Spel. Soc.</i> $\times \frac{1}{2}$ | 7. Easton Down, Winterslow. $\times \frac{1}{2}$ |
| 4. Calais Wold, Yorkshire. After Mortimer. $\times \frac{1}{2}$ | 8. Ardeer Cairn, Stevenston, Ayrshire. After <i>P.S.A. Scot.</i> $\times \frac{1}{2}$ |
| | 9. Oxsett Bottom, Sussex. $\times \frac{1}{2}$ |

The only cinerary urn which is typologically early and which would normally be placed in the Middle Bronze Age is the Mendip urn (fig. 1, no. 3 and S. 10). Although degenerate overhanging-rim urns survived well into the Late Bronze Age it is possible that the urns from Calais Wold (fig. 1, no. 4 and S. 36), Bloxworth Down (fig. 1, no. 6 and S. 5) and Oxsettle Bottom (fig. 1, no. 9 and S. 12) belong also to the Middle Bronze Age. The Easton Down urn (fig. 1, no. 7 and S. 35), having been found in a type of flat cemetery, probably belongs to a later period.

Typologically the remaining urns belong to the Late Bronze Age, though it is recognized that, from a ceramic point of view, no sharp line of demarcation separates the two periods. Thus we have an encrusted urn from Holywell (S. 8), a cordoned urn from Balneil (fig. 2, no. 1 and S. 61), and one of somewhat similar type from Mill of Marcus (fig. 2, no. 4 and S. 40), a small urn from Cornwall (S. 2) which Abercromby placed in his Rimbury¹ group, and biconical urns of late type from Dorchester (fig. 1, no. 5 and S. 50), Ringwold (fig. 2, no. 2 and S. 9), and possibly Idmiston Down (S. 23). The biconical or bucket-shaped urn from Ayrshire (fig. 1, no. 8 and S. 41) was associated with fifteen others even more bucket-like and was placed by Abercromby in his latest period 5, though, as Gordon Childe has pointed out, no foreign influence need be invoked in this instance.² Miss L. F. Chitty tells us that the food vessel and urn from Llangwm (fig. 1, nos. 1, 2, and S. 3) possess strong Irish affinities and probably represent a reflex across the Irish Sea of native Irish developments arising in the Late Bronze Age.

Of the pygmy vessels, the pedestal cups with expanding brims (fig. 2, nos. 5, 10) are, in view of certain associated objects, usually placed in the Middle Bronze Age. The type is very uncommon and appears to be confined to Wiltshire, Dorset, and Somerset. The other two pygmy vessels illustrated (fig. 2, nos. 3, 6) were found in the biconical urn from Ringwold.

Associated objects of bronze, other than a number of simple awls and pins, are rare. Knife-daggers are known to have had a long history,³ and are considered to have terminated about 1300 B.C., during the Middle Bronze Age. Four possible associations have been recorded (fig. 2, nos. 8, 11). We are indebted to Mr. Stuart Piggott for pointing out to us the similarity of the Balneil chisel (fig. 2, no. 7, and S. 61) to the trunnion celts of the Late Bronze Age which have been fully described by Mr. W. J. Hemp.⁴ It may, however, be re-

¹ The Deverel-Rimbury or Urnfield culture is characterized by bucket, barrel, and globular urns which reached the southern counties from the continent about 700 B.C. For a full discussion of this Late Bronze Age immigration see C. F. C. Hawkes, *Antiq. Journ.*, xiii (1933), 412.

² *Prehistory of Scotland*, 1935, 131.

³ *Arch. Camb.*, 7 S, viii (1928), 145; *Wilts. Arch. Mag.*, xlv (1931), 432.

⁴ *Antiq. Journ.*, v (1925), 51.

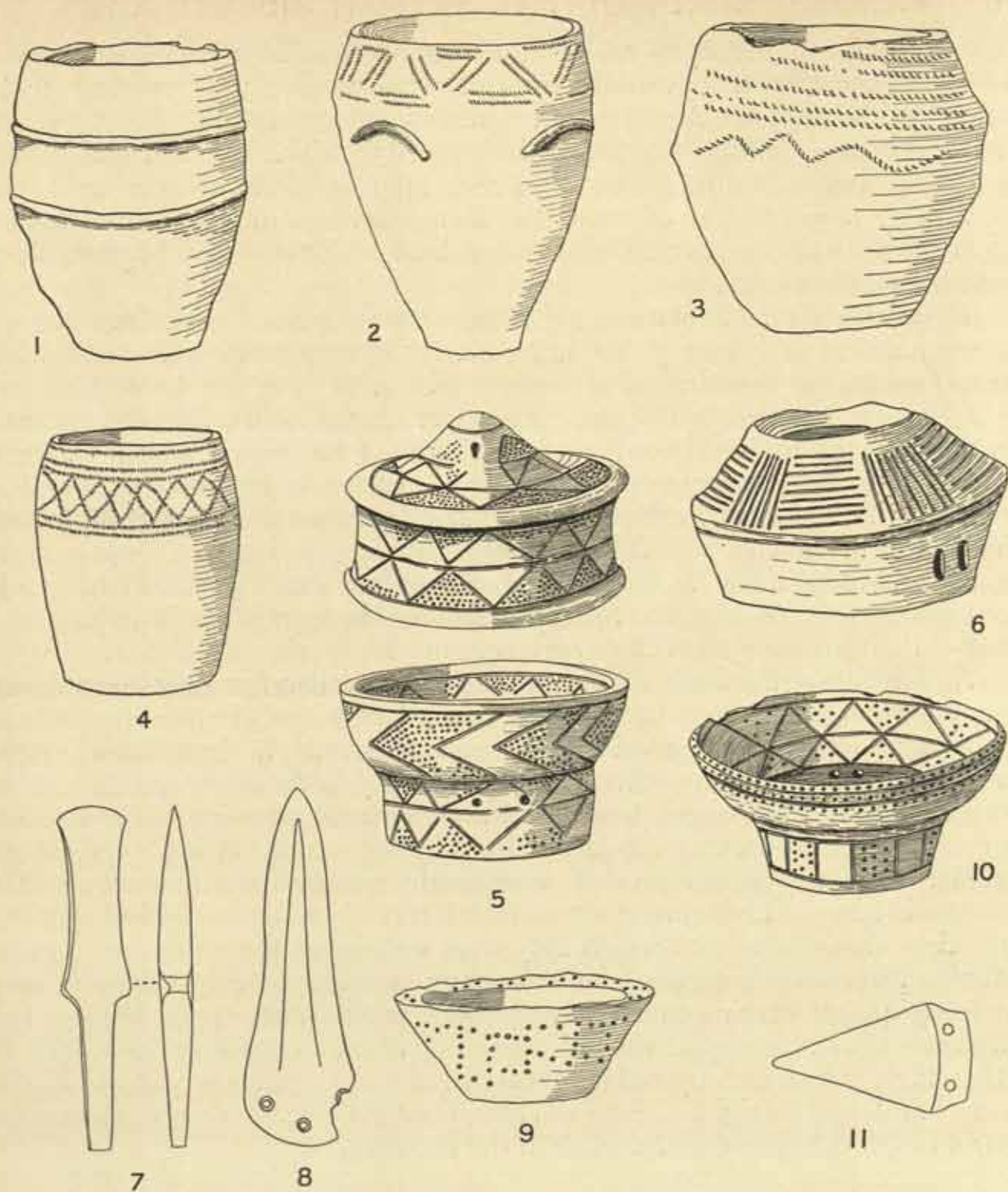


Fig. 2. Objects associated with British Faience Beads

- | | |
|--|---|
| 1. Balneil, Wigtownshire. $\times \frac{1}{2}$ | 6. Ringwold, Kent. After <i>Archaeologia</i> . $\times \frac{1}{2}$ |
| 2. Ringwold, Kent. After <i>Archaeologia</i> . $\times \frac{1}{2}$ | 7. Balneil, Wigtownshire. $\times \frac{1}{2}$ |
| 3. Ringwold, Kent. After <i>Archaeologia</i> . $\times \frac{1}{2}$ | 8. Figgheldean G. 12, Wilts. $\times \frac{1}{2}$ |
| 4. Mill of Marcus, Brechin, Angus. $\times \frac{1}{2}$ | 9. Winterbourne Stoke G. 68, Wilts. $\times \frac{1}{2}$ |
| 5. Aldbourne G. 5, Wilts. After British Museum <i>Guide to Bronze Age</i> . $\times \frac{1}{2}$ | 10. Oakley Down, Dorset. $\times \frac{1}{2}$ |
| | 11. Amesbury G. 44, Wilts. After Stukeley. $\times \frac{1}{2}$ |

lated to certain small narrow palstaves with transverse blade occasionally found in these Islands and in Denmark; from such information as is available these suggest a Late Bronze Age date.¹ Of almost equal importance is the Late Bronze Age hoard from Derryhale in Ireland (S. 56) which included a star bead; but here evidence of direct association rests upon an old label alone.

Notice may also be taken of the abundance of amber, jet, and lignite objects, which proves that these were valued and marketable commodities when the beads were in use.

From this brief summary of the association evidence it is obvious that we are not justified in deducing that an absolutely homogeneous phase of culture existed during the distribution of these beads. Evidence can be adduced, as we have seen, to suggest that some beads were in use earlier than others. The total absence of any such beads in typical urns of the true southern Deverel-Rimbury complex² proves that the fashion of wearing such beads was absent in the later and must be ascribed to the earlier part of the Late Bronze Age, whilst their occurrence in Middle Bronze contexts proves that they were in circulation at that time. It is, of course, recognized that a number of the Late Bronze Age associations come from the outlying Highland Zone of Britain, and some of the beads may therefore represent heirlooms.

As a result of the study it seems to us probable, therefore, that the majority of the normal segmented beads were in circulation in the Middle Bronze period although they extended into the earlier part of the Late Bronze Age. The other varieties, on the other hand, appear only in the latter or a Transition period. We must not forget, however, one remarkable property of the English segmented beads—namely the large size of perforation. When we come to consider the foreign affinities of such beads we shall see how rarely this property is found. Therefore it seems that if these beads were imported at the same time the objects with which they were associated must also be roughly contemporary. When we consider how long a period must elapse in perfecting the technique of making articles in such a complex material as faience, the comparatively sudden appearance of these objects in a fully developed state, as well as their comparatively sudden disappearance, is a point very decidedly in favour of a foreign origin. There would appear to be little or no evidence for a period of development and decline in the industry.

WESTERN CONTINENTAL SPECIMENS

The extreme rarity in western Europe of segmented beads of Wiltshire type is one of the most puzzling facts in the study of these beads. Several

¹ Miss Chitty tells us that these suggest the Native-plus-Atlantic tradition rather than that of the 'sword-bearers'.

² See above, footnote 1, p. 218.

reported specimens proved to be of different material, with the result that there are only three instances about which we can be certain. These are (1) the Odoorn necklace from Holland, (2) the Parc-Guren bead from Brittany, and (3) the Spanish beads from Fuente Alamo. In addition to these we have heard that specimens resembling the faience ones have been found in Portugal, but we have been unable to prove this.¹

(1) The Odoorn necklace, Holland (pl. LXVI, fig. 1, no. 1 and S. 38).

Mr. C. F. C. Hawkes has drawn our attention to a remarkable necklace of tin, faience, and amber beads from Holland. This necklace has not been published before, and we are greatly indebted to Dr. A. E. van Giffen for permitting us to describe it. It is one of the most perfect specimens of Bronze Age necklaces that has been found. There are twenty-five beads of pure tin, many of them roughly segmented, which recall the one segmented tin bead from Sutton Veny, Wiltshire, and now lost. The only other objects of pure tin of the period, of which we are aware, are a ring and a pilgrim bottle, both Egyptian of about the XVIIIth dynasty,² and some spiral (pl. LXIX, fig. 2, no. 13) and short cylinder beads from Northern Nigeria which are stated to have been associated with megalithic bridge builders.³

The four faience beads are identical with those from Wiltshire, and it is possible that they were derived from that county. The amber beads are in a marvellous state of preservation, and some are identical with the amber beads on the Bronze Age Irish necklaces referred to above.

There can be little doubt that this necklace gives striking confirmation to the view that a trade route from the Baltic to England, conveying amber in one direction and tin in the other, passed through Holland.⁴

(2) The Parc-Guren bead, Brittany (pl. LXVI, fig. 1, no. 2, and S. 37).

This bead was found by M. Le Rouzic in 1926, and is now in the Carnac Museum. It is a typical specimen of the cylindrical segmented bead, and must have come from the same source as those found in Wiltshire.

(3) The Fuente Alamo beads, Spain (pl. LXVI, fig. 1, no. 3, and S. 39).

These beads, eight in number, were found by the late M. Louis Siret who

¹ Miss L. F. Chitty, *J. Galway Arch. Soc.*, xvi (1935), 132, note 25: 'in recording Portuguese finds it seems apposite to mention that 5 small beads, either of weathered callais or of paste, are scored round the girth into 2, 3, or 4 segments. . . . 4 are from dolmens of Alemtejo (M.E.P., Belem) and one from Cascaes grotto (Geol. Mus., Lisbon). . . . True segmented beads of Egyptian type are unrepresented in Portugal, but a bright green bead (M.E.P., no. 11683) from the Castello de Pragança, a site occupied from the Eneolithic till after the Late Bronze Age, is of biconical [barrel] form in 6 segments resembling 2 from Boscregan, Cornwall'.

² A. Lucas, *Ancient Egyptian Materials and Industries*, 1934, 209.

³ Spiral bead in the Cambridge Museum of Archaeology and Ethnology; short cylinder bead B/1119.

⁴ A. E. van Giffen, *Die Bauart der Einzelgräber*, 1930, 120-2.

dated them in the final phase of the El Argar culture *c.* 800 B.C. Our illustration is taken from a tracing made by him from a published plate. We have been unable to obtain a photograph of the actual beads as they cannot now be found in the Cinquantenaire Museum, Brussels, where they were sent by M. Siret.

FOREIGN AFFINITIES

In searching for the origin of the British segmented beads we have thought it advisable to try and find the origin of segmented beads generally, since some of them are without question much earlier than the British specimens. We have shown that it is highly probable that these beads were made by the butter-pat method; and since, if the angle of the butter-pats is slightly altered, a spiral bead results, it became necessary to study also many of the spiral beads, especially as faience spiral beads have been found in Scotland. Such segmented and spiral beads have been made in many countries and at very different dates.

It has already been pointed out that the British segmented beads have been made from several materials, including faience, glass, bone, tin, bronze, gold, and jet. In other countries several other materials have also been used, such as lapis lazuli, calcite, gypsum, amber, steatite, and blue frit.

The earliest known form of segmented bead consists of one complete segment in the centre with half a segment at each end (pl. LXVII, fig. 1, no. 1). This specimen is made of a translucent calcite and comes from Tell Arpachiyah in Mesopotamia. It belongs to the very early Tell Halaf period, a period which has not yet been given an actual date, though one before 4000 B.C. has been suggested. It is earlier than the Al 'Ubaid period which many people think dates from the fourth millennium B.C.

A number of segmented and spiral beads from various places in Mesopotamia are shown in pl. LXVII, fig. 1 and pl. LXIX, fig. 1. The second specimen (pl. LXVII, fig. 1, no. 2) is also from Tell Arpachiyah north of Nineveh; it is of the usual type, is made of black limestone, and belongs to the Al 'Ubaid period.

Although segmented beads are not common in Mesopotamia they show great diversity in shape, material, and date. This is very different from Egypt where there are two main periods, and the great majority are made of faience, and where most of the few exceptions are made of frit.

The Jemdet Nasr period which followed the Al 'Ubaid period has produced several varieties of segmented beads (pl. LXVII, fig. 1, nos. 3-5) and some segmented pendants, two of which are shown on pl. LXVII, fig. 1, nos. 6, 7. These are made of a material which seems to be a fine pottery. Both come from the great pit at Nineveh dug by Drs. Campbell Thompson and Mallowan;

they are evidently pendants, although no. 6 has the perforated end broken off. A somewhat similar pendant has been found at Matmar, Egypt, and dated between 2800 and 2600 B.C. (pl. LXVIII, no. 2).

Only one of the cylindrical segmented beads here illustrated from Mesopotamia, and made during the period of the Royal Graves, was carved out of stone (pl. LXVII, fig. 1, no. 13), but five out of the seven segmented barrel beads of the same period were made of lapis lazuli or steatite. The grooves cut round them were sometimes filled with gold wire. A bead of this type is shown on pl. LXIX, fig. 1, no. 3; this has a modern copper wire instead of a gold one, but specimens have been found with the gold wire still in position.

The method by which the grooves were made round the faience and pottery beads was, as already mentioned, to impress them by means of a grooved board. This is clearly seen on pl. LXVII, fig. 1, no. 6, where the two ends of the groove do not meet.

Special attention may be drawn to the glazed steatite segmented bead from Kish, now in the Ashmolean Museum (pl. LXVII, fig. 1, no. 10). It belongs to the Jemdet Nasr period. In the Larsa period, about 2000 B.C., some carefully finished segmented beads of faience were made, some of which have a very acute angle on the segments (pl. LXVII, fig. 1, nos. 17-20).

None of the specimens that we have seen from Mesopotamia is sufficiently similar to the Wiltshire beads to make us think that the British beads have come from that country.

Great quantities of segmented beads come from Egypt, and a representative collection is shown on pl. LXVIII. The great majority are typical segmented cylinders which vary greatly in size. Three spiral beads are also included; 18 because it shows so clearly that a butter-pat method has been employed, the outline at the bottom of the illustration being clear and of the correct shape, whilst the outline at the top is muddled by the grooves not meeting in quite the correct place. The two other spirals, 1 and 3, are also made of faience and both are two-start spirals. The first comes from a site of the 1st dynasty and the other from one of the VIth. The pendant, 2, has already been referred to.

We have been unable to find any true segmented beads from Egypt of an earlier date than the VIth dynasty (2800-2600 B.C.) and these are all of the small size (pl. LXVIII, 4). They are coloured blue, green, and red, and resemble somewhat the smallest type of Wiltshire bead. Such faience beads occur throughout the First Intermediate period, but rarely, if ever, are found during the XIIth dynasty (2000 B.C.).

In the XVIIIth dynasty (1600-1300 B.C.) these beads are again found in great quantities but they now vary in size to a considerable extent. At Tell el Amarna,

where a great variety of faience beads has been found, the usual size seems to have been that shown in pl. LXVIII, 5 and 6, which is also about the size of the English large beads, but a great number has also been found as small as those in 7. The Egyptians continued to make this type of segmented bead at least as late as the XXIIIrd dynasty (750 B.C.), but they are not very common after that date.

An excessively large segmented bead is illustrated (pl. LXVIII, 20). This is supposed to come from Egypt although the glaze, which is coloured with copper, is much more primitive in appearance than most of the Egyptian glazes. The bead 19 is also both as regards shape and glaze unlike an Egyptian bead, but there is strong evidence that it came from that country.

One of the most striking differences between the Egyptian and Wiltshire beads is the size of the perforation. All the English beads of the larger size have, as already noted, very large perforations, whilst almost all the Egyptian beads have small perforations. We have recently seen one from Tell el Amarna which has a large perforation, but it is totally unlike any from England.

The beads which appear to us to resemble most closely the British beads, both as regards external appearance and size of perforation, are shown on pl. LXVIII, 12 and 13. These come from grave 1808 A at Abydos, excavated by the Egyptian Exploration Society in 1926. They were directly associated with a scarab of Amenhotep III (1412-1376 B.C.) and thus date from the XVIIIth dynasty. They formed part of a long string of beads and, as the outside shape was so similar to the Wiltshire beads, a few were detached some years ago for comparison at a later date. On recent examination it was discovered that all except one of the beads which had been removed were made of frit and not faience, and in this way differed from the Wiltshire beads, since no specimen of frit has as yet been reported from the British Isles. The remaining bead, however, was made of faience (13). It has only two segments, but is remarkably similar to the Wiltshire beads. Unfortunately the main string was sent to Australia, with the result that it is now probably impossible to find out whether the other segmented beads upon it are of faience or not.

Egyptian segmented barrel beads are uncommon, but specimens have been found at Qau from the First Intermediate period,¹ and some large ones have been found at Tell el Amarna.²

Specimens of segmented beads from countries other than Mesopotamia, Egypt, or Western Europe, are shown on pl. LXIX, fig. 2. One of the most important of these countries was India. Amongst the collection of beads from the

¹ *Qau and Badari*, ii, pl. cii, 80, 12.

² A specimen from this site is in the Cambridge Museum of Archaeology and Ethnology, no. 24-908.

Indus site at Harappa, which was sent to this country for report, were two faience segmented cylinder beads (pl. LXIX, fig. 2, no. 1). These are now white, but the remains of glaze shows that they were originally blue. Except for the fact that the material is finer and harder and that the glaze has flaked off, they greatly resemble the Wiltshire beads. They are, however, dated 2750 B.C. A red pottery bead of the same date was also submitted for examination; this closely resembled the bead from Mesopotamia shown in pl. LXIX, fig. 1, no. 2.

The bead shown on pl. LXIX, fig. 2, no. 2 is from Nihavand in Persia. This is made of faience and has some resemblance to the Scottish segmented beads, but it is probably very much earlier, although its actual date is uncertain.

Fig. 2, nos. 3, 4, and 5 of pl. LXIX are metal beads from the Swiss Lakes and probably date about 1500 B.C.; nos. 3 and 4 are made of a bent up wire, but 5 looks more like a plate of metal which has been bent into a cylinder and subsequently scored.

Fig. 2, nos. 6 and 7 on the same plate from Cyprus are also made from wire which had been carefully shaped before winding, as the centre segments are so much larger than those at the ends. There is in the British Museum a long string of faience segmented beads from Enkomi, Cyprus, which are dated between 1300 and 1100 B.C.¹ They do not, however, resemble the Wiltshire beads.

The small bead from Cameiros in Rhodes is of interest as it is made of frit (pl. LXIX, fig. 2, no. 8). We have seen several specimens from this site.

The faience segmented beads from the Temple Repositories at Knossos have been suggested as a possible source for the British beads.² The only specimen that we have personally examined (pl. LXIX, fig. 2, no. 9) is unlike the Wiltshire specimens in material, type of segmentation, and size of perforation; it is dated about 1600 B.C. With the exception of this small hoard we have been unable to find any from Crete. They appear to be very uncommon, as both Mr. R. W. Hutchinson and Dr. Marinatos have kindly searched the Candia Museum for us without finding any others.

A solitary bead of amber (pl. LXIX, fig. 2, no. 10), which is the only amber segmented bead we are aware of, was found in a sub-Mycenean chamber tomb in Kephallonia. It is dated about 1200 B.C.

During recent excavations at Lachish (Tell Duweir) in Palestine, undertaken by the Wellcome Archaeological Research Expedition to the Near East, some segmented beads were found. Four of these are illustrated on pl. LXIX, fig. 2, nos. 11 and 12, and can be dated fairly closely 1200–1150 B.C. The largest

¹ See also A. S. Murray, *Excavations in Cyprus*, 1900, pl. ix, fig. 305, and E. Gjerstad, *Studies on Prehistoric Cyprus*, 1926, 250.

² *Palace of Minos*, i, 490.

³ Marinatos, *Excavations*, 1934.

(no. 11), in addition to having a general resemblance to the Wiltshire beads, so far as external appearance is concerned, has also a ringed projection at the broken ends which recalls the rings at the ends of some of the Wiltshire beads, the Ringwold oblate bead (pl. LXIII, fig. 2, no. 4) and the Lakenheath beads (pl. LXV, fig. 5, no. 1). The other beads from the same site (pl. LXIX, fig. 2, no. 12) show in their outside shape a marked resemblance to the Wiltshire beads and, in addition, the perforation, whilst not being quite so large as in the British beads, is decidedly larger than that of most of the Egyptian and Mesopotamian specimens.

Spiral beads made of tin have been found in Nigeria. One of these from the Lafou River, on the Bauchi Plateau, is shown on pl. LXIX, fig. 2, no. 13, and is made of twisted wire. Its date is unknown, but it is supposed to be connected with a civilization which built megalithic bridges.¹

The other specimens illustrated on pl. LXIX are of glass; they are not so early as those previously referred to, but all except the last are some centuries B.C. The final specimen (no. 18) is from Hungary and belongs to the Sarmatian period, *c.* 200 A.D.

When we look for affinities to the star and quoit beads we find that they are almost entirely absent. In pl. LXVII, fig. 2, we have figured all the star beads which we could find. The first has very long arms and is perforated in the wrong direction. The second, from Tell el Amarna, is a far better made bead than the British specimens. In the third specimen, however, there is a considerable resemblance, but again the bead is much better made and is decidedly smaller than the British star beads. This specimen is in the University College Collection where there are several on a short string. Their provenance is unknown, but they probably date about the XIXth dynasty. All these beads are Egyptian.

Qwoit beads are also practically unknown outside the British Isles. The two specimens illustrated (pl. LXVII, fig. 3, nos. 1 and 2) have not much resemblance to the British beads. The first is larger and is made of frit; also the perforation is relatively small. The other bead (?) has much the shape of the Scottish beads but is about five times the diameter; it may have been an armlet. The glaze is a deep blue colour, and is firmly attached to a red base which appears to be pottery.

This almost complete lack of affinities for the British star and quoit beads is one of the most difficult facts to explain.

¹ Cambridge Museum of Archaeology and Ethnology. 'They were found in 30 ft. deposits. The natives were loth to give them to us as they said they were "Tsofon aiki" or "Aiki(n) tsofo"—"old works" or "works of old men" (Hausa)'—information sent to Professor C. G. Seligman by the collector, G. Wilkinson.

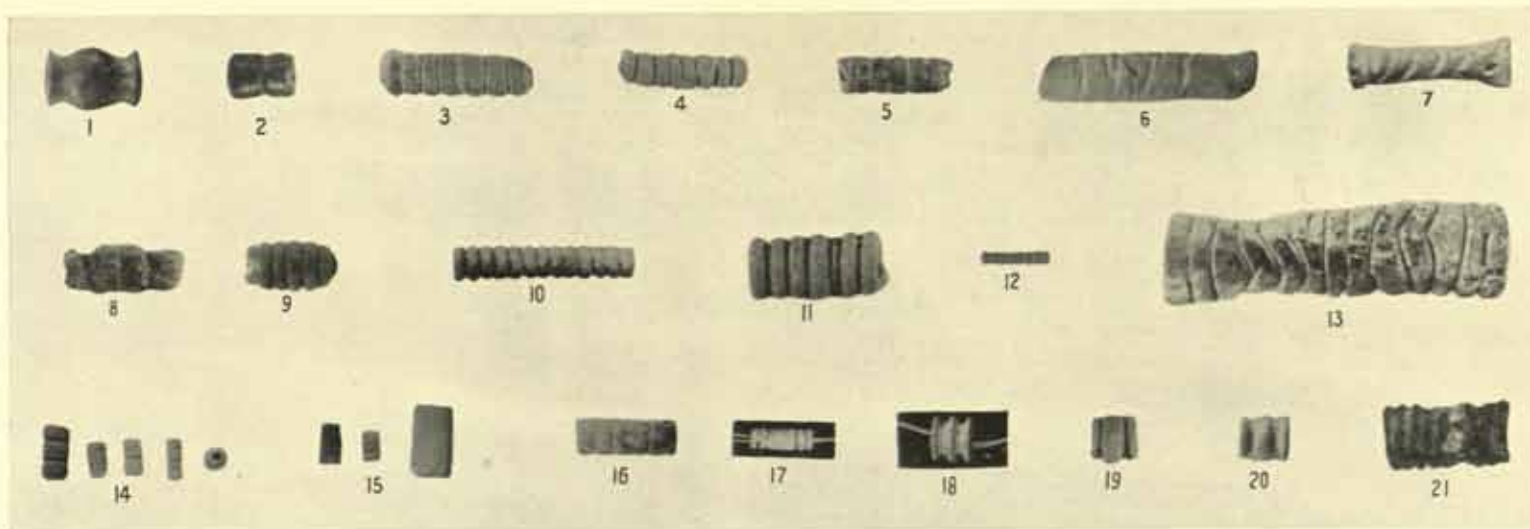


Fig. 1. Segmented Cylinder Beads and Pendants from Mesopotamia. $\times 1$

1. Calcite, translucent. Tell Arpachiyah. Tell Halaf period. B/2520 a.
2. Steatite, black. Tell Arpachiyah. Al 'Ubaid period. B/2520 b.
3. Red Pottery. Ur. Jemdet Nasr period. B/2438 c.
4. Red Pottery. Ur. Jemdet Nasr period. B/2438 d.
5. Faience (?), black. Ur. Jemdet Nasr period. B/2438 b.
6. Red Pottery, part of pendant. Nineveh. Jemdet Nasr period. British Museum.
7. Red Pottery pendant. Nineveh. Jemdet Nasr period. British Museum.
- 8, 9. Faience with extra large quartz grains; black but originally coloured. From Bead Layer at Nineveh. B/2096 b, c.
10. Glazed Steatite, blue. Kish. Jemdet Nasr period. Ashmolean Museum (1926-460).
11. Blue frit (?). Ur. Jemdet Nasr period. B/2435 b.
12. Blue frit. Ur. Date? B/2435 a.
13. Gypsum, much altered by pressure. Period of Royal Graves. B/2516.
14. Hard frit, pale blue. Ur. Period of Royal Graves. B/2521 a.
15. Soft frit, blue. Ur. Period of Royal Graves. B/2521 b.
16. Lapis lazuli, blue. Ur. Sargonid period. B/2517.
- 17, 18, 19, 20. Faience, white but originally blue. Ur. Larsa period. B/2439 a, b, c, 2440 a.
21. Copper or Bronze. This bead has been made by scoring a metal plate and then bending it round. Ur. Date? B/1369.

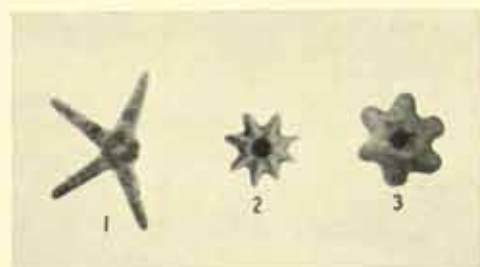


Fig. 2. Egyptian Star Beads. $\times 1$

1. Faience, blue. XIIIth dynasty c. 2000 B.C. B/2518.
2. Faience, blue. Tell el Amarna. XVIIIth dynasty. B/2519.
3. Faience. XIXth dynasty (?). Edwards Collection, Univ. College, London.

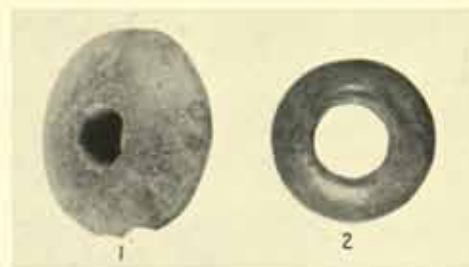
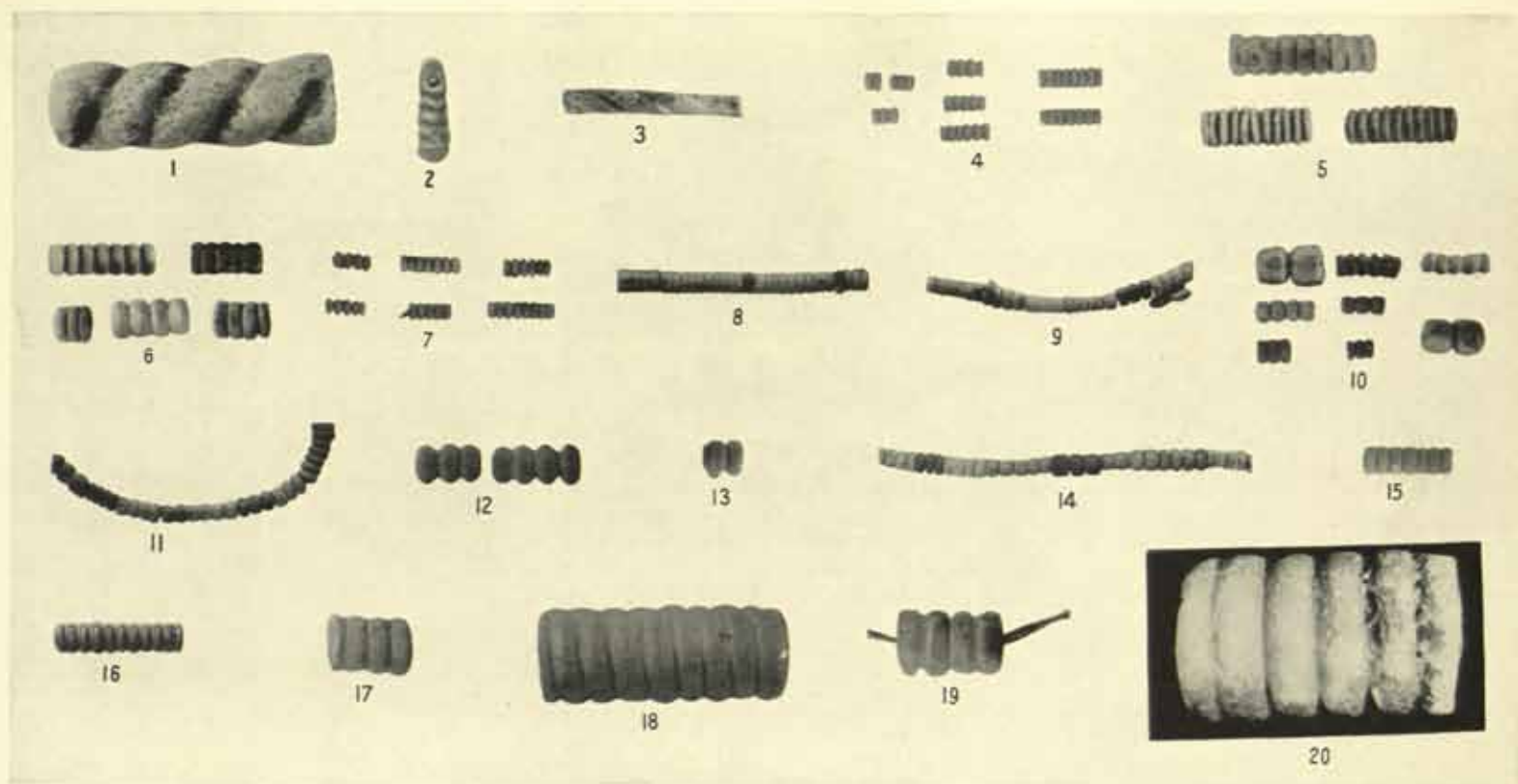


Fig. 3. Egyptian Quoit Beads

1. Frit, blue. XXIIIrd dynasty (?). B/2526. $\times 1$
2. Very large faience object, blue. B/2527. $\times \frac{1}{2}$

Segmented and Spiral Cylinder Beads from Egypt. $\times 1$

1. Faience, white, originally blue. Hierakonpolis. 3500 B.C. B/939.
2. Faience, blue. Matmar. 2800-2600 B.C. B/2185.
3. Faience, blue. Qau. 2800 B.C. B/2182.
4. Faience, blue, green, red. Abydos. 2800-2600 B.C. B/2421.
5. Faience, blue and white. Tell el Amarna. 1350 B.C. B/2216.
6. Faience, blue. Tell el Amarna. 1350 B.C. B/2447.
7. Faience, mostly blue. Tell el Amarna. 1350 B.C. B/1934.
8. Faience, very intense blue. Sakhara. XVIIIth dynasty. B/963.
9. Faience, pale blue and black. Egypt. XVIIIth dynasty. B/1098.
10. Faience, blue, yellow, pink, and black. Egypt. XIXth dynasty. B/2444.
11. Faience, blue, black, and yellow. Egypt. XIXth dynasty. B/1093.
12. Frit, blue. Abydos. XVIIIth dynasty. B/2281.
13. Faience, blue. Abydos. XVIIIth dynasty. This bead most nearly resembles the Wiltshire specimens. B/2281 a.
14. Faience, blue, yellow, and white. Egypt. XXIst dynasty. B/1099.
15. Faience, brown. Qau. XXIIrd dynasty. B/1259.
16. Faience, bright red. Egypt. XXIIIrd dynasty. B/2434 a.
17. Faience, buff. Egypt. XXIIIrd dynasty (?). B/2446.
18. Faience, buff. Egypt. XXIIIrd dynasty. B/2434 b.
19. Faience, pale blue and green. Egypt. XXIIIrd dynasty (?). B/2522 a.
20. Faience, blue in parts. Egypt (?). Date (?). B/2443.

We cannot find an exact parallel to the British faience spacing bead from Holywell, Flintshire, but the general shape is suggestive of Mesopotamia rather than of Egypt, in both of which countries spacing beads were not uncommon.

Oblate beads are found in large quantities in Egypt, and one identical with that stated to have been found at Lakenheath, Suffolk (pl. LXV, fig. 5, no. 1), is shown on pl. LXV, fig. 6. This is of the XVIIIth dynasty and is from Tell el Amarna. It may be compared with the one from Ringwold, Kent (pl. LXIII, fig. 2, no. 4). This, though smaller, appears to be very similar and was found associated with faience segmented beads.

DISTRIBUTION OF FAIENCE BEADS

The distribution of the beads in Great Britain and Ireland is shown in fig. 3, and a mere cursory glance at this is sufficient to emphasize the presence of two geographical foci, in general mutually exclusive: Wiltshire for the normal segmented variety, and Scotland for the others. This dual character of the distribution has long been recognized and has been used as evidence for theories of local origin. It will therefore be necessary to examine this evidence somewhat closely.

The value and dangers of distribution data need not here be stressed, but we feel it necessary to point out that on their positive side such studies can be interpreted in more than one way. An area can act in one of two ways, either as a primary or as a secondary source of distribution. In the first case the commodity is a product of the area in question, and in the second it is not, but has been transported from some other area for subsequent distribution. To take a modern example: window-glass is made in England, the primary source of origin, but its sudden appearance in the island of Tristan da Cunha in quantity, due to the gift of 6 cwt. by His Majesty the King and reported in *The Times* recently,¹ might at some future date be adduced as evidence of glass manufacture in that island. We, however, know that its subsequent distribution there is purely secondary.

Examination of continental affinities of the segmented variety is, as we have seen, surprisingly non-productive. The few beads, significantly associated with tin and amber beads, in Holland, and the solitary specimen from Morbihan,² might well have originated indirectly from Wiltshire. Still farther afield we find one or two possible ones from Portugal, and a group of eight from a grave of El Argar culture at Fuente Alamo in Spain. A pale, bluish-white, segmented,

¹ 22nd February 1935.

² The two beads reported to be of faience from La Hougue Bie, Jersey (*Bull. Soc. Jersiaise*, x (1925), 216), have since proved not to be of this material. Information from Major Rybot, F.S.A.

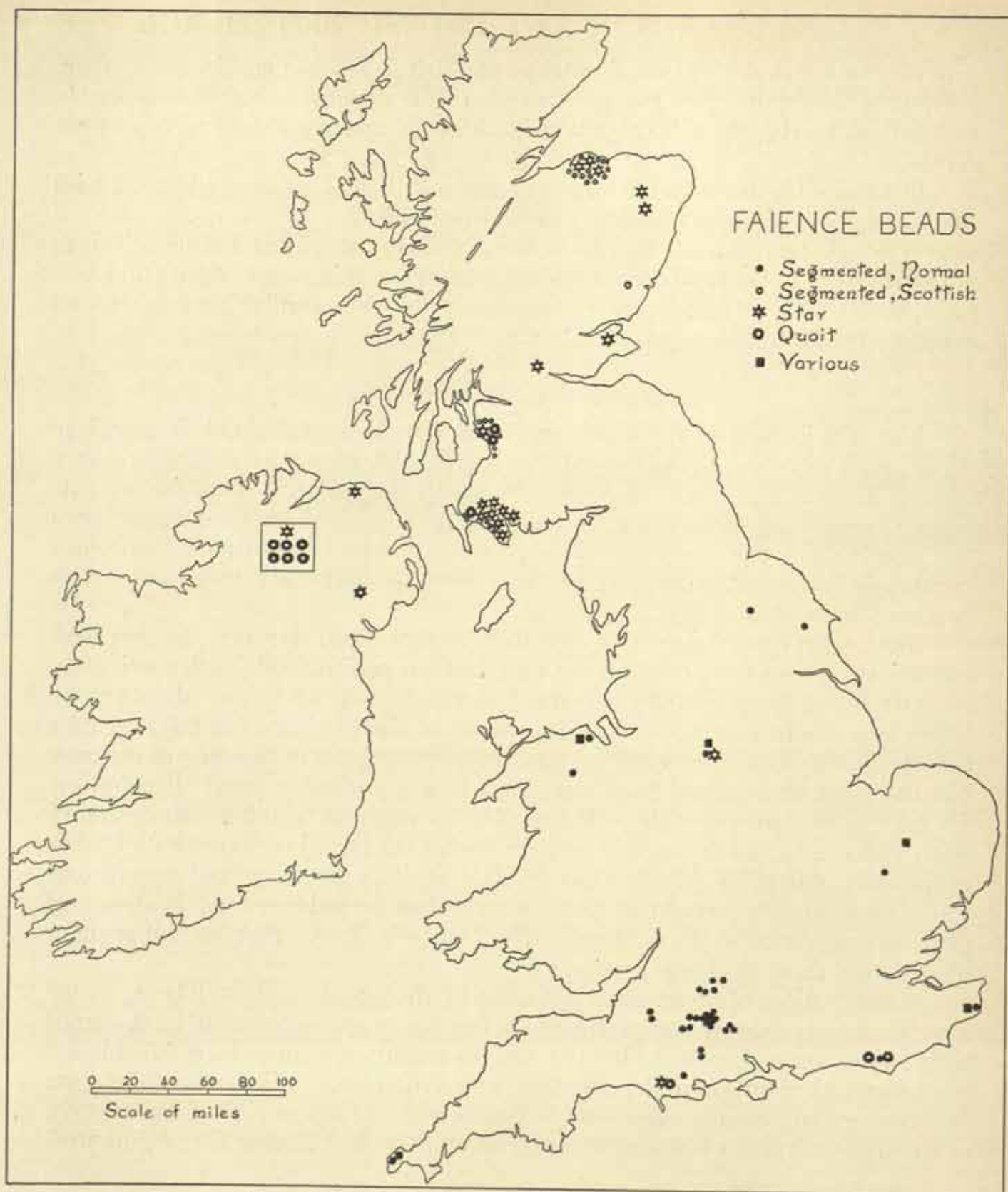


Fig. 3. Distribution of Faience Beads in Great Britain and Ireland
(Each point represents a find irrespective of the number of beads)

unperforated rod, probably of faience, from Majorca¹ completes the list. Thus the Western Mediterranean area is apparently devoid of evidence for a normal trade route. In spite of the abundance of faience segmented beads in Egypt, where this highly specialized material is known to have been made for centuries, the nearest specimens to that country and of British type come from Spain, some 1600 miles from this suggested source of origin. All other specimens are at a still greater distance (fig. 4). Needless to say this form of distribution is an unusual one and might well be used in support of a theory of local origin; but, in the absence of any evidence of glass or faience manufacture in Britain during the Bronze Age, we are forced to the conclusion that the British Isles have acted as a secondary source of distribution. The difficulties entailed in this conclusion cannot be minimized. We appear to have here not ordinary hand-to-hand trade but intentional transshipment of articles to a distant land, which recalls legends of Phoenician commerce of a later period.

Possibly a too rigid adherence to the bead types defined above gives an incorrect picture of the distribution of faience as such. In Malta large numbers of small glazed faience disc beads unrepresented in Britain, but resembling Egyptian beads, have been found in a Bronze Age deposit at Tarxien, significantly associated with numbers of segmented bone beads.² Faience beads have also been found in the Pic des Singes, Bougie, Algeria.³

The lack of transcontinental finds, other than one doubtful segmented bead from Transylvania,⁴ which may well have found its way there via the Aegean, is certainly in favour of a Mediterranean and Western Atlantic sea route, but the people or race who brought them to Britain cannot but remain a mystery. No evidence exists for any theory that Egyptians themselves colonized this country. Objects which might have been made in Egypt, other than the beads, are so far unknown; had Egyptians themselves brought them, scarabs and other objects would probably have been left behind.

A difficulty exists in the dual nature of the distribution in Britain. It appears as if one consignment found its way to Wiltshire, whilst another, consisting of different bead forms not clearly recognized elsewhere, terminated in Ireland and Scotland. Though these groups are roughly contemporary there

¹ Found with bone implements in Talaiaot no. 2, Poblado dels Antigors, Talaia Joana, La Salinas de Santani (Barcelona Museum). Information from Miss Chitty.

² *Archaeologia*, lxxvii, pl. xvi, 3; pl. xvii, 2; also M. A. Murray, *Corpus of Bronze Age Pottery of Malta*, 1934, 4, pls. vii, xli, 6, 7, and 8.

³ *Recueil des Notices et Mémoires de la Société Archéologique du Département de Constantine*, 4 S, viii (1906), 69.

⁴ Childe, *Essays in Aegean Archaeology*, 1927, 2. In a grave at Almas in the Bűrzenland a segmented bead of greenish-blue faience, associated with spectacle spirals of copper (?), was recently unearthed. In the Kronstadt-Brasov Museum.

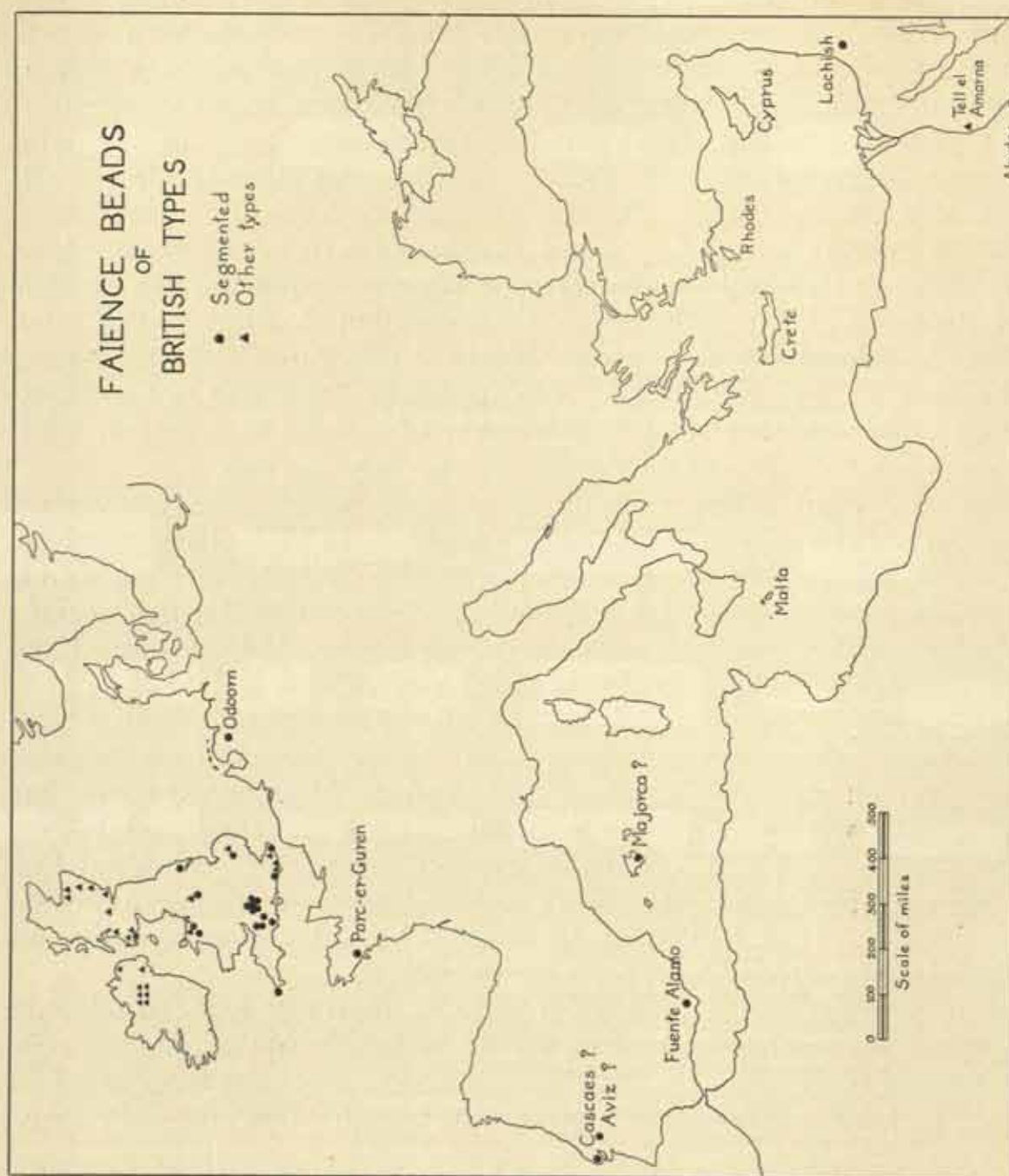


Fig. 4. Distribution of Faience Beads of British types

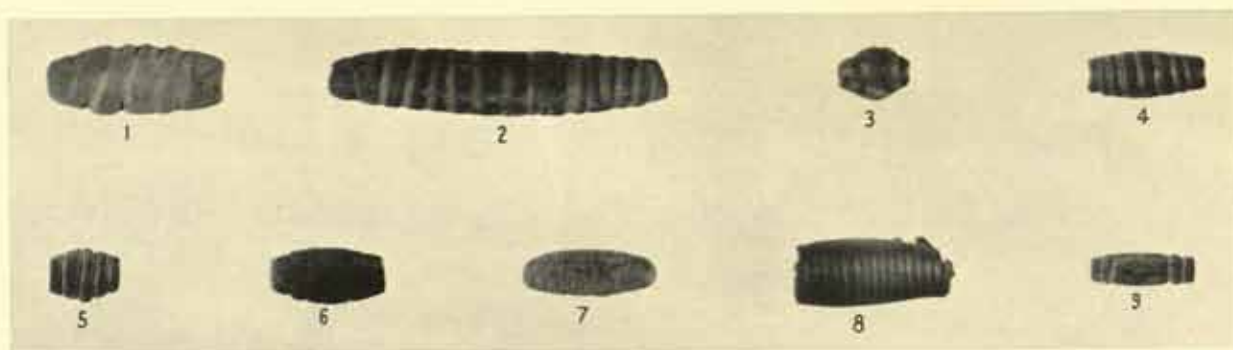


Fig. 1. Segmented Barrel Beads from Mesopotamia. $\times 1$

1. Faience (?), dark grey. Ur. Jemdet Nasr period. B/2438 a.
2. Red pottery or faience, brick red. Ur. Period of Royal Graves. B/2515.
This bead, although found in the layer of the Royal Graves, is very like some beads from the Jemdet Nasr period.
3. Lapis lazuli and metal. Ur. Period of Royal Graves. B/2437
- 4, 5, 6, 7. Steatite, dark grey to black. Ur. Period of Royal Graves. B/1450, 2448, 1290 a, b.
8. Gold foil on bitumen. Ur. Period of Royal Graves. B/1348.
9. Steatite, black. Ur. Date (?). B/1290 k.

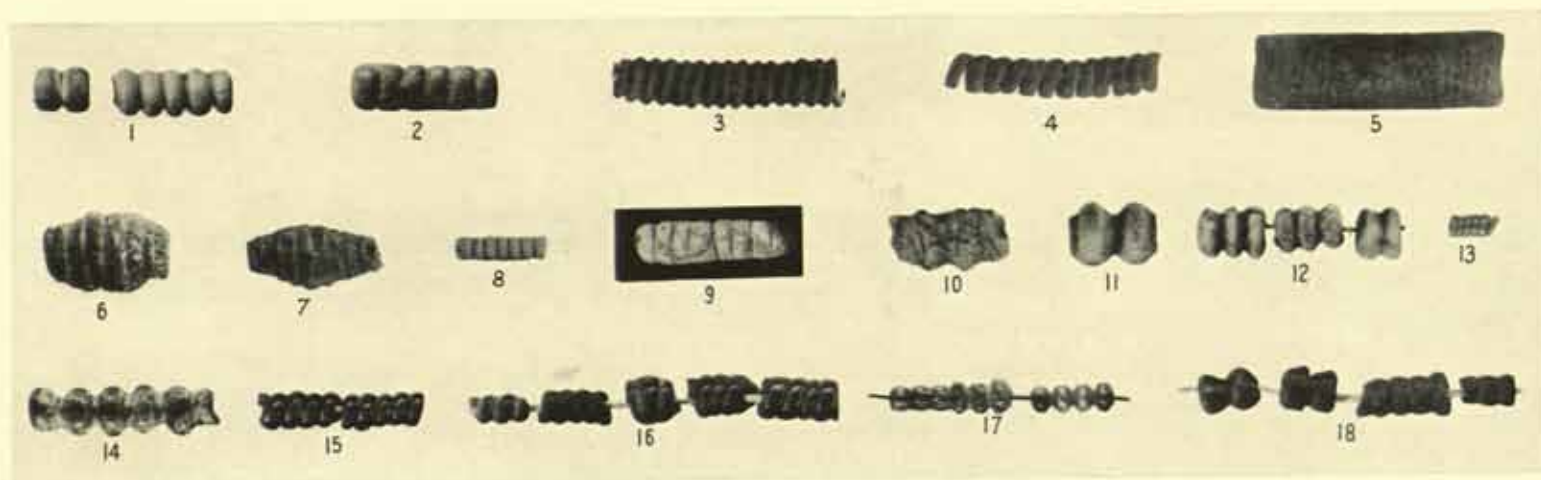


Fig. 2. Segmented Beads from Various Foreign Countries other than Mesopotamia, Egypt, and Western Europe. $\times 1$

1. India, Harappa. 2750 B.C. Faience, white, originally blue. Harappa Museum, 177.
2. Persia, Nihavand. 2000 B.C. (?). Faience, green. B/2441.
- 3, 4, 5. Switzerland, Font. 1500 B.C. Bronze. B/2017, 2018.
- 6, 7. Cyprus, Date (?). Bronze. B/159.
8. Rhodes, Cameiros. 1400-1200 B.C. Frit, blue. B/2442.
9. Crete, Temple Repositories, Knossos. 1600 B.C. Faience, white. B/2526.
10. Kephallonia. 1200 B.C. Amber, dark brown. Candia Museum.
11. Palestine, Tell Duweir (Lachish). 1200-1150 B.C. Faience, whitish-blue. Wellcome Museum, D. 9. D, 228. 60.
12. Palestine, Tell Duweir (Lachish). 1200-1150 B.C. Faience, white. Wellcome Museum, D. 555. 3848.
13. Nigeria, Bauchi Plateau, Lafou River. Date (?). Tin. Camb. Univ. Museum.
14. Mediterranean area. 500-200 B.C. Glass, clear. B/2449.
15. Crimea. 500-200 B.C. Glass, black. B/1264.
16. Damascus. 500-200 B.C. Glass, black. B/2524.
17. Damascus. 500-200 B.C. Glass, transparent. B/2523.
18. Hungary, Budapest. 200 A.D. Glass, very dark. B/2414.

is no reason to suppose that they were planted at these widely separated sites on the same voyage of discovery.

The question of number also needs stressing. Of the normal segmented variety, 121 beads can be traced as a very conservative estimate, and it is reasonable to suppose that many yet remain to be discovered, and many may have been overlooked in former excavations. The absence of numerous intermediate links with a country known to have experimented with and made large quantities of such articles for centuries, makes this concentration absolutely opposed to primitive hand-to-hand trading methods. The same may be said of the other varieties.

SUMMARY AND CONCLUSIONS

Having now presented as much of the evidence as we have been able to collect, it remains for us to draw such conclusions as are warranted by the facts.

Broadly speaking the evidence adduced falls into two opposed and apparently conflicting categories. On the one hand, distribution studies of the specific bead types found in the British Isles, combined with the apparent absence of certain of these types outside the region, weigh heavily in favour of theories of local origin, or at any rate of local manufacture of a number of the beads.

Opposed to this, however, are a number of facts which point to a foreign origin. We have shown that all the British faience beads which we have examined are made of a specific material which had for many centuries been used and experimented with in Egypt, Mesopotamia, and India. This material involves a knowledge of the manufacture of glass or glaze which, there is reason to believe, was completely unknown in this country prior to the Early Iron Age; no evidence exists for any such knowledge throughout the Bronze Age. It may be objected that the very presence of these beads constitutes proof of such knowledge, but it must be borne in mind that all these appear almost suddenly in a fully developed state and almost as suddenly disappear. A period of growth and decline is inevitable in any industry. This particular material, faience, is adaptable to a variety of purposes—witness the many uses to which it was put in the older civilizations, such as the multitudinous bead types, amulets, ushabti figures, and other glazed objects. Yet the only bead forms and pendants we find in Britain resemble those of the Eastern Mediterranean; in the case of the normal segmented variety exactly, but in the star, quoit, and Scottish segmented forms only partly.

As regards the peculiar distribution of the beads in Europe we have suggested the possibility that Britain may have acted as a secondary source of distribution, specific bead types having been imported, for barter perhaps, into the southern counties and up the Irish Channel to Ireland and Scotland.

A study of the foreign affinities of such beads has emphasized the widespread and very ancient use of segmented beads, the significance of which we have been unable to fathom. They are known from the earliest periods in Mesopotamia up to recent times in North America, where the Indians make them of wood and stone.¹

The form of the English segmented beads has been considered, and one outstanding character has been shown to be the size of perforation. In Egypt segmented faience beads were made for a very long period and reached a peak in the XVIIIth dynasty at Tell el Amarna. Though somewhat similar outwardly, scarcely any of the many hundreds examined from Tell el Amarna and other sites have possessed the large perforation of the Wiltshire specimens, and even those which do possess this character are, with one exception, unlike the British beads in other ways. It is a very remarkable fact that only one specimen of a faience segmented bead which is identical with the Wiltshire beads has been found from any country, and no specimen has been found which is identical with any of the star, quoit, or other British varieties, with the exception of the oblate beads from Lakenheath.

The faience segmented bead which appears to be similar in all respects² came from a tomb at Abydos which also contained a scarab of Amenhotep III, dating the bead 1412-1376 B.C. The other specimen is an oblate bead from Tell el Amarna (1380-1350 B.C.) which is identical with one of the oblate beads from Lakenheath. In addition to these two specimens, the beads from Lachish (Tell Duweir) must be seriously considered. These are accurately dated 1200-1150 B.C. As we have already pointed out, these beads, although not identical, resemble the Wiltshire beads more closely than do any others that we have seen. The similarity suggests that identical beads could have been made at the site, and on this account their date becomes important.

It is realized that these three examples are a slender foundation upon which to date the British beads, and it is fortunate that all three can be so accurately dated. The fact that the Lachish beads are so much later, points to the probability that the manufacture of such beads extended over a long period; but, as we have pointed out, the Lachish beads we have examined are not so like the British beads as is the segmented bead from Abydos or the oblate bead from Tell el Amarna.

From the results of our comparison with known and datable beads the

¹ W. C. Orchard, *Beads and Beadwork of the American Indians*, 1929, figs. 28a, 77.

² There is a segmented bead in the Devizes Museum placed with, but not attached to, the card of beads presented by Sir Flinders Petrie for comparison with the Wiltshire beads. There is no evidence where this bead comes from, but as it is lying loose very close to a number of unidentified Wiltshire beads from Colt Hoare's excavations, we think there is little doubt that this bead has become misplaced and comes from an English source.

probable date therefore of some of the British beads appears to be approximately 1400 B.C. On the other hand, the date of the Lachish beads suggests that some may have arrived at a later period. This would explain why some of the objects associated with them belong to the Middle Bronze Age, whilst others appear to belong to a later period.

Our task has been rendered much more difficult through our total inability to find in any country specimens which are identical with the star, quoit, and Scottish segmented beads. If these were imported from Egypt it seems remarkable that none should have been found there.

In conclusion, after considering all the available evidence, our opinion is that the British faience beads are of foreign manufacture, but we have been unable to prove where they were made. Some facts suggest that Egypt or Palestine was the country of origin, but we do not think that there is sufficient direct proof of this. The question of probable date has been carefully considered and, although there is not sufficient evidence in our opinion to make absolutely certain, most of that which we have obtained points to about 1400 B.C. as a date when some of the beads were imported, whilst others were probably introduced at a later date.

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ANNOTATED LIST OF BRITISH AND CONTINENTAL FAIENCE BEADS

SEGMENTED BEADS, GROUP I A

Cambridgeshire

S. 1. Mutilow or Mutlow Hill, Great Wilbraham (near Fleam Dyke).

(*Arch. Journ.*, ix, 227; C. Fox, *Archaeology of the Cambridge Region*, 1923, 35)

In 1852 a small heap of burnt bones was found 3 ft. from the surface and 8 ft. from the southern end of a large mound. In it were chipped flints, 'part of a bronze pin for fastening the cloth in which the bones had been probably wrapped, six long beads of pottery each consisting of five smaller ones united, and a bone pin'. Three of these faience beads are now in the Audley End Museum; (a) $\frac{1}{2}$ in. long, deep serrations, 7 ribs, $\frac{3}{16}$ in. thick; (b) $\frac{9}{16}$ in. long, shallow grooves, 5 ribs, light green; and (c) $\frac{5}{16}$ in. long, grooves like (b), 3 ribs.

Cornwall

S. 2. St. Just in Penwith, Boscregan, Carn Creis.

(*J. Roy. Inst. Cornwall*, vi, no. xxi, 205, pls. II, III; *Archaeologia*, xlix, 187; H. O'N. Hencken, *Archaeology of Cornwall*, 1932, 75)

A ring of stones placed round a natural tabular outcrop of rock had been covered by a cairn which was opened by Borlase in 1878-9. Three cinerary urns were found;

among the bones in one of these, of the handled Cornish type, were a few rough chips of flint, and a 'fragment of a globular vessel of glass' of an olive greenish colour. A short distance from the urns, 'hugging the inner face of one of the stones of the ring', was a small vessel about 4 in. high with imperforate lugs. Near this were some pieces of 'black hard-baked, sand-glazed pottery', with the remains of a cremation of a young woman or child, and twelve beads of turquoise blue colour; ten of the segmented type and two barrel-shaped segmented beads. The latter are of the same length but double the diameter of the segmented ones, and to prevent them from running into one another little perforated discs of Kimmeridge shale had been inserted into each end of the larger beads. A conical button of uncertain material, a heart-shaped stone with natural hole, and the base of a leaf-shaped arrowhead of flint were also found with the beads. Eight of the beads are now in the British Museum (pl. LXIII, fig. 1, no. 3).

Denbighshire

S. 3. Llangwm, Ystrad Fawr.

(Rev. Ellis Davies, *The Prehistoric and Roman Remains of Denbighshire*, 1929, 227)

A cremation in a stone-lined cist in a barrow contained an urn, possibly 15 in. high, a food vessel 6½ in. high, and two segmented beads of faience. One of these, cobalt blue in colour, possesses two segments and measures $\frac{3}{16}$ in. in length; the other, light blue, has four segments and is a little over $\frac{1}{4}$ in. long. National Museum of Wales, Cardiff (fig. 1, nos. 1 and 2).

Derbyshire

S. 4. Stanton Moor, Doll Tor (4 miles NW. of Matlock).

(Unpublished. Information from Mr. J. P. Heathcote)

Recent excavations in a barrow which adjoins and partly overlaps a small stone circle have yielded an important collection of faience and other objects. The primary interment, more or less centrally placed under the barrow, consisted of a simple cremation under a large flat stone in a roughly rectangular enclosure formed by small flat stones set up on end which, as Mr. Heathcote suggests, is probably a degenerate form of cist. With the cremation was a single segmented bead of six segments (pl. LXIII, fig. 1, no. 7). This is of blue glaze, somewhat corroded white, on a dark reddish base of faience. Another cremation outside the cist contained a faience star bead (S. 49), and in other parts of the mound were four urns which Mr. Heathcote compares with the latest overhanging-rim phase.

Dorset

S. 5. Bloxworth Down.

(Warne, *Celtic Tumuli*, ii, 13, barrow 14; Abercromby, *B.A.P.*, ii, 65, fig. O 5)

In this disc-barrow a large urn inverted over a cremation was found in a chalk-cut cist. Among the bones were a pair of bone tweezers, eight oval beads of amber, and some six or eight segmented beads. Thurnam (*Archaeologia*, xliii, 495) speaks of jet beads, but the original account specifies amber only. British Museum (fig. 1, no. 6).

*S. 6. Oakley Down (near Woodyates), (R.C.H. 6).**(Ancient Wilts., i, 238; Archaeologia, xliii, 495)*

This disc-barrow with central mound contained three cremations. No objects were associated with two of these, but in the third and central one the bones were in a large urn, 19 in. high, together with 'beads of amber and glass'. All apparently lost.

*S. 7. Oakley Down (near Woodyates) (R.C.H. 8).**(Ancient Wilts., i, 238; Wessex from the Air, 1928, 176)*

A disc-barrow with two central mounds in each of which was a cremation. With one were associated 100 amber beads, some flat pieces of amber, a bronze awl, and a small bronze knife-dagger, $1\frac{3}{4}$ in. long. With the other burial were beads of 'glass, jet, and amber', a fragment of a flat piece of amber, a bronze awl, and a pygmy cup of the expanding type, $1\frac{1}{8}$ in. high. The cup (fig. 2, no. 10) and some of the beads are in the Devizes Museum.

*Flintshire**S. 8. Holywell, Brynford.**(Unpublished. Information from the Rev. Ellis Davies, F.S.A.)*

Two or three years ago the Holywell Golf Club inadvertently cut a section through an earthen barrow and thereby exposed an inverted urn over a secondary cremation surrounded by stones. The urn, which had collapsed and has not yet been reconstructed, is of the encrusted type with everted rim. Two cordons encircle it and vertical applied bands connect the rim with the first cordon. The rim, cordons, and bands are ornamented with typical herring-bone incisions, the remainder of the urn having been left plain. It thus resembles the urn from Newton Mountblairy, Banff, illustrated by Sir Cyril Fox in his paper on encrusted urns (*Antiq. Journ.*, vii (1927), pl. xxi) and considered by him to be an early type of such Late Bronze Age urns.

With the cremated bones were two faience beads, one a segmented bead of four segments, smallish with glaze discoloured red in patches, and the other a large elliptical ellipsoid spacing bead with three perforations (pl. LXIII, fig. 2, nos. 1, 2). The latter is the first to have been found in Western Europe and is more suggestive of Mesopotamia than of Egypt.

*Kent**S. 9. Ringwold (between Deal and Dover).**(Archaeologia, xlv, 55, pl. viii; Arch. Cant., ix, 24, pl. ii)*

In this slightly oval mound, about a mile from the sea, four large cinerary urns were found in cists cut in the chalk. Three of the urns contained burnt burials; in one was a pygmy cup and in another two such cups with three small segmented beads of light green colour and one oblate bead (S. 73) of the same material and colour. Maidstone Museum (pl. LXIII, fig. 2, no. 4; and fig. 2, nos. 2, 3, 6).

*Somerset**S. 10. Blackdown, Tynning's Farm (East Barrow T 12).**(Proc. Bristol Univ. Spel. Soc., ii, 143; iv, 67)*

The primary interment at the centre consisted of a cremation. The secondary (?) interment, 13 ft. NW. of the centre, also consisted of a cremation in an inverted urn

under a flat stone together with jet beads, a bronze awl, a pale blue segmented bead and fragments of beads similar to the last, but of a dull green colour. Specific gravity of the fragments 2.51. The cremated bones belonged to two persons. Objects in the Spelaeological Society's museum (fig. 1, no. 3).

S. 11. Priddy, Priddy Nine Barrows.

(*British Museum Add. MS.* 33690 (1826), ff. 279, 283)

A small barrow at the SE. end of the 'Range', now called Priddy Nine Barrows, was opened by the Rev. J. Skinner about 1826 and in it was found an urnless cremation. 'Two beads of a blue vitrification over clay, similar to that covering the small images in the Egyptian mummies were found among the burnt bones, a clear indication of the antiquity of the interment, as such beads we know were imported by the Phoenician navigators.' These beads are now lost, but they were probably those referred to by Thurnam (*Archaeologia*, xliii, 495) who quotes Rutter (*North-Western Somerset*, 1829, 329) as describing beads from Priddy 'similar to those found with Egyptian mummies'.

This find must be distinguished from an earlier find by Skinner in one of the Ashen Hill barrows close by (S. 75). For references and identification of these two finds we are indebted to Mr. A. T. Wicks.

Sussex

S. 12. Oxsettle (or Oxteddle) Bottom, between Mount Caburn and Lewes.

(T. W. Horsfield, *History of Lewes*, 1824, i, 47, pls. iii, v; *Archaeologia*, xliii, 495, note g, 497; Abercromby, *B.A.P.*, ii, 27)

'A tumulus situated on the slope of the hill to the NE. of Oxsettle Bottom contained a small skeleton and two large urns, full of burnt human bones. . . . The urn on the left side [of the skeleton, doubtless secondary] was broken . . . but . . . it appeared to have contained only burnt human bones. The urn on the right hand, which was 36 in. in circumference, was nearly full of calcined bones, with which were enclosed the following relics': jet and amber beads, an umbo of jet with circular groove round the margin, a bronze extensible finger ring, 'green porcelain beads in the form of a pulley', and a 'green porcelain pendant amulet'.

The majority of these objects are in the British Museum, but only one fragment of a segmented bead survives. In 1853, when the collection was acquired, there was a whole bead with five segments, $\frac{1}{2}$ in. long, and three fragments (pl. LXIV, fig. 2, no. 5; and fig. 1, no. 9).

Wiltshire

S. 13. Aldbourne, G 5.

(*Archaeologia*, lii, 50-3, barrow celxxx; *P.S.A.*, 2 S, viii, 175; Abercromby, *B.A.P.*, ii, 25, fig. 213; *British Museum Guide to Bronze Age*, 1920, 79)

In a large barrow on Warren Farm excavated by Greenwell, a burnt interment was found in the centre of the mound under a cairn of sarsen stones. With the ashes were two pygmy cups and a cover; a small bronze knife-dagger and two awls of bronze; a flat ring, a quoit-shaped pendant, and a conical button of lignite or Kimmeridge shale; two beads of amber, a barrel-shaped one of lignite, one formed from part of a stem of a fossil crinoid, and three segmented beads of a pale green colour. British Museum (pl. LXIII, fig. 1, no. 8; pl. LXIV, fig. 2, no. 7; and fig. 2, no. 5).

S. 14. Amesbury, G 44 (R.C.H. 29).

(Stukeley, *Stonehenge*, 44, pl. xxxii; *Ancient Wilts.*, i, 161, a transcript of Stukeley)

A twin-barrow opened by Stukeley in 1723, when a burnt interment in an urn was found with an unusually large and varied collection of grave goods, including a quantity of amber beads and flat pieces of amber; beads of shale or jet; conical buttons, one apparently covered with thin gold plating; a knife-dagger and awl of bronze. Stukeley speaks of the beads as 'of all sorts and in great number, of glass of divers colours, most yellow, one black; many single, many in long pieces notched between, so as to resemble a string of beads, and these generally of blue colour. There were many of amber, of all shapes and sizes, flat squares, long squares, round, oblong, little and great. Likewise many of earth, of different shapes, magnitude and colour, some little and white, many large and flattish like a button, others like a pully. But all had holes to run a string thro', either thro' their diameter, or sides. Many of the button sort seem to have been cover'd with metal, there being a rim work'd in them, wherein to turn the edge of the covering. One of these was cover'd with a thin film of pure gold.' All now apparently lost (fig. 2, no. 11).

S. 15. Amesbury, G 48 (R.C.H. 33).

(Ancient Wilts., i, 163; *Devizes Museum Cat.*, i, 160 a-c, h)

A disc-barrow, 78 ft. in diameter, with no central mound. A burnt burial was found in a circular cist in the chalk, 2 ft. deep. With the bones were a great many beads. 'Some of them were pully beads of glass, two of stone, another of a transparent horn-like substance; but the most were of amber, and much decayed.' One amber bead is similar to the quoit beads in shape and size, though it is now somewhat decomposed. Specific gravity of faience beads, 2.54, 2.41, 2.52. Devizes Museum.

S. 16. Amesbury, G 54 (R.C.H. *Stonehenge* 39).(Ancient Wilts., i, 163, pl. xvii; *Devizes Museum Cat.*, i, 84, 85, 85 a, 88, 88 a)

A bowl-shaped barrow close to the south side of the Cursus near Stonehenge. A skeleton was found lying on the floor of the mound with 'a great quantity of beads'. Near the skull stood a 'kind of bason, neatly ornamented round the verge'; unfortunately not preserved. When the skull was moved it was found to be resting on a beaker that had been placed at the feet of another skeleton interred in an oblong cist 2 ft. deep; with this was a flint dagger and a whetstone.

Unfortunately the description of this find is anything but clear. Either the beads were contemporary with the beaker, or they were deposited later with the skeleton and 'bason', which Thurnam considered to be a food vessel (*Archaeologia*, xliii, 378); apparently we have no means of deciding the question, other than by general probability. The beaker burial and associated objects are unexceptionable, whilst the beads are stated to have been with the other skeleton at a higher level. The conclusion therefore seems obvious (cf., however, Mrs. Cunnington, *Archaeology of Wilts.*, 1933, 107, 138).

Colt Hoare illustrated seven of these beads but failed to describe them, and three faience beads alone came to Devizes Museum labelled as from this barrow. These are very small (pl. LXIII, fig. 1, no. 6), much smaller than the usual type. Their specific

gravities are normal (2.59, 2.62, 2.62). Unfortunately the element of doubt in this instance robs it of much of its value.

S. 17. Avebury, Hackpen Hill.

(*Abury*, 44; A. C. Smith, *Antiquities of North Wilts.*, 1884, 168)

From a barrow on 'Hackpen Hill', east of the Kennet avenue, Stukeley bought 'a couple of British beads, one large of a light blue and rib'd; the other less, of a dark blue'. Apparently lost.

S. 18. Avebury, Overton Hill.

(*Abury*, 44; A. C. Smith, *Antiquities of North Wilts.*, 1884, 168)

Stukeley describes a barrow levelled in 1720; a skeleton under an arch of sarsen stones, with beads of amber and several 'enamel'd British beads of glass', some white, some green, were found in it. Apparently lost.

S. 19. Bishops Cannings, Tan Hill, G 46.

(*Wilts. Arch. Mag.*, vi, 324, no. 15; A. C. Smith, *Antiquities of North Wilts.*, 1884, 113; British Museum *Guide to Bronze Age*, 1920, 88-9)

A bowl-shaped barrow on Tan Hill, opened by Thurnam, contained a cremation with three beads and a pendant of jet or lignite, and one faience segmented bead. It should be noted that the urn figured by Abercromby (*B.A.P.*, ii, no. 426) was not found associated with this bead, but in another isolated barrow (no. 16), 200 yards to the south. British Museum.

S. 20. Bishops Cannings(?)

(*Proc. Arch. Inst. held at Salisbury*, 1849, 93, fig. 8)

One segmented bead found by Dean Merewether about 1819. There are no details except that the barrow was 'almost on the bank' of Wansdyke, and somewhere between the junction with the Roman road and Old Shepherd's Shore. Apparently lost.

S. 21. Durrington, G 47 (R.C.H. 101).

(*Ancient Wilts.*, i, 168; *Devizes Museum Cat.*, i, 30 a)

This small bowl-shaped barrow contained a cremation with two shale rings and one segmented bead (specific gravity 2.64). Devizes Museum.

S. 22. Figheldean, Ablington Down, G 12 (Syrencot).

(*Wilts. Arch. Mag.*, xxxvi, 622; *P.S.A.*, xxii, 124)

A circular mound near the centre of which a bowl-shaped cist had been cut in the chalk. It contained a cremation with eight long segmented beads of a pale blue or greenish-blue tint, a stud resembling a collar stud, and four fusiform beads of jet or lignite. A bronze knife-dagger with three rivets and midrib, 4½ in. long, was found immediately over the cist, and was presumably contemporary with the cremation. British Museum (pl. LXIII, fig. 1, no. 2; and fig. 2, no. 8).

*S. 23. Idmiston Down, G 1 or 3.**(Unpublished. Information from the late Mr. G. Engleheart, F.S.A., and Mrs. Cunnington)*

A disc-barrow opened by officers during the Great War contained a secondary burial in an inverted cinerary urn. With this was one light blue segmented bead and a semi-transparent pebble. The whereabouts of these objects is not known, but recently a portion of an urn from this excavation came into our hands, and it probably represents part of the urn in question. It is biconical, with horse-shoe and other applied bands, and is thus of Late Bronze Age type. Salisbury Museum.

*S. 24. Idmiston.**(Wilts. Arch. Mag., xxxiii, 412; Abercromby, B.A.P., ii, 11, fig. 16)*

Barrow 3, close to the 'Horse Barrow' on the boundary of Winterbourne Gunner, was opened by E. A. Rawlence in 1897. Immediately below the skeleton of a woman were the remains of a child and the crushed fragments of an urn. There were also considerable quantities of cremated bones in heaps near the skeletons. A small cylindrical bead of a white (in a letter, light blue) china-like texture, about $\frac{1}{2}$ in. long and $\frac{1}{8}$ in. diameter, is stated to have been found with the skeleton of the child. The description is not clear.

*S. 25. Kingston Deverill, G 5.**(Ancient Wilts., i, 45-6, pl. III)*

In this disc-barrow on Middle Hill 'we discovered an interment of burned bones within a cist. . . . Amongst the bones were upwards of forty amber beads of various forms and sizes, some of jet, others of the vitrified sort called pully beads, and two of horn. Besides these articles, was a very curious ornament of amber, consisting of six pieces [probably spacers]'. There were also fragments of a pygmy (?) cup, and a bronze awl. Amber plates in Devizes Museum, other objects lost or unidentified (a number of unidentified segmented beads exists in this museum).

*S. 26. Kingston Deverill, G 10.**(Ancient Wilts., i, 46, pl. III)*

Under this large bowl-shaped barrow was found 'an oval cist . . . containing an interment of burned bones closely piled together in a little heap, and amongst them some beads of amber, jet, and glass, with a pair of ivory [bone] tweezers'. Lost.

*S. 27. Norton Bavant, Scratchbury Camp, G 1(?).**(Archaeologia, xliii, 495, fig. 186)*

Thurnam figures a bead from Scratchbury, but gives no reference. It is probable that he saw it at Norton House where the relics from several barrows in the vicinity of Scratchbury were at one time preserved. The most probable barrow is G 1 (*Ancient Wilts.*, i, 70, barrow 1; *Archaeologia*, xliii, 466, 468). This is a large low one in the centre of the camp which yielded a cremation with a small bronze knife-dagger, part of a bronze pin with round flat head and twisted stem, a bronze awl (?) twisted like a screw, over fifty beads, and a large ring of amber. Lost.

S. 28. Upton Lovell, G 1 (R.C.H. 6).

(*Archaeologia*, xv, 127, pl. vi; *Ancient Wilts.*, i, 76, pl. ix; Abercromby, *B.A.P.*, ii, O 31; *Journ. Egyptian Arch.*, i (1914), 18; *Devizes Museum Cat.*, i, 14 b)

A fine bell-barrow, known as Upton Great Barrow. A cremation was discovered in a shallow cist cut into the chalk beneath the mound and at a depth of 11 ft. With it were five beads of jet or lignite, twenty-seven of red amber, and sixteen segmented beads of green and blue colour (specific gravity of these varies from 2.46 to 2.62). *Devizes Museum* (pl. LXIII, fig. 1, no. 1).

S. 29. Wilsford, G 3 (R.C.H. Normanton 160).

(*Ancient Wilts.*, i, 205; *Devizes Museum Cat.*, i, 154)

A large disc-barrow 'produced within a small circular cist, an interment of burned bones, and with it a great variety of amber, jet, and glass beads'. Two segmented beads, $\frac{5}{8}$ in. long and of specific gravity 2.51 and 2.53, of blue colour with six segments are now preserved in the *Devizes Museum*.

S. 30. Wilsford, G 46 (R.C.H. Lake Group 15).

(*Ancient Wilts.*, i, 211, pl. xxx, fig. 6; *Devizes Museum Cat.*, i, 173, 173 a)

A twin-barrow under the larger mound of which was an oblong cist which contained a cremation. With this was a bronze awl, two amber beads, a brown biconical bead of soft stone with lines engraved round the centre and ends, and four segmented beads. One of the last only has been preserved; specific gravity 2.57, ten segments and $1\frac{1}{8}$ in. long. *Devizes Museum*.

S. 31. Wilsford, G 54 (R.C.H. Lake Group 21).

(*Ancient Wilts.*, i, 212-13; *Wilts. Arch. Mag.*, xxxv, 586; *British Museum Guide to Bronze Age*, 1920, 88; Abercromby, *B.A.P.*, ii, O 32)

Under this bowl-barrow was a skeleton in a grave; round the neck were numerous amber beads and eight large flat pieces of amber that without doubt formed part of the necklace; there were also four disc-shaped gold ornaments, a bronze awl, a pygmy cup, and a larger vessel 7 or 8 in. deep. According to the *British Museum Guide* the thirteen segmented faience beads acquired with the Duke Collection are from this barrow, though not mentioned by Hoare. *British Museum* (pl. LXIII, fig. 1, no. 4).

S. 32. Wilsford, G 72 (R.C.H. 3).

(*Ancient Wilts.*, i, 207)

A large disc-barrow in which was found a cremation with 'a considerable quantity of glass, jet, and amber beads', and a bronze awl. Lost.

S. 33. Winterbourne Stoke, G 67 (R.C.H. West Group 10).

(*Ancient Wilts.*, i, 114; *Devizes Museum Cat.*, i, 70, 70 a, 70 c)

Under this bowl-barrow was an inverted urn covering a cremation which had been wrapped in a woven cloth. With the bones were a bronze awl, a conical button with V-perforation and five rings of shale or lignite, an amber bead, a jet or lignite bead, and several segmented beads (specific gravity 2.48, 2.53, 2.60). One of the rings is remarkably

quoit-like in form and is also perforated as if for suspension. Most of the objects, except the urn, are in the Devizes Museum.

S. 34. Winterbourne Stoke, G 68 (R.C.H. West Group 12).

(*Ancient Wilts.*, i, 114-15; Abercromby, *B.A.P.*, ii, fig. 238; *Devizes Museum Cat.*, i, 70 b)

A large disc-barrow under the slight mound of which was a large urn, 16½ in. high, inverted over burnt bones. Within the urn were a straight-sided pygmy cup, two rings and three beads of shale, a large number of amber beads, and four segmented beads (specific gravity 2.43, 2.47, 2.62, 2.62). The urn is lost, but the beads and cup are in the Devizes Museum (fig. 2, no. 9).

S. 35. Winterslow, Easton Down.

(*Wilts. Arch. Mag.*, xlv, 218)

In a type of flat cemetery or urn-field containing four urns of the latest overhanging-rim type and two urnless cremations in cists, the largest of the urns contained the cremated bones of a child. Among the bones were a bone pin, three amber beads, four lignite beads, and one segmented bead of faience with six segments coloured light blue (specific gravity 2.62). Salisbury Museum (pl. LXIII, fig. 1, no. 5; and fig. 1, no. 7).

Yorkshire

S. 36. Calais Wold, Barrow 114.

(Mortimer, *Forty Years' Researches*, 169, figs. 425, 426)

The larger of two overhanging-rim urns filled with ashes contained 'nine jet and Kimmeridge coal beads more or less globular in form . . . and two small beads, seemingly made of a kind of vitreous paste, or altered by heat'. Though Mortimer mentions two small beads, only one of three segments was illustrated or is indeed now preserved in the Mortimer Collection at Hull. It is dirty white in colour and conforms in type to the Wiltshire variety (fig. 1, no. 4)

S. 36a. Gilling, Grimstone Moor.

(Unpublished. Information from Miss S. Brooke)

A segmented bead of eight segments and of turquoise blue colour has recently been found by Miss Brooke on the surface of a ploughed field. The field is surrounded by moors and woods and is about a quarter of a mile from the round barrows on Grimstone Moor excavated by Greenwell (*British Barrows*, 1877, 343).

The bead is a remarkably good specimen (pl. LXIII, fig. 2, no. 5) of the Wiltshire type and possesses the usual large perforation. The specific gravity is 2.50. It is of interest in that it is the second specimen to have been found in Yorkshire (see S. 36).

France

S. 37. Morbihan, Carnac, Parc-Guren.

(*Man*, 1929, 51; *L'Anthropologie*, xlv (1934), 508, fig. 19)

Whilst sifting the earth for reparations from the floor of Dolmen no. 2 (rectangular chamber with entrance gallery, all in long mound) in 1926, M. Le Rouzic found a small segmented bead of faience. In the same earth were some worked flints, sherds including

some from a bell-beaker, and part of a triangular riveted copper dagger. Whether these associations are of value is doubtful, since the dolmen had been excavated previously, in 1866 by Dr. de Closmadeuc (*Bull. de la Soc. Polymathique du Morbihan*, 1866, 89) and later by M. Le Rouzic (*ibid.*, 1898, 68).

The bead measures 11 mm. by 5 mm., is of bluish-green colour, and possesses five segments. It is very similar to the Wiltshire specimens and possesses the same large perforation. Carnac Museum (pl. LXVI, fig. 1, no. 2).

Holland

S. 38. Odoorn, Drenthe, Exloo.

(Unpublished)

In 1881 a necklace, which had been found in a peat bog close to Exloo, was bought by the Assen Museum. No other details are known. We are greatly indebted to Dr. A. E. van Giffen and the authorities of the museum not only for sending it to us to examine but for permitting us to describe it.

The beads consist of four of faience, twenty-five of tin, fourteen of amber, and one clasp of copper (?). The faience beads are identical with those from Wiltshire, including the large perforation, and it is possible that they emanated from that county. The colour is, however, finer and the glaze better than most of the British specimens; which may be due to their having lain in peat. Many of the tin beads are roughly segmented. They appear to have been soldered along the edges, even in the short beads which are not segmented. Their specific gravity is 7.30. It is astonishing that these tin beads have retained their original brilliant surface since white tin below 18° C. is in an unstable condition, and if kept below this temperature gradually crumbles to the powdery grey form. The amber beads are in a marvellous condition, almost entirely free from corrosion; some are quite transparent (pl. LXVI, fig. 1, no. 1).

Spain

S. 39. Almeria, Cuevas del Almanzora, Fuente Alamo.

(H. & L. Siret, *Les premiers âges du métal dans le sud-est de l'Espagne*, 1889, 205; Déchelette, *Manuel*, ii, 371; Abercromby, *B.A.P.*, ii, 14, O 36)

The following objects accompanied the skeletons of a man and a woman in a grave of the El Argar culture: a bronze sword 58 cm. long, two copper or bronze knives, a silver headband, a copper or bronze bracelet, two pendants and five rings of silver, three cups of black baked earth (one provided with a copper ring as a collar), two urns and two small vessels, some wooden objects and the remains of a necklace consisting of ten ivory beads, two copper spirals, and eight segmented beads of faience.

The segmentation varies from two to seven, and they have obviously not been made in the same mould. In this they compare favourably with the Wiltshire specimens. Their colour varies from blue to green with whitish patches, but unfortunately we have been unable to examine them. They were in the Cinquantenaire Museum, Brussels, but they are now apparently mislaid (pl. LXVI, fig. 1, no. 3).

SEGMENTED BEADS, GROUP I B

The ascription of all the following beads to this group is without prejudice to the possibility that one or more may belong to Group I A. We should make it clear that we have compared with the Wiltshire specimens only those which are preserved in the National Museum of Antiquities of Scotland at Edinburgh.

*Angus**S. 40. Brechin, Mill of Marcus.*

(*P.S.A. Scot.*, xxiv (1889-90), 471, fig. 1; Abercromby, *B.A.P.*, ii, 54)

Two urns were discovered about 2½ ft. from the surface in a mound near the Mill of Marcus. The larger was too broken to preserve. The smaller, 6¼ in. high, possesses a lozenge pattern made from small whipped cord between horizontal lines of the same ornament. Amongst the burnt bones in this urn was a small notched bead of greenish-white faience, 7/16 in. by ¼ in. diameter, with two notches. Though fairly regular, these notches are not absolutely continuous and symmetrical. National Museum of Scotland (pl. LXIV, fig. 3, no. 13; and fig. 2, no. 4).

*Ayrshire**S. 41. Stevenston, Ardeer Cairn.*

(*P.S.A. Scot.*, xl (1905-6), 387, fig. 6; Abercromby, *B.A.P.*, ii, 56, figs. 535-535 h)

At least sixteen urns of bucket shape were found in 1906 in a small oval cairn about 15 ft. by 10 ft. and 3 ft. high. In Urn 5, the smallest, which was 5 in. high (fig. 1, no. 8), were the cremated bones of a young person. Mr. L. McL. Mann notes 'within the urn were two small white quartz pebbles about ¼ in. diameter, traces of thin gold leaf of indeterminate character and three objects of known types, all of the same shade of grey, made of vitreous paste. Of these, two are slender cylindrical notched beads, one notched into four, and the other into three segments or bulbs, and the third a star-shaped bead of nine points, one of which has been broken in ancient times'.

The direct association of these two types of bead is of great importance. The segmented ones are, however, not identical with the Wiltshire specimens, though related. Mr. Mann tells us that each specimen has a continuous fossa between each of the segments, but that they are slightly irregular. Further, there is a slight flattening along one side, which he ascribes to their having been cast in a mould (pl. LXIV, fig. 1, nos. 1-3). Kelvingrove Museum, Glasgow.

S. 42. Stevenston, Ardeer Sands.

(J. Smith, *Prehistoric Man in Ayrshire*, 1895, 44; *P.S.A. Scot.*, xl (1905-6), 399 ff.)

A number of different types of bead has been found on the sand-blown areas of Ardeer, but not in direct association with other objects. The sands have yielded large numbers of flint, bronze, and iron objects, and occupation therefore seems to have been almost continuous. Mr. Mann illustrates two segmented beads which do not appear to resemble in all respects those from the south, and mentions a third. Smith illustrates a greenish, coarse, opaque, twisted 'paste' bead. Kelvingrove Museum, Glasgow.

*S. 43. Dundonald, Shawalton Moor.**(J. Smith, Prehistoric Man in Ayrshire, 1895, 116; P.S.A. Scot., xl (1905-6), 399, note 4)*

This site, close to Stevenston, is as rich as the latter. Again, pottery fragments predominate, those of the hand-made variety being few. Large numbers of flint, bronze, and iron articles have been found. Beads of various types made of earthenware, shale, parrot-coal, and a coarse glassy 'paste', generally tinted blue or green, have been found. Smith illustrates two of the last, one apparently segmented with four notches, and a thick spiral or twisted bead.

*Morayshire**S. 44. Culbin Sands.**(P.S.A. Scot., xxv (1890-1), 509; xl (1905-6), 397)*

Large numbers of beads have been found on the surface, but none with definite associations. Many types are represented, but these are mostly of later periods. Lumps of brownish slag, with patches of greenish material, have also been found, and these suggested to Mr. Mann that some had been manufactured locally. This may be true of some of the later Early Iron Age varieties. Mr. Mann notes the discovery of eight of the segmented variety, but twelve are preserved in the National Museum at Edinburgh. On examination not one of these was of the southern type. Though of true faience they are more glass-like than the Wiltshire specimens, and the colour goes right through to the centre, some being quite translucent. They appear to have been made by crimping a semi-molten glassy-faience tube, the notches in no case being continuous all round (pl. LXIV, fig. 3, nos. 1-12). They are mostly irregular and crudely formed, and bear only the roughest resemblance to the southern variety. The perforations vary from large to small, whilst the colour varies from turquoise blue through dirty blue to greenish-blue with white patches. The specific gravity of ten specimens varies from 2.38-2.65.

*Wigtownshire**S. 45. Glenluce Sands.**(P.S.A. Scot., xl (1905-6), 398, note 2)*

Mr. Mann notes the discovery of five segmented beads from the sands without associations. Two are at present in the National Museum at Edinburgh (pl. LXIV, fig. 3, nos. 14, 15). These, as the Culbin Sands specimens, have been made by crimping a faience tube, either before or during firing, the notches not being continuous all round. The other specimens are in the Kelvingrove Museum, Glasgow.

STAR BEADS, GROUP II

*Aberdeenshire**S. 46. Auchterless, Camalynes.**(P.S.A. Scot., xl (1905-6), 37)*

Light greenish six-pointed bead, almost a perfect circle, was originally in an urn, but this was broken, and is now lost.

*S. 47. Fyvie, Darnabo.**(P.S.A. Scot., xl (1905-6), 36)*

A six-pointed bead, but smaller than the above, was picked up in a field. It had a large hole in the centre, but was not so regular as the Camalynes specimen. Colour, light green.

*Ayrshire**S. 48. Stevenston, Ardeer Cairn.*

See S. 41. Nine-pointed bead found in association with segmented beads (pl. LXIV, fig. 1, nos. 1-3). Kelvingrove Museum, Glasgow.

*Derbyshire**S. 49. Stanton Moor, Doll Tor.*

See S. 4. An eight-rayed faience star bead was found with a cremation associated with a tapering bronze pin under a barrow which had, as the central interment, another cremation associated with a segmented bead. The shape of the bead is regular, diameter 1.04 in., and one point is slightly chipped (pl. LXIV, fig. 1, nos. 17-18). The base of the chip is red-coloured, not dissimilar to the base of the segmented bead.

*Dorset**S. 50. Near Dorchester.**(Archaeologia, xxx, 330, pl. xvii; Abercromby, B.A.P., ii, 42)*

A bowl-barrow, 'about three miles west of Dorchester, within a few hundred yards of the antient road, Ickneild Street', contained an urn on the south side and 12 in. below the surface. This urn, which was 18 in. high, possessed 'two perforated knobs for suspension' on a raised band, but no other ornament (fig. 1, no. 5). It contained burnt bones, four small beads, $\frac{1}{8}$ in. diameter, of a pearly looking substance, probably glass; another of bone and cylindrical, one faience quoit bead, 1 in. diameter, and another of the same diameter, but star-shaped. These are both illustrated in *Archaeologia*. There was also a small perforated cowrie shell.

Abercromby thought that the raised band in the original illustration was really a cord through the perforated knobs, but this does not seem likely. He placed the urn in his Deverel Group 2. This is the only instance of star and quoit faience beads having been found in association, and is further remarkable in having been found so far south. All objects now lost.

*Fifeshire**S. 51. Tents Muir.**(P.S.A. Scot., lx (1925-6), 257, note 1)*

A fragment of a star bead of blue faience is contained in the Perth Museum.

*Morayshire**S. 52. Culbin Sands.**(P.S.A. Scot., xxv (1890-1), 509; xl (1905-6), 400, note 3)*

Surface finds without associations. One small portion of a light blue bead with three points is mentioned, but three are now in the National Museum of Scotland, one

complete and two fragments (pl. LXIV, fig. 1, nos. 12, 13, 14). The complete one is very good turquoise blue, with a greyish core visible under the glaze; specific gravity 2.50. Of the fragments one is blue, the other green, the glaze in the first being over a whitish-brown core, and in the second over a brownish core of faience; specific gravity 2.53, 2.61.

Perthshire

S. 53. Blair Drummond.

(*P.S.A. Scot.*, xl (1905-6), 37-8)

One star bead, along with other relics not in association, was found under a considerable depth of peat when part of Blair Drummond Moss was reclaimed.

Wigtownshire

S. 54. Glenluce Sands.

(*P.S.A. Scot.*, xl (1905-6), 400, note 3)

Mr. Mann notes the discovery of eight star beads from the sand-blown areas, without associations. Six specimens are in the National Museum of Scotland, two being fragments (pl. LXIV, fig. 1, nos. 4-6, 9-11). These are blue to greenish-blue in colour. The other two beads illustrated here are in the Kelvingrove Museum, Glasgow (pl. LXIV, fig. 1, nos. 7, 8).

Ireland

S. 55. Co. Antrim, Whitepark Bay.

(*P.S.A. Scot.*, xxv (1890-1), 510; xl (1905-6), 400, note 3)

Two star beads of faience from the Knowles Collection are now in the Ashmolean Museum, Oxford (pl. LXIV, fig. 1, nos. 15-16). One is five-pointed, the other nine, and one is stated to have been found at Whitepark Bay. Their specific gravities are respectively 2.60 and 2.63.

S. 56. Co. Armagh, O'Neilland West, Derryhale (or Derryohal).

(Unpublished, but noticed by G. Coffey, *Bronze Age in Ireland*, 1913, 82. Information from Dr. A. Mahr and Miss L. F. Chitty)

A Late Bronze Age hoard in the National Museum of Ireland, Dublin, is labelled as having been found in a bog in 1830 at Derryhale, four miles south of Portadown. Included in the hoard is a nine-rayed star bead of bluish-green colour. Unfortunately the whole evidence of association rests upon the old label, but Dr. Mahr considers that the association on the whole looks fairly trustworthy.

The group consists of eleven sunflower-headed pins of different sizes, and three pins with similar heads but with unbent shafts. Also two pins with cup-shaped heads, a very small socketed axe, a tanged knife of medium size, and one slightly smaller, a socketed knife, ten rings of varying size, a double ring, the faience star bead, a light green glass bead with red and white inlay, and another bead of light brown colour said to be of stone.

QUOIT BEADS, GROUP III

*Ayrshire**S. 57. Stevenston, Ardeer Sands.*

(J. Smith, *Prehistoric Man in Ayrshire*, 1895, 44, figs. III, III3; *P.S.A. Scot.*, xl (1905-6), 400)

Surface finds only. One fragment of a greenish bead is in the National Museum at Edinburgh (pl. LXIV, fig. 2, no. 2). This possesses a dirty-white core of faience with a green glaze, which has not penetrated deeply. Facilities were kindly granted by Dr. Callander for having this fragment examined microscopically. Smith illustrates a smaller specimen of a deep blue colour.

*Dorset**S. 58. Near Dorchester.*

See S. 50. Found in association with a star bead. Though lost, there would appear to be no doubt from the illustration that it belongs to this group.

*Sussex**S. 59. Clayton Hill.*

(T. W. Horsfield, *History of Lewes*, 1824, i, 43-4; *Suss. Arch. Coll.*, viii, 285; *Archaeologia*, xliii, 497, fig. 192)

In 1805 a pygmy cup was found in a barrow near Clayton Windmill. In 1806, as a man was digging for flints near the same spot, he found a cinerary urn too broken for preservation. In this was a quoit-like pendant of blue glazed faience (pl. LXIV, fig. 2, no. 6). It is thus clear that the two discoveries are quite distinct, as recognized by Thurnam, and that the pendant was not found within the pygmy cup as stated in *Arch. Journ.*, xix, 185, and by Abercromby, *B.A.P.*, ii, 27. Lewes Museum.

S. 60. Oxsettle (or Oxteddle) Bottom.

See S. 12. The greenish faience pendant found with segmented beads and other objects is $1\frac{1}{8}$ in. in diameter, and is now in the British Museum (pl. LXIV, fig. 2, no. 5).

*Wigtownshire**S. 61. New Luce, Balneil.*

(*P.S.A. Scot.*, I (1915-16), 302)

A cremation found in an inverted cinerary urn, 15 in. high. This urn is of the cordoned type (fig. 2, no. 1), being encircled by two cordons, one $3\frac{3}{8}$ in. below the rim and the other $3\frac{1}{4}$ in. lower down. Associated with the bones of two persons in the urn were a bronze chisel (fig. 2, no. 7), a crutch-shaped bone pin, $2\frac{1}{8}$ in. long, and a quoit bead of greyish-coloured faience (pl. LXIV, fig. 2, no. 1), $\frac{3}{8}$ in. in diameter, and of triangular section. Dr. J. G. Callander describes the chisel as having 'a broad blade ending in abrupt shoulders, above which is a stout square tang much narrower than the blade. The chisel is of unusual form, and we cannot say definitely what was its period' (*P.S.A. Scot.*, lvii (1922-3), 141). National Museum of Scotland.

*Ireland**S. 62. Localities unknown.**(P.S.A. Scot., xl (1905-6), 400, note 1)*

Mr. L. McL. Mann notes the discovery of six quoit beads without associations from Ireland. Two of these are now in the Ashmolean Museum, Oxford, acquired from the Knowles Collection (pl. LXIV, fig. 2, nos. 3, 4).

BEADS OF OTHER AND UNKNOWN TYPES

*Anglesey**S. 63. Llanbabo, Ynys Bronwen.**(Proc. Soc. Antiquaries, xix (1902), 50)*

From a cairn on the banks of the River Alaw, opened in 1834, two beads, both of the same size, are known to have been found, one of pale blue colour, and the other almost black.

*Angus**S. 64. Arbroath, Gilchorn.**(P.S.A. Scot., xxv (1890-1), 447; Abercromby, B.A.P., ii, 21, fig. 185 not fig. 179 as stated on p. 73)*

A cinerary urn of degenerate overhanging-rim type inverted over a cremation, and found on the border of a low mound, contained two pygmy cups, a small oval bead of whitish glass-like material, and a flint flake. The bead possesses a small oval projection at one end, and is a little over $\frac{1}{2}$ in. long. Dr. Callander places this group in his Period III (*P.S.A. Scot.*, lvii (1922-3), 123). National Museum of Scotland.

*Ayrshire**S. 65. Dundonald, Shawalton Moor.*

See S. 43. Spiral bead.

S. 66. Stevenston, Ardeer Sands.

See S. 42. Spiral bead.

*Cornwall**S. 67. Rillaton, Cheesewring.**(Arch. Journ., xxiv, 189; Letter from W. T. P. Shortt in Wilson's Prehistoric Annals of Scotland, 1851, 272-3)*

With the famous gold cup was found a skeleton with urn, bronze knife-dagger, rivet, pieces of ivory, and a few glass beads. Beads lost.

*Derbyshire**S. 68. Buxton, Thirkel-low Frith.**(P.S.A., xv (1893-5), 425; T. Rice Holmes, Ancient Britain, 1907, 169, note 7)*

A barrow opened in 1894 contained a contracted burial, and to the north of this the remains of a child. Near the head was a small plain blue glass bead, teeth of a dog, and fragments of a small vessel of 'food-vase' form.

S. 69. Stanton Moor (4 miles NW. of Matlock).

(*Derby. Arch. Journ.*, li, 32, figs. 8, 9a, 9b, 11)

A cylindrical bead of reddish-coloured faience, of which the perforation is corrugated, was found by Mr. J. P. Heathcote in barrow T 3, half a mile from the stone circle (see S. 4 and S. 49). It was in or near an interment of a woman and child with two overhanging-rim urns, five flints, and three pieces of bronze (pl. LXIII, fig. 2, no. 3).

Devon

S. 70. Moreton, Moor Barton Farm.

(S. Rowe, *A Perambulation of the Ancient and Royal Forest of Dartmoor*, 1848, 117; W. T. P. Shortt, *Collections*, 29; *Trans. Devon Assn.*, xiv (1882), 154)

A cairn destroyed for agricultural purposes. It was 'nine landyards round, in which a sort of rude kistvaen, of six great stones, was found, with a spear-head of copper, two pegs or screws, which fastened it to its staff; a glass British bead and a small armlet of soft stone . . . calcined bones, ashes, etc.'. Lost.

Dorset

S. 71. Near Dorchester.

See S. 50. Four small spherical beads of a pearly looking substance, probably glass. Lost.

Flintshire

S. 72. Holywell, Brynford.

See S. 8. A large elliptical ellipsoid spacing bead of blue faience with three perforations (pl. LXIII, fig. 2, nos. 1, 2).

Kent

S. 73. Ringwold.

See S. 9. The oblate bead found with the segmented beads is of light green colour. Mr. Norman Cook tells us that it possesses a slight moulding or collar round the perforation at each end; also that the perforation is large, being 4 mm. in diameter (pl. LXIII, fig. 2, no. 4). Maidstone Museum.

Lancashire

S. 74. Lancaster, Yealand.

(*Archaeologia*, vii, 414)

In 1779 a cinerary urn with ashes was found in a barrow, and adjoining the urn was a human skeleton and a large glass bead of a blue colour, about 1 in. in diameter. Quoit bead?

Somerset

S. 75. Priddy, Ashen Hill Barrows.

(British Museum *Add. MSS.* 33648 (1815) f. 123, f. 135; 33677 (1824) f. 83; MS. volume of letters to the Rev. J. Douglas in the library of the Roy. Lit. and Sci. Inst. of Bath—the source of the article in *Arch. Journ.*, xvi (1859), 148)

In a barrow half a mile from Priddy Nine Barrows (see S. 11) the Rev. J. Skinner in 1815 found a cremation under a flat stone. With this were four amber beads, and a

fifth somewhat in the shape of a heart, a bronze knife-dagger and rivet, a 'grape cup' (Abercromby, *B.A.P.*, ii, 26, fig. 219, $1\frac{3}{8}$ in. high, and now in the Bristol Museum), and a 'small blue opaque glass bead with them perforated'. This last is now lost, and Mr. Mann thought that it might have belonged to his globular type (*P.S.A. Scot.*, xl, 397), but there would appear to be no reason why it should not have been of the segmented sort with only one or two segments, similar to the fragments found at Blackdown nearby (S. 10).

Suffolk

S. 76. Lakenheath.

(Unpublished)

Four oblate beads of hard faience and of a light blue colour (pl. LXV, fig. 5, no. 1) have been found in the Lakenheath district, but as surface finds only. In some cases these have collapsed during firing, which suggests that they were made by some one who had not completely mastered the art of faience manufacture. A bead identical with one of these from Tell el Amarna is shown on pl. LXV, fig. 6. These four beads were acquired from a London dealer about twenty years ago. He had no doubt that they came from the Lakenheath district. The identical bead from Tell el Amarna came from the Egyptian Exploration Fund excavations, and is a rare type, which is unlikely ever to have got on to the market. Beck Collection, B/177 and B/1121.

Wigtownshire

S. 77. Locality unknown.

(*P.S.A. Scot.*, xl (1905-6), 399, note 4)

The spiral bead illustrated (pl. LXIV, fig. 3, no. 16) is in the Mann Collection, Kelvingrove Museum, Glasgow.

Wiltshire

S. 78. Amesbury G 44.

See S. 14. Two of the beads illustrated by Stukeley appear to have been of spherical or ellipsoid form. One is described as being made of white earth and the other of black glass. Lost.

ADDENDUM

Ireland

Co. Down, Newcastle, Dundrum Sandhills.

(Unpublished. Information from Mr. E. Estyn Evans)

One segmented bead of four segments from the sandhills is stated to be in the collection of Mr. W. A. Green of Antrim. These sandhills yield material of all periods from the Neolithic onwards.

Other faience beads of the star and quoit types, from Dundrum, Whitepark Bay (co. Antrim) and Portstewart (co. Londonderry) are also in the same collection.

NOTE

Whilst this article was in the press the spectrographic analysis of various specimens of faience has been kindly made for us by Dr. Ritchie at the Courtauld Institute of Art. The results show that there is so great a resemblance between a Wiltshire segmented bead and one from Tell el Amarna that there can be little doubt that both were made in Egypt and are roughly of the same date.

The result of the analysis of the Scottish beads was, however, very different, and this seems to indicate a different source or a different date for these beads. Since, however, we have recently found two very similar quoit beads in a collection of Egyptian beads in the Norwich Castle Museum we are of the opinion that the Scottish beads are also probably Egyptian, but of a later date.

A full description of these results will shortly be published elsewhere.

IX.—*The chambered cairn known as Bryn yr Hen Bobl near Plas
Newydd, Anglesey*

By W. J. HEMP, Esq., F.S.A.

Read 22nd November 1934

THE recent examination of the cairn known as Bryn yr Hen Bobl was begun in 1929 at the request of its owner, the marquess of Anglesey, who generously paid the cost of the labour employed throughout the six seasons work on the monument.

The aim of the work was limited; first, to the preservation of the chamber, which was in some danger owing to the breakage and displacement of the cover stone; second, to the examination of the much disturbed contents of the chamber; and thirdly, to an attempt to discover the main structural features of the cairn. A complete examination was impossible within the limits of time and cost; indeed the estimates of both were greatly exceeded owing to the unforeseen complexities of the structure.

The cairn has been known since the eighteenth century at least as Bryn yr Hen Bobl, that is, the Hill of the Old People; it lies in the parish of Llanedwen in ancient park land, now attached to Plas Newydd, the seat of the marquess of Anglesey.

The setting is one of great beauty, being a terrace bordering the shores of the Menai Straits 100 ft. above high water. The wide view of the Caernarvonshire mountains, which it once commanded, is now partly hidden by the trees which cover the steep fall of the terrace down to the water (pl. LXX, fig. 2).

The cairn stands opposite the opening of a dry valley which runs back inland at right angles to the Straits. There is no sign that any of the ground in the immediate neighbourhood has ever been under cultivation, and it still carries many ancient trees; two of them, oaks whose age must be measured by centuries, grow on the summit of the cairn itself.

This part of the island of Anglesey, the strip of country $3\frac{1}{2}$ miles long by $1\frac{1}{2}$ wide bordering the south end of the Straits, once possessed a remarkable concentration of megalithic burial chambers, no less than seventeen being on record; among them the well-known pair of 'cromlechs' (actually a large single chamber with its antechamber opening to the south), which still stands close to the house of Plas Newydd, half a mile from Bryn yr Hen Bobl and in a very similar position. A mile to the NNW. of the last named is the chambered

cairn of Bryn Celli Ddu,¹ with a lesser cairn containing a cist almost touching it. Another large cromlech, now completely destroyed, stood at Tyddyn Caesar, a quarter of a mile from Bryn yr Hen Bobl, in the direction of Bryn Celli Ddu.

Equally remarkable is the diversity in type of tomb architecture which seems to be characteristic of the whole assemblage of some twenty megalithic burial chambers still extant in the island. Little or nothing is known of the character of an equal number of destroyed monuments of which some record remains.

The earliest reference to the burial cairns of Anglesey occurs in John Leland's *Itinerary in Wales*, written about 1549,² where he says 'Mr. Rouland Griffith tolde me that . . . in tyme of mynde menne usid not in Termone³ to seperate theyr grounde, but now stille more and more they digge stony hillokkes yn theyre groundes, and with the stones of them rudely congestid they devide theyre groundes after Devonshire fascion.

'In digging of these [they] digge up yn many places yerthen pottes with the mouthes turnid douneward, conteyning [*cineres et ossa mortuorum*].' This explains why Bryn yr Hen Bobl is the only one of the forty recorded megalithic tombs in that island which still retains the greater part of its covering cairn.

A local antiquary, Henry Rowlands,⁴ described the cairn early in the eighteenth century as 'one of the largest Carnedds in the Isle of *Anglesey*, yet scarce discern'd and distinguish'd from a Mount of Earth, the Stones being over-grown with Earth and Moss, and great Trees growing thick upon it; it stands in a dry Bottom, without any Pillars now standing by it'.

Rowlands's illustrations are more peculiar than enlightening, and his wood-cut of the cairn⁵ depicts it as a rocky hill with 34 trees growing upon it, labelled 'A y^e even Side 20 paces up. B y^e broken side C y^e Circumference 100 paces'. The dimensions are inaccurate, the actual circumference of the cairn being 150 yards, and the height 18 ft., but the reference to the broken side is a useful indication of the appearance of the cairn while it was still mainly intact, although later in the same volume⁶ he says: 'the other day People having occasion to take away some Lime-Stones from a *Karnedd*, which is in *Plâs Newydd* wood, . . . found near the top of it, on one side, about a Yard deep in the Stones, the Bones of three Persons lying close to one another, not at length in a straight but oblique Posture, straglingly with Heads downwards. They seem'd to be the last [victims of the druids] that were slaughter'd there, being so near the top of the *Karnedd*, and not unlikely at the *Romans* Invasion and Conquest.'

The chamber was first exposed about 1754,⁷ when some workmen having

¹ See *Archaeologia*, lxxx, pp. 179-214, and *Archaeologia Cambrensis*, 1931, pp. 216-58.

² Ed. Toulmin Smith, pt. vi, p. 90.

³ i.e. Tir Môn = Anglesey.

⁴ *Mona Antiqua Restaurata*, Dublin, 1723, p. 93.

⁵ p. 99, pl. vii, fig. 2.

⁶ p. 223.

⁷ *North Wales* (1793-1801), W. Bingley, London, 1814.

'opened the entrance to the larger recess', Sir Nicholas Bayley, the owner, 'ordered them to discontinue their operations as it seemed to contain nothing but bones'. Later a servant 'dug to the depth of about 12 feet in the bottom of the smaller vault and discovered a few human bones and a very old clasp knife', possibly left by other diggers.

Thomas Pennant, who visited the site in 1773, described the cairn as 'a large carnedd, part has been removed and within was discovered a cell about 7 ft. long and 3 ft. wide, covered at the top with two flat stones and lined on the sides with others. To get in I crept over a flag, placed across the entrance. On the top of the stone were two semicircular holes'.¹

Twenty years later William Hutton,² an eccentric tourist and inaccurate observer, says that 'by the side of [the broken cover stone] but at six yards distance, are the marks of another, now totally demolished'. It is probable that here, as elsewhere, he has written yards instead of feet, and that his reference is to the broken down side chamber.

In 1860 the Cambrian Archaeological Association visited the site, and Mr. W. W. E. Wynne, of Peniarth, stated that 'about two years ago, with the assistance of some labourers, kindly placed at his disposal by Lady Willoughby de Broke, he began excavating it. His visit was too short to allow him to continue his researches further than what they had seen that day, and which had been already described. He had no doubt that at least one, if not more, cromlechs would be found under the earth'.³

The report of this visit of the association describes Mr. Wynne's work as follows: 'A partial excavation has been made on the western (*sic* for eastern) side of this mound, which has laid bare what may be the commencement of a network of chambers, which probably extend under the whole of the tumulus. By stooping, a short passage may be traversed, which branches off to the left and right; but further advance is prevented by an accumulation of rubbish and other debris. The entrance to the passage is half closed by a slab, the other half being now lost. The portion still in its place presents some rude semicircular depressions on its upper edge; and it has, with good reason, been conjectured that the missing fragment had corresponding indentations'.⁴

The 'passage' here described is the main chamber, and the branching to the right imaginary; moreover, Mr. Wynne's excavation was on the eastern side, not the western. Unfortunately there is no other report of the work done, but it must have exposed the uprights flanking the entrance as they are first recorded on a sketch-plan made about this time by Mr. Wynn Williams, which

¹ *A Tour in Wales*, T. Pennant, London, vol. ii (1783), p. 238.

² *Remarks upon North Wales*, 1803, p. 194.

³ *Arch. Camb.*, 3rd ser., vol. vi (1860), p. 369.

⁴ *Loc. cit.*, p. 367.

is also the earliest record of the terrace.¹ It is not drawn to scale, and is somewhat imaginative.

The megalithic remains of Anglesey as a whole have been ably dealt with by Mr. Neil Baynes in the *Transactions* of the Honourable Society of Cymmrodorion for 1910-11, in an article in which he collected and summarized all the information then available. Since then two monuments have been studied in detail, Bryn Celli Ddu² and Pant y Saer.³

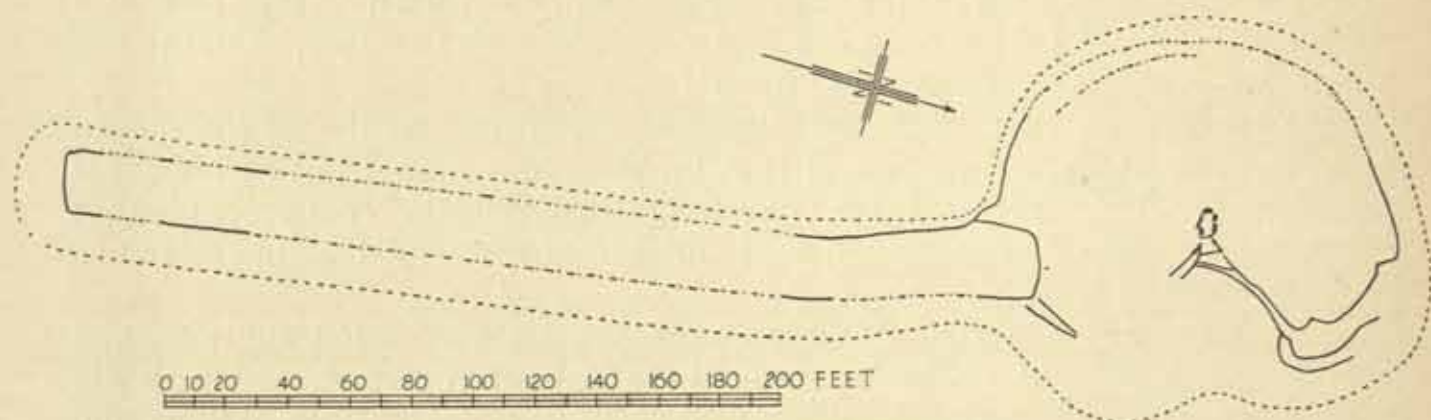


Fig. 1. General plan of Bryn yr Hen Bobl

The cairn itself is kidney-shaped, the indentation being on the east side opposite the entrance, which is thus flanked by two horns, and leads to a centrally placed chamber. The general appearance can have been but little altered since it was first built. The removal of part of the cairn has, however, completely exposed the top of the cover stone of the chamber and part of the entrance, both of which were completely hidden, although the position of the entrance must always have been indicated by a deep indentation (pl. LXX, fig. 1).

The northern horn remains practically as the builders left it, and although the upper part of the southern one has been removed, nearly all the base of the cairn was found to be intact for an average height of 3 to 4 ft. above ground-level, the only exception being a small area adjoining the main chamber, formerly occupied by a side chamber, which was destroyed in the eighteenth century.

It is singularly fortunate that the land surrounding the cairn has been so long emparked, otherwise it is almost certain that its most striking and apparently unique feature would have been obliterated. This is a raised terrace some 330 ft. long, 40 ft. wide, and 2 to 3 ft. high, which is attached to the southern horn of the cairn, and runs from it in a southerly direction.

When the monument is viewed from the east the terrace appears to be

¹ *Arch. Camb.*, 1870, p. 52.

² *Archaeologia*, lxxx, 179, and *Arch. Camb.*, 1931, p. 216.

³ *Arch. Camb.*, 1933, p. 185.

balanced by a similar ridge running northwards from the northern horn; this was examined at several places, but proved to be entirely natural and due to a ledge of limestone just beneath the turf.

THE STRUCTURE OF THE CAIRN

The main bulk of the cairn was composed of blocks of limestone and occasional boulders from the glacial drift, of varying sizes, clean and free from soil, but covered by a slight skin of turf, and, for large areas, by a network of tree roots. The interior construction was only seen in the excavations immediately behind and on the south side of the chamber, and to a lesser extent in a trench on the main E-W axis on the west side. On the upper part of the cairn in this trench a change was noticeable, one stone appeared to be set on end in clay and most of those at and above this level on the summit of the cairn seem to be pitched on end, and to be of greater average size. Most of the summit, however, has been removed or disturbed, or is sealed by tree roots.

The filling of the court between the horns was in complete contrast to the structure of the cairn; the stones being usually mixed with dark soil, and varying much in size at different places. In this soil were found fragments of pottery, flakes of stone due to human agency, shells, bones, charcoal, etc. It seems probable that the filling was largely composed of waste building material and sweepings from sites occupied by the builders during the construction of the tomb.

THE MAIN CHAMBER AND ADJACENT AREAS

The result of natural decay, possibly aided by previous disturbance of the monument, has been the splitting into two parts of the large single rectangular cover of the chamber (pl. LXXI, fig. 1). This was a block of limestone 10 ft. long, 7 ft. wide, and 1 ft. to 1 ft. 3 in. thick, the immediate cause of the breakage being failure of the dry walling which had been placed on the top of the uprights to provide a level bed for the stone and so distribute the load. Most of this walling had disappeared, but a few courses still remained above stones 4, 5, and 6. In the case of no. 6, the portal stone, a few fragments only were left at the northern end, and, like most of the rest, were somewhat crushed, but they suggested that the walling had at one time extended along its whole length, thus completely closing the chamber.

When the chamber had been emptied and its examination completed, the cover was reset in its original position, and carried by new walling where necessary, especially along its southern side; each added stone is marked by a small pit.

Stones 1, 2, 4, and 5 call for no particular remark.

Stone 6 is the portal stone (pl. LXXII, fig. 1), pierced by two roughly circular holes about $6\frac{1}{2}$ in. (left) and 9 in. (right) in diameter, which have long been the subject of discussion, and have often been quoted as the unique example in Britain of two portholes in the entrance of a megalithic burial chamber. Although the holes are essentially of natural origin—such weathering being characteristic of the uppermost stratum of the local limestone where it lies just below the surface of the ground—they may have been slightly improved by human agency, and it seems extremely likely that the selection of the stone for its position was due to their presence. A small stone with almost precisely similar and entirely natural piercings was found among those composing the body of the cairn. Most of the upper part of the stone has disappeared, the exception being the northern end, which still carries the remains of the walling. The raw edges, especially that above the northernmost hole, are decaying and flaking away. The extreme height of the stone is 6 ft., and its base is set in packing stones.

Stone 3 is abnormal; it is a comparatively thin and low slab of limestone and its western end butts against the southern end of stone 1, but owing to its length the eastern end considerably overlaps stone 5, thus breaking the symmetry of the chamber; the upper part of the western end has been broken away down to the original floor-level of the chamber to leave a rectangular opening. The stone has flaked away considerably and there is now no evidence to show the exact original size of the opening to the side chamber.

The Side Chamber

In spite of the suggestion of two side chambers, one on either side of the main chamber (p. 255), there could never have been more than one, which must have been entered from the south-west corner of the main chamber through the break in stone 3. The recent excavations revealed that the opening was spanned by two horizontal stones one above the other and each more or less out of position. The upper was a substantial slab of grit which no doubt served as a lintel and carried dry walling which with it formed the upper part of the side of the main chamber; one walling course still remained (pl. LXXI, fig. 1). Below the lintel was part of a thinner and broken slab which when complete probably formed the cover of the side chamber. Other parts of this stone, which had clearly been broken by a pick or crowbar were found in clearing the area south of the opening down to ground-level. This excavation revealed that the disturbance here had been so complete that it was impossible to recover any certain indication of the size, or the exact position of the walls of the side chamber, the only clue is the size of this broken cover. The lintel has now been re-set in its original position with new walling above and below it, and the fragments of the



Fig. 1. Cairn from east



Fig. 2. Cairn and terrace from west: terrace ends half-inch from right-hand side of picture

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Fig. 1. Cover-stone from south before re-setting. Lintel covering entrance to side-chamber in foreground



Fig. 2. Terrace, south end showing revetment exposed before removal

cover have been reassembled and placed within the main chamber, where they rest on the original floor-level. Some of the disturbance was recent, as at 1 ft. below the fragments of the cover stone was a piece of wood. Parts of a skull and other human bones were found at the floor-level and may have represented a skeleton lying with its head to the east.

The excavation on this side of the main chamber was extended for some distance but no evidence of a second side chamber or entrance on this side was found.

The Centre of the Cairn

A deep excavation was made behind stone 1 to expose the original ground-level at the approximate centre of the cairn. Here again modern disturbance was evident down to about 5 ft. below the top of the upright, but solid limestone rock was found 8 ft. 6 in. below the true level of the under side of the main cover stone. It was over-laid by 1 to 2 ft. of clean yellow clay, which did not appear to have been disturbed, except for the insertion of the uprights and their packing stones.

The Contents of the Chamber

The chamber contained some 4 ft. of earth and stones; the original level of the floor being 6 ft. below the underside of the cover. In the filling were many fragments of human and animal bones, and their condition illustrated the known history of the monument. All the bones were mixed with the soil in no order or position, and among the deeply buried but modern animal remains were the haunch bones of a red deer which had been cut with a metal cleaver, and thus bore witness to the picnics of the early excavators. There were also bones of ox, sheep, pig, cat, rabbit, ferret, rat, mole, hedgehog, field vole, and bird; the majority of the sheep bones were from new-born lambs, which had no doubt been thrown into the chamber. A few fragments of pottery were recovered, but none came from the floor, which had been cut into and disturbed, and there was one glass bead of La Tène date (fig. 8) which probably owed its presence to the later burials in the surface of the cairn recorded by Rowlands; also a few flints and a bone pin (fig. 9).

Portal, Passage, and Forecourt

The portal and passage, such recurrent features of megalithic tombs, are almost non-existent. The former *may* be represented by the slight overhang of the cover stone of less than 2 ft., but the passage is lacking, unless the two uprights flanking the entrance on the north and the single one on the south, can be considered as constituting a vestigial passage (pl. LXXIII, fig. 1). The large area between the horns, however, certainly served as the forecourt.

If, as suggested below, the true entrance was by means of the side chamber, some of the ritual features may have been in that chamber and in the approach to it.

Access

One problem of some difficulty is that of access to the chamber. There is little doubt that the formal entrance was almost, if not completely, closed by the slab pierced by two holes. Although it would have been possible to throw most if not all human bones into the chamber through these holes, or conceivably over the top of the stone before the interval between it and the corner stone was closed by the dry walling, there is abundant evidence to prove that the bodies in such tombs as this were carefully laid out in burial.

Two alternatives remain, first that the holed stone was put in position after the bodies were placed in the chamber. This is possible but extremely improbable as the stone is very large and its foot is as deeply buried as the side stones of the chamber, also its erection must have preceded that of the two portal stones which flank the entrance on either side. Moreover, so far as could be ascertained, the original floor-level must have come about 1 ft. 6 in. above its foot, so that the whole of the entrance and adjoining parts of the forecourt would have had to be left in a very incomplete condition until after the bodies were placed in the tomb. The second alternative is that the functional entrance to the tomb was through the destroyed chamber on the south side. It is singularly unfortunate that this part of the monument should have been so thoroughly disturbed and the actual chamber destroyed; otherwise a second opening into it might have been found, and possibly an approach from the east which would have provided a reasonable explanation of the abnormal break in the flanking walls on the south side of the forecourt. All that can be said with any confidence is that the south-eastward termination of the flanking walls, although abrupt and certainly as left by the builders, showed no sign of a built doorway such as distinguishes the true entrance of monuments which have a dummy entrance at one end and a true one in a side of the mound; on the other hand their end was covered by a patch of large stones set at an angle and bedded in clay, such as covered the area immediately in front of the chamber, a typical method of closing an entrance (pl. LXXVII, fig. 1).

THE INTERNAL WALLS

An elaborate system of walls buried in the cairn was exposed and planned. The walls varied in height according to their position, as most of them had apparently been built up almost to the surface, although the upper courses had

often been dislocated, and were therefore difficult to trace; moreover the natural settlements within such a large mass, mainly composed of loose stones, had inevitably taken effect, especially when aided by growth and decay of trees.

On the whole, however, the walls were remarkably well preserved, and their existence could always be proved or disproved, although in order to do so it was sometimes necessary to excavate down to ground-level.

All the walls of the main body of the cairn were alike in being built of flat slabs set in puddled clay, although the clay had in some cases been washed away. The outer faces were well built, and as a rule the back was bonded into the body of the cairn. The average thickness was about a foot.

A constant feature was the support given to the lower courses by two or more layers of flat slabs leant up against them and so wedged in position as to make movement almost impossible. Where the walls were of yellow sandstone the props were of limestone.

In one or two places 'buttresses' of stones, distinguishable as such because set in clay, were interposed in the general filling when two walls were exceptionally close together, or where a sharp outward bend in a wall threatened its stability.

In the case of the lowest walls of cairn and terrace the natural soil under the wall itself was very hard, apparently puddled. It was hard, but not so hard, for a foot or 15 in. just outside the wall, and beyond that in its natural state.

At one place only was a patch of clay found covering a wall face although a careful watch was kept for such 'rendering'.

Wall A

The line of the two stones 8 and 10 flanking the north side of the chamber (pl. LXXIII, fig. 1) is continued by a wall of small flat stones which runs continuously round the greater part of the circumference of the cairn. The tracing of the course of this and other internal walls was a long, tedious, and often very difficult task. For the first part of its course near the entrance, wall A stood to a considerable height, as much as 8 ft. in places, with a pronounced batter (pl. LXXV, fig. 2); often the uppermost courses were displaced and the detection of them in trenches was far from easy and was made much more difficult by the erratic course so often followed by the wall on the eastern side of the monument. Even where it is lower, as in its course round the western side, the stones were still apt to be displaced by natural causes such as the growth and decay of trees and their roots.

A large area on the north-west side of the cairn is now effectively sealed by the roots of the two very large oak trees which grow on the summit, but it was just possible to establish the position of the wall intermittently here, and

to expose it completely at intervals along the whole length of the western side until it meets the terrace at its junction with the cairn.

Wall B

This wall is attached to the single upright (no. 7) on the south side of the entrance and runs in a south-easterly direction, forming the counterpart of wall A for a distance of 20 ft. when it comes to a sudden end (pl. LXXVII, fig. 1).

Wall C

Wall C starts from the face of stone 7, 4 ft. from the portal stone and curves round to run a short distance parallel to wall B before stopping equally suddenly 6 ft. short of the end of that wall. It was quite clear to the excavators that the abrupt termination of these two walls was an original feature and could not have been due either to collapse or disturbance; the wall ends were completely covered and 'sealed' by the sloping slabs set in clay which were employed to close the entrance (pl. LXXVII, fig. 1).

Wall D

Wall D starts from the face of wall C, its outer face being 9 ft. from the portal stone. It crosses the forecourt (pl. LXXIII, fig. 1), turning north-eastwards as it approaches wall A to run a course approximately parallel to that wall, then turns sharply eastwards, close to the most easterly projection of wall A, before curving round and roughly following the line of the base of the northern horn of the cairn and eventually coming to an end. At the point where it takes the sharp turn just referred to, a connecting 'buttress' of stones set in clay fills in the interval between the two walls.

Wall E

Wall E is butted against wall D just south of its sharp turn, and runs roughly parallel to it for some 40 ft. before dying away (pl. LXXII, fig. 2).

Wall F

Wall F appears to be the counterpart of wall A running from near the north-east corner of the wall enclosing the terrace in an almost straight line for 20 ft. before ending abruptly.

Wall G

Wall G begins precisely at the north-east angle of the bounding wall of the terrace wall 5 ft. behind F, and also runs for 20 ft. gradually approaching F until it is only a foot behind it when it comes to an end at the same spot.



Fig. 1. Portal. The upper disc is against modern walling resting on Stone 5.
The discs in all the photographs are 2 inches in diameter



Fig. 2. Forecourt, junction of Wall E with Wall D. The right-hand disc marks end of wall; revetting stone replaced in original position against wall; others not moved on left



Fig. 1. Walls D and H in front of portal



Fig. 2. 'Hut-circle' in forecourt, from cover-stone

Wall H

Wall H is a short wall 7 ft. long running roughly parallel to the portal stone and linking walls A and C. It is unusually thick and has a good outer face, but is low (pl. LXXIII, fig. 1).

Wall F

The existence of a second wall running parallel to wall A at a distance of about 6 ft. and nearer the centre of the cairn, has been established at a number of points in the south-west sector (pl. LXXVI, fig. 1). The few excavations that it was possible to make in the north-west sector covered by the network of roots failed to establish its position with any certainty, but the presence of clay and misplaced walling stones made its former existence fairly certain. The roots made deep excavation practically impossible and likely to be of little value.

The seemingly erratic course of some of the walls was very puzzling especially in the case of A, which should probably be considered as essentially a ceremonial feature of the monument, although it no doubt actually served a practical purpose as a retaining wall for a short period, at any rate so much of it as flanked the entrance and forecourt.

The other walls of the northern horn are structurally later, and D apparently served the double purpose of closing the entrance to the tomb and of giving stability to the projection of the horn. The failure of this wall and of E to continue is strange; both tailed out until they became indistinguishable from the body of the cairn, and attempts to connect them with A at its lowest point on the north were in vain.

It would seem that attention was concentrated on the entrance and forecourt in view of their ritual use.

The general lack of symmetry, the abrupt termination of walls B and C and their complete failure to connect with F and G was very disconcerting for the excavators and considerably complicated their task. The resemblance of the southern horn to its fellow was only superficial, and it is tempting to connect its abnormality with the presence of the terrace, unless, as suggested above, the temporary but true entrance to the chambers was here.

THE FORECOURT

This term is used to cover the whole of the area east of the entrance and bounded by the two horns. The part immediately in front of the entrance was completely examined down to the original ground-level, except that none of the walling was moved.

The result of the examination was to reveal a most unexpected lack of symmetry or regularity of arrangement.

The two walling stones 7 and 8 immediately without the entrance proved to be long and deeply set in such a manner that the removal of stone 6 which closes the entrance would have involved a complete rebuilding of the portal. The clean clay which formed the floor of the area in front of the three stones showed no sign of disturbance, but on its surface was the mark of a large fire which had reached as far as stone 8. Apparently the hearth on which it burned was made of small stones bedded in clay and 'dished' at the sides, the total thickness of burnt clay and stones being 4 to 5 in.; below was the trodden clay floor. After the erection of stone 7 and its adjacent walling (wall B) the area was narrowed by the building of wall C, and, as already described, wall H butts against this, and forms a complete barrier to the chamber. H is formed by larger stones than those employed in most of the other walls, for the most part flat, and all set in clay; it was built with a true face to the east and a ragged back. Without it were the sites of two more fires, and beyond them is wall D, also starting from the face of wall B, running diagonally across the forecourt and forming a boundary to the northern side of its eastern portion. A corresponding boundary on the south proved to be entirely lacking. Walls B and C stopped abruptly as already described, and repeated trenching entirely failed to reveal any walling to close the gap between their termination and that of F and G. All that was found was a change in material roughly on the line which wall B would have followed had it been the true counterpart of wall A. A fourth fire was placed against the outer face of wall D. This was a large one and its hearth was formed of stones laid on a trodden floor of clay with many fragments of charcoal mixed in it. Among—but not below—the stones were fragments of pottery.

The stones forming the main body of the cairn within the enclosing walls, were, wherever examined, clean and free from soil. Outside the walls an admixture of soil was usual, but the material used for filling the forecourt area as a whole contained varied quantities of stone always mixed with dark soil, and the deduction drawn from the first trenches cut in it, namely that its dirty condition was due to its disturbance by stone robbers and earlier explorers of the cairn, was later proved to be wrong, and the true reading of the evidence seems to be that when the tomb was finally closed one of the last acts was to collect the varied material left over from the construction and to use it to fill in the area of the forecourt, which was presumably the scene of some of the last funeral rites.

This comparatively casual heaping up of material was, however, only employed in the intermediate stages, the actual skirts of the cairn were marked

out with great care and regularity even immediately opposite the entrance (pl. LXXIV, figs. 1 and 2). Layers of puddled clay were brought down to a quite fine and well-marked edge, the extreme margin being without the stones which were employed more and more freely as the revetment became thick enough to carry them.

SEALING

The area immediately without the entrance for a radius of some 16 ft. was carefully and elaborately covered in by layers of large slabs of stone considerably larger than those employed in the walling; all set in puddled clay and sloping upwards at an angle of about 45 degrees in the direction of the chamber (pls. LXXIV, fig. 1 and LXXV, fig. 1). This arrangement bears a close analogy to that employed to seal the entrance to Bryn Celli Ddu when due allowance is made for the different materials employed and the contrasted forms of the actual entrances.

A curious structure was found set in the central area of the forecourt. It was a low roughly circular wall of stones set in clay (pl. LXXIII, fig. 2). It may have formed the base of some form of shelter, but its construction is very irregular and the walls varied considerably in thickness and were roughly built. It was difficult while the excavation was going on to discover in some places whether the outer or inner face was the true one, especially as the interior was filled with stones only differentiated from those forming the wall by the fact that they were lying in loose soil instead of set in clay. Those however which remained after the loose stones had been removed and produced the 'structure' shown on the plan, were actually set in clay, and there was a compacted clay floor, both within and without. Inside at one side was a hole 6 in. deep in which were some twenty small blackened flakes of limestone which may perhaps have served to steady a small upright; also much charcoal or carbonized wood, possibly the remains of a post. Hereabouts as elsewhere charcoal was abundant, and at this point, without the wall, was a deep deposit of over an inch of ash, the only place where such was observed. No other post holes could be detected.

Just to the right of this structure is a short length of straight wall face.

It seems likely that all these structural features were the more or less accidental results of using a greater or less amount of clay in filling up the courtyard when the tomb was closed.

THE TERRACE

The Terrace (pls. LXX, fig. 2 and LXXI, fig. 2), whatever its precise relation to the cairn may be, is a separate structural entity of slightly earlier date than the completion of the cairn, although the interval between the building of the

two is one to be measured only by days,—or perhaps even by hours. The core varies from place to place, sometimes it is formed of a mass of stones, for the most part pitched on end and measuring between one and two feet in length, compacted with smaller stones and a little soil, elsewhere the construction is more casual. This core is contained by walls of flat stones set in clay precisely similar in construction to much of the walling in the cairn, particularly of wall A where it runs round the western side of the cairn. The predominant material in the terrace wall, especially at its southern end, is slabs of rather soft yellow sandstone. The average height of this wall is 2 ft. and it is revetted externally by a ramp of stones of varying size, set on clay which lessens regularly in thickness until it disappears at an average distance of 6 ft. from the outer face of the wall. At one point there is embedded in the wall and flush with its face a small upright stone which projects very slightly above the turf line and may possibly have been higher and had its top knocked off. No similar stone was found to balance it on the other side of the terrace or elsewhere.

The internal structure of the terrace was revealed by the clearance of the south end,¹ the cutting of one complete section (pl. LXXIX, fig. 1), and the examination of two places where it had suffered damage. After the position and character of the containing wall and its revetment had been established by a number of short sections, and trial excavations had proved the existence of the south end wall built with a slight outward curve, a thorough examination of selected areas was carried out. It was found that this end of the terrace had been built on uneven ground, of which the chief slope is to the east and of fairly regular gradient. This slope tends to flatten out and come to a crown just to the west of the terrace. There is also a natural ridge, about 15 ft. wide, which runs east and west directly under the south wall, causing the end of the terrace to rise slightly southwards. The builders do not seem to have made any attempt to overcome this irregularity, and the construction was carried out as if the ground were level, the top of the walls and filling following the curves of the slopes, except that the general slope to the east was somewhat exaggerated by building the west wall to a greater height.

It appears that before building, the area was stripped of turf and a beaten clay floor prepared, covering the natural soil to a depth of 2 to 3 in. and extending several feet beyond the present face of the wall. Everywhere beneath the terrace, filling and walls, and extending a few inches out from them, the hard clay was full of charcoal. Judging from the even distribution of this charcoal, it was mixed with the clay and was not the result of burning on the surface.

¹ After the discovery of the urn on the main axis (p. 269) the revetment only of the western part was searched for further burials, and in 1935 the eastern part and the underlying floor, as well as the interior, was more closely examined by Mr. Colin Gresham.

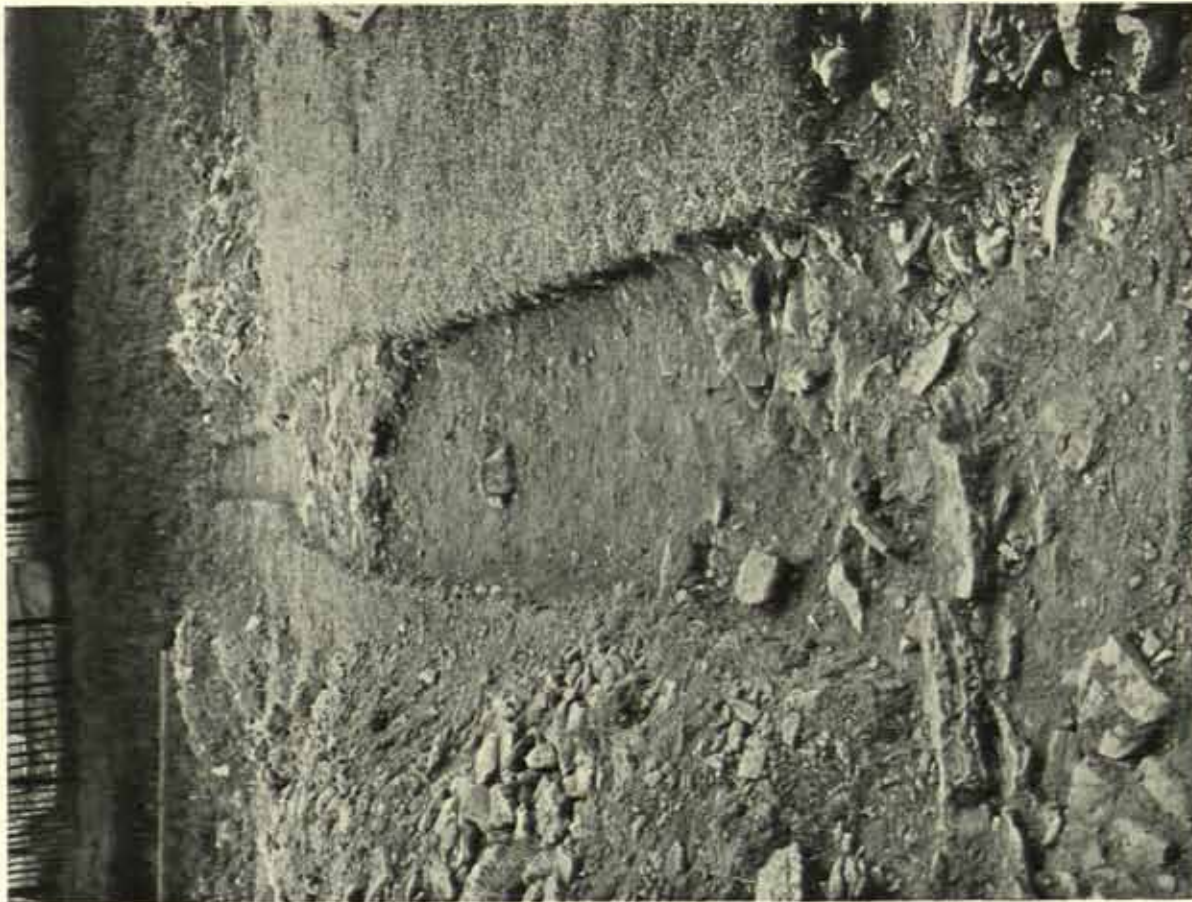


Fig. 1. Forecourt, from cover-stone looking east on line of section B-B before removal of material in forecourt. In foreground are edges of sloping sealing stones, beyond is area from which upper part of filling has been removed by quarrying, beyond is undisturbed filling

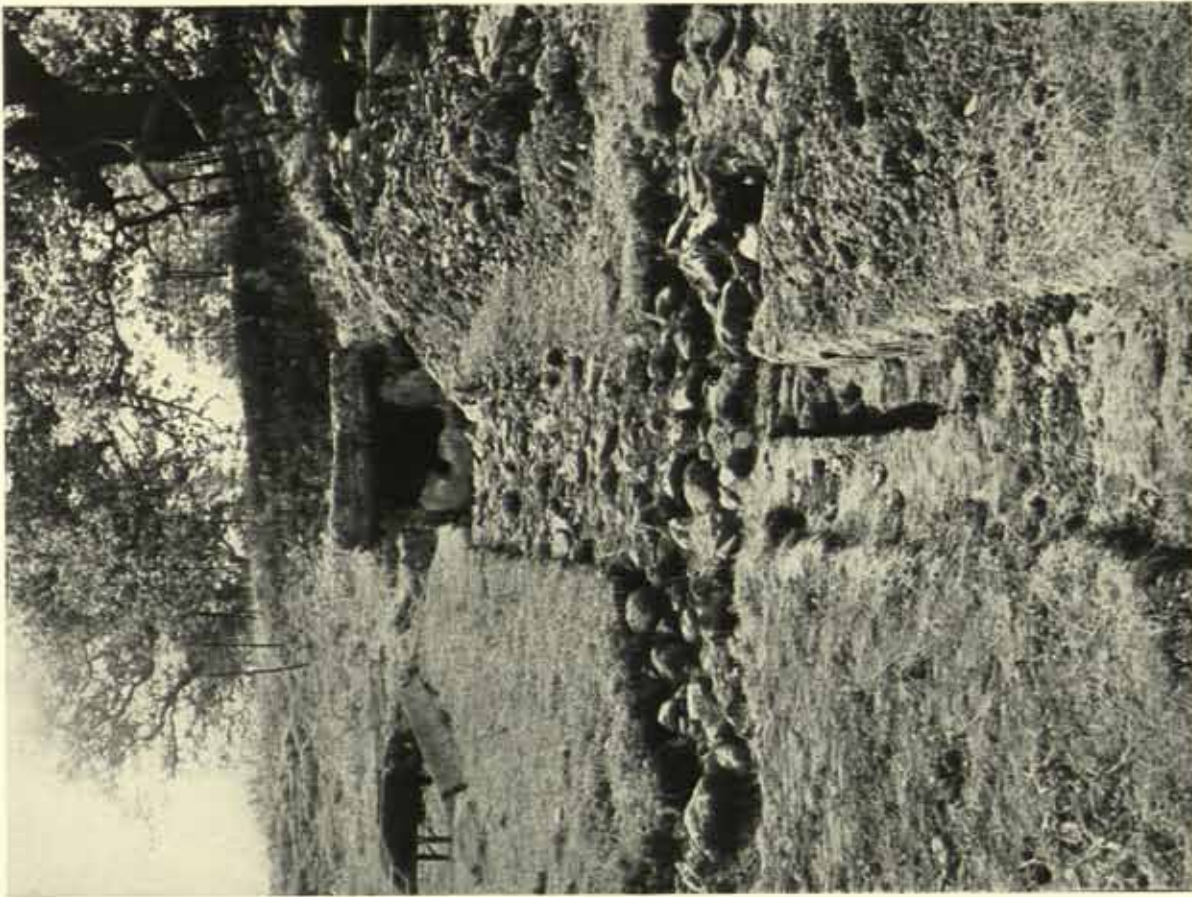


Fig. 2. Forecourt before clearing, view along line B-B from east. Clay revetment in foreground; disc marks lower edge of stone revetment; filling of forecourt beyond



Fig. 1. Forecourt. Wall C with sloping stones of sealing above it. Left-hand disc marks junction of Wall D, right-hand disc that of Wall H; immediately above and behind this disc is the junction of Wall B and Stone 7. The discs are 2 inches in diameter



Fig. 2. Wall A at junction with Stone 10. The disc is 2 inches in diameter

The Walls

The lowest courses of the walls were laid directly on this floor, except at certain points in the west wall, where larger foundation stones run down into the natural soil.

The walls vary from 1 ft. 6 in. to 2 ft. in height, and are composed of neat courses of sandstone on the face, bonded into larger rough stones at the back. Apparently they were thus built up, previous to the filling in, with a thickness of 1 ft. or 1 ft. 6 in., sufficient projecting stones being left at the back to secure a firm bond with the core. All the stones are carefully bedded in clay.

The workmanship of the wall was by no means constant. On the west side it is still high and solid, being very much thicker than elsewhere and provided with special large foundation stones. The actual facing is, however, rather uneven and slipshod. To the south the wall, although not so thick and high, is nevertheless strong and very neatly faced, but on the east side the wall has for the most part been destroyed, the only trace of it in place being the flat facing stones lying along together at oblique angles. When it does stand, it is thin and low, but neatly made.

This dilapidation may be due to the downhill pressure of the internal filling of the terrace, but the builders do not seem to have made any special attempt to counteract this, for the revetment built against the wall is slighter than that to the west.

An exceptional feature was found on the west wall, where, some 2 ft. from its end, a carefully built section stands about 9 in. in front of the normal face for 5 ft., and appears to have been deliberately built in this position; to judge by the neatness of its formation it must have had some important signification for the builders. A similar section occurs for some 12 ft. on the east wall beginning about 30 ft. from the south end.

Pieces of broken pot were found directly under the wall at most of the places where it was examined, and it is possible that they were specially placed on the clay floor to mark out the line of the wall for those who were building it.

The Revetment

After the walls had been filled up from within they were protected by a sloping revetment piled against their outer face (pl. LXXIX, figs. 1 and 2). The construction of this revetment varies considerably. To the west it consists of small stones and earth sloping away from the top of the wall to a distance not exceeding 6 ft. At the western part of the south end the revetment is mainly of clay with stone concentrated on the surface, while at the eastern part the stones extended only a foot or so from the wall, being backed by a bank of clay,

a number of larger stones being laid on the floor-level and particularly carefully packed round the south-east corner. A larger proportion of stones was also placed along the walls for 2 ft. each way at the south-west corner. Occasional lumps of white quartz were found, usually placed close to the wall. The revetment of the east wall is less well built, being composed of very few stones put against the wall and backed by an earth ramp. A more solid revetment might have been expected on the downhill side to bear the thrust of the filling, and had this been provided, so much of the eastern wall would probably not have fallen away.

Outside the southern end of the terrace nearly opposite the end of the east wall is another stone set on edge in the floor; it is rather far from the wall to act as a buttress but was possibly a setting-out stone.

The Filling

The internal filling of the terrace varied considerably. Directly inside the south end it was built up of large, and for the most part rounded, stones bedded firmly together with clay, so as to form an almost solid continuation of the wall. This extended for about 3 ft., after which came an area composed chiefly of soil with a few smaller stones in it. This in its turn gave place to the more usual filling of the terrace, that is to say medium sized stones lying together and filled round with earth.

About 40 ft. from the southern end of the terrace the filling was of an entirely different nature, the stones being small and irregular and intermixed with considerable quantities of a dark and dirty soil and small pebbles.

A thin upright slab of limestone was found sunk into the clay floor some 4 ft. from the end of the terrace and exactly centred along its axis; it was about 38 in. long, 24 in. high, and 2 in. thick, and had plainly been placed there for some special purpose, possibly as a centre line for setting out the terrace. A second slab was wedged in position beside it, not reaching the floor, but having its upper edge level with the top of the filling.¹ A third similar but smaller stone standing at the north end but not bedded into the floor seemed to have come there by chance. The filling to the east and west of the first stone varied slightly in formation.

Another stone set in the clay floor was found some 40 ft. from the end, lying considerably to the east of the centre line and east and west across the terrace.

¹ A similar feature was found in the St. Nicholas chambered cairn, see *Archaeologia Cambrensis*, 1916, p. 313, and fig. 18.



Fig. 1. Cairn, view along central section B-B from west. The nearer disc marks Wall A, the farther Wall J



Fig. 2. Terrace, looking along north end of west side. Left-hand disc on end of Wall A, right-hand on wall of terrace



Fig. 1. Forecourt, ends of Walls B and C. Left-hand disc marks end of B, upper disc marks junction of wall and sealing stones, nearest disc marks end of Wall C



Fig. 2. Terrace, north end partly cleared with body of cairn on right. Left-hand disc marks the upright setting-out stone; right-hand disc rests on a loose filling stone



Fig. 1. Terrace, eastern part of north end. Left-hand disc marks end of Wall F



Fig. 2. Terrace, western part north end after clearing



Fig. 1. Terrace, section C from west, disc marks wall



Fig. 2. Terrace, revetment at junction of east wall with cairn. Left-hand disc on wall of terrace, right against Wall F

Finds

A central north and south section at the south end of the terrace exposed a food vessel with an overhanging rim inverted over a cremation (pl. LXXX, fig. 1 and figs. 4 and 5), and close to it, on the surface of the revetment, was a grit stone, the upper side of which had been hammer dressed so as to leave a raised 'table' in the form of an equilateral triangle. Each side of the triangle is 7 to 8 in. long and the surface so formed appears to have been carefully dressed by 'pocking', but in the opinion of Dr. Thomas the surface is a natural one (pls. LXXX, fig. 1 and LXXXI, fig. 2).

In this area at the south end of the terrace outside the wall a considerable number of other finds was made.

The most significant were three deposits of burnt human bones lying 3 ft. 6 in., 4 ft. 6 in., and 6 ft. 6 in. from the face of the south wall. Each consisted of considerable quantities of cremated bones (two teacups full at 4 ft. 6 in. and one at 6 ft. 6 in.), all close together in a mass, mixed with dark clay and numerous pieces of charcoal. Pieces of burnt hazel-nut shell were also found in connexion with them. The deposit at 6 ft. 6 in. was lying under a slab of stone.

As far as could be judged the bones had been burnt, gathered together and placed in shallow depressions in the clay floor surrounding the terrace. A few pieces of bone were spread round the burials and were also found in the lower layers of the revetment itself.

In addition to these burials a large unburnt animal bone, the distal half of the left humerus of an ox, had been carefully placed at the south-east corner of the terrace (pl. LXXX, fig. 2). It was laid centrally on the filling of a circular clay-lined pit about 20 in. in diameter which went down through the clay floor to the depth of nearly a foot. The bone was lying just below floor-level, resting on three stones without accompanying soil. A fourth large flat stone completely covered it. The clay lining, like the soil above, was dark with charcoal and the pit contained one or two pieces of burnt bone and limestone, in addition to a fragment of a toe bone of an ox and pieces of flint and charcoal. It is possible that the large bone was intended to represent a phallus.

To the east of this corner of the terrace a number of sherds of a single pot was found at floor-level, some lying together in a mass, others strewn around; they must have been thrown there before the filling of the revetment began, probably in a broken state (fig. 3, no. 12). A very small piece of burnt bone was lying close by the chief mass of pot and a flat stone covered the whole.

All the other finds outside the south end of the terrace seem to be purely accidental and may be divided into two classes,—those found in the revetment itself and those on the level of the clay floor.

In the first there were numbers of broken flints and here and there stray pieces of burnt bone and charcoal. A few feet along the west wall and high up in the revetment, being only 1 ft. 9 in. from the surface, were a quantity of winkle shells, possibly the remains of a workman's dinner tidily hidden away. A large whelk shell was found above them scarcely a foot below the surface.

On the floor-level, however, all the sherds of pot were found, usually close to, or under, the wall. There were also flakes of Graig Lwyd stone, some from polished axes, and a core of the same material. Forty feet along the east wall and extending along its foot for a further 9 ft. a great many small flakes of flint were found. They were very evenly strewn along the floor-level, none lying more than 6 in. from the face of the wall. Slightly to the south of these were some small pieces of unburnt bone.

Finds within the walls of the terrace were fewer than outside, and for the most part were at floor-level.

Of those found actually among the stones of the filling the only ones that might have been purposely placed there were many fragments of burnt bone, not in a mass but widely spread about to cover an area some 4 ft. by 3 ft., on the west side of the centre line. A small leaf-shaped arrow-head of flint (fig. 7, no. 2) was found in the filling about 6 in. above the floor-level close by the end of the centre setting-out stone. Other objects that had found their way by chance into the filling were the tooth of an ox, one or two sherds of pot and a flake of Graig Lwyd stone; but no charcoal.

None of the finds on the level of the clay floor seems to have been purposely placed there, with the possible exception of some small sherds of thin red pot, found with one or two fragments of burnt bone and nut-shell, a group resembling those outside the wall. In addition a good many sherds of pot were found scattered promiscuously about, together with flakes of Graig Lwyd stone, and fragments of unburnt bone. The clay and charcoal floor was found at every point inspected.

Hollow

A hollow about 10 ft. in diameter occupying the eastern half of the terrace between 20 and 30 ft. from the south end was also examined. It had been surmised that this and other hollows were probably due to the growth and decay of large trees which had loosened the stones of the core, and nothing was found to controvert this theory. Here again was a floor of trodden clay with signs of burning upon it, which burning, represented by ashes, extended under, but not beyond, the eastern containing wall. A number of objects was recovered, including the greater part of a pointed-butt axe (fig. 6, no. 3) which had been broken and exposed to sufficient heat to cause it to flake badly, also flakes of Graig



Fig. 1. Terrace, south end ; central trench and revetment. Farther disc rests against south wall, nearer is just behind remains of cinerary urn, and to left of it is triangle stone with pattern marked by soil



Fig. 2. Terrace ; pit at south-east corner, wall at back, stones of revetment on either side



Fig. 1. Hone stone



Fig. 2. Triangle stone

Lwyd stone, one from a polished axe, a few small fragments of burnt and unburnt bone and ox teeth and the 'peeled' stone (fig. 6, no. 5, and Appendix VII).

A second hollow just to the south of the main cross section also proved to be due to the removal of stones and was barren of finds.

The Northern End

Another area just within the boundary wall at the north end of the terrace was also examined. Here the wall is higher and more substantially built than that at the south end, but is of rougher workmanship and less regularly planned. The internal filling of the terrace is very tightly packed and so closely bonded to the wall that here the two seem to have been built up together. This filling consists of stones of all sizes, firmly wedged against each other and bedded in clay. Towards the bottom a change of construction was noticed, running in a fairly direct line across the terrace, about nine feet from its end. To the north of this, the stones which formed the filling were large and roundish, being set on end, while to the south they were small and flat lying horizontally on top of each other. Between the two types of filling there was a thin pocket of clay. This feature probably represents a temporary pause in construction and perhaps a desire to make the end of the terrace more substantial than the rest.

The charcoal floor was not found at the bottom of the filling, but this was probably due to the rain and mud. The only find was the remains of a fire close behind the east wall and level with its foundation. There was no trace of bone but only large lumps of charcoal.

Just short of the apparent junction of the east side of the terrace with the southern horn of the cairn the carefully built containing wall came to an abrupt end, its place being taken by a wall of small boulder stones (distinguishable from the revetment by the fact that they were set in puddled clay), which continued for some eight feet in the same direction, just behind the line set by the better made face, until it curved round to bound the northern end of the terrace. Five feet north of the change a well-built wall with an outer face (F) was butted up against it and was clearly part of the cairn. The revetment outside the junction of the two walls was exceptional, being built of very large stones carefully set in clay (pl. LXXIX, fig. 2).

Precisely at the north-east angle of the terrace wall it was joined by wall G also butted up against it.

The junction of the western containing wall of the terrace with the termination of wall A of the cairn (pl. LXXVI, fig. 2) provided the excavators with an extremely difficult problem which was rendered much more complicated by the existence of a very large ash tree several feet in diameter which completely covered the junction and whose roots had dislocated the structure of the walls.

Although only a portion was still alive when it was cut down in 1929, it was not until 1934 that the roots had sufficiently decayed to make it safe to examine the area they covered.

As on the eastern side, the fair face of the terrace wall came to an end and the wall continued as a line of small boulders set in clay for a short distance before curving outwards to meet the continuation of wall A, similarly built of small boulder stones, which was butted against it. It then turned sharply northwards again and curved round, with a much more gentle angle than at the north-east corner, to form the end of the terrace.

The irregularity of the termination of wall A is equally marked, it changes in character in a similar way from a carefully built wall of flat sandstones to one of small boulders, and curves irregularly outwards until it butts up against the terrace wall at the point where the latter changes in direction.

Even apart from the evidence of the plan, the structure of the terrace wall at its northern termination proves that it was built before the adjacent part of the cairn was heaped against it, but its increased height and the much rougher method of building make it certain that the addition of the cairn was contemplated when the wall was built. There is much variety in the structural detail of this northern end. The western part (pl. LXXVIII, fig. 2) is built on a foundation of very big stones and with a considerable batter, the eastern half (pl. LXXVIII, fig. 1), which has a lower average height, is less solidly built and is faced with thinner stones set on edge, while at the north-eastern corner, where the two cairn walls F and G butt up against it, each slight interval between the two constructions was filled in by wedge-shaped stones. Elsewhere the loose stones of the cairn had been piled up against the wall face, but were noticeably smaller here than in other parts of the cairn where it was possible to see them undisturbed (pl. LXXVI, fig. 2).

Among the stones of the cairn filling and resting against the face of the wall a foot or more above ground-level at the north-west corner was the hone stone for polishing axes (pl. LXXXI, fig. 1). The clearance of the face of the wall exposed two upright stones firmly set in the ground and a third which was not fully exposed seemed to mark the termination of wall G. It is possible that these may have been setting-out stones. It was hoped that the termination of wall J would be found butting against the terrace wall, but there was no trace of it, although the exposure of the face of the terrace wall was carried down to ground-level. A slight change in the material of the cairn did occur however near the spot where the wall might have been expected, the filling of the area to the south containing a certain proportion of soil, while that to the north was of clean loose stones.

The area without the junction of wall A with the terrace wall was remarkable

for the large number of finds it produced. An axe (fig. 6, no. 2) was found at floor-level almost underneath the termination of the well-built portion of the terrace wall, a second (fig. 6, no. 4) in recently disturbed soil—which had, however, come from the immediate neighbourhood—five feet to the south of this point. Over a hundred pieces of pottery were found scattered along the face of wall A, mostly at floor-level, together with many flakes of Graig Lwyd stone which lay both on the ground-level and, to a larger extent than the pottery, in the upper layers of the revetment.

Owing to the levels the spread of the revetment is not so obvious here as elsewhere and it seemed possible that natural hollows in the surface of the ground had been filled up with stones and loose clay; but a much more thorough examination would be necessary before any definite conclusion could be reached.

DATE

The most secure evidence of date is provided by the pottery and the axes and arrowheads, and has been summarized by Mr. Piggott and Dr. Grahame Clark in the concluding paragraphs of their reports (Appendices V and VI).

It is particularly unfortunate that the contents of the chamber should have been so completely disturbed, as from these alone it might have been possible to prove with certainty the contemporary use of tomb and pottery. In fact, however, there can be but little doubt that the pottery users were the builders of the cairn who set it up in the dawn of the local Bronze Age. The precise dating of that culture in this district is still uncertain, but the association of the neolithic A and B ware with Graig Lwyd axes at this site, and of neolithic A with beakers at Capel Garmon and neolithic B with jet sliders and a flint knife at the Gop cave suggest a period early in the second millennium B.C., say 1800 to 1600.

The difficulty caused by the discovery at the end of the terrace of the cinerary urn of middle Bronze Age type found inverted over a cremation, which should be dated within the second half of the first millennium B.C., is best explained by the assumption that it represents an intrusive secondary burial, a quite possible solution, although the burial itself provided no evidence of relative date.

The possibility that neolithic culture lingered in Anglesey until the middle Bronze Age is much lessened by the fact that, as pointed out by Mr. Piggott, the conjunction of neolithic pottery and Graig Lwyd axes points to direct communication with Southern England.

TYPE

No precise or even close parallel to the monument as a whole is known. The terrace is quite abnormal, although similar attachments to megalithic cairns may well have disappeared in cultivated land. Stone rows of course are often associated with cairns, but their purpose and meaning are at present unknown and there seems to be no adequate reason for connecting them with the Bryn yr Hen Bobl terrace. The latter, whatever its purpose may be, is certainly an original feature and contemporary with the cairn.

CEREMONIAL

The cairn provided much less evidence of ceremonial than did the neighbouring site of Bryn Celli Ddu. Although there was the same sealing of the entrance, and use of fires on the floor of the forecourt, there was no pit immediately behind the chamber, which, it should be noted, was in the centre of the cairn in the place occupied by the pit at Bryn Celli Ddu, nor was any sign of a prepared floor or any construction found there in the small space accessible for examination.

There was no encircling ditch nor peristalith.

A number of fragments of white quartz were found, but they were such as would naturally occur in the soil, and there was no evidence of ceremonial use. All the pottery fragments and flakes of stone and flint might have been already lost or discarded before the material containing them was used to complete the revetments or fill in the forecourt, and much the same could be said for the axes and other finds.

The exceptions seem to be the deposits of cremated bone, which were placed near the SE. corner of the terrace, in one case in a pit with part of a humerus and part of a toe bone of an ox.

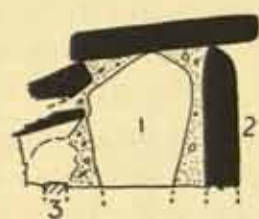
It may or may not be significant that the stone marked with a triangle was placed on the main axis of the terrace; and it is perhaps worth noting that about a dozen limpet shells were placed on projecting stones at the foot of wall J on the west side of the cairn on the EW. axis.

SYMBOLISM

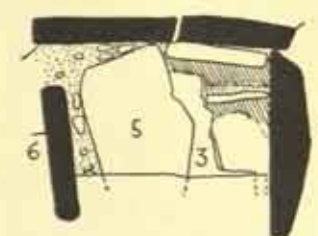
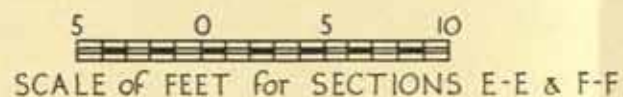
The problems set by the symbolism employed by the builders of this and cognate monuments are of great difficulty. So many questions are raised which can only be noted and left for future excavators and students of anthropology to answer as best they can.

The phallic appearance of the plan at Bryn yr Hen Bobl is obvious—but

BRYN YR HEN BOBL SECTIONS



SECTION E-E



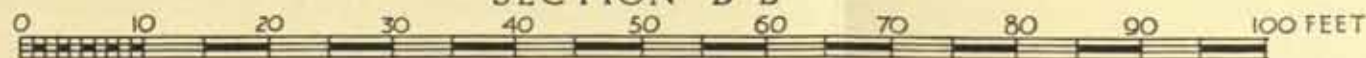
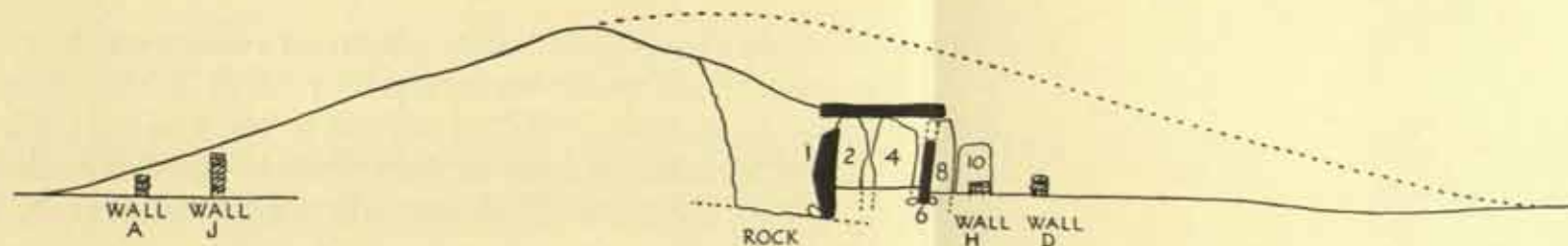
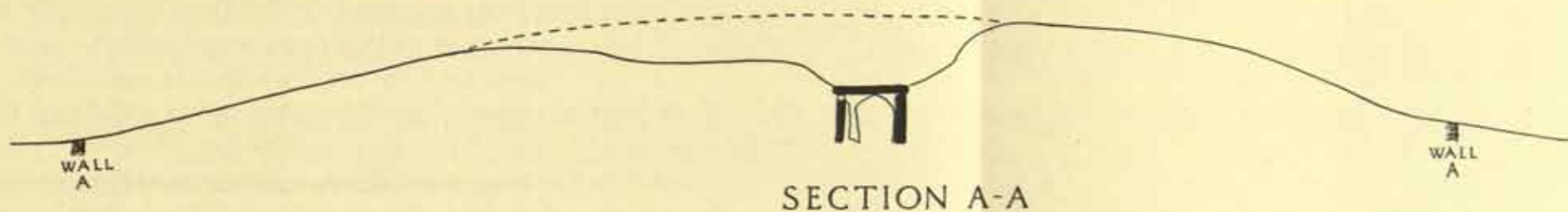
SECTION F-F



SECTION D-D



SECTION C-C



BRYN YR HEN BOB

SECTIONS



SECTION 1



SECTION 2



SECTION 3



SECTION 4

SECTION 5

to what extent did the builders think in terms of plans? The elaborate spiral arrangement of the encircling walls at the neighbouring monument of Bryn Celli Ddu¹ answers the question in part; the upright pillar in the chamber there may well be phallic and so in all probability was the small erect stone set in a little pit at the foot of one of the stones of the innermost circle there.

The bone placed in a pit at the south-east corner of the terrace at Bryn yr Hen Bobl can be explained in the same way, and the triangular pattern on the stone centrally placed at the end of the terrace is a well-known symbol in Mediterranean archaeology; so also are cowrie shells, and one of these was among the material from the chamber.

For such a unique excrescence as the terrace at Bryn yr Hen Bobl, it is not easy to suggest a convincing alternative to symbolism.

A writer in the *Archaeological Journal*² has suggested that the plans of many barrows and cairns may be intended to symbolize the return of the body to the womb of earth; but, however probable this theory may be, it must be remembered that more convincing arguments can be produced to prove their derivation from the megalithic monuments.

It has been propounded by the present writer, that cairns and barrows as a whole can be traced to the rock cut tomb³ and it may well be that in course of time mystical ideas and symbolism become attached to them, then embodied in the traditions of their builders and so in the plans of the monuments. Phallic symbolism is of course deeply implanted in the region about the Eastern Mediterranean where it is likely that the origin of the megalithic culture must be sought.

Help was received from many quarters. Lord Anglesey's contribution has already been recorded; Mr. R. S. Newall spent several weeks in four successive years in charge of different sections of the work; Mr. Colin Gresham undertook the examination of the south end of the terrace in 1935, with the help of Mr. Glyn Daniel; and Capt. B. H. Cunnington also assisted during the earlier stages of the work.

Mr. William Griffiths of Caernarvon, who has acted as foreman for the compiler of this account on every megalithic site he has examined, has again earned his gratitude. Once more he has lightened the excavator's task by the accurate observation and meticulous care which characterize his work.

Thanks are also due to those whose reports on the finds appear in the appendices, and to Mr. Alexander Keiller and his staff for undertaking the preservation of the pottery, a very delicate task.

¹ *Archaeologia*, lxxx, 179-214.

² lxxviii, 205-15.

³ *Proc. Prehist. Soc.*, 1935, pp. 108-14.

APPENDIX I

HUMAN REMAINS

Most of the bones obtained from the chamber were broken and had been removed and replaced and it is likely that some belonged to the later interments in the surface of the cairn.

Sir Arthur Keith very kindly examined those recovered in 1929 and reported as follows:—

‘I have with the aid of Smith, attendant in Room L of the Museum [of the Royal College of Surgeons], made a systematic examination of all the bones from Plas Newydd Park, Anglesey.

Animal bones are much more numerous than human—sheep preponderate, mostly in the form of young (newborn) lambs: did some lazy shepherd use the tumulus as a graveyard for his flock? Also there is an ox femur sawn across with a metal saw: bones of rabbit and rat are plentiful. There are some of cat, pig, hedge-hog, field vole, mole, and ferret. The haunch bones of a red-deer have been cut with a metal cleaver: clearly we have here a mixture of animal bones of various dates—most not very old, none really in a Neolithic state.

On the other hand, some of the human bones—unfortunately only fragments were recovered—are undoubtedly old and may well be Neolithic in date. This is particularly so as regards those which were labelled with the letter κ. One (j) shows cuts made while the bone was still fresh.

(A) Part of right side of lower jaw: male, stout bone, teeth ground down by wear (Neolithic?).

(B) Fragment of a parietal bone.

(C) Sacrum of a young man.

(D) First sacral vertebra of child aged ten years.

(E) Lower end of right femur of a small woman with other fragments of shaft of bone.

(F) First lumbar vertebra of a man.

(G) Right half of lower jaw covered with a stalagmite deposit as if it had come from a cave. Might well be Neolithic. Shallow symphysis, only 28 mm. Chin, a small rounded elevation.

(H) Fragment of frontal bone of a man.

(J) Root of nose and part of forehead above nose. On each side and on the nose clean cuts made when the bone was still fresh, either in life or soon after death. The fragment appears to have been hacked out of the head, thus exposing the brain. Probably from a man's skull. The condition of the bone indicates that it is not a recent burial—certainly Early Iron Age, perhaps older.

(K) Frontal bone with part of parietal of young woman. In much the same state of preservation as J. The fractured edges are such as are seen only when a skull is broken in a fresh or recent state. The characters of the forehead are not typical of our Neolithic people: more likely Bronze or Early Iron Age.

(L) Part of parietal bone of a child two to three years of age.

Many other fragments of human bones including a thigh-bone of a child aged 2 years, mid part of tibia of small woman, upper part of tibia of man, extremely flattened (platy-nemic). Index = 60. The flat tibia suggests a Neolithic or Bronze Age date—but the condition of the bones favours a later period.

Fragment of a man's clavicle and hip bone.

Part of tibia of small woman.

Part of thigh-bone of man.

Part of thigh-bone of man (no. 2) with pronounced *linea aspera*—suggestive of Neolithic or Bronze Age date. The man's bones are thick and stout.

Thus you have fragments representing men, women, and children, 15 or 16 individuals. One specimen suggests cannibalism.

Some of the human fragments may well be Neolithic in date, but others and all the animal bones I regard as being Roman or post-Roman. Some may be medieval or later.'

After Sir Arthur's retirement Miss M. L. Tildesley was kind enough to report in 1934 on further material from the same source, including the largest portion of a skull from the floor of the presumed side chamber.

REPORT ON HUMAN REMAINS FROM BRYN YR HEN BOBL

By M. L. TILDESLEY, Human Osteological Curator, Royal College of Surgeons' Museum

'The remains submitted for report consisted of almost equal parts of human and animal bones. The former represent at least seven individuals, none of which has more than a small part of its skeleton present. These are described below. It is stated that "the chamber was first discovered and opened in the 18th century, and when partly excavated all the bones . . . were shovelled back and possibly with them the remains of later burials which had been inserted into the upper layers of the cairn". If all the bones from the chambers were put back and are now here, it is certain that there was no complete skeleton among them; nor was any complete later burial shovelled in. The human remains are as follows :

(1) Infant under a year old : half the lower jaw and a collar-bone.

(2) Child of about five years : frontal bone, left temporal, lower jaw and half the upper jaw, shin-bones, fragment of hip-bone and of upper arm bone.

(3) Boy about fifteen years old : the greater part of upper and lower jaws, fragments of cranial vault, part of right shoulder blade, of right thigh-bone and left ulna.

(4) Young woman about twenty years old : skull fragments, part of right hip-bone, and eight long bones, one of which—the right shin bone—is practically complete. Though the upper end of the tibia is not yet fully united to the shaft, union is in process, and therefore presumably growth in this bone has ceased, and its length may be measured to give an estimate of stature. Its total length, excluding spine, is 29.3 cm.; the most probable stature would therefore be 4 ft. 8½ in. The bones of this woman are not only short but slender. They differ from the other bones in their state of preservation, being darkened to a considerable extent post mortem, perhaps by some mineral deposit. The left ulna has obviously been gnawed.

(5, 6, 7, and 8) There are apparently at least four other individuals represented by the remaining fragments.

The sternal ends of a pair of collar bones, with bony plates in process of fusion would belong to a person about twenty-five years of age.

A portion of the right side of a skull (temporal, part of parietal, and a fragment of frontal) shows a part of the coronal suture which is already obliterated on its inner surface. This individual would probably be thirty or more years old, and was probably female.

The largest portion of skull, consisting of the parietals and part of the occipital, is the one "assigned with reasonable certainty *from position* to the original use of the cairn [the side chamber]". Only one other fragment could be made to fit, though portions of an upper and lower jaw may belong to the same individual. The cranial sutures suggest middle age, and the size of the teeth (if the jaws belong) suggests male. In two places along the border of this largest skull fragment—on occipital and left parietal—the edge has a curious double bevel for half an inch or so. It almost looks as though some creature with a V-shaped division between sharp central incisors had gnawed the edge longways. On the occipital, the part of the edge adjacent to the bevel is notched, as though showing the "stumps" of several strips of bone thus shaved off along the edge.

Among the remaining fragments are a large and rugged collar bone, heel bone and ulna, certainly male and probably middle aged. These probably belong to a different individual from the last lot described.

There are thus presumably at least eight individuals represented by the human fragments. Of these the smallness of the young woman described under (4) is the feature most suggesting Neolithic remains, though it would of course be very rash to make a diagnosis on that alone. The skull fragment whose position gave it the best claim to date from the original using of the barrow, is not inconsistent with that period as far as the hinder half of a skull can give evidence on this point. Its condition is such as is usually found in more recent periods than Neolithic, but this is such a very variable character, dependent on such varying conditions of preservation, that one cannot exclude it from the earlier period on this account.'

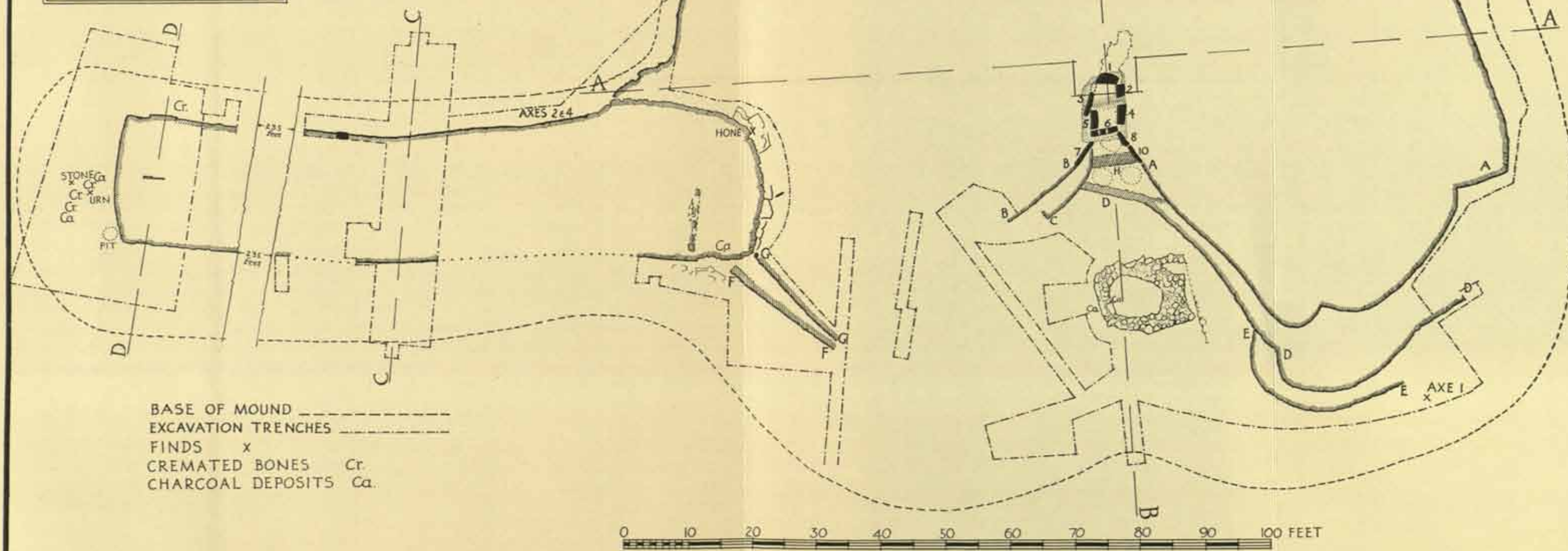
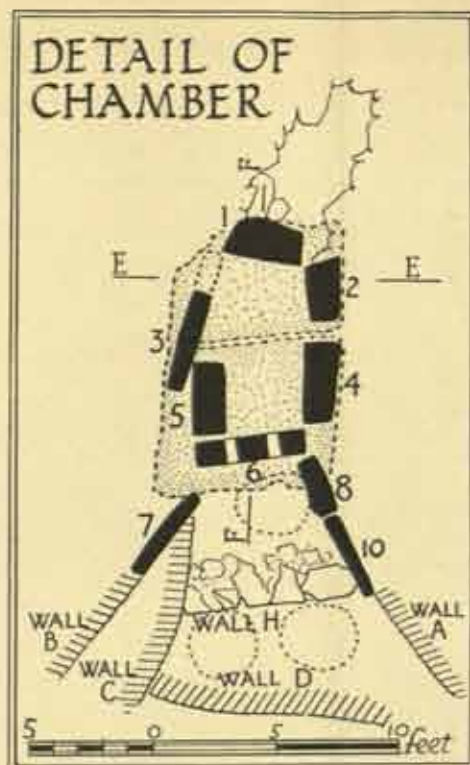
Miss Tildesley adds the following summary of the two reports:—

'In the report by Sir Arthur Keith on human remains from Bryn yr Hen Bobl, these are assigned to fifteen or sixteen individuals who came under the following heads: (1) child of two years, (2) child of ten, (3) adult male, (4) adult female.

Those reported on by M. L. Tildesley in 1934 belong to not less than eight individuals, viz.: (1) infant under one year, (2) child of about five years, (3) boy of about fifteen years, (4) young woman of about twenty years, (5) person of about twenty-five years, (6, 7, 8) older adults, one probably female, one probably male, one certainly male.

Here again we have a mixture of sexes and ages. Since we cannot assume that none of the individuals represented in the bones from the first excavation was represented in the second, we cannot say that the number of individuals represented altogether was at least $15 + 8 = 23$. The ages of the non-adults mentioned in the two reports are not the same, but some of the adults may be represented in both lots. It would be possible by re-examining the whole of the material together to say the minimum number of individuals represented by them, but the exact minimum number has no scientific value and would

BRYN YR HEN BOBL CHAMBERED CAIRN ANGLESEY



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not be worth the very considerable trouble of re-examination. It suffices to know that the human remains derive from a score or so of individuals, none of whom is extensively represented among them; and that these individuals are male and female, young and old.'

Some small additions must be made to the above lists. A human incisor tooth was found on the clay floor of the filling of the terrace, near the south end, and several deposits of cremated human bones under the revetment of the terrace, as well as scattered fragments in both revetment and filling. Among these deposits, all consisting of small fragments, Mr. L. F. Cowley, M.Sc., of the National Museum of Wales, was able to recognize a portion of the periotic of the right side of a skull, two portions of the periotic of the left side, one of a first cervical (atlas) vertebra, of a lower incisor tooth, and of a first deciduous premolar tooth.

In the forecourt also a few unburnt fragments were found, and elsewhere a few scattered fragments of cremated bones.

Finally there was a cremation contained in the inverted cinerary urn found at the end of the terrace.

It is indeed regrettable that the human remains have been so scattered, confused, and destroyed to an extent which cannot now be estimated.

The evidence which remains clearly indicates the interment of many unburnt bodies or skeletons, and thus tallies with that from many chambered tombs; while there is also the same use of cremated human bone, apparently for ceremonial purposes, which has been noted at comparable sites, including the neighbouring cairn at Bryn Celli Ddu.¹

Human sacrifice is clearly indicated and, Sir Arthur Keith would add, cannibalism.

APPENDIX II

ANIMAL BONES

Sir Arthur Keith's report refers to the animal bones recovered from the chamber—all probably of recent date, but a few scattered fragments were found *in situ*, and identified by Dr. J. Wilfrid Jackson.

(a) In the forecourt area, casually placed in the filling, the following animals are represented: sheep, ox, pig, and indeterminate.

(b) At the south end of the terrace, within and without the containing wall: fragments of half a dozen ox teeth and indeterminate, also part of a humerus and part of a toe bone of an ox placed in a pit. Of the humerus Dr. Jackson reports that 'The bone has suffered somewhat, the condyles having gone to bits. It is the distal half of the left humerus of ox, a larger bone than some from Glastonbury and other Early Iron Age sites, but it agrees closely with some I have from Ratfyn, Amesbury (Coll. Dr. Stone). I see no signs of any shaping; the bone has been broken across.'

The form and disposition of this fragment suggest that it was used ceremonially and may have been intended to represent a phallus.

¹ Dr. Mortimer Wheeler has summarized the recent evidence for the use of cremation in Neolithic tombs in the Northern and Western areas in the Westmorland volume of the Royal Commission on Historic Monuments (p. xxviii). I would emphasize that in these two Anglesey monuments the cremated bones do not seem to have been placed within the chambers.

APPENDIX III

MOLLUSCA

A. NON-MARINE

By A. S. KENNARD, A.L.S., F.G.S.

A large number of small shells collected during the excavations and two samples of soil was sent me and these yielded fifteen species.

(1) From the old turf on which the cairn was constructed: *Arion* sp., very rare; *Gonio-discus rotundatus* (Müll.), very rare; *Ashfordia granulata* (Ald.), very rare.

(2) From the infilling earth: *Carychium minimum* (Müll.), very rare; *Ena obscura* (Müll.), very rare; *Acanthinula aculeata* (Müll.), very rare; *Goniodiscus rotundatus* (Müll.), common; *Arion* sp., common; *Vertigo* sp., common; *Vitrea crystallina* (Müll.), rare; *Helicella cellaria* (Müll.), common; *Helicella nitidula* (Drap.), rare; *Limax arborum* (Bouch. Chant.), very rare; *Ashfordia granulata* (Ald.), rare; *Arianta arbustorum* (Linn.), very rare; *Helix aspersa* (Müll.), very rare; *Cepæa nemoralis* (Linn.), common; *Clausilia rugosa* (Drap.), very rare.

One living example of the subterranean species *Cecicioides acicula* (Müll.) was present. It is quite impossible to draw any definite conclusions from these shells. In the main they indicate a damp scrub but they are certainly not all of the same age. The examples of *Cepæa nemoralis* differ greatly in condition, and one or two examples of *Helicella cellaria* look quite modern. The probability is that the smaller forms are contemporary with the construction, or even earlier, but a number of the larger forms are intrusions of a later date. They appear as if they had entered the cairn for the purpose of hibernation and had not survived the winter. The examples from the old turf are, of course, above suspicion, but only three species are represented, and these as far as they go indicate damp conditions and not grassland. The presence of *Helix aspersa* is, I think, due to intrusion. It did not occur in the old turf, and unlike so many species a fragment is determinable from the sculpture. With the exception of the extreme south-west it does not occur in any sealed pre-Roman deposit, though it is common all over England associated with Romano-British sites. Its wide dispersal during those times is probably due to the fact that it was a table delicacy. One must remember that an isolated mound is a very tempting object to burrowing animals, while a sufficient time has elapsed for the growth and decay of trees, and their decaying roots would easily provide means of ingress for snails seeking shelter from the cold. It is by such means I would suggest that a certain number of the larger species found their way into the cairn. Even if one makes allowance for these intrusions one can safely say that present-day conditions would not yield such a fauna, and it is safe to say that all the evidence points to damper conditions.

B. MARINE

The following species have been identified by Mr. J. D. Dean, F.E.S., Assistant Keeper of the Department of Zoology in the National Museum of Wales: Carpet shell, *Paphia decussata* (Linn.), one; cockle, *Cardium edule* Linn., many; cockle spiny, *Cardium aculeatum* Linn., one; prickly cockle, *Cardium echinatum* Linn., one; nun cowry, *Trivia*

monacha (da Costa), one; limpet, *Patella vulgata* Linn., many; mussel, *Mytilus edulis* Linn., many; oyster, *Ostrea edulis* Linn., few; periwinkle, *Littorina littorea* (Linn.), many; dwarf winkle, *Littorina littoralis* (Linn.), two; whelk, *Buccinum undatum* Linn., few; Iceland clam, *Cyprina islandica* (Linn.), few.

APPENDIX IV

PLANT REMAINS

By H. A. HYDE, M.A., F.L.S.

Keeper of the Department of Botany, National Museum of Wales

The plant remains submitted consisted for the most part of fragments of wood, the largest of which measured one and a half inches across. All the fragments with one exception were completely carbonized, most of them certainly by heat, others perhaps by another cause or causes. Possibly the single exception referred to, a fragment of birch part of which was brown not black in colour, may represent a late stage in natural carbonization. Most of the specimens were identified by making a clean fracture across the grain and examining the transverse section so obtained as an opaque object under a low power of the microscope (Spencer 16 mm. objective combined with $\times 8$ eyepiece) using an ordinary electric reading lamp as the source of light. When necessary, recourse was had to a higher power (Chapman and Alldridge 8 mm. objective) using a vertical illuminator as the source of light:¹ in this way it was possible to examine satisfactorily the finer details of structure including seriation of wood-rays, pitting of vessel walls, etc. Many specimens were rejected as being either too immature or too fragmentary for identification.

In all 109 determinations were made as follows:

Oak, <i>Quercus Robur</i> L. sens. lat. ²	41
Hazel, <i>Corylus Avellana</i> L. Wood	22
" " " Nuts	2
Hawthorn, <i>Crataegus Oxyacantha</i> L. ³	18
Maple, <i>Acer campestre</i> L.	8
Birch, <i>Betula alba</i> L. sens. lat.	9
Ash, <i>Fraxinus excelsior</i> L.	6
Alder, <i>Alnus rotundifolia</i> Mill.	2
Willow, <i>Salix</i> sp.	1
	109

If it be assumed that the specimens constituted a fair sample of the tree flora of the period in the immediate neighbourhood of the site then it may be concluded that the predominant vegetation was oakwood. In view of the fact that the predominant subsoil

¹ I am indebted to my friend Mr. W. H. White, M.A., B.Sc., F.Inst.P., for his advice in regard to the optical equipment used.

² It is impossible to distinguish *Quercus Robur* L. sens. str., Common Oak, from *Q. petraea* Lieblein, Durmast Oak.

³ The structure of the wood so listed in this report agrees equally with that of apple (*Pyrus Malus* L.), but the latter is unlikely to have formed an important part of the woodland flora.

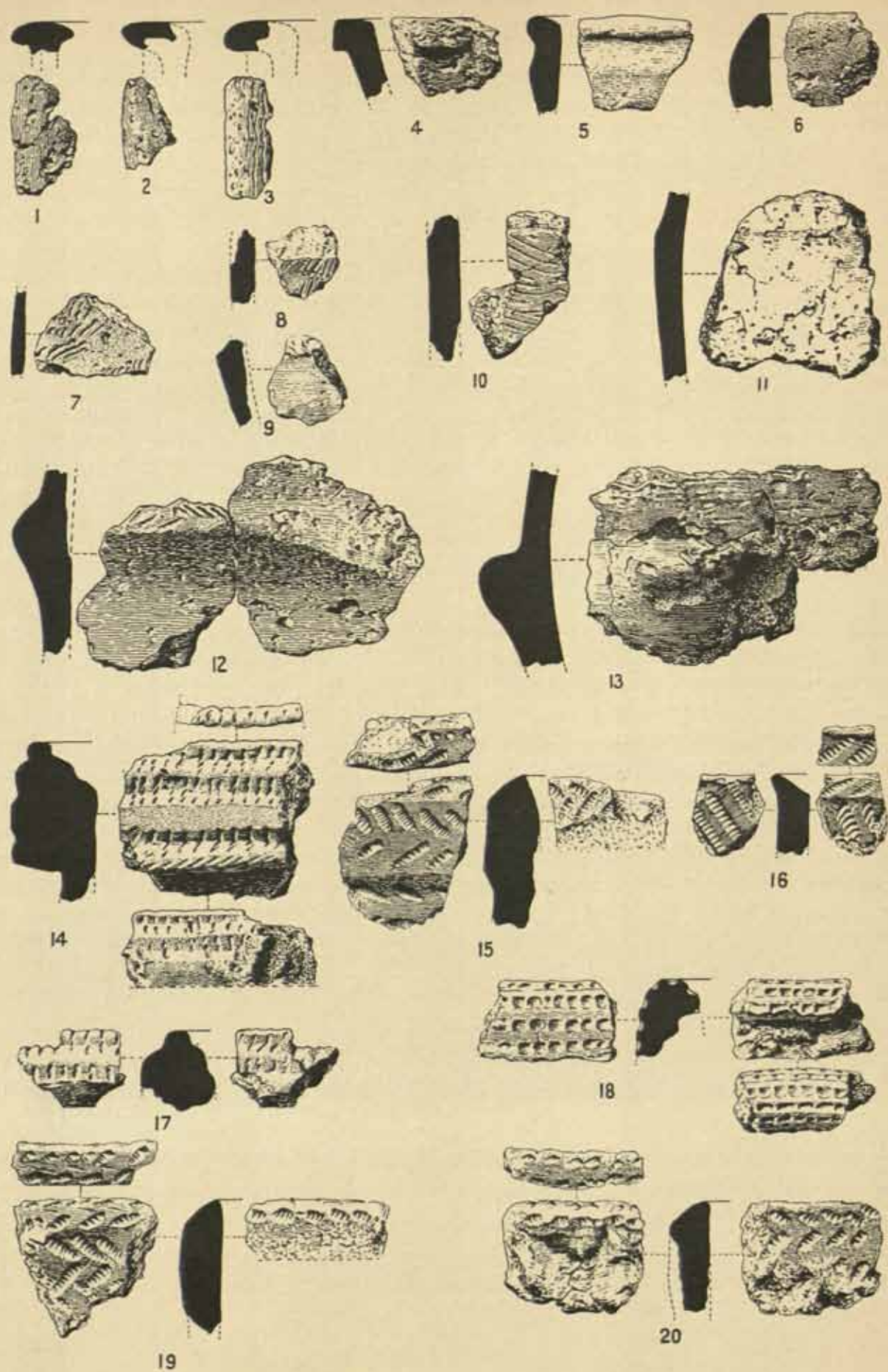


Fig. 2. Pottery (5). Nos. 1-13, Neolithic A; nos. 14-20, Neolithic B

is boulder clay it seems probable that the woods were of the 'damp' oakwood type, with Common Oak (*Quercus Robur* L. sens. str.) dominant: the high proportion of hazel is consistent with this supposition. The high percentage of hawthorn probably indicates abundant scrub growth. Birch and maple were probably present both in woodland and scrub. The presence of a significant proportion of ash was to be expected in view of the presence in the locality of limestone rock not covered by drift. It is perhaps noteworthy that pine (*Pinus sylvestris*), which was found in a post-hole at Bryn Celli Ddu, was entirely absent from the material obtained at Bryn yr Hen Bobl, a fact which suggests that at the Neolithic period pine was already rare in Anglesey: the post at Bryn Celli Ddu may have been brought from Snowdonia, on the higher slopes of which pine may well have survived much later than at lower altitudes.

APPENDIX V

THE POTTERY

By STUART PIGGOTT

The pottery recovered during the excavations may be divided into two main groups, and one exceptional vessel. The groups are as follows:

A. Neolithic A ware, including thick undecorated grey sherds with pitted surface, and finer fragments, some with bright red outer surface and shallow decoration.

B. Numerous sherds, mainly with profuse decoration, characteristic in form and ornament of Neolithic B ware.

The character of the pottery can best be appreciated from Mr. Gurd's drawings, and it is not necessary to load the text with a detailed description of every sherd. Certain important features, however, must be pointed out.

Group A.

Ware. The curious pitted surface of some of this pottery results from the decomposition of the material used as backing—possibly in this instance limestone fragments burnt to lime in firing the pottery. The chemical change from limestone to lime begins at about 750° C., but is usually not completed below 900° C.,¹ and while Harrison considers that most primitive pottery was fired at 500° to 700° C. he adds that 'for the production of thoroughly fired wares some 900° C. is required'.² Similarly 'pitted' pottery of Neolithic date has been recorded from Yorkshire and in the Capel Garmon long barrow in Denbighshire, and it occurred in the Lligwy megalithic burial chamber in Anglesey.³

Forms. Rims include simple everted forms (fig. 2, nos. 2 and 3); or flattened (fig. 2, nos. 1 and 4); or slightly rolled (fig. 2, no. 3). Shoulders (e.g. fig. 2, no. 11) are particularly well-defined in fig. 2, no. 12. One rim, probably to be included in this group, is of hard ware with grey core and light brown surfaces, and shows a slight shoulder (fig. 2, no. 5).

A well-formed horizontal lug is present on one fragment (fig. 2, no. 13), with a suggestion of a hollowed upper surface.

¹ F. J. North, *Limestones* (1930), 394.

² H. S. Harrison, *Pots and Pans* (1928), 19-20.

³ *Arch. Camb.*, lxxxviii (1933), 68-72, with refs.

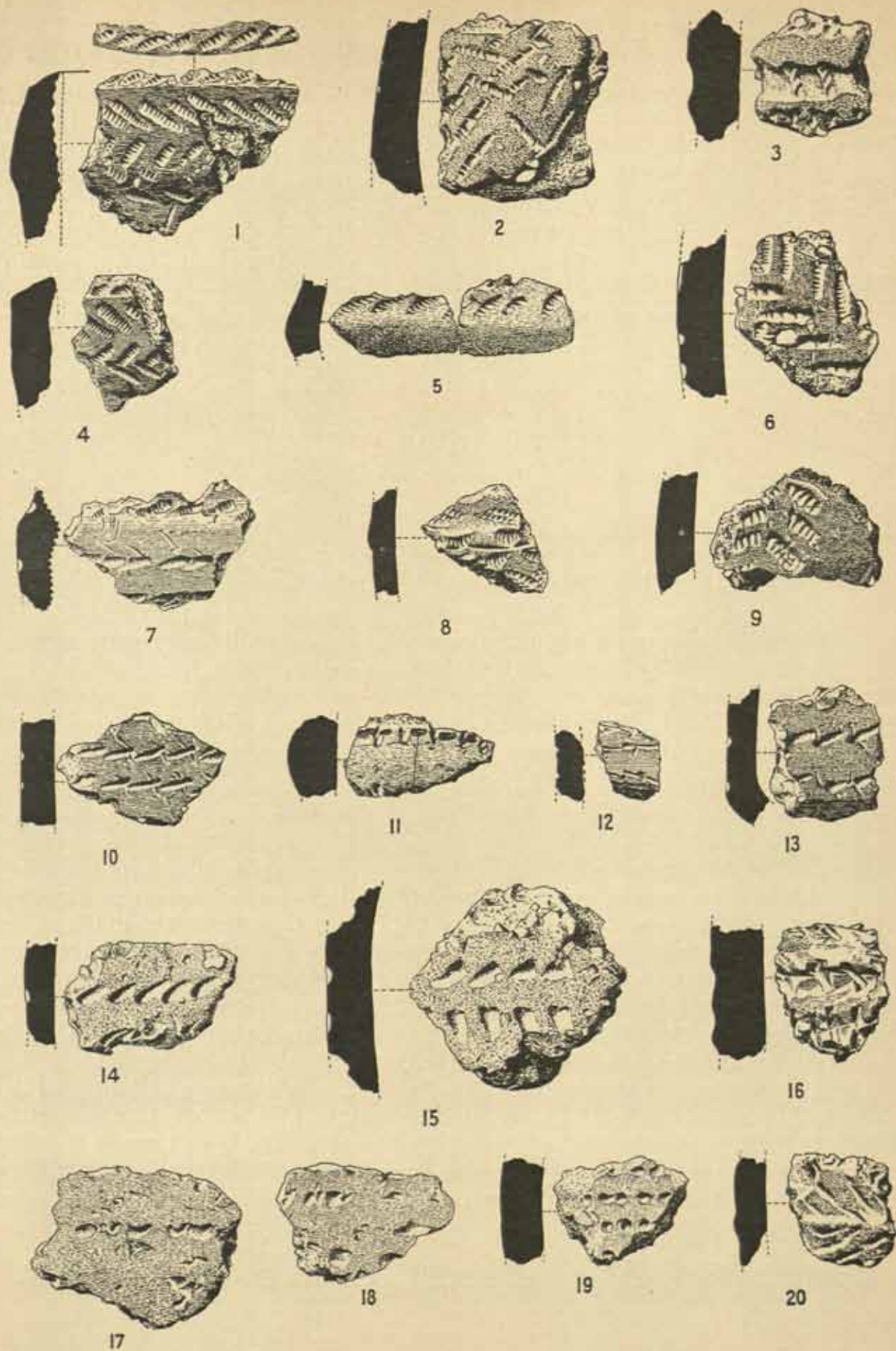


Fig. 3. Pottery, Neolithic B (II)

Decoration. Curiously haphazard strokes on fig. 2, nos. 3, 7, 8, 12, and 13 can only be interpreted as deliberate ornament, and more definite decoration in the form of very shallow tooled lines occurs on fig. 2, no. 10.

Colour. A point of some interest is the bright red outer surface of certain sherds identical in their vesicular textures with the main series.

Group B.

Ware. The texture of this large group is strikingly uniform, being coarse in consistency, with large fragments of quartz, and in one instance local schist as backing, but

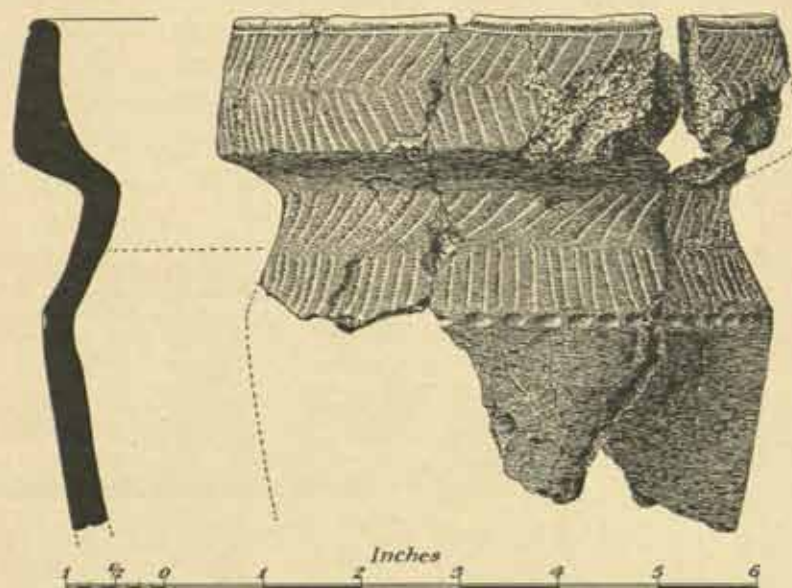


Fig. 4. Cinerary Urn

usually with smooth surfaces. The colour in section is normally a light red, but the surfaces may vary from brown to black. One sherd has a slightly sandy texture.

Forms. Few sherds give any indication of form, save for rims. These are normally heavy and bevelled with decoration carried over from the outside to the interior. Fig. 2, nos. 19, 20, and fig. 3, no. 1 are all of one pot, with an overhanging rim and a slightly hollowed neck and shoulder below. This is a form considered by Leeds to be typologically late, and such rims are doubtless in some measure ancestral to the overhanging rims of the Bronze Age cinerary urns, but it should be emphasized that, although allied, the rim-forms of the two cultures are essentially distinct and easily distinguishable. Fig. 2, no. 16 is a sherd with a flat-topped slightly everted rim of a normal Neolithic B form. A slight shoulder is shown on the group which includes fig. 3, nos. 7 and 11. No fragments of flat bases occur.

Decoration. The profuse ornament is in typical Neolithic B technique. It includes simple incised chevrons as fig. 3, no. 20; or stabs as fig. 3, nos. 7, 10, 11, 13, 14, etc.; whipped cord maggots as fig. 2, nos. 15, 16, 19, 20, and fig. 3, nos. 1, 2, 4-9; twisted cord impressions as fig. 2, nos. 14, 17 and fig. 3, no. 3; deep circular punch-marks as fig. 3, no. 19, and probable 'bird-bone' ornament, as fig. 2, nos. 17 and 18. Fig. 2, no. 18 has

ornament made possibly with a bird-bone, but more probably with a square-toothed comb.

CINERARY URN

A single vessel was found inverted at the end of the terrace (figs. 4 and 5). It is a small but entirely typical cinerary urn of the Middle Bronze Age, and is in every respect

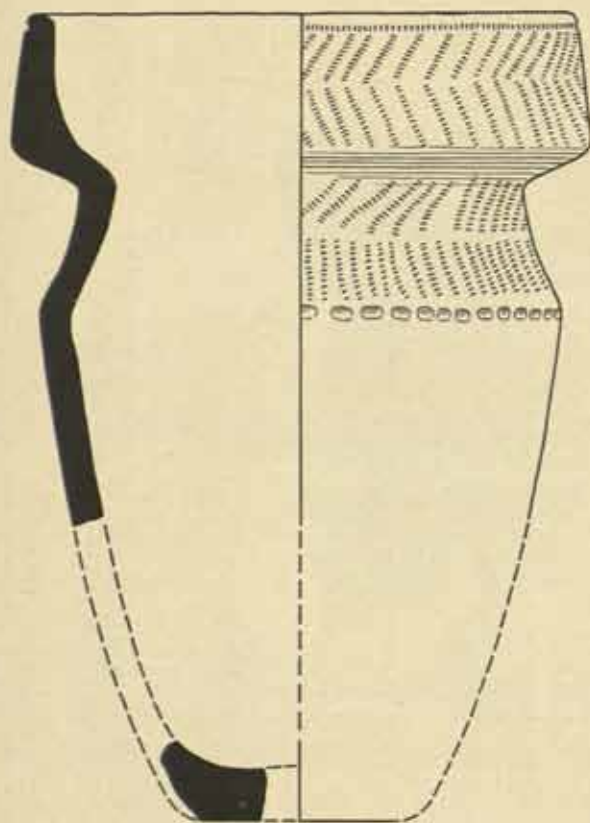


Fig. 5. Cinerary Urn (1/2)

distinct from the Neolithic B vessels represented by the sherds detailed above. The profile, the flat base (attested by fragments although not actually joining the reconstructed wall of the vessel) and the lightly impressed whipped cord ornament executed in a manner unlike that normal to Neolithic B ware, all serve to emphasize its distinctively Middle Bronze Age character. Morphologically, the rim form is relatively early in the series, and the type is so common that it is hardly necessary to cite parallels; Abercromby ii, pl. LXVI, 61 and 62, or better still pl. LXVII, 65, may, however, be quoted.

GENERAL CONCLUSIONS

Several interesting points are raised by the pottery from Bryn yr Hen Bobl. The apparent association of Neolithic A and B ware presents no difficulties: the evidence of Capel Garmon, where Neolithic A ware was associated with beakers, shows that in North Wales there was considerable overlapping of Neolithic and Early Bronze Age cultures.¹

The presence of Neolithic B pottery on the western coast of Britain is, however, more remarkable. One was in some measure prepared for it by the sherds from the Gop cave, Flintshire, published many years ago, where their relatively late horizon was indicated by their association with two jet 'sliders' and a polished flint knife, all typical of the Early Bronze Age.² As is well known, the Neolithic B culture reached our shores from the Baltic region, and its establishment in eastern England may well have taken place relatively early in the Neolithic, but at a period which appears to have been just before or practically contemporary with the earlier beakers the culture spread to the west and south-west. Such a cultural movement would have been slow, and the Neolithic B culture of North Wales may well have persisted as a contemporary of the Early Bronze Age, or even the first phases of the Middle Bronze Age in southern England. But there is evidence that its establishment in North Wales was relatively early—even before the beaker folk arrived in Wessex. Each

¹ *Arch. Camb.*, lxxxii. 24-39.

² Boyd Dawkins in *Arch. Journ.*, lviii (1901), 322-41.

successive petrological examination of the 'foreign' stone axes of south England goes to show that their main centre of origin was North Wales, and the evidence from Windmill Hill and from the West Kennet Avenue, Avebury, shows that this remarkable trade apparently started in Neolithic B times. Most decisive of all are the axes of the augite-granophyre of Graig Lwyd, Penmaenmawr, only twelve and half miles from Bryn yr Hen Bobl. At Avebury, such axes have been equated with a pure Neolithic B culture and, as appears elsewhere in Mr. Hemp's report, many fragments of this same stone, some derived from polished axes, were found at Bryn yr Hen Bobl. It seems inevitable that the Neolithic B pottery with which they were associated must represent a reflex of the stone axe trade with southern England, and, as such, the pottery should be pre-beaker in date, and it would be impossible to equate it chronologically with the Middle Bronze Age urn from the end of the terrace, unless one assumes a long survival period of the Neolithic B culture in Anglesey.

APPENDIX VI

A. THE WORKED STONE OBJECTS

By J. GRAHAME CLARK, Ph.D., F.S.A.

Materials.

Flints and various other kinds of stone were used. The flint seems to consist of beach pebbles, the cortex being visible in several instances. The other material chiefly used was Graig Lwyd stone from Penmaenmawr. The fact that many of the flakes retained parts of the cortex, two struck from the same core (fig. 7, no. 1), also the discovery of a large core suggest that the raw material was brought in nodules and worked on the site. On the other hand the finding of many flakes struck from broken polished axes of Graig Lwyd stone indicates another way in which the material reached the site. A third kind of material, which seems to have been used for axes, was a dolerite of medium texture, probably derived from Palaeozoic dykes in Anglesey itself.

Preservation.

The flints occur in every stage of patination. Most are patinated to a whitish colour, others are only slightly discoloured, and others again are quite fresh. A few have the crackled appearance which shows that they have been burnt.

Types.

Quantities of *waste primary flakes* of flint and stone, together with *cores* of both materials, show that knapping must have gone on near the site. In several instances the flakes of Graig Lwyd stone have been struck from polished stone axes, presumably broken ones utilized as raw material.¹

¹ It is a curious fact that while the complete axes are all of local material, the many flakes are of imported Graig Lwyd stone, some struck from polished axes, the bulk from blocks of raw material: W. J. H.

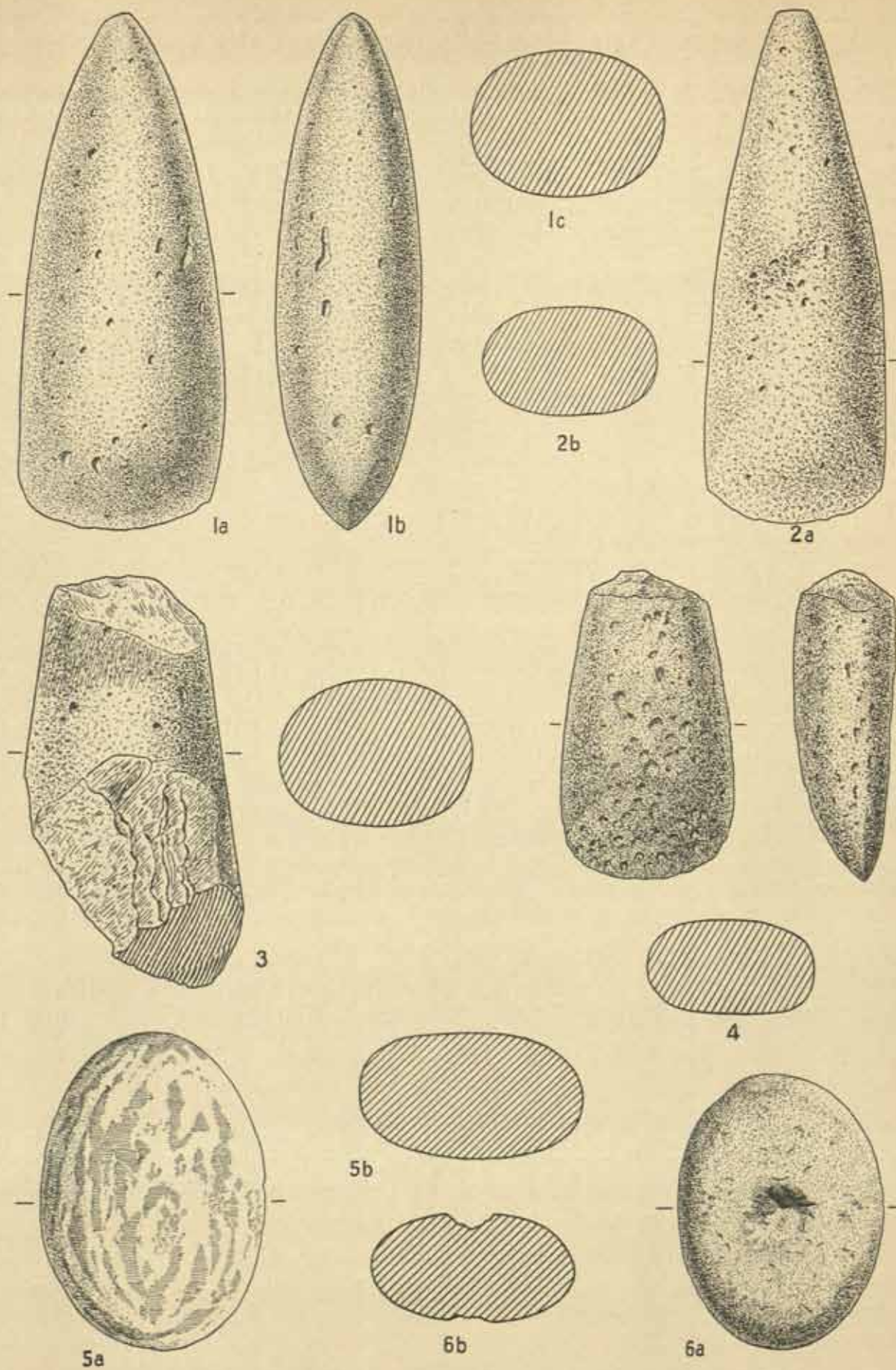


Fig. 6. Nos. 1-4, axes of dolerite; no. 5, 'peeled' stone; no. 6, hammered pebble ($\frac{1}{2}$)

The commonest type of finished stone object from this site is the *convex scraper* of which a dozen complete or fragmentary examples occur (e.g. fig. 7, nos. 9 and 10); of these the two largest are of Graig Lwyd stone, the rest being of flint. Fig. 7, no. 11, an end-scraper on the end of a long flake, is unusual in that it has been tanged by secondary flaking from alternate directions on either edge; this allows it to be held between the thumb and index finger of the right hand without the discomfort of contact with a sharp flake edge.

An *awl*, of which the tip has been formed by secondary flaking from two directions, a coarsely *serrated flake* showing no lustre, and various *flakes with secondary edge-trimming* (some of flint, others of Graig Lwyd stone, two (fig. 7, nos. 8 and 9) struck from polished axes of this stone), are other types which tell us very little about the antiquity of the site.

More informative are the *arrowhead types*. These include a complete leaf form of flint (fig. 7, no. 2), fragments of two others of flint (fig. 7, nos. 3 and 4), and the greater part of a fourth made of a green-coloured stone (fig. 7, no. 5). In addition there is a lop-sided arrowhead, a derivative form (class C 1)¹ of the *petit tranchet* (fig. 7, no. 6).

Finally there are the *stone axes*. In addition to the numerous flakes struck from polished axes of Graig Lwyd stone, a roughly flaked object—possibly a rough-out—of the same material occurred (fig. 7, no. 12) as well as four axes made of dolerite derived from a dyke in Anglesey (see Dr. Greenly's report). All the axes seem to have been pecked and ground; their forms will be sufficiently clear from the illustrations (fig. 6, nos. 1-4), but it may be pointed out that where preserved, the butts are pointed and the cutting edges convex, and that in three cases the sections are well rounded (though not circular). All these characteristics are primitive, though, of course, not necessarily early.

Inferences.

It is first of all evident that the site dates from the time of the trade in Graig Lwyd stone, a trade which, according to the evidence at present available, dates back to the arrival of the Peterborough culture in Wessex, but not before. The forms of the implements show on the one hand an absence of what in Lowland Britain at any rate we should regard as Early Bronze Age forms, and on the other the presence of the Neolithic (though also later) leaf arrowhead and polished axe. But the presence of the *petit tranchet* derivative (class C 1) is suggestive, since in Wessex this type does not antedate the arrival of Peterborough pottery. Thus the flint and stone material from the site seem to synchronize with the time of the arrival of the Peterborough culture in Wessex.

B. GEOLOGICAL REPORT ON THE STONE AXES

By EDWARD GREENLY, D.Sc., F.G.S.

The four stone axes (fig. 6, nos. 1-4) are composed of dolerite; and as there is a dyke of dolerite close to the place, it seemed at first likely that the material was obtained on the spot.

¹ *Archaeological Journal*, xci, p. 42.

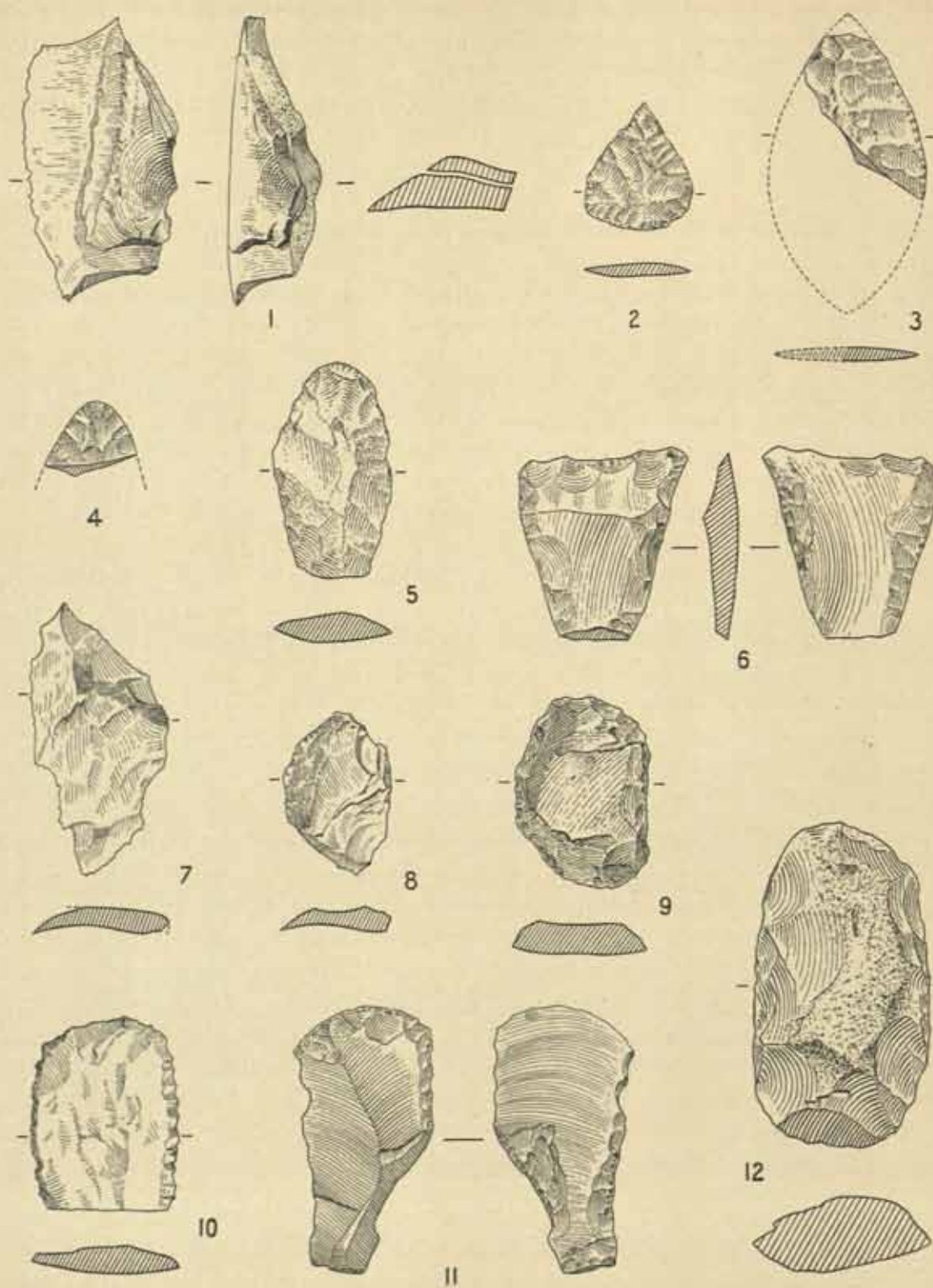


Fig. 7. Flint and Stone Implements, nos. 1, 7-10 and 12, ($\frac{1}{2}$); nos. 2-6 and 11, ($\frac{1}{4}$)
 Nos. 2-4, 6, 11, are of flint; no. 5 of green stone; and nos. 1, 7-10, 12, of Graig Lwyd stone. The cross-hatched areas on nos. 7, 8, and 9 indicate polished surfaces of the axes from which they have been struck

But there are two suites of dolerite dykes in Anglesey: a Later suite, of Neozoic (= Tertiary) age; and an Older suite, of Palaeozoic age.¹ The Plas Newydd dyke belongs to the Later suite. As the two suites can, usually, be distinguished by their petrological characters, it was necessary to have a thin section cut for microscopic examination. One of the four axes appeared too decomposed,² so a promising one was selected from the other three (no. 4).

The results are decisive. The minerals of original consolidation, both with regard to presences and absences, are those of the Palaeozoic suite. More significant still is the presence of secondary minerals, due to changes subsequent to consolidation, for these have never been found in the Later suite, but are frequent in the Palaeozoic suite.

The axe, therefore, must have been made from a dyke of the Palaeozoic suite.

The material, nevertheless, could have been obtained in Anglesey, for there are many Palaeozoic dykes not many miles away.

It may be added that the older dykes are more suitable for axes, because they are a good deal tougher, by reason of one of their secondary minerals.

The find-spots of the four axes and the 'rough-out' (fig. 6) were:—

No. 1 on the edge of the N. horn. No. 3 in the disturbed area 9 ft. from the southern end of the terrace. Nos. 2 and 4 on the west side of the terrace near its junction with the cairn. The 'rough-out' described by Dr. Clarke (fig. 7, no. 12) was found in the courtyard at the foot of wall D, 9 ft. from its southern termination.

APPENDIX VII

MISCELLANEOUS ARTIFACTS

A. Bone.

(1) A broken pin (fig. 9); among material from the chamber.

(2) A ball about $1\frac{1}{4}$ in. in diameter: in all probability the head of a femur, according to Mr. L. F. Cowley of the National Museum of Wales, who adds that if human it is below normal size; this was a casual unstratified find in cairn material.

B. Stone.

(3) A ball $1\frac{1}{2}$ in. in diameter of fine sandstone; found 1 ft. down on the W. side of the cairn, in the first trench south of the main section B—B.

(4) A pebble with hammered indentations on each side (fig. 6, no. 6); found under the turf 3 ft. south of the SE. corner of the enclosing wall of the terrace.

(5) A pebble (fig. 6, no. 5) from which the greater part of the weathered surface had been scraped away by some hard tool giving it somewhat the appearance of a peeled potato; from the hollow in the terrace (p. 271).

(6) The stone marked with a triangle (pl. LXXXI, fig. 2).

¹ Both suites of dykes are described by Greenly in 'The Geology of Anglesey' (*Mem. Geol. Surv.*), chs. xvi, xvii, xviii, xxviii, xxix.

² No. 3, from the hollow near the end of the terrace (p. 270); both ends have been broken away, and it has flaked badly as a result of burning.

(7) A grit stone 1 ft. $3\frac{1}{2}$ in. long worn on three sides, somewhat like a much used saddle quern, but the wear is not flat but in shallow grooves, and there can be no doubt that the purpose of the implement was to polish stone axes (pl. LXXXI, fig. 1). It was found some 2 ft. above ground-level packed against the containing wall of the NW. corner of the terrace.

C. Glass.

(8) A bead (fig. 8) found among mixed material from the chamber, which Mr. Horace Beck describes as 'extremely like the La Tène beads found in England and the Mediterranean, and probably dating from a period not more recent than 200 B.C.

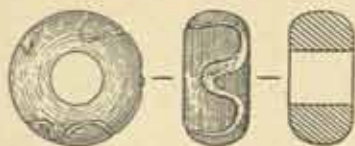


Fig. 8. Glass bead (1)

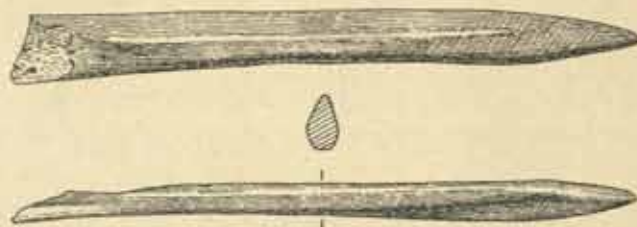


Fig. 9. Bone pin (1)

'The specific gravity of these La Tène beads varies from 2.28 to 2.285. On the other hand there are a series of very similar beads found in Anglo-Saxon cemeteries. All of these that I have tested have had, in addition to a slight difference of shape, a specific gravity of 2.485 to 2.486. This bead has a specific gravity of 2.47 which is very near the border line, but suggests the earlier group. The later Anglo-Saxon series has a date about A.D. 500-700.

'The colouring matter of this bead is cobalt, which is also the colour used in both La Tène and Anglo-Saxon groups.

'There are, however, a few beads of a very similar, if not identical kind, which have been definitely assigned to the Roman period.'

X.—*The Great Seal of England: Deputed or Departmental Seals*

By HILARY JENKINSON, Esq., M.A., F.S.A.

Read 16th May, 1935

So far as is known the earliest Norman Kings had only one seal with which to authenticate any written orders or communications which issued in their name: under his Great Seal the King would agree to a treaty or order payment for his wine, summon a sheriff to account or bestow an earldom, arrange his own marriage or the legal affairs of one of his subjects; and in the original documents under this seal which have survived to us from the twelfth century, even in those which we find in the enrolments of the early thirteenth, may be traced every important element which we find in executive administration by Government departments to-day; not to mention those which might be discerned in the private correspondence of the sovereign. But very early it was found that it was impossible for one seal to deal with the resulting mass of business or to cope with the situation which arose when the King (with the Chancellor in his company) was absent from the usual seat of Government: the *Dialogus de Scaccario*¹ tells us that already in the twelfth century there was a second seal which was kept by the Chancellor in the Treasury *per vicarium*. As executive business developed and increased in succeeding centuries other seal developments followed: notably the addition to the resources of royal administration of the Privy and Secret Seals and of the Signets, which are the direct ancestors of the seals that still symbolize the authority of a secretary of state. But meanwhile the principle of dividing the Great Seal itself was also extended and much used: and it is with these deputies or departmental versions of the Great Seal that the present article is to deal.

The second seal of the *Dialogus* was deliberately made to copy the image and inscription of the 'deambulatory' one which followed the King, *ut per cognoscatur utrobique iubentis auctoritas*, but the later ones which we are now to consider were for the most part with equal deliberation distinguished from it:² reverting generally to the fashion of the ordinary Great Seal of the Norman

¹ Oxford edition, p. 107.

² At the time this paper was read I included in it some notes on the Great Seal proper which, in a slightly expanded form, have now been printed as a separate article in the *Antiquaries Journal* for January 1936. I attempted in that article some consideration of occasions in the thirteenth and fourteenth centuries when the old idea of a duplicate Great Seal again came into action owing to the

baron¹ which showed the owner's portrait on one side and a shield of his arms on the other, though they sometimes used the enthroned instead of the equestrian figure of the sovereign.

Following the above considerations we shall take generally as criteria for the inclusion of a seal series in the present survey the fact that the seal in question is used for functions which in earlier and more primitive conditions would have been discharged by the Great Seal; that it is of something like Great Seal dimensions; that it is two-sided; and that it bears at least on one side a portrait of the sovereign. The inquiry, it may be added, makes neither pretence nor effort at completeness. I have simply attempted to enumerate the varieties of seals of this kind which have come to my notice, putting them in relation to the Great Seal and to each other, adding some note of the circumstances of their origin and the period of their occurrence, and describing a few outstanding features of their design and legend. As a rule I have not looked for illustrations outside the collections of the Society of Antiquaries and the British Museum, and examples among the Public Records. This is, in fact, no more than a framework into which I hope the discoveries of many other students in the future may fit. It includes at present compartments for the 'Departmental' Seals of the Exchequer, the King's Bench and the Court of Common Pleas; and, later, those of the Augmentation Office and Court of Wards: for the seals of three Palatinates—Chester, Durham and Lancaster (to which I have added the seal of the Duchy)—which either were permanently reunited to the Crown or were from time to time in the royal hands during a vacancy: for seals of Wales and the Lordships Marcher when (again during vacancies or for any other reason) their administration rested with the King: for the special seals used in three countries—France, Ireland, and Scotland: and for the later special seals of a number of Colonies and Dependencies. I have not included those substitute seals—some, at least, one-sided and used for embossing paper—the introduction of which between 1833 and 1916² has reduced to a minimum the number of documents which must now bear the Great Seal of the King of England.

There is another matter which I cannot treat here at length but of which, on account of its importance, I should be sorry not to make some mention. In a paper read to the Society some years ago³ I pointed out that the use of a

King's absence from the realm and of some in the fourteenth and fifteenth centuries when a disused seal was revived for diplomatic use abroad.

¹ It is generally said that the Norman Kings combined in their Great Seals the Norman equestrian portrait with the Saxon throned one.

² See Sir H. C. Maxwell Lyte's *Historical Notes on the Use of the Great Seal of England* (1926), p. 327.

³ *Antiq. Journ.*, xi (1931), 229.

rather mysterious seal—that of Edward I and Edward II for Scotland—was accompanied by the use of a still more mysterious series of documentary conventions, which differed widely from those employed at the English Chancery, and at the same time had no affinity which I could discover with any known forms employed elsewhere. I have seen no evidence in documents I have examined which issued under the seals of the Exchequer, King's Bench, and Common Pleas that those courts differed from the Chancery in the opening and closing phrases of their letters and writs; except that these documents were always witnessed by an officer of the court concerned, instead of by the king:¹ but I shall not be surprised if in the case of some of the seals examined here further research produces evidence that several special seals besides the Scottish one had a special diplomatic associated with them.

The subjects for the plates have been chosen with two objects; the first that of illustrating some of the special characteristics of each of the varieties of 'Departmental' Seals which I have described, and the second that of showing, if possible, at least one seal of every English sovereign from Henry III to George V.² The specimens being arranged according to their varieties I have for convenience added a chronological list under reigns at the end of my paper. To facilitate comparison of size all examples are reproduced on the same scale—two-thirds of their true dimensions: and in case any reader should wish to make the comparison with the contemporary Great Seals I have set out the sizes of these in a table. I have not attempted a detailed description of my exhibits but have transcribed the legend in each case.

In regard to the transcription I may perhaps add that there are two questions which not infrequently give difficulty: one that of the nature (even at times of the existence) of stops and other marks between words in the legends; and the other the question whether words given in a contracted or suspended form (such as *gra* for *gracia*) are, or are not, marked by some superior or other sign of abbreviation. In cases of pronounced doubtfulness I have used asterisks, and added notes: elsewhere I have endeavoured so far as possible to represent in type what I thought I discovered in the original.

¹ This difference is, in fact, the easy way of distinguishing readily 'original' from 'judicial' writs, before that distinction becomes a matter of handwriting.

² My list is not quite complete. Henry IV is represented only by a doubtful attribution, though a number of the seals of other sovereigns were actually used also in this reign: Edward V and Lady Jane Grey are wanting for obvious reasons: and I have found no examples for William III without his consort. Richard Cromwell during his brief Protectorship probably used his father's seals: see British Museum, *Catalogue*, number 17341, and C. H. Hunter Blair in *Archaeologia*, lxxvii, p. 176: also pl. xcvi in the present article.

SEAL OF THE EXCHEQUER

Origin. This seal has been described by Tout¹ as the oldest departmental seal in Europe; and he is probably correct (though I cannot regard the case as absolutely proved) in tracing its descent directly from the second Great Seal preserved in the Treasury to which we have already referred: certainly that seal was used in the twelfth century, according to the *Dialogus*,² for what we should later call Exchequer purposes: but on the other hand, as has been remarked elsewhere,³ it is at least likely that it was employed for other purposes (for instance, routine legal work during the absence of the king from the realm) and so late as 1230 we find it being borrowed for use by the Chancery, at which time it is called indifferently 'the seal which customarily resided at the Exchequer' and 'the King's seal of the Exchequer'. These two phrases, the first reminiscent of the *Dialogus* (though with a substitution of 'Exchequer' for 'Treasury') while the second seems to speak definitely of a specialized seal, might be taken as indicating a period of change: and it is proper to point out that the date in question is within two years of the period of Exchequer reform which began with the appointment of Peter of Rievaulx as sheriff in 1232,⁴ that two years later three professional 'barons' were sent to the Exchequer,⁵ and that this was followed almost immediately by the starting of a separate *Exchequer Plea Roll*. Now one of the features of common law procedure at the Exchequer, at least when it was fully developed, was that it issued its own 'original' writs⁶ (which in the case of other courts had to come from the Chancery) as well as the 'judicial' ones. It seems, therefore, a not unlikely inference that soon after 1230 the seal which up to then had been 'kept' at the Exchequer became more particularly the property of that office; though it might still on occasion be borrowed for use by the Chancery during the King's absence from the realm.⁷ I would also suggest that at the same time its design probably ceased to imitate exactly that of the Great Seal proper. As we have seen its custody was from the first associated with a clerk of the Chancery: the earliest instance discovered by Tout in which this official is referred to as 'Chancellor of the Exchequer' is that of 'Ralph of Leicester, clerk, who resigned in 1248'. Ralph's official descendants continued to have custody of the Exchequer seal till 1849.⁸

¹ *Chapters in the Administrative History of Medieval England*, i (Manchester, 1920), 141.

² p. 107.

³ *Antiq. Journ.*, xvi, 22.

⁴ See my introduction to Selden Society No. 48 (*Select Cases in the Exchequer of Pleas*, 1931), p. xxxix, quoting the work of Miss M. H. Mills.

⁵ *Ibid.*, p. liii.

⁶ Cp. the *Mirror of Justices* written in the reign of Edward I, quoted *ibid.*, p. xiv.

⁷ Tout, *op. cit.*, i, 288, citing Patent Roll for 1253.

⁸ *Ibid.*, p. 146, f.n. 3, citing Madox, *History of the Exchequer*.

⁹ Sir. G. A. Bonner, *The Office of the King's Remembrancer in England* (1930), p. 24.

Surviving Examples. Considering the quantity not merely of routine instruments, like writs and summonses, but of commissions, exemplifications and other documents having a permanent value for the recipients which (as we may see from the *Memoranda Rolls*) must have issued under the Exchequer seal, it is remarkable how few surviving examples have been recorded. However, originals or casts (not always very good ones) are available for the reign of Edward I, for every reign from Edward III to Edward IV and Henry VIII to Charles I, for the reigns of James II and William and Mary, and for all remaining sovereigns save Anne and William IV.¹ It is much to be desired that the gaps shown above should be filled, particularly for the earlier periods: but indeed all examples are worth recording; for it is by no means improbable that some Sovereigns who had more than one Great Seal may have changed their Exchequer seals also. Examples of such a change under Henry VIII are actually known² and elsewhere³ we have noted an order of Henry V to the Chancellor of the Exchequer for a change of title on the matrix in his custody. On the other hand we shall have to notice here, as in the case of other departments, instances of the use of a single matrix, with or without alterations of name, over a number of reigns.

Design. The seals dating from the reign of Edward I so far recorded⁴ are mostly incomplete though fortunately the nature of the documents to which they are attached puts their Exchequer provenance beyond question. Fortunately also the cast in the possession of the Society, the original noted among Durham Seals and one of the Record Office examples, having between them the larger part of the legend remaining, enable us to say that it contained on the reverse the mention of the *Scaccarium* which appears in its successors: and as the design gives us the sovereign riding on one side and a shield of the royal arms on the other we can say that by this reign the chief elements in subsequent Exchequer seals are already present. It may be added that the style of the engraving is such as to suggest that the matrix was originally engraved for Henry III.⁵

¹ British Museum, *Catalogue*, Nos. 822 to 867. Reigns not noted in the Museum *Catalogue* and subsequent accruals but for which specimens exist at the Record Office are those of Mary, George III, Edward VII, and George V.

² On this, and on other Exchequer Seals, see an article by C. S. Perceval in *Proc. Soc. Ant.*, viii, 299. ³ *Antiq. Journ.*, xvi, 11.

⁴ The Record Office has one among its *Loose Seals* (A. 70) and one on *Ancient Deeds*, A. 15197. An example in the British Museum is on *Add. Ch.* 19302. The provenance of the cast in the possession of the Society of Antiquaries is given by Perceval (*loc. cit.*) as 'Cast by Ready, Way Collection, whence obtained *quaere*'. The best specimen yet recorded is one in the possession of the Dean and Chapter of Durham: see C. H. Hunter Blair, *Durham Seals* (1911-21), Number 3029.

⁵ Cp. A. B. and Allan Wyon, *Great Seals of England* (1887), pl. vii, no. 44. See also the 'Gascon' Seal of Henry III illustrated below, pl. LXXXIX.

By the time we reach the reign of Edward III the shield of arms is placed between three castles, or castellated gates: presumably, following the analogy of the Great Seal and Scottish seal, we may take this as evidence that the seal was probably engraved for Edward II. In any case we have here another element which persisted long in Exchequer seals, so late in fact as the first seal of Henry VIII. A matrix of Richard II was in point of fact used apparently through the reigns of subsequent kings down to Henry VII. With the second Exchequer seal of Henry VIII¹ we find the first considerable change; supporters, an antelope and a hart, being introduced on the reverse. The legend is very long (including the *supremum caput*²) and extends to both sides, the words SIGILLUM SCACCARII DOMINI REGIS being relegated to a scroll. This continued in the reign of Mary:³ but a more revolutionary change seen in that reign is the substitution of the throned for the equestrian figure.

This convention continued through all subsequent reigns. The seal of Philip and Mary retains the scroll for the *Scaccarium* legend but changes the supporters. With Elizabeth the old supporters return and the *Sigillum Scaccarii* is restored to the main legend on the reverse. These elements apparently continued thereafter till the eighteenth century, when the seal of George II (but not that of George III) dropped the *Scaccarium* reference. That of King Edward VII (used also by the late King George) has the *Scaccarium* in the legend but the supporters are the lion and unicorn.

PLATE LXXXIV: Description of Illustrations.

(1) and (2) Edward I (*Obv.* and *Rev.*)

(*Soc. Ant. Casts.*)

Legends: EDWARDVS · R[EX ·] ET · DUX · AQUIT ·

and ✠ SIGILLVM · D[E ·] SCACCAR[IO ·] DOMINI · REGIS.

(3) and (4) Edward III (*Obv.* and *Rev.*)

(*P.R.O., S.C. 13/F. 145.*)

Legends: EDWARDVS · R[EX ·] ANGLIE · D[.] QVIT

and ✠ SIGILLVM · DE[·] SCACCARIO · DOMINI · REGIS ·

(5) James II (*Rev.*)

(*B.M. Cat., 864.*)

Legend: IACOBVS · II · DEI · GRA · MAG · BRITANNIÆ · FR[ANCI]Æ · ET · HIBERNIÆ ·
REX · FIDEI · DEFENSOR

and on ribbon: SIGILL · S[. . .] DOMINI · REGIS

(6) Edward VII (*Obv.*)

(*Impr. from Matrix.*)

Legend: EDWARDVS VII D · G · BRITT · ET TERRARVM TRANSMAR · QVÆ IN DIT · SVNT BRIT · REX · F · D ·
IND · IMP ·

¹ This is the seal which formed the basis of Perceval's article already cited.

² It has also the title of Henry VIII as king of Ireland: in the first he is still *dominus*. The change follows the statute of 35 Henry VIII, c. 3: see Record Commission, *Rotuli Chartarum*, i, p. xxii.

³ Example in Public Record Office on *Ancient Deeds*, D.S. 139, dated 5th July 1555.



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SEALS OF THE EXCHEQUER

SEALS FOR THE COURTS OF KING'S BENCH AND COMMON PLEAS

Origin. Dr. B. Wilkinson¹ has described the arrangement by which Edward III in 1344, making over the revenue arising from these courts to foreign merchants to whom he was indebted, agreed to have new matrices cut for sealing the writs which they issued: he notes that these seals can be described by contemporaries as *Great Seals* and has made a good case for the view that it was a new thing for them to have seals of their own at all. The terms of the complaints made by clerks of the Chancery and Exchequer in 1338 before the creation of the new seals² and the complaints in parliament subsequently as to increased fees³ certainly seem to suggest this. On the other hand any one familiar with the enormous quantity of judicial writs which issued from these courts and the circumstances under which they functioned will be dissatisfied with a conclusion which leaves the King's Bench and Common Pleas seal-less for the first hundred years and more of their existence.

These courts were differentiated from the original single *Curia Regis* as the result of one of the clauses of Magna Carta and their records become definitely separable during the reign of Henry III. Thereafter the situation may roughly be said to be that the king was continually moving about the country and the King's Bench, if not actually following him, at least in movement; whereas the Court of Common Pleas was fixed at Westminster; the Chancery also gradually established itself in London. Now theoretically, until they had seals of their own, the courts would be compelled to get every writ they issued (and they sent out many hundreds in the course of the year) authenticated by the Great Seal; just as—in theory, at any rate—the 'original' writs⁴ were authenticated: but quite obviously in the circumstances they cannot have done so. If any proof is needed it may be found in the fact that the judicial writs are from the first (so far as it has been possible to examine them) found to be witnessed by a justice⁵ of the court which issued them.

Are we to suppose that up to the time of Edward III the justices *always*

¹ *English Historical Review*, xlii (1927), 397.

² *Ibid.*

³ *Ibid.*, p. 401.

⁴ *Original* writs were those which started a case and to the end they always issued, except in the case of the Exchequer of Pleas, out of the Chancery; whereas the *judicial* ones, covering all the later stages of an action, were issued by the Court itself. Sir H. C. Maxwell Lyte (*Notes*, p. 305) has shown that actually a practice arose quite early by which these Chancery writs received no more than at most a small modicum of wax. I differ from him in thinking not only that they definitely did have this modicum (traces of it may be seen on some of the examples he cites) but also that this small 'blob' of wax was perhaps actually pressed on some part of the Great Seal matrix. There is a curious modern analogy for this in the practice of the Irish Chancery so late as the present century in relation to writs for the election of members of parliament now in the Record Office.

⁵ The 'original' writs of the Chancery are *Teste me ipso*.

sealed with their personal seals¹ the writs their courts sent out? or that the writs went without seal?² or that some other informal method was found? We may perhaps hope that legal research, as some of the vast quantities of writs preserved at the Record Office become available for systematic study, may be able to solve this among the numerous other problems of medieval legal procedure which await solution. Meanwhile we can only start our survey from 1344. The activities of these seals went on at least from that date till the abolition of the two courts in 1875.³

SEAL FOR THE KING'S BENCH

Surviving Examples. There are at present very few recorded. The main use of the seal was, of course, for writs and for the reason already given there is little chance of a seal surviving on these: the best we can hope for is probably the preservation of exemplifications out of the court among private muniments, though there is a possibility of returns on *certiorari* in the Chancery or stray survivals in other departments. Actually our earliest example at present is said to be attached to a document of the reign of Edward IV⁴ though it presents

PLATE LXXXV: Description of Illustrations.

(1) and (2) Edward IV (*Obv. and Rev.*)

(*Soc. Ant. Casts.*)

Legends: EDWARDVS · DEI GRACIA · REX · ANGLIE · ET · FRANCIE ·

and ✠ SIGILLVM ✠ PRO · ✠ · BREVIBVS · ✠ · CORAM · ✠ · NOBIS ✠

(3) Elizabeth (*Rev.*)

(*P.R.O., Wards 2/121/9.*)

Legend: ✠ [ELIZ]ABETH · D · G · ANGLIE · [FRA]NCIE · ET · HIBE[R]NIE · REGINA ·
FIDEI · DEFENSOR · [.]

and on scroll: S · PRO · BREVIBVS · CORAM · NOBIS ·

(4) and (5) William IV (*Obv. and Rev.*)

(*Soc. Ant. Casts.*)

Legends: *Obv.*—None.

and GULIELMUS · QUARTUS · DEI · GRATIA · BRITANNIARUM · REX · FIDEI ·
DEFENSOR

and on ribbon: PRO BREVIBUS CORAM NOBIS

¹ It does not necessarily follow from the terms of the complaint of 1338 cited above: but the suggestion is a particularly interesting one in view of the fact that about this very time there was a complaint that justices in Wales used this practice and so deprived the custodians of the Royal Seal of their fees. See below under WALES. There is also a suggestion, in evidence from the year 1351 cited by Dr. Wilkinson (*op. cit.*, p. 398), that something of the same kind may have occurred in Ireland.

² I think it can be proved that this was not so: though the writs which survive, having all gone out and been 'returned', have normally lost all traces of the seal long before they reached us.

³ By the Supreme Court of Judicature Act, 36, 37 Victoria, c. 66.

⁴ In the possession of Peterhouse, Cambridge: the Society of Antiquaries has a cast.



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SEALS FOR THE KING'S BENCH

every appearance of being from the fourteenth-century matrix. The British Museum¹ has originals or casts of the reigns of Henry VI, Henry VIII, Edward VI, Elizabeth, Charles I, and Charles II, of the Commonwealth, and of the reigns of George II, George III, and George IV; and the Society of Antiquaries has casts of seals of James I and William IV. It is a poor total and we must hope that it may soon be bettered: it is not improbable that convention may prove to be closely parallel in this and the Court of Common Pleas.

Design. The device throughout (save for the Commonwealth period, when we have a reproduction of the parliament and map designs used in the Great Seal) gives us the sovereign enthroned on the obverse and on the reverse a shield of the royal arms. The original fourteenth-century matrices seem to have served at least as late as Henry VI; whereas we have at any rate a change after the thirty-fifth year of Henry VIII, when the Royal title was altered as we have already noted.² After this new matrices for each reign may probably be assumed. The lion and dragon³ as supporters occur from the reign of Henry VIII onwards.

Of the *Legend* we need only say that in the earlier seals it seems to take on the reverse the form of the phrase *Sigillum pro brevibus coram nobis*. In most of the subsequent ones recorded at present (i.e. from Henry VIII onwards) this seems to be relegated to a scroll: under Henry VIII the legend space was required for a continuation of the lengthy royal title from the obverse and the convention of the scroll once adopted was retained.

Comparative *Sizes* are shown by our illustration: the early seal (like that of the Common Pleas) is distinctly small (about 2 $\frac{3}{4}$ in.) compared with the 4 $\frac{1}{2}$ in. of the contemporary Great Seal of Edward III.

SEAL FOR THE COURT OF COMMON PLEAS

Surviving Examples. In this case there is a large number of known impressions, at least for certain periods: no doubt because of the number of exemplifications of Recoveries which found their way into private collections. We have examples recorded for every reign (and the Commonwealth) from Henry VI to George IV. Seals for some later reigns (Elizabeth and one or two others) are now particularly numerous at the British Museum.⁴ Two casts in the possession

¹ *Catalogue*, numbers 879-88 and subsequent accruals.

² Above, p. 298. The example in the British Museum is stated to bear the date 1543 on the reverse and includes the title of 'King of Ireland'.

³ This is wrongly described in the Museum *Catalogue* in the case of the seal of Henry VIII.

⁴ The British Museum (*Catalogue*, numbers 889-1004, supplemented by numerous later accruals) has examples of all save Richard III, which I have noted from an original in the possession of the Society of Antiquaries.

of the Society of Antiquaries have been attributed to the reigns of Edward III and Henry IV but the authority for this is doubtful.

Design. The earliest impressions, which appear to be from the matrices of 1344, bear a very strong resemblance to our earliest from the Court of King's Bench; and differ from it only in the legend which, on the reverse, distinguishes this seal as being *pro brevibus coram Iusticiariis*. These original matrices, like those of the King's Bench, continued popular for a long time and a more abundant number of impressions enables us to hazard some speculations regarding a single matrix which apparently was in use, with alterations, over a space of more than a hundred and fifty years. We have the reverse matrix starting with a plain shield of arms in the reign (presumably) of Edward III; and the same for the reigns of Henry VI and Edward IV. Under Richard III supporters are added—the familiar boars of that king; while Henry VII and Henry VIII use a diapered background on the obverse and greyhound supporters for the shield. What are we to think of this? Some of the changes we have noted could be made merely by some further engraving of blank spaces; and the alteration of names in legends is a frequent performance: but to change boars to greyhounds is a serious matter—there would be by this time (one would think) little of the original matrix left. It is well known,¹ of course, that part of the bronze of a matrix might be cut away and the resulting hole filled with white metal to take a fresh engraving: but the changes in the

PLATE LXXXVI: Description of Illustrations.

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| (1), (2), and (3) Henry IV (<i>Rev.</i>) | (<i>Soc. Ant. Cast.</i>) |
| Richard III (<i>Rev.</i>) | (<i>Soc. Ant. Cast.</i>) |
| Henry VII (<i>Rev.</i>) | (<i>Soc. Ant. Cast.</i>) |

Legend (in each case): *SIGILLVM PRO BREVIBVS·CORAM IVSTICIARIIS

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|--|------------------------------|
| (4) and (5) Mary (<i>Rev.</i> and <i>Obv.</i>) | (<i>P.R.O., E. 41/414</i>) |
|--|------------------------------|

*Legend*¹: MARIA * DEI * GRACIA * ANGLIE * FRANCIE * E[T * H]IBERNIE * REGINA * EIVS *

NOMINIS * PRIMA * FIDEI * DEFENSOR *

and on scroll on (5): S·PRO·BREVI[BV[S]·CORAM·IVSTICIARIIS**

- | | |
|--|----------------------------|
| (6) and (7) Commonwealth (<i>Obv.</i> and <i>Rev.</i>) | (<i>Soc. Ant. Cast.</i>) |
|--|----------------------------|

Legends: 1648 IN THE FIRST [YEAR O]F FREEDOME BY GOD'S BLESSING RESTORED

and 1648 SIGIL[LVM PRO BREVIBVS] CORAM IVSTICIARIIS [COMMVNIS BANC]

¹ Legend apparently begins on reverse and continues on obverse: see B.M. Cat., no. 942. The asterisks here used represent various devices in the original, including lion passant, fleur-de-lis, and rose.

¹ An example in the shape of an original matrix was exhibited to the Society of Antiquaries in 1869: see *Proceedings of the Society of Antiquaries*, 2nd series, iv, 265.



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SEALS FOR THE COURT OF COMMON PLEAS

present case seem rather drastic.¹ Is it possible that we have here an instance of casting being used in the production of large Seal matrices and that some of the Common Pleas seals were not alterations but reproductions?

Among the later seals we notice that Henry VIII began by using that of his father but after the assumption of the titles of *supremum caput* and of king of Ireland had a new seal; and that here as in other cases the long title was spread over the legend space on both sides, with the result that *Sigillum pro brevibus coram Iusticiariis* had to be consigned to a scroll. This fashion once adopted was apparently maintained thereafter even when the sovereign's title was short enough for a single legend (as for instance in the reign of Elizabeth); in which case it was repeated on the reverse. The Commonwealth matrices are, of course, exceptional, copying once more the design of the Great Seal and having (like those of the King's Bench) a date—1648—in the legend.

Of the *Size* there is the same to be said as in the case of the King's Bench.

SEAL OF THE COURT OF THE AUGMENTATIONS AND REVENUES OF THE KING'S CROWN

Origin and History. In the seal of this court we find new features, resulting from the fact that the origin of the department is not a matter of development out of an older body but of deliberate creation by statute and letter patent. In its final form the Augmentation Office, as it is generally called, was a combination² of two bodies—the *Court of the Augmentations of the Revenues of the Crown*³ and the *Court of the General Surveyors of the King's Lands*—which was the result of a succession of statutes of Henry VIII⁴ following administrative changes made by Henry VII: and its duties consisted, to a considerable extent, in the administration of those augmentations of revenue which resulted from the dissolution of the monasteries and the annexation of their property to the Crown. The court was dissolved in 1554 and its duties handed over to the Exchequer. It was finally abolished, or allowed to perish, in the nineteenth century:⁵ but in 1801 we are told⁶ that it had no records of a date later than the seventeenth century.

¹ If the original matrix was used throughout it must have had its legend altered from Edward to Richard, from that again to Henry, from that back to Edward, from that again to Richard and from that once more to Henry; while the space round the shield had at least two alterations.

² By Letters Patent of 38 Henry VIII: see M. S. Giuseppi, *Guide to the . . . Public Record Office*, i (1923), p. 139.

³ Created by statute, 27 Henry VIII, c. 27.

⁴ From 3 Henry VIII, c. 23 to 33 Henry VIII, c. 39. See in regard to these M. S. Giuseppi, *op. cit.*, p. 138.

⁵ Giuseppi, *op. cit.*, p. 140.

⁶ *Report of the Select Committee on Public Records (1800) to the House of Commons*, p. 210.

The administrative machinery evolved in the early practice of one of the bodies thus conjoined was the model for reforms elsewhere and as such is of considerable importance: the court, or courts, however, whether in their earlier or later stages, have been investigated comparatively little; and it is probable that increased knowledge on this side may add also to our knowledge regarding the seals. It is even possible that we may find the *Court of General Surveyors*¹ had a Great Seal before ever the *Court of Augmentations* was thought of. For the present, however, we are confined to seals of the last-named, an example of which has been exhibited on at least one occasion before the Society of Antiquaries;² though there is not, I believe, outside the British Museum *Catalogue*, any description of it in print.

Surviving Examples and Design. The court had, by deliberate provision made in its constitution in 1547, a Chancery; with power to make grants of land by letters patent under its own seal in the King's name. As a result we have a double matrix showing both the throned and the equestrian portrait of the sovereign; but the *Legend*, which is continued from obverse to reverse, includes the name of the court as well as the title of the king. Like the Exchequer the Court of Augmentations followed to some extent the changes made in the Great Seal proper; and two seals are known for the reign of Henry VIII with changes in the king's title.³ Neither follows the design of the

PLATE LXXXVII: Description of Illustrations.

(1) and (2) Henry VIII¹ (*Obv. and Rev.*)

(*P.R.O., E. 329/466.*)

*Legend*²: + SIGILLV[M] C]VRIE AVGMENTACIONVM [COR]ONE H[ENR]ICI OCTAVI REGIS AN[GLIE] ET FR[ANCIE] ET DOMINI HIBERNIE AC IN TERRIS SVPREMI CAPITIS ECCLESIE ANGLICANE

(3) Henry VIII³ (*Rev.*)

(*P.R.O., E. 328/392.*)

Legend: + SIGILLV CVR AVGMEN : REV[EN]CIONVM : CORONE HENRICI VIII DEI : GRA ANGL'E FRANC ET HIBERNIE

(4) and (5) Edward VI (*Obv. and Rev.*)

(*P.R.O., E. 40/6012.*)

*Legend*²: + SIGILLV CURI AVGMENTACIONV ET REVENCONV CORONE EDWARDI SEXTI DEI GRACIA ANGLIE FRANCIE ET HIBERNIE REG FIDEI DEFENSORIS ET IN TER[RIS] ECCLESIE ANGLICANE ET HI[B]ERNICE SVPREMI CAPITIS

¹ First Seal.

² Legend continued from obverse to reverse.

³ Second Seal.

¹ A *privatum sigillum* of this body (so described in its legend) is already known (see British Museum *Catalogue*, no. 1035): and the existence of a *privatum* seems almost to predicate a *Magnum Sigillum*.

² By the late W. P. Baildon, some twenty years ago; when it was announced as an ordinary Great Seal.

³ In both he is *Ecclesie Anglicane Supremum Caput* but in the second the church of Ireland is added and he is *Regis* (not *Domini*) *Hibernie*: this is following the Act of 35 Henry VIII.



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SEALS OF THE AUGMENTATION OFFICE

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Great Seal at all closely otherwise, except in the introduction of Renaissance lettering and of the running greyhound which was so familiar a figure in a succession of Great Seals from this reign to that of Charles II.

The only other seal known is that for Edward VI. Possibly, in the circumstances detailed above, it was not thought necessary to cut one in any later reign, though the registration of 'Crown leases' is continued in volumes still preserved as late as the reign of James I:¹ indeed there is some evidence that by the time of Elizabeth, at any rate, the Exchequer Seal was being used for 'Augmentations' leases.

Surviving Examples should probably be fairly numerous in private collections. Impressions of all the three mentioned are to be found in both the British Museum² and the Record Office.

Comparative *Sizes* may be judged from our illustration.

OTHER NEW DIVISIONS OF CENTRAL ADMINISTRATION

In addition to the Court of Augmentations the Tudor period is responsible for a number of other new departments of central administration: the *Court of Star Chamber*; the *Court of Requests*; the *Court of First Fruits and Tenths*, ultimately like the *Court of Augmentations*, to be annexed to the Exchequer and, like it, dealing with Revenue which was a result of Henry VIII's Ecclesiastical policy; the *Court of Delegates*, which provided in Ecclesiastical causes a substitute for the Court of Appeal hitherto furnished by the Court of Rome—all these had functions parallel to those of the bodies we have been discussing; and all (but notably, perhaps, the *Delegates*³) might reasonably have been expected to produce other Departmental versions of the Great Seal. None of them did, so far as is yet known, but there was one more creation of Henry VIII whose Seal, though not, in its first state, coming within the scope of our inquiry, did eventually acquire that status.

THE COURT OF WARDS AND LIVERIES

This body, set up in 1541 to deal with the business which resulted from the King's jurisdiction in relation to the lands of wards, idiots, and lunatics where these lands were held in chief, continued thereafter till tenure *in capite*

¹ *Augmentation Office, Miscellaneous Books*, 229. This series shows unfortunately a number of gaps: for the first thirty-three years of Elizabeth (for example) we have nothing.

Unfortunately also in the later registrations witnessing and sealing clauses seem generally to be covered by an *etc.*, so that we get no evidence from this source: but I have noted a number of citations of earlier grants *sub sigillo scaccarii nostri*.

² *Catalogue*, numbers 1020-1034.

³ For a single-sided seal of Edward VI *ad causas ecclesiasticas* see *Durham Seals*, ii, pp. 416, 429.

⁴ By statute 32 Henry VIII, c. 46: see Giuseppi, *Guide*, i, p. 274.

was abolished in the seventeenth century. It had a seal which, as will be seen from our illustration, was of large dimensions and displayed a shield of the royal arms, but was single-sided only. However, in the reign of Charles I the production (for some reason not yet known) of a second form which was two-sided, displaying an equestrian portrait of the sovereign on the obverse, brings it within our scope.

Examples in the British Museum¹ and Record Office cover all reigns; unless we except Philip and Mary, whose joint legend has not yet been noted on a seal of this court. The designs do not particularly resemble others which have been examined in the present article and have one rather charming new element—the figures of the children in base, markedly un-medieval in treatment, which symbolize the functions of the court. This feature is continued throughout the series and the supporters, a dragon and a lion, are also continued in successive seals.

PLATE LXXXVIII: Description of Illustrations.

- (1) Henry VIII. (P.R.O., E. 328/127.)
Legend: + HENRIC⁹ 8⁹ DEI GRA ANGL[IE FR]ANC' & HIBNIE REX FIDEI DEFESOR
 & I : T'RA · ECCLESIE ANGLICAE & HIB' SVP'MV CAP'T
and on scroll: PVPILLO ET ORPHANO TV ERIS A[DIV]TO[R]
- (2) Edward VI. (P.R.O., E. 329/419.)
Legend: EDWARD⁹ VJ · DEI · G · ANGLE¹ · FRAC · ET · HIB'NIE · REX · FIDEI ·
 DEFES · [&] · I T'RA · ECCL'IE · ANGLICANE · [.]JE SVPREMVM ·
 CAPVT
and on scroll: PVPILL' ET ORPHANO TV ER' ADIVTOR
- (3) Elizabeth. (P.R.O., Wards 2/85/1.)
Legend: ELI[Z]AB[ETH'] DEI GR[.]LIE FRANCIE · ET · HIBERNIE [· R]EGINA ·
 FIDEI · DEFENSOR +
and on scroll: [P]V[PI]L[LIS] ORPHANIS ET VIDVI[S ADIVTOR]
- (4) James I. (P.R.O., Wards 2/12A/9.)
Legend: [. . .]OBVS * DEI * GRATIA * ANGLIÆ · SCOTIÆ · FRANCIAE E[T ·] H[IB]ERN
 IÆ · REX · FIDEI · DEFENSOR ·
and on scroll: Legend as on (3).
- (5) and (6) Charles I (*Obv. and Rev.*) (P.R.O., Wards 2/176/38.)
Legends: CAROLVS ⊗ DEI ⊗ GRACIA ⊗ M[AGNÆ ⊗ BRITANI]Æ ⊗ FRANCIAE ⊗ ET ⊗
 HIBERNIAE ⊗ REX ⊗ FIDEI ⊗ DEFENSOR ⊗ * ♣
and CAROLVS · DEI · GRACIA · MAGNÆ · BRITANIE · FRANCI]Æ · ET
 [· HIBERNI]Æ · REX · FIDEI · DEFENS'
and on scroll on (6): Legend as on (3).

¹ *Sic.*

* Undecipherable device.

¹ *Catalogue*, numbers 1007-19: the Museum has acquired since an example of the reign of James I and this will be found also on *Court of Wards*, 2/12A/9 in the Record Office.



SEALS FOR THE COURT OF WARDS

The *Legend* throughout gives the king's title only: but a scroll or ribbon adds *Pupillis Orphanis et Viduis Adiutor* or some similar phrase.¹ The lettering of the earliest seal presents some curious features including the Arabic numeral 8 after the King's name and an unusual crop of abbreviations.

FRANCE

I had not intended to do more than mention here the French Great Seals of an English king which I have already discussed in a previous paper. Since then, however, a new piece of information² has been brought to my notice and it seems desirable briefly to restate the position in order to put this in relation with the rest of the evidence, which falls into three divisions.

(i) *English Seals used in Various Parts of France.*

The seals to which I refer here are those which at one time or another were used in parts of France then under the governance of the English king in partial substitution for the Great Seal of England. They are clearly parallel both from this point of view and on account of their design to the other categories of seals described in the present article: but information regarding them is at present very fragmentary and I should have been tempted to omit them if the new piece of evidence mentioned above had not made some allusion to them necessary. I shall attempt no more than a passing illustration: but the seals themselves, and the organization with which they are connected, are extremely interesting; and it is much to be hoped that their development and use may be more fully worked out. Immediately below them lie series of English seals used by royal officials at various times in various parts of France for purposes not dissimilar from those served by the seals we are now considering; and, like them, very little known. A notable example is a series of seals of the arms of England with a small counterseal, which are described in documents as 'the seal of the king for contracts which he uses at Bordeaux'.³ These seals, however, are smaller and in other ways different: and are definitely excluded from the scope of the present article.

(a) *The Seal for Gascony.* It is improbable that the rule of the earlier Norman kings over Normandy, Anjou, and Aquitaine produced any separate seal: though Norman Rolls (for example) exist they contain enrolments of documents tested in Normandy or relating to Norman affairs but authenticated, so far as we know, by the ordinary Great Seal of England. With the next

¹ The British Museum *Catalogue* is misleading on this point.

² I am indebted to my colleague Mr. C. S. Drew for calling my attention to it.

³ Examples dating from the reign of Edward III to that of Henry VI are in the Record Office Index. For the description see (e.g.) a document in *Exchequer, K.R. Accounts, Various*, 175, part 1.

reign, however, we come to a matrix described in royal letters in such words as *sigillum quo utimur in Vasconia*, or *minori sigillo nostro quod portavimus nobiscum in Wasconiam*, or again *sigillo nostro parvo quod habebamus in Vasconia*.¹ Monsieur Bémont, in his interesting commentary² on the *Gascon Rolls* in the Public Record Office which he assisted to edit, has compiled some notes about this seal and commented on the diplomatic employed with it. Although, as he has pointed out, it was thought necessary in some cases to reaffirm in a fresh document authenticated by the Great Seal of England important grants which had been made under this seal, its use, as exemplified by the records, together with the design of a single example which has fortunately survived³—an equestrian figure of the sovereign on the obverse and on the reverse a shield of the arms of England—clearly entitle it to a place in our list. It is in fact the earliest example yet found of a type with which the present article is largely concerned: and its design offers an interesting comparison with that of the earliest Exchequer seal.

A final word should perhaps be said about the use of this seal and about the Rolls which resulted. The 'Gascon Rolls' published in the first volume of the French edition of MM. Francisque-Michel and Bémont cover the Gascon expeditions of Henry III in 1242, 1243 and 1253, 1254, and the documents enrolled in them, though all (presumably) authenticated by this seal, deal with all kinds of royal business, English as well as Gascon; they are no longer included in the regular *Gascon Roll* series at the Record Office. Later *Gascon Rolls* cover only Gascon business but, on the other hand, contain a very large proportion of documents tested in England and given presumably under the English Great Seal. Whether our Gascon seal had later descendants I do not know.⁴

(b) *Royal Seals for Calais*. Calais was in English occupation from the reign of Edward III to that of Mary—a sufficient time for the development of a considerable body of administrative machinery. But the position of the town, almost one might say an English colony rather than a foreign city, and the predominance of the commercial side of its importance, while they produced plenty of developments which have left us mayoral and other official seals of a local kind,⁵ do not lead us to expect either machinery or seals of a 'Chancery' character; nor have any such seals been discovered. There are, however, three Calais seals which it seems desirable to mention in passing if only in order

¹ See T. F. Tout, *Chapters in the Administrative History of Medieval England*, i, 293; and Francisque-Michel and Charles Bémont, *Rôles Gascons* (Paris, 1885), nos. 2134, 2602.

² *Rôles Gascons, Supplément* (Paris, 1896), p. xix.

³ British Museum, *Harleian Charter*, 43. C. 39.

⁴ In *Exchequer, K.R. Accounts, Various*, 171/4 will be found examples of a small one-sided *Sigillum Curie Vasconie* bearing the Royal Arms.

⁵ See, e.g., British Museum, *Catalogue*, nos. 19011 to 19016.

to point out that they have sometimes been described in a way that suggested a closer kinship between them and the Scottish and Irish seals than really exists. They have in point of fact one feature which is interesting and unusual and not unconnected with our present discussion. The first is a seal attached to an almost illegible document in the British Museum¹ of the reign, apparently, of Edward III; the other two (one in the Museum² and one in the Record Office³) are both of the reign of Henry VIII. All three agree in being smaller than the contemporary Great Seal but larger than other royal seals of the period; and in having on the obverse the equestrian figure of the sovereign modelled closely on that of the Great Seals, with a legend which also corresponds.

Except in the case of the Tournai seal to be mentioned below I know of no other instance where this portrait of the sovereign appears on anything except a Great Seal or one of the 'departmental' seals with which the present article is so much concerned. On the other hand this seal has no reverse but (in the French manner which we describe below⁴) a small counterseal showing the device of a castle or embattled gateway—the seal, according to the legend on the earlier example,⁵ which was *provisum pro terris . . . in partibus Calesie dimittendis*. As the two later documents⁶ are both witnessed by the treasurer and controller of Calais and that in the Record Office is actually dated *in Scaccario nostro ville nostre Calesie sub sigillo eiusdem Scaccarii* there can be no doubt about the provenance of these seals. The counterseal on the two later ones is attributed to the reign of Edward IV.

I have not discovered in the histories of Calais any reference to this subject⁷; and indeed the whole question of the administrative machinery in use there during the English rule, and its relation to the royal administration in London, still needs investigation. Research along these lines will probably reveal more about an interesting series of seals which apparently developed, and preserved through two hundred years, a characteristic and unusual form.

(ii) *English Great Seals used for Diplomatic Purposes in France.*

There are four seals (excluding Henry VIII's golden bulla of 1527) which are known⁸ to have been affixed to the English side of diplomatic documents

¹ L. F. C. viii, 1.

² *Add. Ch.* 22623.

³ *Ancient Deeds*, A. 13574.

⁴ pp. 310, 311.

⁵ In the later ones we have only the royal name and title.

⁶ The earlier document has been rendered almost illegible by ill usage and an injudicious hand in modern times has endeavoured to re-write some portions of it. It seems reasonable, however, to infer from the later ones a witnessing by Treasurer and Controller and the eye of faith might almost discern them in the MS.

⁷ I have also failed to find mention of any examples in the official French Catalogues of Seals.

⁸ There is no reason that more examples should not yet come to light.

exchanged between this country and France: three of which are called by Wyon *Seals for French Affairs*. They fall under three headings.

(a) There are two ordinary (but disused) Great Seals specially exhumed for a particular occasion: one in 1396 and one (for the Treaty of Troyes) in 1420. The first of these was what Wyon calls the fourth seal of Edward III, which bore the title *Rex Francie et Anglie* and was discontinued at the time of the Peace of Brétigny (1360). The second was the Brétigny seal itself, as altered in 1372 when the same words—*Rex Francie et Anglie*—were again inserted in the legend: it was used as an ordinary Great Seal (with the name altered) by Richard II and also by Henry IV and Henry VI; both of these, however, had other seals with the French title *following* the English one¹ as was the normal use from that time till it was dropped in the reign of George III.

(b) There is the seal which Wyon calls the fifth seal of Edward IV, which is known only by one impression, affixed to the Treaty of Amiens in 1475. This seal is exactly like a Great Seal of England except for the use of fleur de lys to separate words in the legend and (again) the use of the title *Rex Francie et Anglie* (in that order). The first of these characteristics it shares with several other seals²; and the second with what Wyon calls the first Great Seal of Edward IV as well as the two fourteenth-century seals mentioned above. The last fact (not, I think, called in evidence before) probably does not amount to much, but it is certainly curious; for the other seals of this king have *Anglie et Francie*. Does it recall some special pretensions of Edward IV to the kingdom of France at the beginning of his reign?³

(c) There is the seal of Henry VII, likewise known by one example⁴ only and that on a treaty (Etaples, 1492), but having one new and surprising feature—the use of a design closely modelled on the English Great Seal for the obverse in combination with a small counterseal modelled with equal closeness on the French practice described (in an English manifestation) under our next heading. This seal also shows the wording *Rex Francie et Anglie*.

(iii) *French Great Seals of an English King.*

These are the seals resulting from English rule in France during the reign of Henry VI, following the Treaty of Troyes. They are modelled strictly on French conventions and consist of two Great Seals showing the sovereign enthroned and having a quite distinctive and un-English legend (with a small counterseal of an angel sustaining shields of arms, again in the French manner)

¹ See Wyon, pp. 39–63, for the description of all these seals.

² See for example pls. LXXXV, LXXXIX, and XCI in the present article.

³ According to Wyon (p. 57) it was used only for the first ten months.

⁴ Wyon, p. 66.

and two seals described in the documents to which they are appended as impressions of the Seal (again a purely French fashion) *ordonne en labsence du grant*. One of the last named is correctly modelled on French seals of the same kind showing a very un-English half-length portrait of the king with (again) the angel counterseal. The other produces a fresh problem, for though a mere fragment it seems undoubtedly to show a throned portrait of the Monarch: however as a nearly contemporary French king apparently made a like change in his *sceau ordonné*¹ we need not perhaps be too much disturbed by this.

The four seals last named may (I have suggested²) be labelled quite properly seals for French affairs. The others are all seals used on single occasions for diplomatic purposes; and though it is true that all have the *Francie et Anglie* legend it seemed rather a large assumption to conclude that they had any special connexion with the peculiarities of Anglo-French relations—that they would not have been used had the diplomacy been concerned with some other country. On the other hand the deliberate creation of an affinity with French practice by the use of the angel counterseal in the example from the reign of Henry VII certainly needs explaining.

We come now to a piece of information which is new at any rate to the present writer, though perhaps it ought not to be.

(iv) *A Great Seal of Henry VIII for the Town of Tournai.*

In 1900 Adolphe Hocquet published³ an article, which seems to have escaped notice almost entirely⁴ in this country, describing the English occupation of Tournai from 1513 to 1519, and revealed incidentally the existence in the archives of that town of an impression of a seal of Henry VIII specially made for use there. Soon after the establishment of the English in the town provision was made by act of Parliament⁵ for the institution of two *tabellions royaux* and a *scelleur royal* at Tournai through whom any of the king's subjects of Tournai and of England might have their contracts sealed with *le seau de nostredit souverain seigneur fait et laisse en la garde dudit officier a ceste fin et intencion*; which contracts the chancellor of England would then take steps to enforce if necessary. The arrangement, though very elaborate, is not perhaps surprising, but the seal emphatically is. So far as we have any parallel to go by—the statute merchant seal, for example, and perhaps the small Bordeaux

¹ See Douet d'Arcq, *Collection de Sceaux* (vol. iii, Paris, 1868), no. 10043.

² *Antiq. Journ.* xvi, 27: they are figured in Wyon pls. XIII A and XIII B.

³ *Annales de la Société Historique et Archéologique de Tournai*, new series, v, 302.

⁴ It is mentioned in a footnote to the new edition of *Letters and Papers Henry VIII*, i (1920), p. 1184.

⁵ Statute 5 Henry VIII, c. 1.

seal *ad contractus* and the Calais counterseal mentioned above—we should expect something modest with probably the royal arms in the design: what we have is a full-sized Great Seal with throned and equestrian portraits on the two sides, distinguished only from the Great Seal of England by a few details in its design and by a recurrence of the reversed title, *Rex Francie et Anglie*. It is possible that the part to be played by the English Chancery in the matter¹ had something to do with this but it cannot wholly explain the matter.

We have here in fact very curious parallels with all the peculiarities described in the 'French' seals so far examined. As in the case of the genuine seals for France noticed under (iii) above, English administration in the foreign country is marked by a deliberate use of foreign machinery²; as in the case of the isolated seals of Edward IV and Henry VII (ii, *b.* and ii, *c.* above) a seal, closely modelled on the Great Seal of England, is used only in foreign business and that business in France; and we have one more example of the *Francie et Anglie* wording, this time in particularly marked distinction from the contemporary Great Seal of England.

Is it possible that after all we are to see in the *Francie et Anglie* wording, wherever it occurs, something deliberately significant? If so we have a series of links, through seals, joining up in a very special way certain periods and certain particular occasions in English history of the fifteenth and sixteenth centuries with the French policy and pretensions of Edward III between 1340 and 1360 and again from 1372 to the end of his reign. In this connexion we may note particularly certain points about the design of our 'new' seal and the circumstances

PLATE LXXXIX: Description of Illustrations.

Gascony

- (1) and (2) Henry III (*Obv.* and *Rev.*) (B.M. Cat., 131.)

Legends: Only two or three letters, not certainly legible, surviving on the reverse.

France: Sceau ordonné

- (3) and (4) Henry VI (Seal and Counterseal) (B.M. Cat., 293.)

Legend: ✠ SIGILLUM REGIVM IN ABSENCIA MAGNI JORDINATVM

None on counterseal.

Calais

- (5) and (6) Edward III (Counterseal and Seal.) (B.M. Cat., 755.)

Legends: ☆ S' PVIS P' TRIS ET [...] IN PTIB' C[AL]ESIE DIMITTEND'
and [...] DWARDI DEI GRACIA REGIS [R]RANCIE ET ANGLIE

¹ Under certain circumstances the authorities at Tournai had to be certified under the Great Seal of England.

² The *tabellions* and *scelleur* were doubtless to replace a similar French institution: they are quite un-English, in function as well as name. I have not at present discovered any example of a similar seal of a French king: but at the time of the surrender of the town it was particularly announced (Hocquet, p. 314) that Henry would govern it *comme Roy de France*.



1



2



3



4



5



6

SEAL FOR GASCONY, SEAL OF ABSENCE FOR FRANCE
AND SEAL OF CALAIS



1



2



3



4

SEAL FOR TOURNAI AND SEAL FOR FRANCE (DIPLOMATIC)

under which it was produced. The design is remarkable not only for its magnificence (considering the subordinate nature of the duties it was to perform) but also for having in its legend no reference to those duties: there was nothing to prevent this seal being used for the most important purposes, if that were desired. In the circumstances under which it was produced we find one specially salient point—a constant reiteration by every one that Henry's proceedings at Tournai were only a part of his policy in regard to his realm of France, of which that town was a 'member': even the emperor is reported as telling the citizens *que c'estoit celui comme Roy de France que debvions reconnoistre pour Seigneur et souverain*:¹ and in the preamble to the Act we have cited Henry dwells on the fact that his recent proceedings at Tournai were only part of a policy proceeding from his great desire to recover the realm of France *qui est son vray et loyal patrimoine et heritaige*.

In any case, and whatever the significance we are to attribute to it, the seal of Tournai is a notable addition to our series.

Surviving Examples.

(i) The *Gascon* seal of Henry III is here illustrated from the only example I have seen recorded, in the British Museum; where it is affixed to a perfectly normal grant exempting the grantee from service on juries, etc. One would think that further examples must exist in French if not in English collections.

The three known Calais specimens have been already described: here again I cannot help thinking that foreign collections should supplement our knowledge especially in view of the long period—200 years—during which these seals appear to have been in use.

(ii) Of the provenance of the four unique seals mentioned under this heading sufficient has been said. Casts in the British Museum are identical with those used by Wyon for his illustrations.

PLATE XC: Description of Illustrations.

Tournai

(1) and (2) Henry VIII (*Obv.* and *Rev.*)

(*Tournai: Archives de la Ville.*)

*Legends*¹: HENRICVS * DEI * GRACIA * REX * FRANCIE * ET * ANGLIE * AC *
DOMINVS * HIBERNIE

and Same repeated.

Diplomatic

(3) and (4) Edward IV (*Obv.* and *Rev.*)

(*B.M. Cat.*, 312.)

Legends: + Edwardus ♣ dei ♣ grā ♣ rex ♣ frācie ♣ et ♣ anglie ♣ et ♣ dominus ♣ hibernie :
and Edward' dei ♣ grā ♣ rex ♣ francie ♣ et ♣ anglie : ♣ et ♣ dominus ♣ hibernie : ♣ : +

¹ The stops between words (here indicated by asterisks) seem to vary between fleurs-de-lis and roses.

¹ Hocquet, *op. cit.* p. 383, quoting a contemporary relation: cp. *ibid.* p. 314.

(iii) Of the seals for French affairs of Henry VI one may surely hope that further examples will be discovered: at present the only known impressions in England are three in the British Museum.¹ The documents² to which these are attached all show a similar and (un-English) documentary form: but this section of English administrative history is still an unworked field.

(iv) I have heard at present of only the one example, on which these remarks are based, in the Town Archives of Tournai: nor have I found that any examples are known in French collections. Possibly other specimens may presently come to light in other local Repositories in Belgium.

The comparative *Sizes* of the seals here described are indicated by our illustrations. That of Tournai is practically the same size as Henry's second Great Seal (Wyon, nos. 99, 100).

SEALS FOR IRELAND

Origins and History. The Great Seal for Ireland is perhaps the most important of the 'deputed' seals: it was almost certainly the earliest, for it must have been in existence in 1227 when what is probably the earliest datable copy of the *Registrum Omnium Brevium* was sent over to Dublin as model for the procedure of an Irish Chancery,³ and five years later we find the English Chancellor appointed to act in Ireland by a Deputy.⁴ Moreover it was, so far as I know, unique in that it followed the English Great Seal in throwing off special subsidiary seals for the Exchequer, King's Bench, Common Pleas, and Court of Wards. When the first three of these events took place it is not possible to say at present. It is known that a re-modelling of Irish financial machinery on the lines of the London *Scaccarium* and *Recepta* occurred in the reign of Edward I, and this may account for the Exchequer seal, though there is some possibility of a separate seal in the preceding reign, but a document quoted by Dr. Wilkinson⁵ seems to indicate that in 1351 there were not yet independent seals for the King's Bench and Common Pleas at Dublin. On the other hand the order for their manufacture was undoubtedly given in the same year (1344) as that for the English ones; and in 1359 provision was made for the custody of at least one seal for judicial writs⁶: moreover a document

¹ Nos. 296-8 in the *Catalogue*. Nos. 293, 294, and 299 are casts: 295 is a seal of Burgundy.

² *Cottonian Charter*, xii, 72, and *Add. Charters*, 131 and 11847.

³ See F. W. Maitland's article in the second volume of his *Collected Papers* (Cambridge, 1911): it is printed also in *Anglo-American Studies in Legal History*.

⁴ *Calendar of Documents, Ireland*, I (1875), no. 1988: see also (no. 2836) the further arrangements made in 1246.

⁵ *English Historical Review*, already cited, p. 398.

⁶ *Calendar of Close Rolls*, 1354-1360, p. 577.

of the reign of Richard III cited in my previous article¹ has attached to it fragmentary seals of the two justices, both of which seem to be adaptations of earlier matrices, while one of them, on the evidence of the word *heres* in the King's title, may be dated back at least as far as the reign of Henry V.²

Finally at this point we may note that Ireland, like England, had Liberties; and that there is no reason why, if one of these liberties was in the hands of the Crown, there should not be a Royal Seal for its administration just as we shall find below in the case of the English Palatinates and Welsh Lordships Marcher. There is actually an order recorded³ for the making of what appear to be Royal Seals of this kind for Ulster and Trim in the reign of Richard II.

In view of the foregoing remarks it is curious how little is known about these interesting seals. Gilbert⁴ in his work on the Dublin Corporation refers to a large number of documents which as a matter of fact carried the Great Seal for Ireland but is not very helpful, and indeed nothing of importance has, I believe, been written on the matter. I must here record the deep regret which will be felt by all scholars that the untimely death of Miss Maud Clarke, history tutor of Somerville College, has cut short the work which she had begun on this subject: the superficial account I am able to give here does not pretend to replace the finished study which she, I am sure, would have produced. In particular, I have made no attempt to collect from English records mentions of the medieval staff or working of the Irish offices, from which we might very possibly gain much enlightenment.⁵ I am also specially sorry that here, as in other cases, I must make no effort to fill the gaps in our knowledge of the diplomatic associated with our seals. In this instance neglect of the subject in the past is the more unfortunate because the Irish Chancery records, re-examination of which (they were not very adequately calendared by the Record Commission) might have yielded interesting results, all perished in the explosion at the Four Courts in 1922: a catastrophe which involved likewise the whole of the Exchequer and Legal records and presumably also a certain (perhaps a large) number of original documents carrying impressions of the royal seals.

The Great Seal for Ireland of the medieval period is represented in direct succession by a seal for Northern Ireland at the present day.

Surviving Examples. Recorded impressions of the seals are almost incredibly few. At the time this paper was read I was able to collect from the British Museum and Record Office examples of the Great Seal for only two

¹ *Antiq. Journ.*, xvi, 11: the document is *Exchequer, K.R. Accounts, Various*, 248/17.

² See, below, the description of these seals.

³ See the *Calendar of Irish Patent and Close Rolls*, p. 130.

⁴ *Calendar of Ancient Records of Dublin*, I (Dublin, 1889).

⁵ I have to thank, however, Mr. Herbert Wood for some valuable notes, several of which are here utilized.

reigns before 1500—of the Seals of the Exchequer, King's Bench, and Common Pleas practically nothing. Since then the kindness of Professor Edmund Curtis, to whom I am deeply indebted,¹ has enabled me to supplement considerably my knowledge of, at any rate, the first: from the muniments of the Duke of Ormond and of the Corporation of Dublin I have been able to see, in photographs, something like forty examples (many, alas, the merest fragments but a few of them good specimens) of the Irish Great Seal; and I can now offer at least some account of its medieval and subsequent development. Of the others little can be said: I have still only enough of the Exchequer, King's Bench, Common Pleas, and Court of Wards to make the beginning of a description.

I can only hope that private collections in England,² if not in Ireland, may in time produce further examples.

The subject being so important and so little known I give here a list of impressions of the Great Seal on which these remarks are based.

Recorded Impressions or Casts of the Great Seal for Ireland

Note.—In this list examples in the possession of the City of Dublin are described with the letters *C.D.* and the number from the official printed *Schedule of Royal Charters*: these numbers do not appear to agree with those used in the *Calendar of Royal Charters*, printed by J. T. Gilbert in his *Calendar of Ancient Records of Dublin*, i, 1 (Dublin, 1889).

Those from the muniments of the duke of Ormond are described with the word *Ormond* and references have been added to the first two volumes of Professor Edmund Curtis's *Calendar of Ormond Deeds* (Dublin, 1932, 1934): a few unidentified fragments in this collection have not been included.

The letters *S.A.* denote casts in the possession of the Society of Antiquaries; *P.R.O.* (with references attached) shows documents in the Public Record Office; and *B.M.* is followed by the British Museum Catalogue number and (in brackets) the reference to impressions or casts in that collection.

<i>Reign.</i>	<i>Date.</i>	<i>Reference.</i>	<i>Reign.</i>	<i>Date.</i>	<i>Reference.</i>
EDWARD I	1301	<i>Ormond</i> ³	RICHARD II	1390-1	<i>P.R.O. (Ancient Deeds, B. 12439)</i>
EDWARD II	1320	<i>Ormond</i> ³			
	1327	<i>C.D.</i> , 18			
EDWARD III	1336	<i>C.D.</i> , 22		1394-5	<i>C.D.</i> , 43
	1337	<i>Ormond</i> , i, 698	HENRY IV	1407	<i>Ormond</i> , ii, 391
	1337	<i>C.D.</i> , 24		[1407]	<i>Ormond</i> , ii, 389
RICHARD II	1381	<i>C.D.</i> , 41	HENRY V		(<i>in America</i>) ⁴

¹ I must record also my obligation to Mr. St. John Brooks for his good offices in this matter.

² At the time this paper was read a fine example of Elizabeth's Great Seal for Ireland was exhibited by the kindness of Mrs. Walker Heneage.

³ See Royal Irish Academy, *Proceedings* xxxv c (1918-1920), pp. 126, 128: the seals are on Letters Patent formerly belonging to the Abbey of Duiske.

⁴ It is on a copy of the *Modus Tenendi Parliamentum* in the possession of the Henry E. Huntington Library in California. I am indebted to Mr. H. G. Richardson for the sight of a photograph.

<i>Reign.</i>	<i>Date.</i>	<i>Reference.</i>	<i>Reign.</i>	<i>Date.</i>	<i>Reference.</i>
HENRY VI	1438 c. 1442	C.D., 50 P.R.O. (<i>Exchequer</i> , K.R., Ac- counts, etc., 248/16)	HENRY VIII	1536 ⁶ 1536 ⁷ 1539 1541 ⁸ 1545 ⁹ 1547 1549 ¹⁰	Ormond Ormond C.D., 75 Ormond Ormond C.D., 77 Ormond
EDWARD IV	1455 1455 1476 1487 ¹	C.D., 53 C.D., 54 C.D., 59 Ormond	EDWARD VI	1559 ¹¹	Ormond
RICHARD III	1485	C.D., 62	PHILIP and MARY	1569-70 ¹²	Ormond
HENRY VII	1488 ² 1489 ³ 1502 ⁴	Ormond Ormond Ormond	ELIZABETH	1574 ¹³ 1591 ¹⁴ 1594 ¹⁵ 1595 ¹⁶ [? year]	Ormond Ormond Ormond Ormond B.M. (17,336 [cv. 11])
HENRY VIII	1536 ⁵	Ormond			

I have not attempted to carry any fresh investigation beyond the date last named in the above list: but examples exist in the British Museum¹⁷ for the reign of James I, the Commonwealth and the reigns of Charles II, James II, William and Mary, George I, and George III.

Of the other seals that of the *Exchequer* is first known to us by fragments for the reigns of Edward I and Edward II on letters in the Graiguenamanagh, or Duiske, Collection¹⁸ dated 29 Edward I and 13 Edward II,¹⁹ which are sealed also with the Irish Great Seal.²⁰ After this we have an example for the reign of Henry VI in the British Museum,²¹ a large fragment for that of Richard III in the possession of Dublin Corporation,²² and in the Ormond MSS. an almost complete specimen for that of Henry VIII.²³ Some casts²⁴ of the Commonwealth

¹ Document dated 13th August. The seal is extant on a document of this date attributed by Professor Curtis to Lambert Simnel.

² 20th May. From this point onwards I have given in footnotes the dates of the Ormond documents to which these seals are appended (as supplied to me by Professor Curtis) because they cannot at present be identified by reference to any printed work.

³ 24th March.

⁴ 18th March.

⁵ 23rd October.

⁶ 23rd October.

⁷ 23rd January.

⁸ 11th August.

⁹ 8th February.

¹⁰ 27th December.

¹¹ 26th August.

¹² 6th September 1569 and 8th December 1570.

¹³ 24th September.

¹⁴ 26th April.

¹⁵ 25th March.

¹⁶ 16 June.

¹⁷ *Catalogue*, numbers 17,338 to 17,346 and subsequent accruals. The Society of Antiquaries and the Public Record Office have casts and originals for the reigns of James I (also represented in the Ormond MSS.) and Charles II.

¹⁸ Forming part of the Ormond MSS.

¹⁹ See Constance M. Butler and Archbishop Bernard, *Charters of the . . . Abbey of Duiske . . .* in *Proceedings of the Royal Irish Academy*, xxxv. c, pp. 126-128.

²⁰ They are remarkable in addition for the fact that the seals are in each case pendent not on tags or laces but on two tongues, cut side by side—a most unusual arrangement.

²¹ *Catalogue*, number 17,349.

²² Dublin Corporation, number 62.

²³ On a document dated 11th October, 34 Henry VIII.

²⁴ British Museum, *Catalogue*, numbers 17,351 to 17,353.

period in the British Museum¹ are of doubtful attribution, but may more probably be ascribed to the Exchequer than to the Common Pleas. And of the subsequent history of the Exchequer Seal I have at present no information.²

Examples of seals for the *King's Bench* are extremely scarce: I have seen, in fact, only two. One in the Public Record Office,³ appended to a financial statement which apparently carried also those of the Irish Chancery, Exchequer and Common Pleas, belongs to the reign of Richard III but seems to be an adaptation of a seal of Henry V. The British Museum has apparently no example,⁴ but from the Ormond MSS. we have recorded one specimen, on a document dated 25th October, 29 Elizabeth, which may be attributed to this Court.

Seals of the *Court of Common Pleas* might be expected, on the analogy of the English Court, to be of more frequent occurrence, but here also survivals are (save for one reign) very scarce. We have one of the reign of Richard III on a document at the Public Record Office, where it is associated with the King's Bench Seal already mentioned. Like the King's Bench Seal it has a legend which has undoubtedly been altered from that of an earlier King, and in fact seems to belong to the reign of Henry V; and from one or two further examples in the Ormond MSS.⁵ it would seem that it continued in use at least till the reign of Henry VIII. The same collection furnishes no less than five examples of the reign of Elizabeth.⁶

The Common Pleas and King's Bench in Ireland presumably continued to have seals till the Judicature Act of 1877 put an end to the separate existence of these Courts.⁷ The silver double matrix of a Victorian Seal⁸ for (probably) the Common Pleas was (at the date of this paper) in the possession of our Fellow Dr. L. A. Lawrence.⁹

Finally a single surviving impression, on material partly or wholly of leather, in the British Museum, reveals the fact that a separate *Court of Wards for Ireland* had a seal at least in the reign of James I.¹⁰

¹ The cast (shield with English legend) numbered 17,350 certainly belongs to the Exchequer.

² A cast of one side only (CXLVIII, 9, at the British Museum) is ascribed to George III.

³ *Exchequer, K.R. Accounts, Various*, 248/17.

⁴ A cast of one side only for William IV (CXLVIII, 41) is ascribed to this Court.

⁵ One on a document of November 1527 is nearly perfect, though not a good impression.

⁶ They are dated 3rd November, 18 Elizabeth; 25th October, 29 Elizabeth; 2nd June, 37 Elizabeth; (2nd?) June, 43 Elizabeth; and 22nd October, 43 Elizabeth.

⁷ See Herbert Wood, *Guide to the . . . Public Record Office of Ireland* (1919), p. 63.

⁸ The hall-mark date is 1838.

⁹ It is said to have belonged to Lord Chief Justice May.

¹⁰ *Catalogue*, number 17,356, where it is ascribed to the reign of James II. This is obviously a printer's error, for the Court was abolished in 1662: see Wood, *op. cit.*, p. 265.

Design.

The *Great Seal*. Existing fragments before the reign of Richard II are unfortunately very diminutive, and we can say little more than that the obverse showed the throned figure of the king, and the reverse a shield of the Royal Arms. From what remains, however, it is almost certain that one double matrix served (as in England) for Edward I and his son and grandson: we have actually recorded¹ an order of Edward III in 1327 for the alteration of the existing seal by the addition of 'two flowers', no doubt fleurs-de-lys; and analogy with the Great Seal of England (not to mention the Scottish one) suggests (though our fragments do not prove) a previous alteration for Edward II by the addition of two castles.

The fine impression of the seal of Richard II here reproduced clearly has an altered legend, and we may reasonably assume that Richard II used throughout² (as in England) a later seal of Edward III, made after 1372 and including the French arms in the shield and the French title in the legend, though the first version of this (for the reign of Edward III) is not at present known to us; actually, we have an order of 1377³ for the alteration of the two *folia*—a new term for the halves of a matrix. The legend is the same on both sides and makes no mention of the specific (Irish) purpose of the seal. The same seal was apparently used by Henry IV, Henry V, and Henry VI.

With Edward IV we find changes—an orb in the left hand of the king and a beautiful crown above the shield on the reverse. These matrices again had a long life, being used by Richard III (presumably) and by Henry VII and Henry VIII.⁴ The *Legend* on both sides states that this is the seal of the king *terre sue Hibernie*; and in at least one document to which an impression is attached it is described as *magnum sigillum suum regni sui Hibernie usitatum*.

In the reign of Henry VIII an alteration⁵ in the royal title (the use of *Rex Hibernie* instead of *Dominus*) resulted in the production of a new and larger seal with Roman lettering and other fresh features, including a long legend in which the *supremum caput* figures, and which extends over both sides of the seal, the special reference to Ireland being dropped. Under Edward VI a mounted figure was for some reason substituted for the shield, and this continues in the seal of Philip and Mary. Elizabeth (again for a reason not yet known) reverted on her seals (I have noted two different ones⁶) to the use of the shield, but

¹ *Calendar of Close Rolls* (1327-1330), 228 (*m.* 11d).

² Save for a brief period when apparently Robert de Vere's personal seal was in use. *Calendar of Close Rolls* (1385-1389), 388.

³ *Calendar of Close Rolls* (1377-1381), 21.

⁴ This is the seal of Henry VIII shown in Plate xci.

⁵ By the statute of 35 Henry VIII.

⁶ The earliest example of the second which I have seen is on a document dated 1594, and apparently it was introduced between 1591 and that date.

James I and Charles I both use the two figures: Cromwell, for obvious reasons, combined a shield of Arms with a riding figure: Charles II and, so far as I know, all subsequent sovereigns used the two figures.

All these later royal seals, though differentiated, closely approached, on both sides, the design of the English Great Seal, and none had any specific reference to Irish affairs in their legends.¹ On the other hand we may note the interesting introduction of a picture of Dublin, a practice paralleled in a number of English Great Seals² and in some of Scotland, Wales, Chester, and Durham to be mentioned below.

The Exchequer Seal. Existing fragments just enable us to say that the Seal of Edward I (altered, by the usual addition of castles, for Edward II) shows the $\frac{3}{4}$ length figure of the King in a boat on the sea; with a shield of arms for the reverse. The incomplete rendering of the figure on an English royal seal is, so far as I know, unique (if we except the purely French *Sceau Ordonné* of Henry VI), and so is the introduction of the fanciful idea of the *transfretacio*; though certainly this last must have bulked largely in any medieval mind in connexion with Ireland. Other surviving examples just enable us to say that this striking design persisted throughout the medieval period, and that a new rendering of it executed at least as early as the reign of Henry V was

PLATE XCI: Description of Illustrations.

Ireland: Chancery

- (1) and (2) Richard II (*Obv. and Rev.*) (Dublin Corp., 43.)

Legends: RICARDVS: DEI: GRA: [REX:] ANGL: ET: FRANCIE: Dñs: hIB' ET: DVX: AQ':

and ✱: RICARDVS: DEI: GRA: REX: ANGL: E[ET: R]E[FRANCIE]: Dñs: hIB' ET: DVX: AQ':

- (3) and (4) Henry VIII (*Obv. and Rev.*) (Ormond MSS.³)

Legends: ♣ Sigillū ✱ Henrici: dei: gra: regis: anglie [et] frâcie [.] hibernie terre sue: hibernie:

and Sigillum ✱ henrici dei: gracia: regis anglie: et: francie: dominu[s]: hibernie: terre: sue: hibernie⁴

- (5) and (6) Edward VI (*Obv. and Rev.*) (Ormond MSS.⁵)

Legend⁴: + EDWARDVS ♣ SEXTVS ✱ DEI ♣ GRACIA ✱ ANGLIE ♣ FRANCIE ✱ ET ♣ HIBERNIE ✱ REX ♣ FIDEI ✱

DEFENSOR ✱ ET ♣ IN ✱ TERRA ♣ ECCLESIE ✱ ANGLICANE ♣ Et ♣ HIBERNICE ♣ SVPREMVM ✱ CAPVT ♣

¹ On document dated 2nd January 1536.

² On document dated 27th December 1549.

³ Floral device.

⁴ Legend continued from obverse to reverse.

⁵ This remark does not apply to the seal of Cromwell which has on the shield side the legend MAGNUM SIGILLUM HIBERNIAE 1655: see British Museum *Catalogue*, number 17,340.

Cp. *Antiq. Journ.*, xvi, pp. 16, 17.



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SEALS FOR IRELAND: CHANCERY

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still serving in (at any rate) the thirty-fourth year of the reign of Henry VIII.¹ The reverse throughout showed a shield of arms. The *legend* of the later seal² gave on the obverse merely the King's title and on the reverse *Sigillum . . . Regis Anglie de Scaccario suo Dublinie*, and that of the earlier (which we only know by fragments) probably used a similar convention.

It would be very interesting to find some later examples, if only in order to know how long the ship convention lasted.

The King's Bench and Common Pleas Seals. The two fragments which survive to us for the reign of Richard III are specially interesting on account of their comparative sizes (which may be judged from our illustration); on that of the royal portrait, which is an equestrian one in each case; and on that of the *Legend*. Of this last there are in the case of the King's Bench only fragmentary remains, but they are sufficient to show that it is an older seal altered for Richard, and to warrant a conjecture that it describes itself on the reverse as being his seal [*placii sui*—a most interesting phrase if the reading is correct.³ That of the Common Pleas (which can be further studied in two surviving impres-

PLATE XCII: Description of Illustrations.

Ireland: Chancery

(1) and (2) Philip and Mary (*Obv. and Rev.*)

(*Ormond MSS.*¹)

*Legend*²: [PHILIP]PVS · E MARIA · D^o · G^o · REX · ET · REGINA · [. . .] PANIAR [.]
[.]STR^o · DVC^o · BVRGVD^o · MEDOLNI ET BRABAC^o · @MIT^o · HAS^o ·
FL · & [.]

(3) Charles II (*Obv.*)

(*B.M. Cat.*, 17,342.)

Legend: 1660 CAROLVS @ II @ DEI @ GRA @ MAGNÆ @ BRITANNIÆ @ @ FRANCIÆ
@ ET @ HIBERNIÆ @ REX @ FIDEI @ DEFENSOR @

(4) George I (*Rev.*)

(*B.M. Cat.*, 17,345.)

*Legend*³: :: BRVNSWICEN · ET · LVNEBVRGEN · DVX · SACRI · ROMANI · IMPERII ·
ARCHITHESAVRARIVS · ET · PRINCEPS · ELECT · &c.

¹ On document dated 26th August 1559.

² Legend continued from obverse to reverse.

³ Continued from obverse.

¹ See the example shown in Plate xciii: there may of course have been a change in the next year, following the change in the King's title. An example of the use of the same matrices by Richard III is in the possession of Dublin Corporation (no. 62).

² It is noteworthy that the legend on the reverse is in 'Lombardic' lettering, whereas that on the obverse is in 'black letter'. In the present state of our ignorance in regard to this seal I do not feel justified in suggesting positive inferences, but a final re-examination of the obverse (the *later* of the two matrices) showed that the legend contains the word *heres*; an element, dating back to Henry V, to which I have adverted below in connexion with the *Common Pleas* seal of Richard III.

³ It occurs again in the witnessing clause of the document which carries our later (Elizabethan) example of the seal of this Court.

sions¹ of later date from what is undoubtedly the same matrix) gives us evidence of a very curious piece of seal history. It contains on the reverse the words *heres regni* [*Francie*] which can apply only to the end of the reign of Henry V (after the Treaty of Troyes),² and moreover one is tempted to say, judging by the representation of the arms of France in the shield, that the matrix must have dated at least from the previous reign, if not from that of Richard II. We may deduce, then, first that a seal of the reign of Henry V (possibly earlier) continued in use in the Irish Common Pleas till the reign of Henry VIII: further that though the legend was altered, certainly in the case of Richard III and presumably at every change of monarch, no one ever troubled to alter the title which had become obsolete; and finally that since Henry V thought it worth while to alter the seals of his Irish Exchequer and Common Pleas after the Treaty of Troyes there is at least a possibility that we may presently find other royal seals in Ireland (and why not in England?) similarly modified.

The later (Elizabethan) examples so far recorded for these Courts are just enough to enable us to say that they have both taken to the seated figure in lieu of the equestrian; that they are extraordinarily alike, being differentiated

PLATE XCIII: Description of Illustrations.

Ireland: Exchequer

- (1) Edward I (*Obv.*) (Ormond MSS.¹)

Legend: None surviving.

- (2) and (3) Edward II (*Obv. and Rev.*) (Ormond MSS.¹)

Legends: ✠ S: EDW[.] DVBLI]NIA

and ✠ ED[.] AQUI]TAN

- (4) and (5) Henry VIII (*Obv. and Rev.*) (Ormond MSS.²)

Legends: [.] dei · gracia · rex · angl · heres · regni · ꝛ francie · dñs · h[.]

and S: HENRICI[: R]EG[:] ANGL[: DE: SCACCARIO: SVO: DVBLINIE:

Ireland: King's Bench

- (6) and (7) Richard III (*Obv. and Rev.*) (P.R.O., E. 101/248/17)

Legends: Ricardus · dei [.] angl[.] her[.] nie³

and [.] [p]lacii sui² i[.] nia³ [.]

- (8) and (9) Elizabeth (*Obv. and Rev.*) (Ormond MSS.⁴)

Legends: ♣ ELIZABETH' ⊗ DEI [⊗] GRACIA [.] FIDEI * DEFEN'

and ♣ ELIZABE[TH'] R]EGINA ⊗ FIDEI ⊗ DEF'NSO'

¹ Graiguenamanagh Charters.

² On document dated 11th October, 34 Henry VIII.

³ Reading doubtful.

⁴ On document dated 25th October, 29 Elizabeth.

¹ On two documents in the Ormond MSS. both dated 1527.

² See some further comment on this in my article in the *Antiquaries Journal*, xvi, p. 25. It appears that there was at any rate an order for the alteration of the English Exchequer Seal, though we have no known surviving impression to tell us if the order was executed.



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SEALS FOR IRELAND: EXCHEQUER AND KING'S BENCH

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SEALS FOR IRELAND: COMMON PLEAS AND COURT OF WARDS

by little more than the changing of one of the supporters on the shield side from lion (King's Bench) to greyhound (Common Pleas); and that neither is differentiated by legend or any outstanding feature from the contemporary Chancery Seals, except that the Chancery and the King's Bench agree in the matter of supporters. The casts of Cromwellian seals in the British Museum, which we have attributed above to the Irish Common Pleas, also have nothing distinctive in their legends, and apparently this feature continued in some later reigns; though in that of George III we find¹ a ribbon on the shield side bearing the words *pro brevibus coram justiciariis*, in imitation perhaps of the English practice.

The Seal of the *Court of Wards for Ireland* is very closely modelled on the design of its opposite number in England (as may be seen from comparison with Plate LXXXVIII), having the same motto and like figures of children, though with the addition of shields bearing a harp crowned, for Ireland.

PLATE XCIV: Description of Illustrations.

Ireland: Common Pleas

(1) and (2) Richard III (*Obv. and Rev.*)

(*P.R.O., E. 101/248/17*)

Legends: [Sigi]llum [r]icardi [r]egis [de] cōmuni banco suo hibernie

and + Ricardus: dei: gr[acia:] rex: anglie: heres: [. . . . do]minus: hibernie:

(4) and (5) Elizabeth (*Obv. and Rev.*)

(*Ormond MSS.*)

Legends: ♣ [ELI]ZABETH ⊗ DEI ⊗ GRACIA ⊗ ANGLIE ⊗ FRANCIE ⊗ ET ⊗ HIBERNIE
⊗ REGINA ⊗ FIDEI ⊗ DEFE[NSOR]

and Same as on obverse.

Ireland: Court of Wards

(3) James I.

(*B.M. Cat., 17,356*)

Legend: ♣ IACOBVS ⊗ DEI ⊗ GRATIA ⊗ MAGNÆ ⊗ BRITANNIÆ ⊗ FRANCIÆ ⊗ ET
⊗ HIBERNIÆ ⊗ REX ⊗ FIDEI ⊗ DEFENSOR

and on scroll: PVPILLIS [ORPHANIS] ET · V[IDVIS ·] ADIVTOR

SEALS FOR SCOTLAND

Origin and History. These seals, if we exclude the rather mysterious seal for the King's lands beyond Berwick,² fall into two simple series; the seal of Edward I and Edward II *ad regimen Scocie deputatum*, and the series beginning from the union of the two Crowns in James I of England and VI of Scotland.

¹ British Museum *Catalogue*, number 17,358

² This seal, whose form takes it definitely outside our scope, is known in impressions at the British Museum (*Catalogue*, numbers 750-754) covering the reigns of Edward I, Edward III, and Henry IV or V.

The first of these was described in my article a few years ago in connexion with an almost unique impression of the seal of Edward II which was exhibited to the Society of Antiquaries by the Duke of Rutland. I will only recall now the fact that a single pair of matrices was concerned for both reigns and that the documentary form accompanying their use in both was very surprising: this seal serves in fact as the starting-point for a good deal of speculation in regard to English diplomatic.

The series beginning with James I needs no explanation. Procedure in the later period followed that of the older Scottish Chancery in including a 'quarter seal', the equivalent of the English half seal described by Sir Henry Maxwell Lyte:¹ to judge by the extremely neat proof impressions which are in existence this must have had separate matrices in the reign of George IV—a particularity which I do not know at the English Chancery. A Great Seal for Scotland continues in use to the present day and is kept at Edinburgh.

Surviving Examples. In my previous article I cited documents issued under the seal of Edward I and Edward II, some having portions of the seal attached. So far I have heard of no others but I still hope investigation may be pushed further by some other hand or hands. In the later series I have noted examples for every reign down to Queen Victoria except two (James II and Anne), and for Cromwell, either in the British Museum² or in the possession of the Society of Antiquaries.

Design. The Edwardian seal need not be again described: it is a very good specimen of the typical 'deputed' Great Seal.

In the later series, which has been very little touched by Laing,³ Birch,⁴ or Wyon,⁵ we note the curious fact that the most Scottish of English Kings has

PLATE XCV: Description of Illustrations.

(1) and (2) Edward I (*Obv. and Rev.*)

(*P.R.O., E. 39/93/16*)

*Legend:*¹ ✠ SIGILLVM · EDWARDI · DEI · GRACIA · REGIS · ANGLIE · DNI · HIBERNIE
✠ ET · DVCIS · AQTITANIE · AD REGIMEN · REGNI · SCOTIE · DEPUTATVM

(3) and (4) James I (*Obv. and Rev.*)

(*Soc. Ant. Cast*)

Legends: · DEVS · IVDICIUM · TVVM · REGI · DA ·

and IACOBVS · D · G · MAG · BRIT · FRAN · ET · HIB · REX ·

¹ Legend continued on reverse.

¹ *Notes on the Great Seal*, pp. 307, 311.

² *Catalogue*, numbers 17,222–17,229 and later accruals.

³ Henry Laing, *Catalogue of Impressions from Ancient Scottish Seals* (Edinburgh, 1850) pp. 17–20.

⁴ W. de Gray Birch, *History of Scottish Seals*, vol. I (Stirling and London, 1905), pp. 76–83.

⁵ Allan Wyon in his article in the *Journal of the British Archaeological Association* (xlv, 1889) mentions only seals for Scotland of James I (which he calls the second seal of that King) and Charles I.



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SEALS FOR SCOTLAND

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his portrait (equestrian) on only one side of the Scottish seal with a shield of arms on the other: it is particularly noteworthy because in his Irish seal he follows the custom which had resulted from a change in the reign of Edward VI of having the double portrait. The same convention obtained also in all subsequent Scottish seals. Another peculiarity of the seal of James I after the Union lies in the *Legend*, which uses, in the Scottish manner, a motto instead of a title on the obverse: this was discontinued later.

Apart from small devices indicative of Scotland the later seals follow the conventions of the English Great Seal with increasing closeness: an interesting variant is the introduction of a view of Edinburgh between the horse's legs,¹ a parallel to the views of London and the Thames which figure in so many English Great Seals and in some others noted above under Ireland.

The *Size* of the later Seals is that of the Great Seal of England.

SEALS FOR WALES²

Origins. Administration in Wales, and the seals to which it gave rise, being normally in the hands of the Prince of Wales and of the lords marchers, is outside the scope of this article, except for periods when there was no Prince of Wales or when a lordship was for some reason in the hands of the Crown. At such times administrative functions which normally required the use of a seal would still have to be carried on, and we may look with some confidence for seals bearing the device of the sovereign and presumably assimilated to the form of Royal Seals in use for like purposes elsewhere. Moreover, the periods when the Principate, at least, was vacant are not few and some of them are long: in this respect we are potentially concerned with the years 1307-43, 1377-99, 1413-54, 1460-71, 1484-9, 1502-4, 1509-1610, 1612-16, 1625-30, 1649-1714, 1727-9, 1751-62, and 1820-41. The administration thus brought within our scope is complex and it will be well to summarize briefly the situation so far as it affected seals.

Under the arrangements made by the Statute of Wales in 1284 there were in the parts of Wales then in royal hands (that is, excluding the lordships marcher) two main divisions and two Great Seals: there was one seal in the custody of the chamberlain of North Wales (covering what are now the counties of Caernarvon, Anglesey, and Merioneth) and one in that of the chamberlain of South Wales (Cardigan and the greater part of Carmarthen), and under these the chamberlains were competent to issue letters patent and original writs

¹ It appears probably in the seal of James I, possibly in that of Cromwell, certainly in those of George II and the two following kings.

² I am heavily indebted to my colleague, Mr. D. L. Evans, for help in the compilation of this section and for a number of references from his own notes.

affecting the Principality. There is no actual reference to these seals in the statute but casual mention in various places¹ sufficiently establishes their existence. As the custody of what was in effect a Chancery seal was thus in the hands of a financial official we may presumably exclude the possibility of any separate seal for financial purposes and the same remark applies apparently to legal purposes also; for in 1309² and again in 1342³ there were complaints that the justices were sealing with their own seals original and judicial writs which ought to be sealed with 'the King's seal for the Government of North Wales'.

There was presumably no fundamental change till the union of Wales with England by Henry VIII. By the Act of Union of 1535⁴ and the further Act of 1542⁵ new arrangements were made involving, as a result of the incorporation of the marcher lordships in shires, the creation of four chanceries whose 'original seals' were in the custody of the chamberlains of North and South Wales and of the steward and chamberlain of Brecknock and the steward and chamberlain of Denbigh. These seals were used for financial purposes⁶ as well as for Chancery ones (including the authentication of original writs), but not for judicial writs: for these there were to be four judicial seals in the custody of the justices of the four divisions of the new Court of Great Sessions for Wales which was set up by the Act of 1542.

It is to be noted that there was a difference in one case between the districts covered by a Chancery ('original') seal and the parallel judicial seal; the justice of Chester controlling a seal which was used for the shires of Flint, Denbigh, and Montgomery; whereas in Chancery matters Flint came under a fifth authority, and a fifth seal, those of the chamberlain of Chester, being part of the ancient Palatinate jurisdiction of Chester.⁷

The arrangements thus made lasted until 1830.⁸

Our seals for the Principality of Wales may thus be grouped under three heads: (i) Seals prior to 1542 for the districts of North and South Wales in periods during which administration was in the hands of the sovereign: (ii) 'original' seals of date after the Act of 1542 for the four chanceries (we shall deal with Chester separately); presumably also in periods when there was no Prince of Wales: and (iii) 'Judicial' seals of like date for the four divisions of the Court of Great Sessions; again presumably in periods when there was no Prince of Wales: to which may be added (iv) Seals (before 1542) for any of

¹ See, e.g., the Fealty Roll of the Black Prince, *Exchequer, K.R. Miscellanea*, 4/34.

² *Rotuli Parliamentorum*, i, 273.

³ *Calendar of Close Rolls*, p. 327.

⁴ 27 Henry VIII, c. 26: Ivor Bowen, *The Statutes of Wales* (1908), p. 81.

⁵ 34, 35 Henry VIII, c. 26: *ibid.*, p. 104.

⁶ Ivor Bowen, *op. cit.*, p. 107.

⁷ See below p. 332.

⁸ They were abolished by Act of 11 George IV and 1 William IV, c. 70.

the marcher lordships which had a sufficiently organized administrative system, in periods when for any reason they were in the hands of the Sovereign.

Surviving Examples and Design.

(i) *Seals prior to 1542 for North and South Wales.* We are not concerned here with the seals of Princes of Wales (fortunately, perhaps, for they present some difficulties) except to note that they exist for the princely periods of Edward of Caernarvon¹ and Edward the Black Prince,² Henry of Monmouth³ and Edward, later Edward V,⁴ and that the last-named offers a valuable possibility of comparison. Our own purposes are served by only six recorded examples: four of these, in the British Museum,⁵ provide a striking instance (if one were needed) of the damage which may be done by detaching seals from their documents, for the editor of the *Catalogue* has only been able to assign to them the date 'Henry IV-VII' and we would have liked to know much more about their use. A single example surviving in the Record Office⁶ makes it clear that it was used at any rate by Henry VI. The form of their legend is particularly interesting: *Sigillum Henrici Regis Anglie et Francie et Domini Hibernie principalitatis sue Northwallie*. So also is the fact that they display the arms of the Principality, not of England, a peculiarity for which we may perhaps find some parallel in the presence (to be noted below) of the prince's badge in later Welsh seals of English sovereigns. Finally, we have the valuable fact that the seal of Prince Edward (afterwards Edward V) noted above, follows apparently the same model in its design.

For South Wales we are even worse off, having only two casts,⁷ attributed to Henry V. They are earlier in style than those for North Wales, and the arms those of England. The legend includes the words *pro principatu Southwall*.

(ii and iii) *Seals subsequent to the Act of 1542.* The 'original' or 'Chancery' and the 'judicial seals' may at this point be treated for convenience together. So far as I have been able to judge from examples there is little difference in any of the four groups of Counties between 'Chancery' and 'Judicial' save in the legend (the first being described on the reverse as *Sigillum pro Cancellaria* and the second as *Sigillum Judiciale*) and possibly in the size. The total known for both series is at present small: some thirty examples in the British Museum (twenty-one described in the *Catalogue*⁸ and nine more, being casts for the reigns

¹ British Museum *Catalogue*, numbers 5549, 5550.

² *Ibid.*, numbers 5551-8.

³ 'For his lordship of Carmarthen' (British Museum *Catalogue*), a puzzle which cannot at present be solved because these numbers (5573, 5574) are casts only.

⁴ *Catalogue*, number 5563.

⁵ *Catalogue*, numbers 5559-62.

⁶ *Ancient Deeds*, DS. 106.

⁷ British Museum, XCVI, 80, 81; provenance unknown.

⁸ Numbers 5570, 5571 (Brecknock group); 5575-7 (Carmarthen group); 5578-80 (Caernarvon group); and 5581-93 (Denbigh group).

of George III and George IV) were described by Allan Wyon in 1893¹ and a few have accrued since. One only or possibly two² have been noted at the Public Record Office. Three more for the Carmarthen group are described elsewhere (a Chancery seal of Charles II³ and judicial seals of Elizabeth⁴ and Charles I⁵) and the last of these (judicial, Charles I) is not otherwise known. It will be seen that we have not at present recorded anything like a complete series for all reigns of the two seals in any one of the four county groups.

Wyon's article makes it unnecessary to treat of the *design* at any length here: he makes it clear that the equestrian portrait of the sovereign on the obverse and a shield of the royal arms on the reverse are the rule throughout save for the Commonwealth period, when the Parliament and map designs of the Great Seal were repeated again here: he further establishes with reasonable certainty that distinctive supporters for each group were used from the first—a lion and a stag for Denbigh, Montgomery, and Flint; a stag and greyhound for Caernarvon, Merioneth, and Anglesey; a hind and greyhound for Brecknock, Radnor, and Glamorgan; and a dragon and goat for Carmarthen, Cardigan, and Pembroke. He also notes the views of what are perhaps four Welsh castles on the seals of George III—an interesting point of comparison with the Great Seal of England and the Great Seals for Ireland and Scotland. Finally he points out the curious fact that Queen Elizabeth, in a seal for the Denbigh group of counties, is apparently represented riding astride in full armour, a peculiarity for which I should like to find some explanation: the seal is not, so far as can be judged, from an old matrix of Edward VI or Henry VIII, for the seals of those kings for the Denbigh group exist and are quite different.

Unfortunately Wyon failed to observe that the legislation of Henry VIII distinguishes between the requirements for 'original' and 'judicial' writs and he has, in consequence, made no distinction between Chancery and Judicial seals; and has even stated that the legend for (all) seals in the Carmarthen group is *Sigillum pro Cancellaria*, though this is contradicted by some of his own examples.⁶ We have at present Chancery seals for only one group of counties (Carmarthen, Cardigan, and Pembroke) and two reigns (Charles II and George IV), but I think it is safe to assume that if ever our series are com-

¹ *Journal of the British Archaeological Association*, xlix, 1.

² A curious fragment of what looks like a Chancery seal of Edward VI for the Caernarvon group is attached to a document (also rather a curiosity) of the reign of Elizabeth—*Ancient Deeds*, DD. 236: its one surviving supporter is a dragon, which is wrong, according to Wyon, for a Caernarvon seal.

³ *Proceedings of the Society of Antiquaries*, 1st series, i, pp. 17, 18; note by Sir Henry Ellis.

⁴ *Ibid.*, 2nd series, v, 180; note by G. Grant Francis: see also *Archaeologia*, xxxi, 495.

⁵ *Archaeologia*, xxii, 417.

⁶ See numbers 5575, 5576, in the *British Museum Catalogue*, the legend of which gives us *Sigillum Judiciale*.

plete we shall find the two seals for all groups of counties in all periods. A more serious problem, upon which also Wyon does not help us, is the question whether throughout the period after 1542, or in part of it, a distinction continued to be made by the design of the seals between periods when there was a Prince of Wales and periods when there was not. At present there is not sufficient evidence to decide this: it happens that nearly all our known survivals are from dates when there was no prince and though there are a few among the Museum examples—two for James I ascribed to the year 1619¹ and some loose seals and casts whose exact date is doubtful²—which might indicate that the distinction had ceased to be observed, there is, on the other hand, evidence (a Great Seal of Charles I as Prince of Wales³) which might point the other way. It is not impossible that the judicial seals may have continued to show the title and arms of the sovereign in periods when the Chancery ones were re-made so as to display more correctly those of a Prince of Wales. In this connexion we observe that throughout, on both Chancery and Judicial seals, the plume of feathers and *ich dien* figure in the design even when there was definitely no prince.

(iv) *Seals for Lordships Marcher before 1542.* A number of these lordships were absorbed by Henry VII and the Act of 1542, by putting much of the administration which had previously belonged to them into the hands of sheriffs and other royal officials, practically destroyed the remainder. For the earlier period the lordships were much too numerous, and known survivals of their seals are much too few, for any very conclusive remarks to be attempted here: indeed their administrative organization is a subject which still awaits investigation. On the other hand, it is possible to say, from evidence already found, that maintenance by a lord marcher of a Chancery, with appropriate seal, is by no means unknown and may have been frequent: examples have been noted, on the evidence either of seals or documents, at Newport (fourteenth and fifteenth centuries),⁴ at Abergavenny, Chepstow, and Usk (fifteenth century),⁵ at Glamorgan (in the hands of Richard III before his accession),⁶ at Pembroke (fourteenth and fifteenth centuries)⁷ and at Monmouth.⁸ The last named has

¹ *Catalogue*, numbers 5588 and 5589.

² *Catalogue*, numbers 5571, 5572, 5590, and 5591: and five casts of the reign of George III not catalogued.

³ *Catalogue*, number 5565: unfortunately imperfect and not attached to a document, so that its significance is doubtful.

⁴ See an article by Thomas Wakeman in the *Journal of the British Archaeological Association*, xiv (1858), 56.

⁵ *Ibid.*

⁶ See *Archaeologia Cambrensis*, 4th series, iv, 78.

⁷ British Museum *Catalogue*, numbers 5283-5.

⁸ Wakeman, *op. cit.*: cp. *Proceedings of the Society of Antiquaries*, 2nd series, iv, 264.

aroused controversy for various reasons, but is apparently to be assigned to Edward IV though the arms (the lordship coming to him through the duchy of Lancaster of which it was a member) are not those of England.

The only example I can cite at present of a seal definitely relating to the affairs of one of these lordships while in the King's hands and having a fully regal form is that of a Pembroke seal for Henry VII in the Record Office. It shows, on the obverse, on a field diapered with a rose-bush, the King galloping on a horse with armorial trapper of the royal arms: and on the reverse a shield of the royal arms between and supported by a dragon and a greyhound, having at their feet a rose and a portcullis respectively. In the legend (fragmentary on both sides) nothing except parts of the royal title is legible. The document to which this seal is attached is itself highly curious: in it the King, who is styled *dei gracia Rex Anglie et francie ac Dominus Hibernie et Comes Pembr'* inspects one of the fines 'in our Treasury at Pembroke'; and it is given *sub sigillo Cancellarie nostre Pembr'* at Pembroke on 16th February *anno regni nostri Anglie post conquestum primo*.

This is not a very large body of evidence on which to base a whole section of our subject, but it can only be placed in this way and there is no reason that examples of similar seals produced by like circumstances elsewhere should not in course of time come to light.

PLATE XCVI: Description of Illustrations.

North Wales

- (1) and (2) Henry VI (*Obv. and Rev.*)

(*B.M. Cat.*, 5559)

Legends: ‡ Sig¹ : henrici : dei : grā : regis : angl¹ : franc¹ [:] incipalit¹ : sui : northwallie :

and Sig : henrici : dei : grā : regis : angl¹ [. c] : dñi : hibernie : principalit¹ sui : northwallie :

Lordship of Pembroke

- (3) and (4) Henry VII (*Obv. and Rev.*)

(*P.R.O.*, E. 212/114)

Legends: [.] anglie * et [.]¹

and [Sigillum Henrici dei gracia¹] regis * anglie * et * francie * domini * h [.]

Court of Great Sessions (Carmarthen, Cardigan, and Pembroke)

Judicial

- (5) James I (*Rev.*)

(*Soc. Ant. Cast*)

Legend: SIGILLVM · IVDICIALE · PRO · COMITATIBVS · CARMERTHEN · CARDIGAN · ET · PEMBROCK ·

Chancery

- (6) Charles I (*Rev.*)

(*Soc. Ant. Cast*)

Legend: * · SIG · PRO · CANCELLARIA · PRO · COMITATIBVS · CARMERTHEN · CARDIGAN · ET · PEMBROCK

¹ Only portions of letters legible.



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SEALS FOR WALES: NORTH WALES, PEMBROKE, AND COURT OF GREAT SESSIONS

SEALS FOR PALATINATES

Origins. A Palatinate may be roughly described as a division of the country the owner of which had within it all the rights which the King would have had if he had not granted it away:¹ it is a liberty including all royal jurisdictions. And as we saw in the lordships marcher (which have been described as little Palatinates²) the circumstances of administration leading to the establishment of a Chancery, with Great Seal, so we may expect in the larger jurisdictions of Chester, Durham, and Lancaster an even closer parallel to royal administrative developments.³ So far no impressions (to my knowledge) have been found to show that any of these Palatinates went so far as to produce separate departmental Great Seals for their financial or legal divisions, but a piece of documentary evidence touching the case of Durham is cited below; and there seems a possibility that there was a distinction in the case of that county between the sovereign's seal for the Bishopric *sede vacante* and that for his Chancery of Durham in the same circumstances. There is not at present enough evidence for definite statement.⁴

The present article is concerned with Palatinate seals only when the sovereign was in possession of the Palatinate, but this was the state of affairs continuously in the case of Lancaster after that Palatinate was re-united with the Crown in the person of Henry IV. In the case of Chester, the earldom of which after 1246 (when it was annexed to the Crown) was normally held by the Prince of Wales, periods of vacancy, when officials would function in the name of the sovereign, are the same as those noted above in connexion with the Principality. In the case of Durham this occurred presumably whenever, *sede vacante*, the administration of the Bishopric passed temporarily to the Crown; until the Palatinate jurisdiction of the bishop, curtailed by Henry VIII, was finally vested in the Crown in 1836. The Palatinate of Ely (abolished in 1837) is not known to have produced manifestations of a kind which concern us here.

¹ This is actually the description in the charter by which Edward III made his grant to the duke of Lancaster.

² The earldom of Pembroke is very often actually called a Palatinate, but unfortunately no body of its records has survived for our enlightenment.

³ One of the most interesting sigillographic developments is seen in the beautiful Palatinate seal of John de Warenne, an impression of which was discovered by Sir William St. John Hope at the Record Office and described by him in *Proceedings of the Society of Antiquaries*, xxvii, 4. It is of a quite exceptional size and shows the earl enthroned as well as on horseback. In this case, however, the Palatinate was a Scottish one.

⁴ See C. H. Hunter Blair in *Archaeologia*, lxxii, 20.

PALATINATE OF CHESTER

Surviving Examples and Designs. Surviving examples of royal Great Seals for this Palatinate must be treated in two divisions. Of seals for the Palatinate proper we have to record examples for the reigns of Richard II, Henry V (possibly), Henry VI, Edward IV, and Richard III, Henry VII, Henry VIII, and Edward VI. For knowledge of those of Richard II and Richard III we depend on casts in the possession of the Society of Antiquaries and the British Museum: the Record Office has documents for Henry V (if that attribution is correct), Henry VI and Henry VII, the two last using apparently the same matrices. For Henry VIII we depend again on casts in the British Museum¹ but those of Edward IV and Edward VI are originals.²

On the other hand after 1542 it became a duty of the Chancery of Chester (functioning also for the County of Flint) to issue original writs and we presently find accordingly a seal including Flint as well as Chester in its legend: one form of wording is *Comitatus sui Palatini Cestrie et Comitatus sui Flint*. Originals and casts in the possession of the Society of Antiquaries and the British Museum³ cover the reigns of Elizabeth, James I, the Commonwealth, Charles II, and Anne. The seals for James and the Commonwealth are dated (1603 and 1648) and the latter has a special interest as combining the usual 'Parliament in Session' design with an obverse showing the castle of Chester.

There seems little doubt that the change which brought in Flint did *not*

PLATE XCVII: Description of Illustrations.

Palatinate of Chester

- (1) and (2) Richard II (*Obv. and Rev.*) (Soc. Ant. Cast)

Legends: Sig: ricardi: dei: gracia regis: anglie · [.] principis: cestrie
and ♣: Sigillum [:] rica[r]di glie · et: francie: et: pr[incipis ce]strie

- (3) Richard III (*Rev.*) (Soc. Ant. Cast)

Legend: Sigillum [r]icardi dei grā: reg' angl' ꝛ franc ꝛ dñi hibernie Comi[.]tini
Cestr'

- (4) Anne (*Rev.*) (Soc. Ant. Cast)

Legend: :♣:COMITATVS⊗PALATINI⊗SVI⊗CESTRÆ⊗ET⊗FLINT⊗AN⊗1706

Palatinate of Durham (Chancery)

- (5) and (6) Oliver Cromwell (*Obv. and Rev.*) [See *Archaeologia*, lxxvii, 176]

Legend: On (5) none.

on (6) ·1656·AD:BREVIA:IN:EODEM:COM:SIGILLAND:DEPVTATVM¹

¹ This legend seems to be intended for use in continuation of one on another matrix.

¹ *Catalogue*, numbers 4802, 4803.

² *Ibid.*, 4804 and *Add. Ch.* 43362.

³ *Catalogue*, numbers 4805-8 and 4810.



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SEALS FOR PALATINATES: CHESTER AND DURHAM

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result in a double series of seals¹; in other words, that our second division may be regarded as a direct continuation of the first, though it is curious that so late as Edward VI we should have the old form of wording. The design throughout shows the sovereign riding and on the other side (presumably the reverse, though it has been described as the obverse in one instance) a shield of arms. The principal interest attaches to these arms, which are successively those of England and Edward Confessor (Richard II), England² and Chester (Henry VI-James I) and Chester alone (Charles I and Anne: also used by Charles when Prince of Wales). The feathers *motif* is seen almost throughout: they are *sémés* on the early seals on the side showing the sovereign and generally used in support of the shield; though on that of Richard III his boars are substituted and Edward IV has a lion and bull.

PALATINATE OF DURHAM

Surviving Examples and Designs. Examples recorded so far are six noted by Mr. Hunter Blair³ belonging to the reign of Henry VI, Edward IV, Elizabeth, Charles I, and Charles II (2), and one in the British Museum attributed to Henry VII:⁴ to which we may, I think, add the 'Chancery' seal of Oliver (used by Richard) Cromwell (a shield of arms and equestrian figure).⁵ Mr. Hunter Blair has described these so fully that we must pass lightly here, but we may perhaps note two outstanding matters. One is the variation in the design from that of a shield of arms and an equestrian portrait (Henry VI) to the curious seal (*temp.* Edward IV) in which we have portraits of both king and bishop; from that to the equestrian portrait and shield again (Henry VII and Elizabeth); and from that to the double portrait of the sovereign used by Charles I and Charles II; with a further variation in the second seal of the reign of Charles II, in which there is no portrait at all. Our second point is the interesting fact that in 1399 there was in existence one royal seal dating at least from the previous reign for this Palatinate, and that the Chancery seal was not the only one. Two smaller points regarding the 'Chancery' seal of Cromwell in particular

¹ A surviving fragment of seal on a document of the reign of James I which is certainly not a writ (B.M., *Add. Ch.* 37067) seems to be the same as the contemporary 'Sessions' seal.

² Up to and including the reign of Edward VI the arms of England are used in ordinary contemporary form: with the change of legend comes in (whether deliberately or by accident) a change of the arms, which have a label added.

³ *Durham Seals* (Part ii, 1915), pp. 408-19, numbers 3044, 3048A, 3062, 3063, 3064: see also his article in *Archaeologia*, lxxii, 20, and that in *Archaeologia*, lxxvii, 168 (for the seal of Elizabeth).

⁴ *Catalogue*, numbers 2493, 2494: it appears, however, to correspond with *Durham Seals*, number 3044 (Henry VI).

⁵ It is given by Mr. Hunter Blair (*Archaeologia*, lxxvii, 176) among 'Seals for Chancery Writs' and is stated to be *ad brevia in eodem Comitatu sigillanda deputatum*: cf. *Museum Catalogue*, No. 2497.

are first that here again we have apparently a local view inserted;¹ and secondly that the obverse, having no legend, leaves the wording on the reverse (presumably an older matrix) incomplete.

PLATE XCVIII: Description of Illustrations.

Palatinate of Lancaster

- (1) and (2) Henry V (*Obv. and Rev.*) (P.R.O., D.L. 10/379)

Legends: [.]: dei : gracia : regis : anglie : et : francie : dñi : hibern[ie]

and [.] : francie : dñi : hibernie : in : com : palatino : [.]

- (3) William IV (*Obv.*) (P.R.O., S.C. 13/H. 92)

Legend: Sigillum * comitat * palatin * lancastrie .¹

- (4) Victoria (*Obv.*) (P.R.O., S.C. 13/H. 93)

Legend: VICTORIA DEI GRAT. BRITANNIARUM REGINA FID. DEF.

Duchy of Lancaster

- (5) and (6) George V (*Obv. and Rev.*) (Casts from matrices)

Legends: GEORGIVS · V · DEI · GRA · BRITT · OMN · REX · FIDEI · DEFENSOR · IND · IMP ·

and SIGILLVM DVCATVS LANCASTRIÆ

¹ Between the words elaborate floral devices.

THE PALATINATE AND DUCHY OF LANCASTER

The Palatinate: Surviving Examples and Designs. Examples of seals of the Palatinate in the Record Office cover the reigns of Henry V and Edward IV, Henry VII, Henry VIII, Elizabeth, James I, and the Commonwealth; William IV, Queen Victoria, Edward VII, and George V; and these are supplemented by casts in the possession of the Society of Antiquaries for a second seal of Henry VIII (following as usual the alteration in his title), and one of Edward VI.² There is nothing of very outstanding interest about this rather sparse series. The design is throughout that of the equestrian portrait and the shield of the royal arms. Here again we have the feathers introduced—in later reigns they figure in the mouths of hounds as supporters of the shield—and there is regular reference to the Palatinate in the *Legend* with the title of the King; and here also the Parliamentary period produces the normal 'Parliament in session' to replace the royal figure.

The Seal of the Duchy. For some reason examples of this are much more common than those of the Palatinate, but they are all single-sided seals, showing a shield of the royal arms only, and therefore do not fall within our

¹ Cp. above a note on the Parliamentary seal for Chester and Flint; as well as others on the seals of Ireland, Scotland, and Wales.

² The British Museum as well as the Record Office has a considerable number: see the *Catalogue* numbers 730-48.



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SEALS FOR PALATINATE AND DUCHY OF LANCASTER

field. In the eighteenth century, however—the earliest of which I have note is of George III—a double seal comes in; a picture of the sovereign enthroned being added. The design of this last is interesting, including as it does an allegorical kneeling figure, and rather approximating in style to some of the colonial seals of the same date. The feathers are again in evidence, as indeed they have been during two hundred years of the single seal. The *Legend* includes mention of the duchy.

The double seal continues in known examples through subsequent reigns. Possibly further study of the administrative development of the duchy may presently give us the reason for its appearance.¹

SEALS FOR COLONIES AND DEPENDENCIES

Origin. The convention, strictly observed for a long period, by which land in colonies was held of the Crown 'as of' a royal manor, meant a large and increasing amount of business from the seventeenth century onwards which would require normally grants and other documents under the Great Seal, while distance from England and the institution of colonial governors² combined to make it both desirable and possible to provide for the authentication of such documents by a Great Seal deputed for that purpose and for their registration on the spot. Naturally the different circumstances of different colonies produced varying arrangements. These, with the details of their origin and history, the extent to which records have survived locally, the documentary forms employed, and a number of other related questions (including that of any lesser seals which were in use), provide a subject which is much too large to be more than indicated here. So far as I know, though occasional articles³ have appeared, anything like a general study, or even one of any considerable section of the subject, is yet to seek: there should be much available evidence in (for instance) America.

Surviving Examples and Designs. I have used only the resources of the British Museum and Record Office. The result, while it shows more gaps than recorded examples, is still considerable and may best be indicated summarily by a tabular statement. In general it may be observed that the *Size* of the seals is large; approaching nearly, if it does not equal, the dimensions of the English

¹ I have been indebted to Mr. R. Somerville for a note on these seals.

² In *An Account of the present state and Government of Virginia*, bearing internal evidence of having been written in England in the late seventeenth century, which was published in the *Collections* of the Massachusetts Historical Society for 1798 (pp. 124-66), it is stated that the Governor 'as Lord-Chancellor or Lord Keeper' . . . 'passes, under the Seal of the Colony, all grants both of land and offices and likewise decides all causes in Chancery'.

³ See, for instance, a recent article on the Early Massachusetts Bay Colony Seals by Mr. M. B. Jones in *Proceedings of the American Antiquarian Society*, vol. 44, part i, p. 13.

Great Seal, as may be judged from our illustrations. The *Design* gives us normally a reverse with shield of the royal arms and on the obverse something approaching a portrait of the sovereign, but with an introduction of symbolical figures much more extended than that seen in the later Great Seals of England. The *Relief* is usually low and it is noteworthy that there was a general habit of impressing these seals (even though they were pendent) *through paper*. In one or two cases the royal portrait disappears completely and we have only a local view. The designs (it may be noted in passing) are carried on¹ in a late development by a series of single-sided colonial seals of the Victorian period, for instance those of the Bermudas or Somers Islands, Canada,² the Leeward Islands (six), New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island, the Windward Islands (three), Trinidad, and Tobago.³ *Legends* show a distinct tendency towards the motto or allusive sentence in verse or prose.

Since we have mentioned these late single seals it will be suitable to add a reference to earlier single seals noted in the Record Office list for Bermuda (George III), Massachusetts Bay (George II and George III), New Hampshire (William III, George II, and George III), and New Jersey (George III) where we have a single-sided seal of the royal arms:⁴ and since we have mentioned the permanence of these designs (which may be noted also in several cases in our table below) it may be added that the continuation of convention (and contrast of design) may be amusingly illustrated by a comparison of some of the American seals with those used by the corresponding States after the War of Independence.⁵

¹ It is interesting to note also that small embossing seals at the present day carry on the tradition of seventeenth- and eighteenth-century designs connected with particular colonies.

² The province; for the dominion there is a single-sided seal showing the sovereign's figure enthroned in a symbolical setting.

³ Examples of all these are in the British Museum: see *Catalogue*, numbers 14713-14766.

⁴ It is possible that any of these may be exceptional uses of one half of a double matrix. On the other hand, instances in the British Museum—e.g. *Catalogue*, number 14734 where we have a single-sided seal (George III, for Quebec) showing portrait of the sovereign—are merely proof impressions.

⁵ Pennsylvania offers a particularly good example of a post-Independence seal, showing on one side an armorial achievement of a plough, a ship, and sheaves of corn, and on the other a figure of Liberty with her foot on the head of a prostrate lion, and the motto BOTH CAN'T SURVIVE. The connexion in which some examples of these later seals have survived—they are attached to claims for compensation from American Loyalists among the Records of the *Audit Office*—is also amusing.

TABLE TO SHOW SOME RECORDED EXAMPLES OF GREAT SEALS OF
COLONIES AND DEPENDENCIES

Note.—The reverse of these seals appears to be in every case the shield of the royal arms. In the present list only the other side is described.

In the *Reference* column the entries not marked 'B.M.' are of documents in the Public Record Office: 'etc.' indicates that more than one example has been noted.

<i>Reference.</i>	<i>Description.</i>	<i>Date.</i>
<i>Bahamas</i>		
C.O. 5/285, etc. ¹	Three-masted ship at sea.	George III
<i>Barbados</i>		
C. 110/41	Sovereign holding trident, etc.	Anne ²
B.M. 14,737	Sovereign holding trident, etc.	George I
C.O. 5/285	The like.	George II
B.M. 14,738	The like.	George III
<i>Carolina, North</i>		
B.M. 14,726	Sovereign enthroned with Britannia at side, etc.	George II
<i>Carolina, South</i>		
H.C.A. 49/104, etc.	Sovereign holding sceptre and orb; a native kneeling before him.	George II
<i>Florida, East</i>		
T. 77/20(9), etc.	View of a harbour.	George III
<i>Georgia</i>		
A.O. 13/103, etc.	Sovereign standing, holding sceptre and orb; female figure kneeling before him.	George III
<i>Jamaica</i>		
C.O. 5/285	Sovereign standing, holding sceptre and orb; before her three Indians offering fruits.	Anne
C. 107/68, etc. ¹	Sovereign [standing] holding sceptre and orb; receiving fruits from a native kneeling.	George III
<i>Leeward Islands</i>		
C.O. 5/285, etc.	Sovereign holding trident, etc.	George III
<i>New Brunswick</i>		
C.O. 5/285	Three-masted ship in channel between trees.	George IV

¹ Example also noted in B.M.

² This is the seal of William and Mary.

<i>Reference.</i>	<i>Description.</i>	<i>Date.</i>
	<i>New York</i>	
A.O. 13/80	Sovereign standing, holding sceptre and orb; a figure kneeling and another bending before him.	George III
	<i>Virginia</i>	
C.O. 5/285, etc.	Sovereign standing; before him an Indian, kneeling, offering tobacco.	George II

PLATE XCIX: Description of Illustrations.

- | | | |
|---|----------------------|-------------------------------|
| | <i>Barbados</i> | |
| (1) William and Mary (<i>Obv.</i>) | | (<i>P.R.O., C. 110/41</i>) |
| <i>Legend:</i> ET · PENITVS · TOTO · REGNANTES · ORBE BRITANNOS | | |
| | <i>Virginia</i> | |
| (2) George II (<i>Obv.</i>) | | (<i>P.R.O., A.O. 13/80</i>) |
| <i>Legend:</i> SIGILLVM PROVINCIÆ NOSTRÆ DE VIRGINIA IN AMERICA | | |
| <i>and in base:</i> EN DAT VIRGINIA QUARTAM | | |
| | <i>Bahamas</i> | |
| (3) George III (<i>Obv.</i>) | | (<i>P.R.O., C.O. 5/285</i>) |
| <i>Legend:</i> SIGILLUM · PROVIDENTIÆ · CÆTERARUMQUE · BAHAMÆ · INSULARVM | | |
| <i>and in base:</i> EXPULSIS · PIRATIS · RESTITUTA · COMMERCIA | | |
| | <i>New Brunswick</i> | |
| (4) George IV (<i>Obv.</i>) | | (<i>P.R.O., C.O. 5/285</i>) |
| <i>Legend:</i> ⌘ SIGILL ⌘ PROVINCI[Æ] ⌘ NOV ⌘ BRUNS | | |
| <i>and in base:</i> SPEM REDUXIT | | |
-

CONCLUSION

I would anticipate criticism by repeating that for the most part what has been attempted here is no more than a preliminary survey. At the same time I venture to think that it illustrates a side of sigillography—the administrative side—which writers on this subject, with a few notable exceptions, have neglected. Time after time, I believe, it will be found (it has appeared more than once even in this summary study) that examination of the administrative surroundings of a seal—the language of the document to which it is attached, its material or colour, the means of its attachment, the personnel which controlled or attested its use, the purpose for which it was employed—is not only helpful for the appreciation of its significance but absolutely essential for its accurate description.



SEALS FOR COLONIES : BARBADOS, VIRGINIA, BAHAMAS, AND NEW BRUNSWICK



APPENDIX I

CHRONOLOGICAL LIST OF SOVEREIGNS SHOWING THE PLATES IN WHICH THEY ARE REPRESENTED¹

HENRY III	France (Gascony).	PHILIP AND MARY	Ireland (Chancery).
EDWARD I	Exchequer.	ELIZABETH	King's Bench.
	Ireland (Exchequer).		Court of Wards.
	Scotland.		Ireland (King's Bench and Common Pleas).
EDWARD II	Ireland (Exchequer).	JAMES I	Court of Wards.
EDWARD III	Exchequer.		Ireland (Wards).
	France (Calais).		Scotland.
RICHARD II	Ireland (Chancery).		Wales (Sessions: Pem- brokeshire etc., Judi- cial).
	Palatinates (Chester).		Court of Wards.
HENRY IV	Common Pleas.	CHARLES I	Wales (Sessions: Pem- brokeshire etc., Chan- cery).
HENRY V	Lancaster (Palatinate).		Common Pleas.
HENRY VI	France (Sceau ordonné).		Palatinates (Durham).
	Wales (North).		Ireland (Chancery).
EDWARD IV	King's Bench.		Exchequer.
	France (Diplomatic Seal).		Colonies (Barbados).
RICHARD III	Common Pleas.	[PARLIAMENT]	Palatinates (Chester).
	Ireland (King's Bench and Common Pleas).	[CROMWELL]	Ireland (Chancery).
	Palatinates (Chester).	CHARLES II	
HENRY VII	Common Pleas.	JAMES II	
	Wales (Pembroke).	WILLIAM AND MARY	
HENRY VIII	Augmentations (2).	ANNE	
	Court of Wards.	GEORGE I	
	France (Tournai).	GEORGE II	
	Ireland (Chancery and Exchequer).	GEORGE III	
EDWARD VI	Augmentations.	GEORGE IV	
	Court of Wards.	WILLIAM IV	
	Ireland (Chancery).	VICTORIA	
MARY	Common Pleas.	EDWARD VII	
		GEORGE V	
			Lancaster (Duchy).

¹ In a number of cases a single seal matrix was used in more than one reign: the two seals of Henry V used by Richard III and Henry VIII in Ireland are particularly notable examples. In the present list such seals have been credited only to the reign to which the impression or cast here used in illustration actually belongs or has been attributed.

APPENDIX II

APPROXIMATE DIAMETERS OF THE GREAT SEAL

The approximate diameters of the Great Seal of England, which under the first of the Norman kings had been 3.25 in., are given by Wyon for subsequent sovereigns as follows (in inches)¹:

William II to John	3.0-3.8
Henry III ²	3.8 and 3.9
Edward I, Edward II, and Edward III (first seal)	3.9
Edward III (later seals)	4.2-4.5
Richard II, and Henry IV (first seal) ³ : also used by Henry VI	4.5
Henry IV (second seal), Henry V (first seal): also used by Henry VI	4.9
Edward IV (first two seals) ⁴	4.3 and 4.4
Edward IV (latest seal) and Richard III	4.5
Henry VII and Henry VIII (first seal)	4.4
Henry VIII (two later seals)	4.9 and 4.8
Edward VI	4.8
Mary	4.9
Philip and Mary	5.6
Elizabeth	4.8 and 5.7
James I	5.9
Charles I (four seals)	6.0
Commonwealth	5.5 and 5.75
Cromwell	6.0 and 5.6
Charles II (second, third, and fourth seals) ⁵	5.7, 5.4, 5.6
James II	5.6
William and Mary	5.9
William III	5.6
Anne	6.0 and 6.1
George I	5.8
George II	5.8
George III (five seals)	5.7, 5.75, 6.0
George IV	6.1
William IV	6.0
Victoria	6.25

¹ Note that Wyon's illustrations do not always correspond with the dimensions given in his text: the second Seal of Henry IV for instance, as illustrated, does not measure more than 4.75, and the Seal of Richard III is shown as much smaller than one of Edward IV which was actually from the same matrix.

² Two smaller seals one (Wyon, numbers 45 and 46) stated to have been used *circa* 1263, 1264 and one of earlier date are abnormal. Wyon gives the diameter of the first of these as 3.2 in.

³ This is the Brétigny Seal, mentioned several times in the present article. It was also used by Henry V on the Treaty of Troyes.

⁴ The second used also by Henry VI.

⁵ His first, which he used while in exile, measured nearly 6.0.

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