## PLATE I.


I.

2.

3.
5.


4.

6.

Terra Sigillata.
deeper, and the foot also loses the subsidiary moulding. The method too of arranging the ornament in two principal friezes is natural to shape 29 where the moulding of the vase breaks up the surface into two principal fields, but is a less appropriate arrangement for the simple curve of shape 37. The design of both friezes seems to be distinctively "Graufesenque" (cf. Déchelette, l.c. vol. i., pl. vi. 5, and viii. 1). Fragment no. 14 again is closely allied to no. 8, coming apparently from a bowl of the same shape and the same arrangement of friezes. The design too is classed by Déchelette as "Graufesenque" (vol. i., pl. vii. 24). It is necessary therefore to class these two examples of shape 37 (nos. 8 and 14) as roughly contemporary with the examples of 29 (nos. 1-5) and to assign them to the close of the Graufesenque potteries, about 80 A.D. ${ }^{7}$

To much the same date probably belongs no. 7. Bowls of shape 30 are common to both Graufesenque and Lezoux, though they occur more frequently at the former, and both the form and the cruciform ornament of the Melandra bowl are of a transitional type. In nos. 9-12 the designs are those of the Lezoux vases but in no case need belong to a very late period of the fabric.

The evidence of the pottery would therefore suggest that the most important occupation of the camp was about 80 A.D., and that it continued in use for a considerable time after that date.

## List of the more important fragments of Terra Sigillata from Melandra:-

1. Fragment of bowl of shape 29. "Engine-turned" pattern below rim: frieze of animals and plants: tongue pattern. Plate I., 2.
2. There is a striking correspondence between these "late Graufesenque" bowls from Melandra and those found at Pompeii. The Pompeii vases are presumably those in use in 79 A.D.

2, 3, 4. Three fragments from similar vases (one in Plate I., 1).
5. Several fragments from a bowl of similar shape, but embossed from very poor moulds. The design is shown in almost flat outline without modelling, and the mouldings of the bowl are also much flattened. The design apparently contained human figures in panels. The style seems to belong to the very end of the Graufesenque fabric.
6. Base of small bowl stamped on interior ITNO, probably to be restored as OF. PONTI (i.e., Officina Ponti). This same potter's name occurs on a bowl of Graufesenque type found at Buxton (Vict. Count. Hist. of Derby. p. 225, Fig. 27). It occurs also at York and London, in Germany, and five times at Graufesenque itself (C.I.L., vii. 83-87, and xiii. 1545).
7. Shape 30. Narrow plain band below rim: "egg and dart" pattern: cruciform patterns in rectangular panels and circles. Plate II., 2.
8. Several fragments forming an almost complete bowl of shape 37 . Narrow plain band below rim, slightly moulded: "egg and dart" pattern: frieze of festoons and tassels, with leaves on long, winding stalks within each festoon: frieze with running design of volutes and foliage: wreath pattern. Plate II., 3.
9. Fragments forming a similar bowl. Plain band below rim: "egg and dart" pattern: " free" design of trees (oaks), stags and lions. - Plate II., 1.
10. Fragment with beaded lines dividing panels. One panel contains a well-known figure of Vulcan, clad in exomis and pileus, the right foot raised on a base, with the right arm resting on the thigh, the left hand holding his smith's pincers: uncertain objects in the field. The head has apparently been obliterated with a square stamp. The other panel contains a bird with raised wings within circle. Plate I., 5.
11. Fragment of "free" design with large and small lions and boar. Plate I., 4.
12. Fragment with two bands of panels, containing ivy-leaf, sea monster, concentric circles and semi-circles enclosing mask of a bearded male head, and another, doubtful object. In a larger panel is a draped female figure, much damaged. Plate I., 6.
13. Fragment with "egg and dart" pattern, and hares within semi-circular festoons.

I.

2.


Terra Sigillata.
14. Fragment containing (a) band of panels with festoons within which are a bird and a volute, (b) a wreath pattern below. Plate I., 3.
15. Part of base, with raised bass in centre. Dull brown clay with black engobe on interior and reddish-brown on exterior. Remains of potter's stamp on interior, perhaps to be read . . . ATULXUS (only the last three letters are certain).
16. Fragments of a base with roughly incised inscription under the foot M TYRI.
17. A large number of bases, mostly from bowls or from flatter vessels with low, almost vertical sides. Many of the latter bases have a raised boss in the centre on which the potter's name was stamped, though the stamps are now destroyed. Often with band of "engine-turned" pattern on interior. Two fragments of stamps have $(a) 0 \mathrm{NI}(b) 0$.
18. A large number of fragments of rims from bowls of shape 37 . Also rims of flatter vessels, as above. In a few cases the engobe is black instead of red.
19. Various other fragments from bowls of shape 37 with remaius of ornamentation.
20. Saucer with ivy-leaves embossed on rim by the "en barbotine" method.
21. Fragments of vases with sides expanding in a double curve. Plate III., 1.

## Miscellaneous Fragments.

The following fragments, though not of Terra Sigillata, may be most conveniently mentioned here:-

1. Fragment of base. Pale pink clay, very friable: covered with dark red engobe which easily peels from the soft body. Apparently an imitation of Terra Sigillata.
2. Several small fragments of leather-coloured clay with surface either polished or covered with dark brown engobe: from very thin-sided carefully moulded vases. Two fragments are from open vessels with the outside delicately fluted in horizontal bands. Probably from South Gaul.

## B. Roman-British Wares.

Castor Ware.
The finest of the Roman-British wares is that which was made in the kilns at Castor, the site of the Roman

Durobrivae, in Northamptonshire. Vases of this type are found in Northern Gaul as well as in Britain and it is probable that Castor was the chief rather than the only centre where such ware was manufactured. There is much variety in the Castor vases but the general characteristics of the fabric may be summed up as being (1) a pale, white to buff or red, clay with black or dark engobe, and (2) ornamentation in relief done either by the "thumb" or the "barbotine" process. In the former process the surface of the vase is worked by the potter's fingers while the clay is still soft into various projections and indentations, sometimes in regular patterns of knobs, semicircles, etc., and sometimes merely producing an irregularly broken surface. In the barbotine process the design is executed by applying a thick slip of the same light-coloured clay as the body and thus stands out in relief, and often also in colour, against the dark engobe of the vase. The slip is applied while the clay is still only leather-hard and the vase is afterwards completely fired.

The date of the ware is uncertain. Much of the characteristic "floral scroll" design seems to be derived from late Celtic forms, and it may well be that the ultimate origin both of the design and of the methods of technique is earlier than the Roman conquest.

## The fragments of Castor Ware at Melandra are:-

1. Lower part of small vase on stem. Buff clay with brownblack surface. Rough workmanship. Band of floral scrolls round the body in "barbotine " technique. Plate III., 2.
2. Fragments forming an almost complete vase in form of an open-mouthed jar. Red clay with black engobe. Good workmanship. The rim is reeded on its outer surface. An incised groove separates plain band below rim from lower surface ornamented with "thumb" decoration of small irregular

## PLATE III.


2.

3.
4.

I. Terra Sigillata.

2-3. Castor Ware.
4-5. Red Ware.
To face p. 86
projections resembling " rough-cast." Flat base without basering. Also fragments of smaller vases of similar type.
3. Neck of jug (Plate III., 3). ${ }^{8}$ Buff clay with black engobe.

Platn Wares.
The plainer wares of Roman Britain have not yet been classified on any satisfactory system that is both convenient and scientific. The simplest method for the present is to arrange the vases according to the general characteristics of the clay-body. By this method one gets four principal wares, the Black, Grey, Red and Pale Wares. Of these the first two are closely related in the shape and technique of the vases, and also the last two; but between these two wider groups there is practically no overlapping. The second group employs a decidedly more elaborate and stereotyped series of vase-shapes which seems to have come fully formed into Britain with the Roman invaders, whereas the simpler and more experimental shapes of the Black and Grey Wares seem to be rather those of the native British pottery. The names of vessels mentioned in Latin literature, so far as they can be attached to existing vase-shapes, seem all to belong to the group of Red and Pale wares.

Black Ware. This ware often receives the name of Upchurch from its occurrence in large quantities near Upchurch in the Medway marshes, but the style is not distinctive enough to limit it to any one locality. The body of the vases is black throughout, the clay being apparently permeated by smoke in the process of firing.
8. Necks of this shape are found on small jugs with globular body that come from the New Forest (Crockhill). This "New Forest Ware" is closely related to Castor in many respects but is usually fired at a greater heat, which often produces a surface with a metallic lustre and an almost maroon colour. It is possible that the neck at Melandra comes from the kilns at Crockhill rather than from those of Castor.

Where ornamentation occurs it consists either of very faintly indented lines crossing diagonally and forming a lattice pattern or of various groupings of small projecting knobs, incised zig-zag and wavy lines, etc.

A large quantity of the Melandra fragments belong to this type. They are, for the most part, of coarse clay and rough workmanship. Sometimes the surface seems to have been polished to give it a slight lustre, but in general it has the natural texture of the clay. In one or two fragments at Melandra where portions of the vase have missed proper firing the clay is a pale buff. The decoration in almost all cases consists of the intersecting diagonal lines faintly impressed in the clay by some blunt instrument and showing rather as smooth markings on the rougher surface of the clay than actual incisions (Plate IV., $2 \& 6$ ). A few fragments have a band of more deeply impressed parallel zig-zag lines (Plate IV.,9). Most of the fragments are from open-mouthed jars, the sides of which are more or less vertical and turn in to the foot almost at an angle. The bottom of the vase is usually flattened without any basering. The rims of these jars show much variety in the angle and curve at which they turn outward from the vase. Besides the jars there are examples of circular flatbottomed dishes, the bottom of which is decorated on the outside with a faintly impressed line carried in loops over the whole surfäce. These dishes have small projecting handles ornamented with incised concentric circles (Plate IV., 11 and 11a).

Two fragments of black ware are of somewhat different character from the rest. Both surface and body are a deep metallic black and the clay is very harsh in texture with hard firing. The vases must have been fired in a true "smother-kiln." One fragment is from the rim of a large globular vessel with frilled pattern under the rim: the

PLATE IV.

I.

3.

4.

7.
5.

6.

8.

II.

Black and Grey Ware.
To face p. 88
other is a neck of similar shape to that represented in Plate III., 3.

Grey Ware. This ware is distinguished from the Black Ware by the colour and texture of the clay. The vases are closely related to those of black clay in shape and general character but the clay is always dull grey in colour and of a curiously soapy texture apparently very lightly fired. Even in the few cases where the clay is fired so hard as to be gritty and brittle it never becomes black. The vases vary from very delicately moulded and thin-sided forms to the roughest types of cooking utensils but the commonest shape is the same sort of wide-mouthed jar that prevails in the black ware, though it is usually more delicately moulded. The foot of this jar shows all stages intermediate between the merely flattened bottom and the fully formed base-ring. The rim is occasionally moulded to receive a lid, and a few saucer-shaped lids have been found. There is seldom any attempt to ornament the vases, but in a few cases little projecting knobs of clay are stuck on the vase or the surface is worked with the thumb into irregular ridges and hollows (Plate IV., 3 \& 5).

A very fine and delicately executed example of Grey Ware is a bowl with a wide overhanging rim. Its shape would enable it to float in water and it may therefore have been used as a wine-cooler (Plate IV., 10).

Pale Ware. The clay is light and hard, varying in colour from white to cream or pink, and it is clearly distinguishable from the brick-red clay of the Red Ware. It is less easy to distinguish the vases by shape, nearly all the principal shapes of vases being common to both the Red and the Pale wares. Certain shapes, however, may be taken as being more distinctive of one ware than of the other. That which is more characteristic of the Pale Ware (though one or two examples in red clay have been found)
is the so-called mortarium or pelvis, an open vessel with large rim and spout, which was apparently used as a mortar since the inside is set with tiny pieces of flint and potsherds to give a rough surface for trituration. The rim frequently bore a potter's stamp, but in many cases the letters are undecipherable or meaningless. The following fragments with stamps have been found at Melandra:-

1. Fragments reconstructed to form a complete vessel. Stamp on rim at either side IIV. (Plate VI., 2).
2. Fragment with stamp FECIT in good letters.
3. Three fragments with doubtful stamps (Plate V.,1-3).

Red Ware. The clay is usually soft in texture and of a brick-red colour. The principal shapes of vessels are:-
(1) "Amphorae," large vessels chiefly used for holding wine. The bases are pointed for sticking the vase upright in the ground. Plain vertical handles on either side of the neck reach from rim to shoulder. The fragments come from vessels of very large size, the diameter of the mouth being as much as $7 \frac{1}{2}$ inches, and the girth of the handles 6 inches. On one handle is a rough stamp SGA. Some of the large fragments may have come from openmouthed storage jars (dolia) rather than from amphorae. Many fragments are of pale clay.
(2) Jugs or bottles, of which two chief types occur. One is that of a flat-sided lenticular flask with foot and two handles, probably rightly identified with the "ampulla" (Plate VI., 1). The other is a jug with globular body, tall neck and single handle, probably a "lagena" (Plate III., 4). These jugs occur in pale as well as red clay and show much variety in the shape of the lip, in several cases the soft clay having been pinched together across the mouth so as to form a covered spout (Plate V., 4 \& 5).

A few thinly moulded fragments in red clay seem to come from square-sided bottles with pressed-in sides.

PLATE V.


I-3 Mortaria Stamps. 4-5 Necks of Jugs.
To face p. 90

I.

2.
I. Two-handled Flask.
2. Mortar. To face p. 9r

(3) Strainers. Three fragments are from flat disks of clay perforated with small holes, and were perhaps winestrainers. A larger perforated vessel was perhaps for squeezing fruit. It is a bowl of pink clay having a raised boss in the centre surrounded by three concentric ridges. Each of the hollows between these ridges is drained by four drain-holes.
(4) Open vessels such as flat-bottomed bowls and widemouthed jars. The fragments of these are not very numerous. Some vessels were slightly ornamented, as for example with a roughly executed "engine turned" pattern or with a wavy band of clay applied round the vase. A common form of ornament is that of circular "thumb" markings, either impressed or in relief, accentuated by incised circles around them.

Of unique type is a small open bowl of hard red clay with a projecting "false rim" ornamented with curved lines and dots in light-coloured slip (Plate III., 5).

Miniature Clay Figure of a Horse. This may be mentioned here as being of the same red clay as the vases. The legs are broken and the whole figure is very much damaged. Part of the surface of the back is better preserved than the rest, having apparently been covered by some sort of saddle. A much damaged object of red clay, found near the horse, seems to be the remains of this saddle, as it fits neatly to the back of the horse. It was apparently in the shape of a pack-saddle and attached by strings. The horse may have been a child's toy, or perhaps more probably a dedicatory offering for some shrine.
[For another suggestion see p. 71, note 38. The two views are not very far removed, as a solemn dedication on behalf of some ala quartered in the camp might, later on, come to share the sanctity of the shrine. In that case one would guess that the trappings of the little beast once held more valuable offerings. The conjectures are especially interesting because so far not a single other trace of any possibly religious object,
save the rude and problematic "Mithras" scratches (page 29) have appeared in the camp.

It is worth while also to record the statement of Professor William Ridgeway, the author of "The Early Age of Greece," "The Origin of the Thoroughbred Horse," etc., who visited the camp in 1905, that he could recall no other extant model of an ephippion.-Ed.]

## Glass.

Unlike the pottery, the glass at Melandra is well preserved. It therefore lacks the iridescent beauty of decaying glass and retains the colours given to it in the process of manufacture. These colours are either various shades from brown to yellow or pale translucent greens and blues. In one case a deep, almost opaque, blue is used. Like most Roman glass the fragments from Melandra contain numerous small air-bubbles, flaws which cannot be avoided in the use of small furnaces such as those found at Warrington, ${ }^{9}$ where it is likely that much of the local glass was made.

The different forms of glass found at Melandra are:-
(1) Window glass. This was evidently cast by pouring the molten material on a flat stone, for the under side of the sheet of glass reflects the roughness of the stone, while the upper side has a smooth and somewhat wavy surface and a naturally bevelled edge.
(2) Small button-shaped discs of glass. These too are made by pouring a small quantity of molten glass on a flat stone so that the lower side is flat and slightly roughened, whilst the upper side is rounded and smooth. Most of the discs are of either black or white opaque glass, but there is one example of clear green glass. The discs may have been used as counters in some game, or else for ornament (as they are used on mule harness in Greece at the present day).
9. Cf. Warrington's Roman Remains by T. May, p. 37 seq.
(3) Glass vessels. The principal fragments are necks of square or cylindrical bottles with broad reeded handle joining rim and shoulder. The attachment of this reeded handle to the shoulder shows especial care and skill in glass-working.

One fragment is of deep blue glass with " pillar" mouldings.

## Tiles.

A number of complete tiles and a large quantity of fragments have been found at Melandra. All are of the red clay commonly used for tile-making, though owing to differences in firing the clay varies from an orange to a purple-red. The tiles vary in shape according to the use for which they were intended.

Floor tiles are square in shape, about $2 \frac{1}{2}$ inches thick, and with sides varying from $6 \frac{3}{4}$ to $10 \frac{1}{2}$ inches. Several have semi-circular lines impressed upon one side of them, either to form a key for plaster or to give a clue for their arrangement. On three tiles VV has been incised with a sharp instrument while the clay was still soft. It is a potter's mark and not an official legionary stamp, but in view of the fact that it occurs three (perhaps four) times at Melandra and that it must have been universally recognised as the monogram of the XX. Legion 'Valeria Victrix' (see p. 114) it would be hardly reasonable to give it any other significance here. Another tile still bears the footprint of some small animal that ran across it while the clay was soft. Certain fragments have holes somewhat roughly pierced through them, perhaps for drainage. They differ from a thinner oblong tile where the holes are pierced at regular intervals and seem to be intended for the passage of hot air in a hypo-
caust. One floor tile has had the edge bevelled all round after firing but for what purpose is not clear.

Roof tiles include both the large flat "tegulae" and the "imbrices" in the shape of a half cylinder. Their arrangement is shown in Fig. 2. The larger tegulae are about $18 \frac{1}{4} \times 14 \frac{1}{4}$ inches and 1 inch thick. They are oblong in shape, with a projecting ridge along each side which held the imbrices in place. This flange is discontinued for about 2 inches at the top of the tile so as to allow for the overlapping of an upper row of tiles. Close to the top


Fig. 2.-Roof Tiles. *
edge of the tile is a square hole for the nail which held the tile in position on the roof. On the under side the roof tiles are scored with diagonal incisions to form a key for plaster. The upper surface seems often to have been washed over with a slip of finer clay which takes a somewhat deeper red than the clay body. The lower edge of the tile is in several cases marked with an R roughly inscribed with the finger or some blunt instrument. On one fragment there is a $V$ inscribed in the same way.

[^0]Another has IHS or INS rudely incised with a pointed instrument. The tile is broken in front of the first letter. The lower edge of this tile being bevelled it may well have belonged to the lowest row on the roof where an inscription would be most visible.

With the abundance of good building stone available in the district, tiles would not be required for wall construction. One tile, however, is in the shape of a voussoir of an arch.

J. H. Hopkinson.

## The Roman Coins Jound at Silelandra.



All but 5 and 6 were found in the camp. No. 5 was found at Hadfield, about $1 \frac{1}{2}$ miles from Melandra on the Eastward road. No. 6 was found with Nos. 15 and 16, and the curious bronze plate (figured below in the List of Miscellaneous Remains) in "Pym's parlour," a hollow in the rocks above the river Etherow, about half a mile from the camp.

It is interesting that the two latest coins found on this site should be of Emperors whose claim to the throne (in both cases) rested on British support. The independent recognition accorded to Carausius by Diocletian was due to the powerful British fleet which Carausius raised and controlled ${ }^{1}$; and Magnus Clemens Maximus was proclaimed Emperor of the Western provinces (Gaul, Britain, Spain) by the British legions. ${ }^{2}$ It suggests that these coins were struck in Britain, and in fact Carausius struck coins nowhere else. There is a very interesting silver coin in the British Museum collection which Maximus struck at London-a town which he re-named Augusta-in the year 383 a.D.
B. Identified with some degree of probability.

| $\begin{gathered} \text { No. in } \\ \text { Melandra } \\ \text { Collection. } \end{gathered}$ | Metal. | Probable Denomination. | Probable Epoch, A.D. |
| :---: | :---: | :---: | :---: |
| 9 | Bronze. | ? | 132-5 (see below). |
| 10 | Bronze. | Dupondins. | \{ First century (from general ap- |
| 112 | Bronze. | Dupondius. | ( $\begin{gathered}\text { pearance) } \\ \text { Portrait possibly of Hadrian. }\end{gathered}$ |
| 13 | Bronze. | Sestertius. | From size, probably of Hadrian or Antoninus Pins. |
| 14 | Bronze. | Dupondius. | First or second century. |
| 15 | Bronze. | "Small bronze." | From size, and style of head, fourth century (later than Constantine). |
|  |  | C. Quite $U$ | ncertain. |
| 16 | Bronze. |  | Hopelessly effaced. |

On the provenance of 15 and 16 see above.
These statements as to the nature and origin of the coins are on the authority of the numismatists of the British Museum, especially Mr. G. F. Hill, whom I have to thank for their very patient kindness in the matter. I append

1. Gibbon, c. xiii. (vol. ii. p. 9).
2. Gibbon, c. xxvii. (vol. iii. p. 394).
a very interesting letter from the Keeper of the Coins concerning No. 9 ; and a sketch of its obverse face. Our attempts at a photograph were unsuccessful. The reverse is hopelessly obscured.

R. S. Conway.



> Department of Coins and Medals, British Museum, London, W.C. May 24, 1905.

Dear Mr. Conway, -
The smaller of your two coins is almost certainly Jewish, as it has on one side the cup as on the later Jewish coins. The letter above seems to be $\boldsymbol{\psi}$, the initial letter of the name of Simon Bar-cochab. In this case the date of the coin would be a.d. 132-135. I can find no published Jewish coin quite like it, so the attribution must not be taken as certain. Yours sincerely,
B. V. Head.


## The Trade $=$ and Coill= Coleights yound at sinelandra.

The exceedingly important observation which Mr. May has made of the relation between certain of the ancient weights found at Melandra and the "Neath " or "Glastonbury" standard, and which he has explained in an article now appearing in the Derbyshire Archocological Society's Journal, seemed to impose on the Editor of this Report the task of taking stock of the knowledge we now possess of this curious and interesting, set of objects. Since Mr. May undertook the first scientific enquiry into their nature (in his article in the same journal, 1903), ten more specimens have been added from the camp (their number now reading 30); and, although his discussion then placed beyond doubt the nature of some of the purely Roman weights which formed part of the collection, by showing their close connection with the weights of the coins used at different periods of the Empire, many of the details remained, as he frankly pointed out, in some obscurity. My object in making this addition to Mr. May's two articles was to define as precisely as may be how much knowledge we possess of the nature of the weights, and to separate as sharply as possible what was certain from what was merely probable. But the results of a systematic survey proved to be far more interesting than I had hoped. The third Table printed below shows that the collection gives us no less than seven certain denominations of the Keltic standard (hitherto known only in the unit, its double and quadruple), and thereby supplies a most welcome confirmation of the discovery of that standard itself, and of the text in an interesting passage of Cæsar (see below).

## TABLE I.

## Weights of 1 Bronze and 32 Leaden Objects found at Melandra.

| No. | No. In <br> Mr. May's List. | Shape. | Weight in Grains. | Notes. |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 19 | Cheese or barrel. | 4735 (4) |  |
| 2 | Not then found. | The same, but rather | 3535 (*) |  |
| 3 | do. do. | Pyramid, cylindric top. | 3472 (4) | Furrow cut along the top; thick layer of carbonate on surface. |
| 4 | 18 | Inverted frustum of cone. | 1870 (-4) |  |
| 5 | 17 | Cheese or barrel. | 1725 (-2) | Nuch wasted. |
| 6 | 16 | Flat cheese. | 1709 (*3) | Found on surface, apart from the others. |
| 7 | Not then found. | Cylindric topped pyramid. | 1296 (8) | Shallow groove across the top; iron nail driven into foot. |
| 8 | 15 | Square prism. | 1181 (9) |  |
| 9 | 13 | Cheese or double truncated cone. | 913 (4) | Deeply pitted. |
| 10 | 14 | Tall square prism, corners rounded. | 905 (*6) | Sockets in top for a ring. |
| 11 | 12 | Half cheese. | $617\left({ }^{(3)}\right.$ |  |
| 12 | Not then found. | Flat cheese. | $555(\cdot 8)$ |  |
| 13 | 11 | do. | 531 ('6) |  |
| 14 | 10 | Half cheese. | 428 (6) |  |
| 15 | 9 A | Cylinder. | 402 (8) | Bronze, with Iron stud. |
| 16 | - | Coil. Cube | $\begin{aligned} & 365(0) \\ & 351(\cdot 4) \end{aligned}$ |  |
| 17 | $\stackrel{\square}{9}$ | Cube. <br> Cheese. | $\begin{aligned} & 351(4) \\ & 323(\cdot 8) \end{aligned}$ | Dice marks on 6 faces. |
| 19 | 8 | do. | 312 (-8) |  |
| 20 | 7 | Thick circular disc or lozenge. | 297 ( ${ }^{\text {b }}$ ) |  |
| 21 | 6 | do. do. | 239 (*3) | Much pitted, perforated. |
| 22 |  | Flattened cube. | 236 (6) | Dice marks faintly visible. |
| 23 | 5 | Square disc. | 215 (9) |  |
| 25 | Not then found. | Pierced cone. | 208 (9) | Spindle wheel? |
| 26 | ${ }_{3}$ | Cheese (rather square). | 173 ( ${ }^{18}$ ) | With bronze or copper cent |
| 27 | Not then found. | Pierced disc. | 151 (7) | Broken a little on one side found in the conduit, 1905. |
| 28 | 2 | do. | 146 (-8) |  |
| 29 30 | Not then found. | Cone (or hemisphere). | 125 (5) | Nearly pierced through ${ }^{1}$ |
| 31 | do. do. | Disc. | 97 (-4) |  |
| 32 | do. do- | Pierced cone. | 96 (8) | Much wasted. |
| 33 | do. do. | Disc. | 76 (4) |  |

In several cases, since weighing, I have cleared away the deposit of lead carbonate from the markings to render them more distinct.
Dec. 25, 1905.
Charles H. Lees.

1. Since Mr. May's weighing. which in general agrees very well with Dr. Lees'. gave a considerably higher figure for this specinen (No. 29), I weighed it again myself (with the help of Mr. W. Makower, Dr. Lees' successor in the Laboratory), and found the figures given above entirely correct.-R.S.C.

The first thing to be done was clearly to have the present weight of the specimens determined with scientific precision, and the members of our Association are greatly indebted to Dr. C. H. Lees, F.R.S., the Assistant Director of the Physical Laboratory in the University of Manchester, ${ }^{1}$ for his kindness in undertaking the duty, and for his careful report. This I now subjoin, modified by the insertion of the second column, identifying the weights with those in Mr. May's list in the earlier of his articles. I have also slightly amplified the details in the third column, to place the identification beyond any future doubt.

The table proceeds from the heaviest to the lightest, and includes four objects also found in the camp, which it seemed well to weigh, but of which three (Nos. 16, 17, 22) almost certainly, and one (30) possibly, should not be counted as weights at all.

We may proceed now to select from this list those specimens which certainly, or with varying degrees of probability, can be identified as Roman. Both Mr. May and myself have based our work upon the admirably lucid outline of the history of the Roman coinage in Imperial times contained in Mr. G. F. Hill's Handbook of Greek and Roman Coins (London, 1899). The fullness of the tables contained in his Appendix diminishes by at least one-half the labour inevitably involved in any metrological enquiry.

The need for an elaborate apparatus of weights of small denominations appears at once when we consider the perpetual changes in the coinage (see Hill, pp. 50-55) in the third and fourth centuries. Of the variations in the gold coins after Alexander Severus (222-235 a.d.) he writes (p. 55) : "Then begins a period of hopeless con-

[^1]fusion, such that the scales must have been necessary in all transactions in which gold passed." The specimens we have belonged no doubt to the financial officer of the fort, and as these were not found all together, ${ }^{2}$ but scattered over the Northern half of the camp, they had perhaps been discarded from time to time as changes in the currency they were used to measure may have dictated.

Let me first present the table of the weights, in three groups, according to the degree of certainty of their Roman character, ${ }^{3}$ and then add a few notes, which future enquiry may, I hope, enlarge, to suggest what coins they were used to measure.

I have disregarded the two dice (17 and 22) and the spiral (16), as there seems no reason for thinking that they were used as weights. (See the figure given on p. 112.)

In the sketches of the weights which follow, no attempt has been made to keep the same scale, which would have rendered the smaller sketches unintelligible. The photograph (p. 99) gives their relative size.
2. Nine of the heavier weights were found in a group at a spot marked in Mr. Bruton's plan. These were the following : $-1,4,7,8,9,18,19,21$, 23. Fortune has made what seems an unkindly capricious selection from our two categories.
3. The precise identification of the weight of some of them is not above doubt even in Table II. A. In these cases I have added a ? to the " Presumed original weight."

## II. Weights of the Roman Standard.

A. Certainly Roman weights (Unit: Libra of 5050 grains).


## II. Weights of the Roman Standard.

A. Certainly Roman weights (Unit: Libra of 5050 grains)-contd.

18 Cheese (with holface.
No. Shape.


19 As No. 18.


23 Square disc.


24 Shallow cone,


27 Pierced disc (bunshaped).


Bow or brooch.

$104 \cdot 2 \quad \frac{1}{48} \quad \frac{7}{4}$
$2 \quad 105^{\prime 2}$ Perhaps not a weight.

31 Dise with four perforations.

32 As No. 24.


33 As No. 27.


On the last six specimens (24-33) there are no intentional marks save the perforations.

## II. B. Probably Roman Weights.



## Notes on the Roman Weigets.

1. In Table II. A, I have marked with the letters (a) to $(f)$ the specimens which seem to make a series both by their weight and (with the exception of (a), No. 7, which is simply $\frac{1}{4} \mathrm{lb}$.) shape and to be multiples of $1 \frac{1}{2}$ drachmæ. This weight (No. 33) was that of the Antoninianus or base silver denarius of Caracalla (198-217 A.D.).
2. The drachma itself was the weight of the silver denarius of Nero (54-68 A.D.) and the silver coin of Diocletian (284-305 A.D.) to which some authorities attach the name miliarense which probably implies a value of ${ }^{1} / 1000 \mathrm{lb}$. of gold.
3. The only coin I can find of which No. 31, which is punctured four times, gives four times the weight is the quinarius (half-denarius) of Diocletian. Its own weight, however, if we disregard the punctures which do not always (as may be seen, e.g., by comparing 9 and 13) give any numerical measure of the weight, is that of 3 gold siliquæ of Julian (360-363 A.D.).
4. In regard to No. 4 Mr . May in his first article, assuming that its original weight was $4 \frac{1}{2}$ unciæ ( 1893.8 grains) ${ }^{2}$ and that it belonged to the same series as those I have marked (a)-( $f$ ), ingeniously calculated that it represented five stipendia of the age of Augustus, a stipendium being the pay due to a legionary soldier three times every year. If this were sound, it would afford an attractive explanation of the five dots which the weight bears on its face, and one would conjecture that it represented some regular fee of one of the senior centurions, though rather a high one. The annual pay of the legionary in the early Empire
5. In Mr. May's weighing 3 years ago, the result was 1882.08 grains; it has no doubt lost some of its carbonate coating since then, as it now weighs only $1870 \cdot 4$.
we know from Tacitus (Ann. 1, 17) to have been 3,600 (Augustan) asses $=225$ denarii $=9$ aurei. Hence a stipendinm of that period $=3$ aurei, which, under Julius Cæsar, would have meant $3 / 40$ of a libra of gold, or $378^{\prime} 7$ grains ; 5 times this weight would give $\frac{3}{8}$ of a libra or $4 \frac{1}{2}$ unciæ, the weight which Mr. May assumes as the original weight of our specimen. We might, then, not unreasonably, say that we had before us the weight of 5 stipendia or 15 aurei of Julius Cæsar. But under Augustus the weight of the aureus (Hill, p. 54) was reduced to ${ }^{1} / 42$ of the libra or 120.37 grains (and so remained, though with a tendency to decrease till Caracalla (198-217 A.D.) under whom it became ${ }^{1} / 50$ lb.). This specimen therefore would represent more nearly 16 than 15 Augustan aurei, and a paymaster was hardly likely to submit to a difference of some 6 per cent. to his disadvantage. It is possible that some explanation may be forthcoming (e.g. the soldier may conceivably have been entitled to the same weight of metal in spite of the reduction of the coin; as in fact he was in the case of the change of the copper as, see Hill p. 48 footnote), but until this can be certainly determined, Mr. May's explanation must be regarded only as an attractive conjecture. It might be worth while to attempt by a narrower enquiry than would be appropriate here whether the higher weight of the aureus suited any period between Augustus and Caracalla.

## The Keltic Weights.

During the visit of the Branch of the Association to Mr. May's beautiful collection of Roman pottery from his excavation of Warrington in October, 1905, he very kindly handed to me the draft of his second article (now appearing in the current number of the Derbyshire Archooological Journal), which pointed out the close approximation of the heaviest specimen of the Melandra weights to the standard which Mr. Reginald Smith, of the British Museum, had shown to be represented by a bronze weight found at Neath ( 4,770 grains), and another (of basalt) at Mainz (4,767 grains), and by the normal weight deduced from that of a large number of iron bars ${ }^{1}$ found in the purely British lake-village at Glastonbury and in other British sites. Some of these iron bars, so far as they have yet been examined, presumably represented double the unit, three the unit itself, and two the unit quadrupled, but as they have, of course, suffered a good deal from rust, the variation in particular specimens is

1. 4,484 grains; the difference is due to the rusting of the iron.
considerable. Mr. Smith's conclusions therefore entirely establish the soundness of the text in Cæsar B. G. 5, 12, 4 taleis ferreis ad certum pondus examinatis pro nummo. Details of his exceedingly important determination are given by Mr. Smith in his paper on the "Ancient British Iron Currency" (Proceedings of the Society of Antiquaries, xx., 179, January 26, 1905), and in outline in the Guide to the Antiquities of the Early Iron Age in the British Museum, 1905, pp. 149f. Both the Neath and the Mainz specimens exhibit the same cheese or barrel shape which appears in four Melandra specimens (1, 2, 5, 12); each of the two is marked I on the face, but the Mainz specimen has a further legend which no one yet has interpreted, I $\bigcirc \bigcirc^{-}$, the last sign apparently a $Q$ tilted to the left.

The peculiar importance of the collection at Melandra appears at once from the table below (III., A. and B.), which shows that we have here represented certainly seven (including the unit), and quite possibly nine, denominations of this standard, whose sub-divisions have been hitherto entirely unknown.

The nature of the sub-divisions is also interesting. Besides the duodecimal principle (in Nos. 2, 3, 8, 25, and ? 21) following that of the Roman libra and uncia, to which, if I remember rightly, Mr. May's article is to call attention, I think we must recognise not less clearly the quadratic (Nos. 2, 5, 8, ? 12, 20, 28 and ? 21), giving us a division of the unit into $4,8,16,32$ and ? 96 parts. Nos. $2,3,5$, and 21 could belong to either, and 12 may just conceivably be Roman and represent $10 \frac{1}{2}$ drachmæ, or 7 times the weight of an Antoninianus.

It would be of course possible to interpret all these weights as representing so many "British drachmæ" (if one may coin such a term for the sake of argument), since 96 is a common denomination for both 12 and 16 ;
but one seeks a reason for the creation of weights to represent 6 and 12 "British drachmæ," i.e., ${ }^{1} / 16$ and $\frac{1}{8}$ of the "British pound" respectively if there was no other named standard than ${ }^{1} / 22$ of the unit ("British uncia") and ${ }^{1} / 96$ ("British drachma"). And that there was some other such named unit weighing ${ }^{1} / 16$ of this "British pound" ( $298 \cdot 1$ grains) seems at least suggested by the markings on Nos. 12 and 20, which would then be the weights of two and one such units respectively; unhappily No. 12 is nearly 8 per cent. under its proper weight, on this hypothesis. It is also clear that the markings on No. 8 vouch for the duodecimal system, as Mr. May points out. But Nos. 20 and 28 are unimpeachable witnesses for the quadratic system.

Can we conjecture from this that we have here the result of the imposition of the Roman system of 12 ounces and 96 drachms upon a Keltic system of dividing the pound into 16 parts? And that therefore the essential characteristic of our modern "Avoirdupois" measure goes back to the Early Iron Age? I must be content to leave this inference for students of metrology to develope or confute. My object is primarily to provide material for their enquiry, by a preliminary clearing of the ground. A similar case of the imposition of Roman divisions upon a local unit occurs at Pompeii; see The Mensa Ponderaria of the Naples Museum, App. I. to my edition of the remains of The Italic Dialects. And examples more important for northern lands will be found in Appendix C of Prof. Ridgeway's Origin of Metallic Currency and Weight Standards.

No. 3, which has been considerably cut about, and does not correspond in shape to No. 2, looks like a Roman weight cut down to the Keltic standard.

Here follow the weights which are certainly or probably Keltic; and after them two or three which I do not feel able to identify with enough probability to insert them in either category.

## III. Weights of Keltic Standard.

A. Probably Keltic (Unit: Neath weight 4770 grains).

No. Shape. \begin{tabular}{c}
Weight <br>
in <br>
grains.

 

Presumed <br>
fraction <br>
of unit.

 

Presumed <br>
original correct <br>
weight. <br>
1

 Cheese or barrel 

$4735 \cdot 4$
\end{tabular}

## III. Weights of Keltic Standard-(continued).


IV. Doubtful.

Possible multiple of Weight
in



Notes.
No. $\quad$ Shape.
26 Cheese, squarish with bronze centre


| 1730 | ? 15 | $\underline{19}$ | 20 <br> obols (3) $\frac{1}{2}$ drachmae). | ?175-3 | Somewhat cf. 23. |
| :---: | :---: | :---: | :---: | :---: | :---: |

29 Cone or hemisphere nearly pierced

125.5 ? 1 苞童
15
obols
( $2 \frac{1}{3}$
drach-
mae).

R. S. Conway.

Note.-On the eve of publication I had the advantage of a conversation with Mr. Reginald Smith, who referred me to an article by Lehmann, Zeitschrift für Ethnologie, xxi. (1889) p. (245) ff., entitled Altbabylonisches Maass und Gewicht und deren Wanderung. On p. (277) some interesting conjectures will be found as to the origin of the Avoirdupois standard, but not as to the principle of division. Indeed the writer leaves it undecided whether the pound was originally based upon the ounce or the ounce upon the pound. Mr. Smith also tells me that some weights not yet publicly described, but said to correspond to the Neath standard, have recently been found in Somersetshire, and are now in the Castle Museum, Taunton (Curator, H. St. G, Gray, Esq.).

## LIST OF MISCELLANEOUS REMAINS IN THE CUSTODY OF MR. R. HAMNETT, GLOSSOP. ${ }^{1}$

Bones.
Broken and burnt bones of animals used for food-including the domestic shorthorn (Bos longifrons) and the sheep or goat. Also two tips of deer antler, found in a fireplace in section 136.

## Flints.

Splinters and chips of flint and chest (from carboniferous limestone) left in walls of Neolithic age-like the rest found on similar sites in the Pennine Chain. These are of various dates, as shown by the varying states of decomposition.

One carefully chipped fragment is probably a strike-a-light used with pyrites or steel.

## Whetstones.

Three whetstones made of "Hone stone," probably obtained from Wales or the Lake District. It does not occur in Derbyshire.
W. B. D.

Querns.
See p. 8 and Figures there given.

Tiles.
$\left.\begin{array}{l}\text { Floor tiles } \\ \text { Roof tiles }\end{array}\right\}$ See p. 93.

Bowls, Vases and other Pottery.
(See p. 77.)

1. Shortly to be placed in cases provided by Lord Howard of Glossop, in the Public Library in the Victoria Hall of that town.

## Weights.

(See p. 99.)

Corns.
(See p. 96.)

## Dice.

(One found in the Camp, one outside the N. Gate. See p. 102.)


## Lead.

Lead lamp-holder with serpent-handle.
Lead weight to lash (flagellum)?
Lead weights, dice, bow and spiral (see p. 99 and above).
Fragments, some of sheet lead.
Iron.
3 spear-heads.
Fragments of knife.
Large axe wholly of iron.
Large ring found in S. gate ( 4 to 5 in . diam.).
Nails of various sizes, and miscellaneous fragments.

Bronze.
1 weight (see p. 100 fi.).
Fragments, including 2 ornamental nails which were found in the Praetorium ; and a broken piece of a phalera (?)

Bronze plate or mould, with incised pattern (found with Roman coins in "Pym's parlour," cf. Fig. 1, and Mr. R. A. Smith's letter here appended).



# Department of British and Mediafval Antiquities, British Museum, London, W.C. 1st January, 1906. 

Dear Prof. Conway, -
I have now been able to submit your bronze to Mr. Read, who is inclined to think it a weight, the design being merely ornamental, and not intended for moulding gold leaf. I make the weight 574 grains, but neither Mr. Read nor myself can recall anything quite similar, though its Roman origin is apparent.

I am,
Yours very truly,
Reginald A. Smith.

## Other Objects.

Sphinx-intaglio; Suetonius, Aug. c. 50, tells us that a seal of this pattern was the first used by Augustus (see Fig. 2).

Ram seal in iron ring, found in E. wall (see Fig. 3).
18 counters of fused glass ( 12 white, 5 black, 1 transparent green) ; cf. p. 92.

1 counter of stone.
Miniature horse, with model of ephippion. No other such model seems to be known (p. 91).
R. S. C.

## Iegio XX., Valería Victrix.

A number of tiles discovered in the floor of a building in the Melandra fort ${ }^{1}$ are marked $V$ V, the initial letters of the title of the famous XXth Legion, indicating the presence of a contingent of that legion at some time when building operations were going on inside the fort. The XXth Legion is first heard of in the days of the second triumvirate, when it formed part of the army controlled by Antony. During the reign of Augustus the XXth was stationed in Illyria, where it operated against the rebel chieftain Bato, under the command of M. Valerius Messalinus, governor of Pannonia, winning a triumph for him in the year 6 A.D. Three years later occurred the disaster to the legions of Varus in Germany, ${ }^{2}$ and in the following year the XXth Legion was drafted along with others to the Rhine to avenge the defeat. From $10-43$ A.D. it was permanently stationed in Germany. ${ }^{3}$ In 43, by orders of the Emperor Claudius, it was called upon to join three other legions, the IInd, IXth, and XIVth, ${ }^{4}$ in the invasion of Britain under the command of Aulus Plautius.

The British territory subdued by Aulus Plautius lay south of a line drawn from Bath (Aqua Sulis) to London, and then N.E. to Colchester (Camulodunum). His successor, Ostorius Scapula, extended the Roman power

1. See p. 93.
2. Tac. Ann. i., 60-61; Dio Cassius lvi., 23.
3. Tac. Ann. i., 31, § 3 : Dio lv., 23.
4. Mommsen. Rom. Prov. i., 174.
mainly towards the north and west. By hard fighting he advanced through the territory of the Silures and Ordovices in S. and N. Wales, establishing the XIVth Legion at Wroxeter ${ }^{5}$ (Viroconium); thence he pushed on against the Cangi, in Carnarvonshire, Denbigh and Flint, and it may very well be that in this campaign he first established the Roman camp at Chester (Deva), which either then ( 51 A.D.) or very soon after became the headquarters of the XXth Legion. In 59 a.D. Britain received a new governor in Suetonius Paulinus, who spent his first two years in completing the subjugation of N . Wales; when, at the end of that time, he proceeded with the XIVth Legion to the conquest of Anglesey, ${ }^{6}$ he seems to have left the XXth behind him in camp at Deva. Ostorius had been recalled from Wales by trouble with the Brigantes, a powerful tribe occupying Lancashire, Westmoreland, Northumberland, Durham and Yorkshire; and the position of Deva was admirably chosen to protect an army advancing into Wales from an attack in the rear by the Brigantes. Like Ostorius, Paulinus was suddenly recalled from his Welsh campaign by the news that the Iceni and other tribes in the S.E. of Britain had risen under Queen Boudicca ${ }^{7}$ and cut to pieces the IXth Legion at Camulodunum. Returning through Deva in great haste Suetonius reinforced his XIVth Legion with veterans of the XXth (vexillarii vicesimani), ${ }^{8}$ and these seasoned troops had the distinction of aiding in the overwhelming defeat which

[^2] C.I.L. vii., 155.
6. Tac. Ann. xiv., 29-30.
7. Tac. Ann. xiv., 31-37. The form Boadicea, or Boudicea, under which the name of this queen has come down to the modern world, is due to the error of an early printed edition of the Agricola (cf. Furneaux on Tac. Agr. ch. xvi.) : the name survives in the modern Welsh "Buddug" (= Victoria).
8. Tac. Ann. xiv., 34.
he inflicted on the revolted tribes in the neighbourhood of Camulodunum.

During the next few years the XXth Legion seems to have made itself a reputation for turbulence. Long before its transference to Britain it had played a leading part in the sedition of the Germanic legions in 14 A.D.; ${ }^{9}$ and now its commander, Roscius Caelius, allowed it to get so out of control that it proved a "handful" (nimia) ${ }^{10}$ for successive governors of Britain. Roscius was superseded in 69 a.d. by the famous Agricola, a partisan of Vespasian, who by his tact won it over to faithful allegiance to the new emperor-a feat for which he claimed no credit, preferring, as Tacitus tells us, "to give the impression of having found it loyal rather than of having made it so." ${ }^{10}$ After two years in command of the legion Agricola left Britain to govern Aquitania, but returned in 78 a.d. as governor of the island, a position he occupied till 85. In his third campaign, at the head of the IXth, XIVth and XXth Legions, he extended the Roman power to the north as far as the Tyne, at the expense of the Brigantes, and in the following year drew a line of forts between the Firths of Clyde and Forth, establishing the IXth Legion in garrison at York (Eburacum), the Brigantian capital. Three years later ( 84 a.d.) the XXth Legion took part in another famous victory, the defeat of the Caledonians by Agricola at the Graupian Hill. ${ }^{11}$

From this time onward contingents of the XXth seem to have been employed on garrison duty in various parts of the north of England, indications of their presence being found in almost every quarter of the Brigantian
9. Tac. Ann. i., 31.
10. Tac. Agr., vii.
11. The identification of the Mons Graupius (Tac. Agr., xxix.) with the modern Grampian hills is very questionable : the MS. authority for the form Grampius is inferior.
territory. The need of a strong permanent garrison at Deva gradually disappeared, as the natives grew more submissive to the Roman dominion; and in Hadrian's reign (117-138 A.D.) a considerable part, if not the whole, of the XXth was employed in the building and defence of the great North Wall from the Solway Firth to the mouth of the Tyne. ${ }^{12}$ In the next reign, that of Antoninus Pius (138-161), the Legion was again-or still-in the North, building the wall from the Clyde to the Forth along the line of Agricola's Wall (circa 140 - 144 A.D.). ${ }^{13}$ There it remained apparently till some nine years later. In 153 A.D. "the soldiers of the XXth Legion" erected at Birdoswald (Amboglanna) an altar to the British god Cocidius. ${ }^{14}$ We may conjecture that it then returned to its old quarters at Deva; for an altar to Jupiter Tanarus ${ }^{15}$ was dedicated by an officer of the Legion at Chester in the following year ( 154 A.D.). This conclusion is not certain, as the legion may have been divided, different portions of it garrisoning the North Wall and Deva simultaneously, though the altar of 153 reads as though it was dedicated by the whole Legion. ${ }^{14}$ When Severus and Caracalla visited Deva (207-8), the Legion was still there, as is shown by an altar dedicated by one of its officers, Flavius Longus. ${ }^{18}$ Part, or the whole, of the Legion again accom-
12. Cf. C.I.L. vii., 623. "Legio vi. pia fidelis: vexillatio legionis xx. Val. Vic." (found at Carraw) : C.I.L. vii., 749 (at Caervoran).
13. Cf. C.I.L. vii., $1133,1137,1139,1141-3$ : the first of these is reproduced in facsimile in "An Account of the Roman Antiquities preserved in the Museum at Chesters" (published by Gilbert and Rivington), p. ${ }^{33}$ and runs-"Imperatore Cæsare Tito Aelio Hadriano Antonino iii." (i.e. tria millia).
14. C.I.L. vii., 802 Deo Cocidio milites legionis xx. VV. votum solverunt libentes merito Apro et Rufino consulibus."
15. C.I.L., vii., 168. "Jovi Optimo Maximo T. Elupius (? Flavius?) Galeria (tribu) Praesens Guntia princeps legionis xx. VV. Commodo et Laterano consulibus votum solvit libens merito."
16. C.I.L. vii., 167. "Pro salute Dominorum nostrorum invictissimorum Augustorum Genio loci Fl. Longus, tribunus militum Legionis xx. VV. et Longinus filius ejus domo Samosata votum solverunt."
panied these emperors to Caledonia, where a "vexillatio" or detachment of the XXth has left a record of its presence at Netherby ${ }^{17}$ (Castra Exploratorum), circa 220 A.D., the latest extant dated inscription referring to the Legion. The historian Dio Cassius, ${ }^{18}$ who wrote in the early years of the third century, says that in his day the XXth was in "Upper Britain," i.e., Britain south of the Mersey and Humber, and so presumably back again at Deva. For two centuries we hear nothing more of the Legion, and when we do next come across it, it has left Britain.

To determine the precise date of its departure from the island, a word or two is necessary as to the disposition of the legions in Britain during the first two centuries. The IXth Legion, which was so severely handled by the Iceni ${ }^{19}$ in 61 a.d., was reorganized by fresh levies; it appears at York ${ }^{20}$ (Eburacum) in 109 A.D., after which it disappears from history, being replaced in Britain by the VIth Legion Victrix. ${ }^{21}$ It is a not improbable conjecture that the IXth was cut to pieces by the Brigantes early in the second century. ${ }^{22}$ The XIVth was withdrawn from Britain by Nero for service in the East;23 Vespasian replaced it by the IInd Adjutrix, which was stationed at Lincoln (Lindum), but this Legion was again withdrawn by Domitian in 81 a.d. From early in the second century, then, the Roman army in Britain contained three legions, IInd Augusta, VIth Victrix, and XXth Valeria Victrix. The Notitia Dignitatum, an official document
17. C.I.L. vii., 964.
18. See below.
19. Tac. Ann. xiv. 32. 6.
20. C.I.L. vii., 241.
21. Orelli, 3186.
22. Borghesi, Euvres, iv., 115.
23. Mommsen, Rom. Prov. i., 174; Tac. Hist. i. 6; ii. 11, 27 and 66.
dating from the early years of the fifth century, indicates the presence of the VIth in its old headquarters at York, and of the IInd at Richborough, in Kent; the XXth is not mentioned as in Britain. Now. from the poet Claudian ${ }^{24}$ we learn that Stilicho withdrew from Britain, for his campaign against Alaric the Goth in 403 a.d., a legion that had garrisoned the northern frontier of Britain; this can, on the evidence of the Notitia, be none other than the XXth, so that our old friends disappear from the scene in a blaze of glory, as forming part of the army which helped Stilicho to inflict a crushing defeat on Alaric at Pollentia, in Northern Italy (403 a.d.).

The initials V.V., the second title of the XXth, have been interpreted in two ways, either as Valens Victrix or as Valeria Victrix. As to Victrix there is no question; the form Valens Victrix, "the powerful and victorious," would have a parallel in the second title of the Legio II. Augusta Pia Fidelis, "the Loyal and True"; but there is no direct evidence in its favour; the great majority of inscriptions have simply V.V., whilst a few give Val. Vic. For Valeria, on the other hand, there are at least two pieces of direct evidence. The first is an inscription, ${ }^{25}$ in Latin and Greek, found at Ruâd (Aradus), in Syria, where Leg. XX. V.V. is represented in Greek by $\Lambda_{\epsilon} \gamma . \overline{\mathrm{K}}$ 'Ovadєpías Nєוкךфópov. The second is a passage of Dio Cassius

> 24. "Venit et extremis legio praetenta Britannis, Quae Scoto dat frena truci, ferroque notatas Perlegit exsangues Picto moriente figuras."
> (Claudian, De Bello Getico, 416-418.)
25. C.I.L. vii., 186. "M. Septimio Marci filio Fabio Magno Legionis iii. Galaticae iter. et Legionis iiii. Scythicae et Legionis xx. VV. iter. et Legionis i. Minerviae et Legionis x. Fretensis ii. L. Septimius Marcellus fratri optimo."
 то $\overline{\mathrm{B}} \kappa \alpha \iota \Lambda \epsilon \gamma$. $\bar{\Delta} \Sigma_{\kappa v} \theta \iota \kappa \eta \mathrm{~s}$ кає $\Lambda \epsilon \gamma$. $\overline{\mathrm{K}}$ Ova入єрıas $\mathrm{N} \epsilon \iota к \eta \phi о ́ \rho о v$ то


(LV. 23), written about 200 A.D., the value of which would be greater if its meaning were a little clearer. Speaking of legions which had existed from the days of Augustus to his own time, he says




 $\dot{\epsilon} \tau \eta \rho \eta \sigma \epsilon$."
"also the men of the XXth, known by the additional names of Valerii and Victores, stationed in Upper Britain; these, to my thinking, Augustus took over, and to secure their loyalty joined them to the troops called the XXth, whose winter quarters were in Upper Germany, although they were not universally known as Valerii, nor do they use this title to-day." This reads perhaps more like Irish than English-so does the Greek! But Dio does certainly imply that one of the titles of the XXth was Valeria, though not universally recognised and not used in his own day; also that it was a title dating back to the reign of Augustus, and that its origin was the incorporation in the legion of some troops known as Valerii-such at least seems the most probable interpretation of the very obscure Greek. We have seen above that the XXth was commanded in 6 a.d. by Valerius Messalinus in Illyria, where it won a triumph; may not the troops have assumed the the title "Valerii" on that occasion, and may not Dio Cassius have misinterpreted the transference of the XXth from Illyria to Germany as the incorporation of the "Valerii" with the XXth? The titles of the Roman legions only show one parallel-with the exception of Augusta, which is hardly to the point-to this derivation from a proper name, viz., Legio XXII. Deiotariana. The
other titles are mostly derived from (a) the name of the province with which they were associated, e.g., Macedonica, Cyrenaica; (b) the scene of some signal victory, e.g., Fretensis; (c) the standard of the Legion, e.g., Fulminata, Alauda; (d) complimentary titles such as Victrix, Rapax; (e) the circumstance that two forces had been amalgamated, in which case they are known as Gemina, e.g., Legio XIII. Gemina. But there would appear to be nothing in the nature of the case to prevent a legion being designated by a title preserving the memory of a distinguished commander.
H. Williamson.

## The $\mathbb{P r o b a b l e}$ Date of the Roman Occupation of silielandra.

In the absence of any literary record or of any explicit epigraphical evidence found on the spot, our strongest clue, in attempting to fix the date of the construction or occupation of a Roman fort, is to be sought in the characteristic features, if any such present themselves, of the plan and design of the fort. Two such features demand attention in the case of Melandra. The first is the position occupied by the four corner towers relatively to the line of the rampart: they are all internal, ${ }^{1}$ as in the very similar fort of Hardknott Castle in Cumberland, not projecting beyond the line of the walls, as they do in forts of third century construction, such as Richborough and Pevensey. The second piece of evidence of the kind is the wide gateway with its double arch. In forts of later date the gateway is single and narrower. Here again, as at the corners, the towers are wholly internal, in contrast with the projecting gate-towers of the later type. Both these features mark Melandra as belonging to a type of fort which reached its perfection under Antoninus (138-161 A.d.). ${ }^{2}$ The conclusion to be drawn, then, from the evidence of constructive design is that the fort is not later than the early part of the second century, possibly as early as the latter part of the first century.

The most precise evidence for the date is the centurial stone found in the camp in 1771, and here photographed,

1. Cf. the plan and pp. 35 f., 53 f.
2. Garstang, "On some Features of Roman Military Defensive Works" : Transactions of the Historic Society of Lancashire and Cheshire, vol. iii.


The Centurial Inscription.
To face p. 122
which reads CHO. T FRISIAVO. О. VAL VITALIS, i.e., Cohortis Primae Frisiauonum Centurio Valerius Vitalis, "Valerius Vitalis, Centurion of the First Cohort of the Frisiavones." ${ }^{3}$ The occasion of this inscription cannot be precisely determined; a probable conjecture is that it was set up when the wall of the fort was repaired, or possibly even when it was originally built, by the First Cohort of the Frisians. A cohort, usually about 600 strong, was the normal garrison of a fort of the Melandra type. Similar centurial stones of the same cohort are found in the remains of the Roman fortress of Manchester (Mancunium), the occasion of one at least of which ${ }^{4}$ was the building of a portion of the wall of the fort. This is indicated by P. XXIIII., signifying the length of wall built by the Cohort. The "Notitia Dignitatum," an imperial record of Roman officials dating probably from the earlier part of the fifth century A.D., mentions as stationed at Vindobala, on the Roman wall in N. Britain, "The Tribune of the First Cohort of the Frixagi." This has been conjecturally identified (possibly the reading is corrupt) with the First Cohort of the Frisians; but in any case, owing to its late date, it has little bearing on the occupation of Melandra. Much more to the point is the
3. [I cannot succeed in recalling the author of what seems the very plausible conjecture that these very Dutchmen may have been among the lectissimi auxiliarium, "the flower of the cohorts of our allies," of whom Agricola made such striking use in his invasion of Anglesey (Mona). Tacitus tells us (Agric. 18,5) that when he saw the shore of the island on the other side of the (Menai) Strait full of warriors and Druids, he sent across these auxiliaries, "who were familiar with the task of fording and were practised swimmers in their own country, taking both their arms and their horses with them over the water to be crossed." If so, the presence of these Frisians at Mona in the year 78 will be another welcome encouragement for referring the foundation of Melandra to Agricola's time. In any case, the reason for sending a cohort from the Low Countries to both Melandra and Manchester becomes abundantly clear from Prof. Boyd Dawkins' description (supra. p. 2). Round Melandra the thirstiest Dutchman could swim to his heart's content. ED.]
4. C.I.L., vii., 213 ; our insc. is given in the same section.
evidence of two "diplomata," dated 105 A.d. and 124 a.d. respectively. These diplomata are attested copies of the official records of the grant of Roman citizenship to members of auxiliary, i.e., non-Roman, " alae" and cohorts who had served a stated number of years in the Roman army away from their own homes. We have four "diplomata" of the kind relating to troops serving in Britain; they belong to the years 103, 105, 124 and $146 .{ }^{5}$ The second and third include the First Cohort of the Frisians (Frisiauones), who appear neither in the earliest nor in the latest of the series. This might at first sight appear to suggest the conclusion that the Frisian Cohort came first to Britain between 103 and 105 a.d., and left the country between 124 and 146 A.d., a conclusion which would fix the occupation of Melandra, at least by the First Cohort of the Frisians, as lying somewhere between the extreme limits of 103 and 146 a.d. Unhappily, this conclusion is not warranted by the evidence. The diploma of 103 contains the names of eleven cohorts, of which only one, the First Cohort of Spaniards, appears in the diploma of 105 . The diploma of 124 , containing 21 cohorts in all, includes five which appear in 103, four of which are not found in the intervening diploma of 105. The diploma of 146, again, contains the Fourth Cohort of the Lingones, which appears in the diploma of 103, but not in those of 105 and $124 .{ }^{6}$ This evidence points to one

[^3]
of two conclusions; either the cohorts did not serve continuously in one province, but were moved from province to province and back again at quite short intervals, or else-and this view, which Mommsen holds, is almost certainly correct-the diplomata do not contain complete lists of all the foreign cohorts serving in Britain during the year to which they refer. On either hypothesis our suggested conclusion as to the extreme limits of the presence in Britain of the First Cohort of the Frisians (103-146) is invalidated. That cohort might, on either supposition, have appeared in an earlier diploma than that of 103 , or in a later one than that of 146 . The only indisputable inference from the evidence of the diplomata is that the cohort was in Britain in 105 and again in 124, and that in these years, or immediately before them, certain members of the cohort had completed the term of service ( 25 years) required to qualify them for the citizenship.

There remains to be considered the evidence of pottery and coins found on the site of the camp. The former is discussed at length in Mr. J. H. Hopkinson's article (v. supra); it would appear to indicate the presence of the Romans as early as about 80 A.D., and again as late as the second half of the third century. Any conclusion based on the coins can only be put forward with reserve. There is nothing to indicate with any precision the age of the coin at the time it was deposited at the spot where it is discovered. It is no uncommon thing to find in circulation to-day a coin seventy or eighty years old, and it may be doubted whether the life of an ancient coin was shorter than that of a modern; indeed, it might often be longer, as in the absence of an elaborate banking system coins were more apt to be hoarded. At the same time, coins of anything like seventy or eighty years circulation would obviously
be rather the exception than the rule. The point to be borne in mind is that any individual example may happen to be the exception. With this reservation, it will suffice to recapitulate the dates of the Melandra coins. The following dates are certain :-Galba (coin struck in Spain), 68 a.d. ; Domitian, 95-6; Trajan, 100 and 109; Hadrian (Jewish coin), 132-5; Alexander Severus, 231-5; Postumus, 259-269; Carausius, 286-293; and Magnus Maximus, 383-8. Besides these there are a few less definitely assignable: two "dupondii," probably first century " from general appearance"; one "dupondius," possibly Hadrian; one "dupondius," first or second century; one "sestertius," probably second century, Hadrian or Antoninus Pius; one small bronze coin, fourth century "from the size and style of the head" (postConstantinian). ${ }^{7}$ The evidence of these coins, taken on its surface value, would indicate an occupation begun in the second half of the first century, probably towards its close, and continued till towards the middle of the second, and another occupation from the latter half of the third century till towards the close of the fourth.

We have seen ${ }^{8}$ that Ostorius Scapula was recalled from his Welsh campaign (circa 51 a.d.) by trouble with the Brigantes. Seneca ${ }^{9}$ attributes a complete conquest of this tribe to the Emperor Claudius, but this is obviously an exaggeration. The first serious campaign undertaken against them was that of Petilius Cerealis, who took up the governorship of Britain in 70 A.d. "He attacked (aggressus) the state of the Brigantes, which is reckoned

[^4]the most populous of the whole province; he fought many engagements, some of them sanguinary, and conquered, or at least overran, a great part of the Brigantes." ${ }^{10}$ It was he who established the Legio II. Adjutrix at Lincoln (Lindum). It was not, however, till the governorship of Agricola that any thorough conquest of the Brigantes was achieved, and a permanent garrison established in their capital Eburacum (81 a.d.). Melandra, from its position, would probably be one of the earliest places occupied by an army advancing to the subjugation of Yorkshire from the south and south-west. It may possibly have been roughly fortified by Petilius Cerealis; it is at any rate more than probable that it was occupied by Agricola. From this time on till past the middle of the second century the Roman troops were almost constantly engaged against the Brigantes. We have seen ${ }^{11}$ that there is reason to conjecture that some time during the early half of the second century, probably towards the end of Trajan's reign (98-117), the IXth Legion garrisoning Eburacum was destroyed by this tribe. Writing in the succeeding reign of Hadrian, the Roman satirist Juvenal describes the typical Roman soldier's life as occupied in storming the hill-forts of the Brigantes. ${ }^{12}$ Melandra lies within the southern boundary of the Brigantes, and is more than likely to have been garrisoned by Roman troops during these conflicts. Melandra was connected by a Roman road with the neighbouring fort of Brough (Anauio), where in 1903 an inscribed tablet ${ }^{13}$ was discovered proving that this fort was occupied about 158 A.D. by Roman troops under the prefect Capitonius Fuscus, during the

[^5]governorship of Julius Verus. A fragment of stone, ${ }^{14}$ originally the top left-hand corner of a similar tablet, was found at Melandra in 1832; it contains the first letters of an inscription-IMP. C, which convey little in themselves. But the form and position of these letters, and the triple moulding which is indicated, are an exact replica of the moulding and the initial letters of the Brough tablet, and it is hardly to be doubted that the two are closely contemporaneous. There is other evidence of widespread activity against the Brigantes during the governorship of Julius Verus. The Brough tablet was found in fragments which had been subsequently used as building material in a sunken chamber of Roman construction in the same fort, proving that Brough was occupied by Roman troops at a date still later than 158 A.D. ; and if Brough, then probably the neighbouring Melandra was similarly occupied. The absence of coins of the reign of Antoninus at Melandra is far from proving, or even suggesting, that the fort was not occupied during that reign; but the gap in the numismatic remains of close on a century (135-231 A.D.) does perhaps suggest that there was an interval during which the fort remained ungarrisoned.

On a general survey of the whole evidence, we shall probably be not far wrong in concluding that Melandra was occupied certainly from very early in the second century, and probably as early as about 80 A.D., till past the middle of the second century, and was again occupied, whether after an interval of evacuation or not, from the latter part of the third century, till towards the end of the fourth.

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14. Cf. R. B. Robinson, "Longdendale," p. 52 (published at Glossop in 1863). A sketch made by him of the fragment is preserved with the Glossop collection (cf. p. 113).

## Writain in the Roman $\mathbb{T}$ Poets.

The Roman poets saw Britain through a haze of distance and ignorance, and thought of it with a vague feeling of discomfort and fear.

The ocean was to the Romans no highway of commerce, no link between nations, but the "oceanus dissociabilis." "Oak and triple brass," says Horace, "were about the heart of him who first exposed to its fury his fragile barque, and saw unmoved the swimming monsters and the seething sea."

Nequiquam deus abscidit
Prudens Oceano dissociabili
Terras, si tamen impiae
Non tangenda rates transiliunt uada. ${ }^{1}$
(In vain did the god in his providence sever the lands by the estranging ocean, if, in spite of this, the impious ships bound lightly over the waters, which should not have been touched.)

Beyond the ocean that marked the limit of the Roman world-an ocean unknown and stormy and unstudded by islands-were the " aequorei Brittani," ${ }^{2}$ " severed from the world."

Et penitus toto diuisos orbe Britannos. ${ }^{3}$
Britain is constantly spoken of as being situated in another world (alio . . . in orbe Britannos). ${ }^{4}$ It seems as

1. Odes, I., 3, 21.
2. Ovid. Met. xv., 75.
3. Verg. Ecl., i., 66.
4. Claudian in II. Cons. Stil, iii., 148.
though there still remained in men's minds the awe and superstition felt for the "Ocean" of early antiquity, that fabulous stream which encircled the world.

It was almost sacrilege to cross it; besides the Romans were bad sailors, and the waves were not the only terror, real or imaginary, of the British seas, of the

Beluosus qui remotis Obstrepit Oceanus Britannis. ${ }^{5}$
(The monster-haunted ocean which roars against the shores of distant Britain.)

A hundred years later the size of the British whale had almost passed into a proverb.

Et cuncta exsuperans patrimonia census
Quanto delphinis ballaena Britannica maior. ${ }^{6}$
(And estates as much larger than all other fortunes as the British whale is larger than a dolphin.)

The inhabitants were no less formidable than the storms and creatures of the occan.

Visam Britannos hospitibus feros
Et laetum equino sanguine Concanum. ${ }^{7}$
(I shall visit the Britons fierce towards strangers and the Concani who delight in horses' blood.)

One wonders what kind of reception the Romans expected. When we remember Tacitus' account ${ }^{8}$ of the human sacrifices of the Druids, we are not surprised to see the Britons coupled with the bloodthirsty Concani. The Irish seem to have had an even worse reputation. Strabo says that the inhabitants of "Ierne" were more
5. Hor. Odes IV., 14, 47.
6. Juv. x., 14.
7. Hor. Odes, III., iv., 33.
8. Annals iv., 30, and see Lucan, Phars i., 44, for a description of the rites and religion of the Druids.
savage than the Britons, feeding on human flesh, and enormous eaters. ${ }^{9}$

The Britons dyed themselves blue ${ }^{10}$ or green ${ }^{11}$ with woad. The cultured Cynthia has one thing in common with savage Britons. Propertius loquitur,

> Nunc etiam infectos demens imitare Britannos, Ludis et externo tincta nitore caput. ${ }^{12}$
(And now you even imitate in your folly the dyed Britons, and play the coquette with an artificial brightness on your hair.)

The Romans had good reason to remember the wild appearance and desperate resistance of the painted Britons in their painted cars. ${ }^{13}$ But the poets give no idea of the extraordinary skill and success with which they managed them. ${ }^{14}$ We hear nothing in Cæsar of the scythed chariots mentioned by Silius Italicus.

Caerulus haud aliter, cum dimicat, incola Thules Agmina falcigero circumuenit arta couinno. ${ }^{15}$
(Just in the same way, when he fights, the dweller in Thule surrounds with his scythed chariot the close-thronged ranks.)

The climate of the island was terrible to the Romans. It was a chilly land of storm and mist, ${ }^{16}$ "a land of uncleared forests with a climate which was as yet unmitigated by the organised labours of mankind. . . . The fallen timber obstructed the stream, the rivers were squandered in the reedy morasses, and only the downs and the hilltops rose above the perpetual tracts of wood." ${ }^{17}$
9. Strabo, i., 4, 5.
10. "Caeruleis Britannis," Martial xi., 53.
11. "Virides Britanni," Ovid, Amores, II., xvi., 39.
12. Prop. III., ix., 23.
13. "Picto Britannia curru" (Prop. V., 7, 4), (II. xviiib. 1).
14. Cæs. B.G. iv. 33, and v. 16.
15. Punic. 17, 416.
16. Tac, Agr. 12, 3.
17. Elton's Origins of Eng. Hist., page 217, cf. p. 2, supra.

In any case the Romans hated service in the distant dependencies' of the empire. It meant hard work and comparatively little plunder. And the Britons were no despicable foes. We know, for example, that the Brigantes again and again beat back the Imperial legions. ${ }^{18}$ The Imperial poets do not dwell on these incidents. Juvenal merely mentions the campaigns against the Brigantes as an example of long and misplaced toil with tardy and inadequate reward.

Dirue Maurorum attegias, castella Brigantum
Ut locupletem aquilam tibi sexagesimus annus
Adferat. ${ }^{19}$
(Pull down the huts of the Moors and the forts of the Brigantes, that your 60th year may bring you the lucrative post of Senior Centurion.)

There was dull work to be done, too, in keeping back the forces of nature, in making roads and clearing forests. While the Romans were draining and making causeways across the morasses, the Britons were content to ride gaily in their coracles over the flooded estuaries and inlets.

> Primum cana salix madefacto uimine paruam
> Texitur in puppim caesaque inducta iuuenco, Vectoris patiens tumidum superemicat amnem. Sic Venetus stagnante Pado, fusoque Britannus Nauigat Oceano. ${ }^{20}$

(First the damp withes of a silver willow are woven to form a little boat, and, covered with a bullock's hide, at the will of the man in it, the boat leaps out over the swollen stream. So do the Veneti sail when the Po overflows its banks, and the Britons when the sea inundates the land.)

No wonder that such a country was looked on as a
18. Cf. p. 118 supra.
19. Juv. xiv., 196.
20. Lucan Phars. iv., 131.
place in which war and famine might suitably work off their energy.

Hic bellum lacrimosum, hic miseram famem
Pestemque a populo et principe Cæsare in Persas atque Britannos

Vestra motus aget prece. ${ }^{21}$
(He moved by your prayer will turn tearful war and wretched hunger from the people and from Cæsar their leader, against the Persians and the Britons.)

But if the muses go with him, Horace will feel safe in the most desolate realms of the world.

Utcunque mecum uos eritis libens
Insanientem nauita Bosporum
Tentabo et urentes arenas
Litoris Assyrii uiator.
Visam Britannos hospitibus feros
Et laetum equino sanguine Concanum, Visam pharetratos Gelonos

Et Scythicum inuiolatus amnem. ${ }^{22}$
(Whensoever you are with me, willingly will I face by sea the raging Bosphorus, and by land the burning sands of the Assyrian shore. I shall visit the Britons hostile to strangers and the Concani who rejoice in horses' blood. I shall visit the quivered Geloni and the Scythian stream unharmed.)

## Ovid finds Italy without his love as unpleasant as Britain or the Caucasus.

Non ego Paelignos uideor celebrare salubres,
Non ego natalem, rura paterna, locum,
Sed Scythicam Cilicasque feros uiridesque Britannos
Quaeque Prometheo saxa cruore rubent. ${ }^{23}$
(I seem no longer to be haunting the healthy Pælignian land, and the country place where I was born and my father dwelt before me, but the lands of the Scythians and fierce Cilicians and green-stained Britons, and the rocks that are red with Prometheus' blood.)
21. Hor. Odes I., 21, 13.
22. Hor. Odes III., 4, 29-36
23. Ovid, Am. ii. 16, 37.
"Dira Britannorum agmina," 24 "Horribile aequor ultimosque Britannos," ${ }^{25}$ " Trucis incola terrae," ${ }^{26}$ "Britannia inaccessis horrida litoribus." ${ }^{27}$ This is the refrain of Roman verse when Britain is the theme.

The material gains, even when the most ingenious methods of extortion were used, were not great enough to make up for the danger and discomfort of a stay in Britain. Besides why go to Britain when all that was really pleasant or useful could be enjoyed at Rome? First-rate oysters, ${ }^{28}$ for example, and second-rate pearls, ${ }^{29}$ and ornamental British chariots for fashionable use. (Propertius ${ }^{30}$ begs Macaenas to stop his chariot near his tomb.) There was British basketwork for Roman ladies ${ }^{31}$ and hunting dogs for the men.

Diuisa Britannia mittit
Veloces, nostrique orbis uenatibus aptos. ${ }^{32}$
(Britain from behind her barrier sends swift dogs suited to the hunting of our world.)

Pictured Britons ${ }^{33}$ were inwoven in the curtain at the theatre, and real Britons really killed each other at the
24. Avienus, Descr. orbis terrae, 1. 414 etc. On the questions raised by the passage in Avienus (quoted by Elton, pages 418-420) describing the Estrymnides insulce and the insula Albionum, and the alleged early tin trade between Britain and Carthage, I must refer to Elton, pp. 19 ff .
25. Catullus XI.
26. Statius Siluae 2, 143.
27. Burmann's Anth. Ep. 91.
28. Rutupinoue edita fundo ostrea. Juv. iv., 141.
29. See reff. in Elton, p. 221.
30. Esseda caelatis siste Britanna iugis. Prop. ii., 1, 76.
31. Mart. xiv., 19.
32. Nemesianus, Cyneg, 225. Elton quotes Claud, Stil iii., 301 ("Magnaque taurorum fracturae colla Britannae") and suggests that the British dogs somewhat resembled the mediæval boorhound.
33. Verg, Georg iii., 24 ("Purpurea intexti tollant aulaea Britanni").
triumphal games of Claudius in a mock attack on an imitation Camolodunum set up in the field of Mars. ${ }^{34}$

Grandeur and wildness of scenery were to most of the Romans merely untidy obstructions to comfort and conquest. Nor did they see romance and poetry in the deeds wrought in that desolate isle. There was material for poetry in the splendour, treachery and fall of Cartismandua, ${ }^{35}$ the defiance of Caratacus, ${ }^{36}$ and the struggle and death of Boudicca. ${ }^{37}$ But it was material which the Roman poets would hardly care to mould into poetry in the shadow or glare of the Imperial throne.

The first reference to Britain in Roman poetry gives a good idea of the utter ignorance about it that prevailed just before Cæsar's invasion.

Nam quid Brittanni caelum differre putamus
Et quod in Aegypto est qua mundi claudicat axis? ${ }^{38}$
(For what difference may we suppose exists between the climate of Britain and that of Egypt, where the pole of heaven slants askew? (Munro's trans.)
There is something thrilling in Julius Cæsar's dash across an unknown sea into an unknown land. No poet mentions that exploit except Lucan.

Territa quaesitis ostendit terga Britannis. ${ }^{39}$
(He first sought out the Britons, then fled in terror before them.)
Lucan vainly attempts to make a heroic figure of Pompey, and so dwarfs and distorts the deeds of Cæsar.

Twenty years after the invasion of Julius, Horace can still, as far as the tangible results of the campaigns are
34. Elton, p. 298.
35. Tac. Ann. xii., 36 and 40.
36. Tac. Ann. xii., 33-37.
37. Ann, xiv., 31, 35, 37. [On the form see p. 115 footnote 7.]
38. Lucr. vi., 1104 ; see reff. in Munro's note, which show that it was thought that at Britain (as being so far North) the height of the sky from the ground was greater, and in Egypt and Ethpiopia less, than in Italy.
39. Lucan Phars, ii., 572.
concerned, speak of the "intactus Britannus," ${ }^{40}$ and so Tibullus even later of the "inuictus Romano Marte Britannus." ${ }^{41}$

No doubt Augustus saw, no less clearly than Julius Cæsar, the danger that threatened Gaul from an unconquered Britain. He may have really intended to undertake the expedition on more than one occasion. ${ }^{42}$ He may have encouraged rumours which would unite the citizens by the thought of a common danger. Vergil and Horace prayed for his safe return. Augustus stayed at home.

Vergil, in 30 в.c., wonders whether tibi seruiat ultima Thule. ${ }^{43}$
(Is Thule, on the edge of the world, to come under thy sway?)
About five years later Horace calls on Fortune for her protection:-

> Serues iturum Cæsarem in ultimos Orbis Britannos. ${ }^{44}$
(Keep Cæsar safe, who is about to go to Britain at the limit of the world.)

And again:-

> Praesens diuos habebitur Augustus adiectis Britannis
> Imperio grauibusque Persis. ${ }^{43}$
(Augustus will be held a god here on earth to bless us, when he has added the Britons to the Empire and the formidable Parthians.)

About ten years later Horace breaks into a pæan of praise:-
40. Hor, Epod, 7, 3.
41. Tib, iv., 1, 149.
42. Dio Cassius 22, 25.
43. Verg. Georg 1., 30.
44. Hor. Odes I., 35, 29.
45. Hor. Odes III., S. 2.

Te fontium qui celat origines<br>Nilusque et Ister, te rapidus Tigris,<br>Te beluosus qui remotis<br>Obstrepit Oceanus Britannis,<br>Te non pauentis funera Galliae<br>Duraeque tellus andit Hiberiae. ${ }^{46}$

(You the Nile obeys that hides its sources, and the Danube, and
the rapid Tigris, and the monster haunted ocean which roars against
the shores of distant Britain, and the Gaul that has no fear of death,
and the land of hardy Iberia.),
As far as the reference to Britain is concerned, this is a romantic and poetical way of stating that embassies were sent by some of the British princes to Augustus, with presents and assurances of friendship, ${ }^{47}$ and in one or two cases with a request for protection. It is unfortunate that the empire-building of Claudius, and indeed of all the Emperors, is either exaggerated by the poets in terms of servile flattery or disparaged with the malice of personal dislike.

Seneca was banished in 41 A.D., and failed, even by the most fulsome flattery, to obtain his recall. After the death of the Emperor in 54 a.d., he vented his pent-up wrath against him in a bitter satire, the 'Ажокодокv́vтшбьs, a travesty in prose and verse of the supposed deification of Claudius. Seneca scoffs at his policy in enfranchising the provinces. The thought of Greeks, Gauls, Spaniards and Britons clad in the toga moves him to mirth. ${ }^{48}$ His scornful contempt of the Britons who had suffered under his authority is no less bitter than his hatred of the Emperor. 49

Here is the description of the choral dirge sung at
46. Hor. Odes IV., 14, 45.
47. Strabo, 4, 5, 3.
48. Chap. 3 (cp. Tac. Ann. xi., 23, 25).
49. Dio Cassius XII., 2.

Claudius' funeral, heard with delight by Claudius himself on his way to the scene of deification:-

> Ille Britannos ultra noti
> litora ponti
> et caeruleos scuta Brigantas
> dare Romuleis colla catenis
> iussit et ipsum noua Romanae iura securis tremere Oceanum.
(Then the Britons who dwell in the land that's beyond The shores of the sea that we know,
The Brigantes with blue-painted shields he compelled
To bear on their necks the fetters of Rome;
And the Ocean itself he commanded to fear
The executive power of the code of the Roman.)
Seneca intended this for an exaggerated description of the campaign. But is it so very much exaggerated? Claudius' triumphal pomp was inhuman, excessive and absurd, but the country was at least temporarily subjugated as far as the Humber. ${ }^{51}$

Claudius had conquered the ocean and a new world beyond it. The Court poets rose to the occasion. As there is not much variety of thought or expression in their effusions, we quote only a few typical lines:-

Qui finis mundo est non erat imperio.
(The limits of our empire are beyond the limits of the world.)
The free and independent Britons, whose home had been a storied island hidden in the middle of the sea, were subdued (icta tuo, Cæsar, fulmine).

Fabula uisa diu, medioque recondita ponto, Libera uictori quam cito colla dedit.
Happy country to have come under Cæsar's sway:
50. Chap. 12. He refers in chap. 8 to the temple dedicated to Claudius in his lifetime in Britain. Cf. Tac. Ann. xiv., 31.
51. Mommsen, Prov. Rom. Fimp., chap. v.
(" Felix aduersis et sorte oppressa secunda.") The sun was never again to set on the Roman Empire.

Sol citra nostrum flectitur imperium
Et iam Romano cingimur Oceano. ${ }^{52}$
(The sun turns on its course on this side of the limits of our empire, . . . and now we are surrourded by a Roman ocean.)
The triumph of Claudius took place in 45 a.d. There does not seem to be any contemporary allusion in the Roman poets to the exploits of Agricola. Juvenal, who began to publish his satires in about 95 A.D., soon after Agricola's death, may refer in the following lines to his campaign or projected campaigns in the far North:-

Arma quidem ultra
Litora Iunernae promouimus et modo captas Orcadas, et minima contentos nocte Britannos. ${ }^{53}$
(We have moved our arms forward beyond the shores of Ireland and the lately taken Orkneys, and the Britons that are contented with the shortest nights, i.e., those farthest North.)
The other satires are full enough of references to this island to have given rise to the theory that it was his place of banishment. ${ }^{54}$ At least he may have looked up the geographical and social conditions of the island as a possible place of exile.

In 120 a.d. Hadrian had to build his wall to keep off the tribes beyond the Tyne, and even before that there was unrest in Britain. The Brigantes ${ }^{55}$ were troublesome and aggressive, and the death (in Domitian's reign possibly) of an obscure British chieftain is a type of the kind of
52. These and other quotations are given in Burmann's Anthology Epp. 84-91 (Auctore incerto).
53. Juv. ii., 160.
54. Duff's edition of Juvenal, p. xix.
55. Juv. xiv., 196, quoted above, p. 132. Cf. Furneaux' note on Agric. 30, 5.
victory for which the Emperor would be glad to hold a cheap and gaudy triumph.

A fisherman brings to Domitian an enormous turbot, and Veiento reads from it omens of success:-

Omen habes, inquit, magni clarique triumphi : Regem aliquem capies, aut de temone Britanno Excidet Aruiragus, peregrina est belua. ${ }^{56}$

> ("You have an omen," he says, "of a great and splendid triumph; you will take captive some chieftain, or Arviragus will fall from the pole of his chariot. It is a foreign monster.")

There is one point to which no reference has been made -the influence of the Romans on the social condition of Britain during all these years of conquest and rule. The impression that we get from Roman poetry is merely that of a savage and worrying foe. If we had no hints from other sources, archæological and literary, ${ }^{57}$ of the increasing culture of the Britons, we should think that such remarks as the following were entirely ironical:-

Nunc totus Graias nostrasque habet orbis Athenas
Gallia causidicos docuit facunda Britannos.
De conducendo loquitur iam rhetore Thule. ${ }^{58}$
(And now the whole world enjoys the culture of Greece and Rome. Glib Gaul has taught the Britons to be pleaders; now Thule talks of engaging a professor of rhetoric.)

Dicitur et nostros cantare Britannica uersus
Quid prodest? Nescit sacculus ista meus. ${ }^{59}$
(It is said that even Britain recites my verses. What's the good of that? It does not affect my purse.)

Statius, whose Siluæ were written about 95 A.d., contrasts the simple beginnings of Roman cities in central Britain with the elaboration of life and building in his
56. Juv. iv., 125.
57. e.g. Tac. Agr. 21.
58. Juv. xv., 110.
59. Martial vi., 3, 3.
day. An old man points out the changes to the son of a former Governor :-

> Cum tibi longaeuus referet trucis incola terrae :
> Hic suetus dare iura parens, hoc caespite turmas
> Adfari uictor; speculas castellaque longe
> (Aspicis?) ille dedit cinxitque haec moenia fossa;
> Belligeris haec dona deis, haec tela dicauit
> (Cernis adhuc titulos) : hunc ipse uocantibus armis Induit, hunc regi rapuit thoraca Britanno. ${ }^{60}$

(When the aged inhabitant of the savage land tells you, "Here was your father wont to lay down the law, on this mound of turf as victor to address his squadrons, he it was who set up watchtowers and distant forts (do you see them?), and who girdled these walls with a ditch. He dedicated to the gods of war these gifts and these weapons. (You can still see the inscriptions.) This corselet he put on at the call to arms, and this corselet he seized from a British king."

Let us return to the military events in the island. After Juvenal there is a long silence about Britain. During the third century a.d. the Picts and Scots and Saxons became more and more formidable by land and sea. In a.d. 368, in the reign of Valentinian, Theodosius was sent to Britain. ${ }^{61}$ His exploits are told with much exaggeration by the poet Claudian:-

> Ille Caledoniis posuit qui castra pruinis Litoris . . . . . . . . . . . . . . Orcadestatorque incaluit Pictorum sanguine Thule, Scotorum cumulos fleuit glacialis Ierne. ${ }^{62}$
(He who pitched his camp in frosty Caledonia, . . . . who utterly conquered the British shore.
The Orcades islands were wet with the slaughter of Saxons, Thule reeked with the blood of the Picts, icy Ierne Bewailed the piles of dead Scots.)
60. Stat. Silu. V., 2, 143.
61. Ammianus Marcellinus xxvii., xxviii.
62. De IV. Cons. Honor., 26-33.

In 383 Maximus conducted a splendid and successful campaign against the Picts and Scots. ${ }^{63}$ He left the island, and, with the help of the Roman and British soldiers whom he took with him, he became Emperor of the West. No doubt the withdrawal of these troops was the cause of a fresh inroad of Picts, Scots and Saxons.

In 396 a.d. they were for a time quelled by Stilicho. Britannia cries:-

Me quoque uicinis pereuntem gentibus, inquit,
Muniuit Stilicho, totam cum Scotus Iernen
Mouit, et infesto spumauit remige Tethys.
Illius effectum curis ne tela timerem
Scotica, ne Pictum tremerem, ne litore toto Prospicerem dubiis uenturum Saxona uentis. ${ }^{64}$
(Me, too, when I was suffering ruin at the hands of neighbouring nations did Stilicho defend, when the Scot disturbed the whole of Ierne, and the sea was white with the oars of the foe. It was through his policy that I had no fear of the darts of the Scots nor of the Picts, and that as I looked out, I did not see along the whole line of shore the Saxon borne towards us by shifting winds.)
But barbarian hordes were pressing on Rome herself. In about 403 a.D. a stream of barbarians under "Alaric the Goth" poured into Italy, and Rome ${ }^{65}$ needed all her best troops for her defence.

Probably the following lines refer to the withdrawal of the 20th legion.

Venit et extremis legio praetenta Britannis
Quae Scoto dat frena truci, ferroque notatas
Perlegit exsangues Picto moriente figuras. ${ }^{66}$
(There came too the legion that is our outpost in furthermost Britain, the legion which curbs the savage Scot and sees, as the Pict dies, the figures branded on him fade.)
63. Elton, p. 340. (Cf. p. 97 supra.)
64. Claud. I. Cons. Stil. ii., 250. For the suggestion that Stilicho never came to Britain himself see Gibbon's Roman Empire, chap. 30, vol. 3, p. 376, note.
65. "Exitii iam Roma timens." Claud. de Bell. Get., 416, cf. p. 119 supra; but see also Gibbon, l.c. p. 380.
66. Claud. de IV. Cons. Hon., 31.

The time was drawing near when Britain, without power of government or cohesion, and drained of her best fighting men, was left to protect and govern herself. At the beginning of the fifth century A.D., in accordance with an Imperial rescript, the Roman forces were withdrawn. The references to Britain in the Roman poets cease. So do the Roman poets.

Dora Limebeer.
(2)

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## APPENDIX.

## PROCEEDINGS OF THE BRANCH FROM NOVEMBER, 1904 -DECEMBER, 1905.

The Branch was founded on November 18th, 1904, at a meeting held in the University of Manchester, at the invitation of the Students' Classical Society, the Vice-Chancellor of the University in the chair. After a lecture on the "Art of Translation," by Prof. R. M. Burrows, of Cardiff, the Branch was established, the following officers being elected then and subsequently:-

## President:

Prof. A. S. Wilkins, LL.D., Litt.D.

## Vice-Presidents:

The Right Rev. The Bishof of Manchester; the Right Rev. The Bishop of Salford ; Prof. W. Boyd Dawkins, F.R.S., D.Sc.; Miss S. A. Burstall, M.A.; E. Donner, Esq., B.A.; the Rev. Canon Hicks, M.A. ; the Very Rev. Dean Maclure, D.D., Hon. LL.D.; the Rev. J. H. Moulton, D.Lit.; J. L. Paton, Esq., M.A. ; Prof. Sadler, M.A., Hon. LL.D.; Prof. J. Strachan, LL.D.; A. Hopkinson, Esq., M.A., Hon. LL.D., K.C. (ViceChancellor of the Victoria University) ; the Rev. Canon Wilson, D.D.

## Hon. Treasurer:

## H. Williamson, Esq., M.A.

## Committee:

Prof. R. S. Conway, Litt.D. (Chairman); W. B. Anderson, Esq., M.A. ; Miss H. A. Ashworth, B.A. ; H. Guppy, Esq., M.A. ; Joseph Hall, Esq., Litt.D. ; Miss C. Herford ; J. H. Hopkinsoa, Esq., M.A.; H. Meredith, Esq. B.A.; C. E. Montague, Esq.;
C. E. G. Spencer, Esq.; E. Sutton, Esq., B.A. ; Miss M. Taplen ; A. S. Warman, Esq., B.A.; Miss D. Limebeer, M.A., and G. Norwood, Esq., B.A. (Hon. Secretaries).

An Excavation Committee was afterwards appointed:Prof. R. S. Conway (Chairman) ; Messrs. H. Williamson (Treasurer) and W. B. Anderson ; Prof. Boyd Dawkins ; Prof. James Tait ; Messrs. J. H. Hopkinson and F. A. Bruton (Hon. Sec.).

December 13th, 1904. The Branch held its first regular meeting (Mr. Paton in the chair). The officers and Committee were elected, and the rules approved.

## Rules.

1. The name of the Branch shall be The Manchester and District Branch of the Classical Association of England and Wales (hereinafter called the Parent Association).
2. The objects of the Branch are to promote the development and maintain the well-being of classical studies in Manchester and the District, and in particular:-
(a) To impress upon public opinion the claim of such studies to an eminent place in the national scheme of education.
(b) To improve the practice of classical teaching by free discussion of its scope and methods.
(c) To encourage investigation and call attention to new discoveries on all sides of classical studies, and especially to promote the excavation, study, and preservation of the remains of the Roman occupatiou of the district.
(d) To create opportunities for friendly intercourse and co-operation among all lovers of classical learning in the district.
3. The Branch shall consist of a President, Vice-Presidents, a Treasurer, two Secretaries, a Committee of not less than ten nor more than fifteen members, besides the Officers, of Regular members and of Associate members. The officers and the
members of the Committee shall be Regular members of the Branch, and the officers shall be ex officio members of the Committee.
4. Regular members of the Branch shall pay an annual subscription of seven shillings and sixpence, due on the 1st of January in each year. Of this subscription, five shillings shall be forwarded by the Treasurer as the members' subscriptions to the parent Association. The Entrance Fee to the parent Association for each such member shall be defrayed by the funds of the Branch. Regular members shall receive all publications and share all other privileges of membership of the parent Association.
5. Associate members shall pay an annual subscription of two shillings and sixpence, due on the 1st of January in each year. They shall be entitled to receive any publications of the Branch; to attend all its meetings, except such as may be held in conjunction with the parent Association; to vote upon all private business, including the election of officers and resolutions dealing with matters of local interest; but not upon any question remitted to the Branch by the parent Association. They will not be members of the parent Association, but they may at any time become so by becoming Regular members of the Branch.
6. The Committee shall be entrusted with the general administration of the affairs of the Branch, and, subject to Rule 4 and to any special direction of a meeting of the Branch, shall have control of its funds.
7. The Committee shall meet as often as it may deem necessary, upon due notice issued by the Secretaries to each member, and at every such meeting five shall form a quorum.
8. The Branch shall hold at least one meeting in the Winter and one in the Summer every year, and as many others as the Committee shall determine. The general annual meeting (at which the officers shall be elected and the accounts of the Branch submitted) shall be held in one of the first three months of the year.
9. The Officers and Committee shall be elected at the general meeting, but vacancies occurring in the course of the year may be filled up temporarily by the Committee.
10. The Officers and Committee shall be elected for one year, but shall be eligible for re-election.
11. The list of Agenda at any meeting of the Branch shall be prepared by the Committee, and no motion shall be made at such a meeting unless notice thereof has been given to one of the Secretaries at least a fortnight before the date of such meeting.
12. Membership of the Branch shall be open to all persons of either sex who are in sympathy with its objects; save that undergraduates of the University of Manchester shall not be eligible as Associate Members unless they are also members of the Classical Society of that University.
13. Members of the Branch shall be enrolled by the Secretaries on payment of their subscriptions.
14. Regular or Associate Members who have paid an initial subscription may compound for all future subscriptions of the same kind respectively by the payment in a single sum of eleven annual subscriptions.
15. Regular or Associate members may pay their subscriptions for four years at a time.
16. The Committee shall have power to remove by vote any member's name from the list of the Branch.
17. Alterations in the rules of the Branch shall be made only at an annual general meeting, upon notice given by the Secretaries to each member at least a week before the date of the meeting, and by a majority of two-thirds of those present and voting.
18. The Secretaries shall have power to invite Members of the Classical Society of the University of Manchester to the public meetings held by the Branch.

Prof. Conway then read a paper on "The Personality of Cicero." This was followed by a discussion.

February 11th, 1905. Meeting at the John Rylands Library, at the invitation of Mr. H. Guppy, M.A., who gave a lecture on
the Althorp Collection and the rare and early editions of the Classics in the Library. These were exhibited. The Excavation Committee afterwards submitted its preliminary report.

May 12th, 1905. Public lecture at the University by Prof. W. Ridgeway, M.A., Litt.D., on "The Origin of the Greek Drama." (The Vice-Chancellor of the University in the chair.)

May 13th, 1905. Visit to Dinting to see the excavations at Melandra and the exhibition of objects which have been found there.

October $\gamma$ th, 1905. Visit to the Roman remains at Warrington and Wilderspool. Mr. T. May, F.S.A. (Scot.), conducted the party.

November 10th, 1905. Meeting at the University (Prof. Tait in the chair). Two papers were read on the teaching of Ancient History:-

Miss A. D. Greenwood, on "The Place of Ancient History in the Curriculum of a Secondary School."
Mr. A. S. Warman, B.A., on "The Teaching of Ancient History."
The papers were followed by a discussion.
The Branch laments the death, on July 26th, 1905, of its first President, Prof. Wilkins; and of Dean Maclure, one of its Vice-Presidents, on May 8th, 1905.

Canon Wilson has, on leaving Rochdale, resigned his office as Vice-President.

In the course of the year Mr. G. Norwood resigned his position of Joint Secretary, which has been filled by Mr. W. J. Goodrich, M.A.

In succession to the late Prof. Wilkins the Branch elected as its President the Rev. E. L. Hicks, M.A., Canon Residentiary of Manchester ; Hon. Fellow of C.C.C., Oxon. ; Corresponding Member of the German Imperial Archæological Institute; author of "A Manual of Greek Historical Inscriptions," etc.

The Branch now numbers 84 regular members and 78 associate members.

## EXCAVATION FUND.

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## LIST OF MEMBERS OF THE BRANCH, 1905.

A = Associate Member.

* $=$ has resigned membership.
A. Amery, Miss, 30 Upper Hulton Street, Moss Side, Manchester.

Anderson, W. B., Esq., M.A., 23 Burlington Street, Withington, Manchester.
Ashworth, Miss H. A., B.A., Wellington Road, Fallowfield, Manchester.

Baines, Miss K. M., M.A., 68 Balls Road, Birkenhead.
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A. Bowtell, T. H., 157 Lloyd Street, Greenheys, Manchester
A. Broadbent, Miss E. L., M.A., Victoria Church Hostel, 266 Oxford Road, Manchester.
A. Broadfield, E. J., B.A., Roseleigh, Prestwich.
A. Brown, Russell, 9 The Grove, Whitworth Park, Manchester.
A. Brown, T., Dunston, Darley Avenue, W. Didsbury, Manchester.
A. Brown, Mrs., Dunston, Darley Avenue, W. Didsbury, Manchester.
A. Bruton, F. A., M.A., The Grammar School, Manchester, or 2 Clyde Road, West Didsbury, Manchester.
A. Buller, Rev. F. G., Birch Rectory, Danes Road, Rusholme, Manchester.
A. Bullough, Miss F., B.A., Thornleigh, Claremont Road, Irlams o'th' Height, Manchester.
A. Burnett, Miss M. E., 266 Oxford Road, Manchester.

Burstall, Miss S. A., M.A., The High School for Girls, Dover Street, Manchester.
A. Campion, Rev. C. T., 176 Hulton Street, Salford.
A. Capper, Prof. S. H., M.A., The University, Manchester.
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Carter, Rev. T. N., M.A., The Grammar School, Manchester.
A. Clay, Miss E. M., 39 Clarendon Road, Whalley Range, Manchester.

Clarke, Miss E. M., Broughton and Crumpsall High School, Bury New Road. Higher Broughton, Manchester.

Coignou, Miss C., M.A., 60 Cecil Street, Manchester.
Conway, Professor R. S., Litt.D., The University, Manchester.
Conway, Mrs. R. S., M.A., 123 Lapwing Lane, Didsbury.
Crompton, Miss A., M.A., Art Museum and University Settlement, Ancoats, Manchester.
A Crossley, Miss, Brookfield, Failsworth, Manchester.
Crozier, W.P., Guardian Office, 3 Cross Street, Manchester.
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Davis, Rev. H., B.A., Stonyhurst College, near Blackburn.
Dawkins, Prof. W. Boyd, F.R.S., D.Sc., The University, Manchester, or Fallowfield House, Fallowfield.
A. Dendy, Miss S. L., The High School, Dover Street, Manchester.

Donner, Edward B.A., Oak Mount, Oak Drive, Fallowfield, Manchester.
A. Dyson, Miss L., 24 Bower Lane, Hollinwood, Manchester.

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A. Eckhard, Mrs., Broome House, Didsbury, Manchester.
A. *Elliott, Miss E. M., B.A., The High School, Dover Street, Manchester.
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A. Evans, Mrs. H., 9 Clarendon Road, Whalley Range, Manchester.

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A. Fletcher, Miss Harriet M., B.A., 12 Pembroke Grove, Manchester.
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A. Fuller, A. W., M.A., B.Sc., South Manchester School, Central Road, W. Didsbury, Manchester.
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A. Greenwood, Miss A. D., Harmer Hill, Shrewsbury.

Gridley, Miss, Broughton and Crumpsall High School, Bury New Road, Manchester.
Guppy, Henry, M.A., The John Rylands Library, Deansgate, Manchester.

## APPENDIX

Hall, Joseph, M.A., D.Litt., The Hulme Grammar School, Manchester.
Hallowell, G. N., Ladyshawe House, New Mills.
A. Hamill, Dr., Clowes House, Higher Broughton, Manchester.

A Hamill, Mrs., Clowes House, Higher Broughton, Manchester.
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Herford, Miss C., Ladybarn House, Mauldeth Road, Withington, Manchester.
A. Herford, Rev. W. Llewellyn, St. Matthew's Rectory, Ardwick, Manchester.
A. Herford, Mrs. P., 27 Heaton Road, Withington, Manchester.
A. Hewitt, Miss S. Gertrude, 167 High Street, C.-on-M., Manchester.
A. Hewlett, E. G. W., 87 Princess Road, Moss Side, Manchester.

Hicks, Rev. Canon E. L., M.A., Encombe Place, Salford, President.
Higgins, Rev. P., St. Bedes College, Manchester, S.W.
A. Hilton, Rev. George, Winton, Manchester.

Hogg, Prof. Hope W., M.A., The University, Manchester, or 30 Brook Road, Fallowfield, Manchester.
Hopkinson, A., LL.D., K.C., Vice-Chancellor of the University of Manchester, Fairfield, Victoria Park, Manchester.
Hopkinson, J. H., M.A., Hulme Hall, Plymouth Grove, Manchester.
Horsfall, A., 53 Park View, Queens Park, Manchester. Hughes, Charles, 35 Belfield Road, Didsbury, Manchester.

Johnson, Miss L. A., Woodleigh, Altrincham, Cheshire.
Jones, H. L., Willaston School, Nantwich.

Kelly, Rev. Canon, Cathedral Library, Manchester.
Kelsey, C. E., M.A., Hulme Grammar School, Manchester.
Knott, O., 7 Chapel Walks, Manchester.
Kidd, E. S., B.A., 36 Bradford Street, Bolton.
A. Lakin, Herbert, 6 Windsor Road, Clayton Bridge.

Lamb, Prof. Horace, D.Sc., F.R.S., The University, Manchester.
A. Lang, Miss Edith, Culcheth Hall, Bowdon, Cheshire.
A. Langley, J., Summer Street, Glossop.
A. Leach, H. M., 6 Parkwood, Victoria Park, Manchester.
A. Leach, Miss F., 6 Parkwood, Victoria Park, Manchester.
A. Lee, Miss H., M.A., 29 Clarendon Road, Upper Brook Street, Manchester.
Lewis, Guy, M.A., Willaston School, Nantwich.

Limebeer, Miss D., M.A., High School, Dover Street, Manchester, or 20 Central Road, West Didsbury, Manchester.
Lindsay, A. D., M.A., Dunwood, Withington, Manchester.
Linzell, Miss E. M., High School for Girls, Bolton.
Love, Miss Jessie, 8 Halliwell Street, Cheetham, Manchester.
A. Lowe, Miss Mary, 38 Gravel Lane, Salford.
A. Macdonald, Miss A., B.A., 3 Birch Grove, Rusholme, Manchester.
A. Macdonald, George, Springfield, Heaton Moor, Stockport.
+Maclure, The (late) Very Rev. Dean, The Deanery, Bury New Road, Higher Broughton, Manchester.
Manchester, The Rt. Rev. the Bishop of, The Palace, Higher Broughton, Manchester.
Marrett, Miss J. M., Withington Girls' School, Wellington Road. Fallowfield, Manchester.
A. Matthey, Miss H., c/o R. D. Darbishire, Esq., Victoria Park, Manchester.
A. Marrs, F. W., The Grammar School, Stockport.

May, Thomas, Lonmay House, Lower Walton, Warrington.
Meredith, H., B.A., The University, Manchester.
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Montague, C. E., Oakfield, Oak Drive, Fallowfield, Manchester.
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A. Newcombe, Miss Edith, 29 Clarendon Road, C.-on-M., Manchester.

Norwood, G., B.A., The University, Manchester, or 12 Peel Moat Road, Heaton Chapel, near Stockport.

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Peake, Prof. A. S., The University, Manchester, or 16 Wellington Road, Whalley Range, Manchester.
A. Powlson, S. S., 208 Chapel Street, Salford.
A. Quaas, Miss A., 12 Shaw Street, Glossop.
A. Rees, Miss, Ladybarn House, Mauldeth Road, Withington, Manchester.
A. Reid, Miss Mary, 15 Union Street, Stretford, Manchester.

## APPENDIX

*Richards, Miss S. E. S., M.A., 162 Coppice Street, Oldham.
A. Robinson, Miss Ethel, 288 Dickenson Road, Rusholme, Manchester.

Roby, A. G., High Bank, Didsbury, Manchester.
Roby, Mrs., High Bank, Didsbury, Manchester.
A. *Rossiter, Miss, Queen's School, Chester.
A. Ryan, Patrick, Red Row, Mellor, Marple Bridge.

Sadler, Prof. M., M.A., The University, Manchester, or Weybridge, Surrey.
Salford, The Rt. Rev. the Bishop of, St. Bede's College, Manchester, S.W.
Scott, John, M.A., M.D., 249 Upper Brook Street, Manchester.
Sharpe, Rev. D. E., B.A., Didsbury College, Manchester.
Sidebotham, H., 365 Bury New Road, Higher Broughton, Man. chester.
Simon, Mrs. Henry, Lawnhurst, Didsbury, Manchester.
Sinclair, Sir J. W., M.D., The University, Manchester.
Spencer, C.E.G., 47 Carlton Street, Moss Side, Manchester.
A. *Stephen, Miss H. M., Ashbourne House, Victoria Park.

Strachan, Prof. J., LL.D., The University, Manchester, or Thorn. dale, Hilton Park, Prestwich.
A. Sutcliffe, W. H., F.G.S., Shore Mills, Littleborough.

Sutton, E., B.A., Broughton House, Manchester.
A. Sweaney, Miss A., 56 Lansdowne Road, Crumpsall, Manchester.
A. Tait, Prof. J., M.A., The University, Manchester.

Taplen, Miss M., Monsall House, Newton Heath.
Taylor, Rev. Arthur F., M.A., 1 Claremont Grove, Didsbury, Manchester.
Thompson, Ald. Joseph, LL.D., J.P., Riverside, Wilmslow, Cheshire.
A. Walmsley, Oswald, Northwood, Prestwich Park.

Warburton, F., Falcon Villas, Halliwell Lane, Cheetham Hill, Manchester.
Warman, A. S., B.A., The Grammar School, Manchester, or Reservoir Cottage, Disley.
Waterlow, Sydney, M.A., The University, Manchester, or 17 Wilmslow Road, Withington, Manchester.
A. Whitaker, J., 5 Clifton Road, C.-cum-H., Manchester.
A. Whitehead, Thomas, 186 Clowes Street, Broughton, Manchester.
†Wilkins (the late), Prof. A. S., LL.D., Litt. D., Wood Lea, Victoria Park, Manchester.

Williams, C. A., M.A., 196 Coppice Street, Oldham.
Williamson, Harold, M.A., The Grammar School, Manchester.
A. Williamson, Mrs. H., Frieden Cottage, Park Road, Pendleton.
A. Willis, Miss Edith, M.A., The High School for Girls, Dover Street, Manchester.
*Wilson, The Rev. Canon, D.D., Worcester.
Wood, T., Thoresby, Ballbrooke Avenue, Didsbury, Manchester.
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A. Wood, Miss, Pupil Teachers' Centre, Manchester.

Wood, Mrs. Anne Kershaw, Moorfield, Glossop.
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A. *Wroe, Miss, M.A., 29 Clarendon Road, Upper Brook Street, Manchester.

The following members have joined the Branch during 1906.
A. Clark, Miss A. M., M.A., The High School, Dover Street, Manchester.
Goodrich, W. J., M.A., The University, Manchester, or 11 Hesketh Avenue, West Didsbury, Manchester.
Gregory, Miss A. M., Hulme Grammar School, Oldham.
A. Harvey, Miss Ethel, 10 St. John's Road, Heaton Mersey, Manchester.
W. R. Huggard, Esq., M.D., F.R.C.P., His Britannic Majesty's Consul, Davos Platz, Switzerland.
Llewellyn, Miss G., The University, Manchester.
A. Oakeley, Miss H., M.A., Ashburne House, Victoria Park, Man. chester.
Robertson, Miss A., The High School, Dover Street, Manchester.
A. Walmsley, Mrs., Northwood, Prestwich Park.

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Conway, Robert Seymour (ed. Melandra Castle

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[^0]:    * To show the arrangement of the tiles I have been glad to borrow the scheme used by Mr. Ward, Gellygaer, p. 28.

[^1]:    1. Professor designate of Physics in the East London College.
[^2]:    5. Tac. Ann. xii., 31 (cf. Bury. Roman Empire, ch. xvi., note B) :
[^3]:    5. Mommsen, C.I.L., iii., pp. 902 ff .
    6. It is perhaps worth while to summarize the contents of the "diplomata" for the purpose of comparison. Referring to the four chronologically as $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D , we have the following result.
[^4]:    7. The dates here given are based upon an examination of the coins by the British Museum Authorities (see p. 96). [Dr. Grueber gave me orally his own rough general estimate of the average life of a Roman coin (outside hoards) as 15 years.-Ed.]
    8. Supra, p. 115.
    9. Sen., Apoloc. Claud., 12, 13-17 ; [quoted p. 138, inf.].
[^5]:    10. Tac. Agric, 17.
    11. Supra, p. 118.
    12. Juv. Sat. xiv. 196 , quoted p. 132, inf.
    13. Cf. "Note on the Inscribed Tablet at Brough." By F. Haverfield, M.A. (Derbyshire Archæological and Nat. Hist. Society's Journal, 1904).
