## NOTES ON VESTIGES OF ROMAN WORKINGS FOR COPPER IN ANGLESEY.

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Our knowledge as to the ancient working for copper at Amlwch, Parys Mountain, is so slight, that we can affirm nothing more than that ancient workings are or were to be found, with large boulders from the sea-shore, bearing traces of having been used as pounding stones. Some of these are notched or grooved round the centre, for the purpose of fastening handles to them, bound probably with twigs or sinews. Charcoal also was found in abundance, which marks the way in which the mineral was detached, as described by Tacitus. The early workers first heated the rock, then cast water upon it, after which they easily detached the ore with stone hammers.

That copper was exported from Anglesey previously to the landing of the Romans, is hardly to be doubted. That the mineral wealth of Anglesey, in a great measure, tempted the Romans to establish themselves in Mona, may indeed be argued with a fair probability of truth. Positive evidence that the Parys mines had been actually worked by the Romans was, however, wanting, until recent discoveries occurred. It is true that a cake of copper had been found with a Roman inscription,—socio Romæ,—but heretofore it was uncertain whether, as repeatedly stated, it was discovered at Caerhun, near Conway, or as other authorities lead us to conclude, at Aberfraw.

In 1871, however, a man discovered four cakes of copper on the north-west side of Parys Mountain, and Mr. T. F. Evans, the intelligent lessee of the Marquis of Anglesey's portion of the Mona mine, got possession of them. They are all of the same circular shape, each cake weighing about 29 lb. 6 oz., measuring 12 in. in diameter at the top, and 2 in. in thickness. One of these cakes, in my possession, which was given to me by Mr. Evans, has, on a

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circular stamp, the letters—IVLS—and, as if to make up a certain fixed weight, there are three dabs of copper, one over the other, each having been stamped with the same letters. May we not conjecture that this was a tribute cake of a prescribed weight?

The copper is pure and soft; not having undergone the process of refining, as used at present. The ancients had not the same powers of the furnace and blast that are now

employed.

The earliest discovery on record of a massa, or cake, of copper in Anglesey, occurred about 1640. This cake, now at the seat of Lord Mostyn, at Mostyn, Flintshire, was first noticed by the learned Edward Lhwyd, keeper of the Ashmolean Museum in Oxford, in his additions relating to Wales, given in the edition of Camden's "Britannia," by

Bishop Gibson.

Pennant, in the course of his tour in 1770, visited Mostyn, and he mentions, amongst the valuable antiquities there brought together by the late Sir Thomas Mostyn,2 the cake of copper stated to have been found at Caer-hen; he notices it again in his "Observations on Mining in Roman times."3 Pennant describes the mass as found at Caer-hen, the ancient Conovium, and probably smelted from one of the Snowdon Hills, where of late years much had been got. It is in shape, he says, of a cake of bees-wax; on the upper part is a deep concave impression with the words ROME; across, there is impressed obliquely, in lesser letters, NATSOL. I cannot explain it, Pennant observes, unless NAT stands for natio—the people who paid this species of tribute, and sol for solvit; that being the stamp-master's mark. These cakes might be bought up by a merchant resident in Britain, and consigned to his partner at Rome.4 The weight is

<sup>&</sup>lt;sup>1</sup> The first edition of Bishop Gibson's "Camden" was published in 1695; the second, most frequently cited, appeared in 1722, in two vols. folio. See vol. ii. p. 802, and the engraving by Kip, p. 831, where the cake is very inaccurately figured. See also the edition by Gough, vol. ii. p. 588.

rol. ii. p. 588.

<sup>2</sup> Pennant, "Tour in Wales," vol. i. pp. 11, 63, pl. ix. The place where it was found, namely, at Aberfraw, and not, as affirmed by Pennant, at Caer-hen, appears by a letter from Lhwyd, in 1693, to Richard Mostyn, at Pembedw, Flintshire,

on the authority of Mr. Davies of Newburgh, Anglesey. It came into the hands of Owen Wood of Rhosmon, and was presented by him to Archbishop Williams, by whom it was given to Lady Mostyn. See also Angharad Llwd's Hist. of Mona, p. 181, where the erroneous account of the find having been at Conovium is corrected.

<sup>&</sup>lt;sup>3</sup> Ibid, p. 63.

<sup>&</sup>lt;sup>4</sup> See also the remarks by Dr. M'Caul, of Toronto, one of our most learned authorities in Roman epigraphy. Britanno-Roman inscription, pp. 228, 279.

42 lb., diameter of upper part 11 in., thickness in the middle  $2\frac{3}{4}$  in. Pennant accompanies this account with a more accurate representation of the *massa*, and a profile to show the thickness.<sup>5</sup> In his account of copper mines on Parys Mountain, Pennant observes that "it is certain that the Romans were the undertakers of these mines," and it is very probable that they sent the ore to Caer-hen to be smelted, the place where "the famous cake of copper" was discovered. "They might likewise have had a smelting hearth in this island (Anglesea), for a round cake of copper was discovered at Llanvaethlle, a few miles from this place (Parys Mountain). Its weight was 50 lbs., and it had on it a mark resembling an L." Lewis, Topog. Dict., gives the weight as 54 lbs., and says that it was found in 1757. Charcoal and scoria of copper are often ploughed up.

The second cake was found about 1840, at Cery Ddwi, a farm of Sir R. Bulkeley's, in Llangwyllog, Anglesey. It is circular in form, and weighs 35 lb.  $15\frac{1}{2}$  oz. it measures 13 in. in diameter, 2 in. in thickness; it has no mark stamped upon it. Sir R. Bulkeley gave it to me. The third was found in 1827, at a farm called Cefn in Llanbeulan, Anglesey; it weighs 30 lb. 8 oz., the diameter is  $12\frac{1}{4}$  in., the thickness 2 in. This cake has a dab of copper on the top, as if to make up some deficiency in the weight; it has no inscription or mark upon it. This object belongs to Mr. Turner, of Plas Brereton, Caernarvon. There is a tumulus called Byn

Gola near the spot at which it was found.

In 1869, three cakes of copper were found at Castellor by a labourer; one was broken up and sold; the Rev. W. Wynn Williams and the Rev. Hugh Prichard obtained the other two. They are figured in the Archæologia Cambrensis. One of these cakes weighs 49 lb., the other 34 lb. The first measures in diameter at the top, 13 in., at the bottom 10 in., and 2 in. to  $2\frac{1}{2}$  in. in thickness. The second measures in diameter 11 in. at the top, 10 in. at the bottom, and 2 in. to  $2\frac{1}{8}$  in. in thickness.

There is mention of a cake being found at Llanfaethlu, and of another at Llenfairynghormy, which was unfortunately

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<sup>&</sup>lt;sup>5</sup> Pl. ix. at p. 63—this may have been drawn by Moses Griffith, a draughtsman mentioned by Pennant as his "worthy sevent".

<sup>Vol. ii. p. 165.
Arch. Camb. Fourth series, vol. ii.</sup> 

smelted at Amlwch. It was stated that it had the letter—L—marked upon it. Of these two massæ no traces can now be found.

It does not appear that the Romans worked to any depth; the process used by them was mostly surface-working, as the ore thus obtained is usually more carbonaceous, and easier to smelt, than the deep-seated ores, which require all the present appliances of art and skill to reduce them to metal.

## A LIST OF COPPER CAKES FOUND IN ANGLESEY.

1. Found, as reported by Pennant, at Caerhen in Caernarvonshire, but since that time the statement by Lhwyd, in Camden's Britannia, edit. by Bishop Gibson, and the notices by Miss Angharad Llwyd have shown that it was found near Aberfraw, in Anglesey; it is now at Mostyn, in the possession of Lord Mostyn; bears a Roman inscription, "Socio Romæ;" weighs 42 lb.; diameter at the top, 11 in.;  $2\frac{3}{4}$  in. thick.

2. Found about 1850, at Cerig Ddewi, Llangwyllog Parish, Anglesey—a farm of Sir R. Bulkeley, Bart., and now in my possession, having been presented to me by Sir R. Bulkeley; weight 35 lb. 15½ oz.; diameter,

13 in.; 2 in. thick; saucer shaped; no mark upon it.

3. In the possession of Thos. Turner, Esq., Caernarvon; found at a farm called Cefn, in Llanbenter, Anglesey, near Aberfraw; weighs 30 lb. 8 oz.; has a bunch of copper on the upper side; measures  $12\frac{1}{4}$  in. diameter; 2 in. thick; saucer shaped; no mark; found in 1827.

4. Three cakes, found at Castellor in 1869 by a labourer. One was broken up; two saved; one in the possession of the Rev. Hugh Prichard, of Dinan; the other the Rev. W. Wynn Williams, Menaifron, described in Cambr. Arch., 4th series, vol. i., p. 67. One cake, 13 in. diameter at top, 10 in. bottom; 2 in. thick; weight, 49 lb. The other, 11 in. diameter at top, 10 in. at the bottom; thickness, average 2 in.; weight, 34 lb. This find occurred in Llanburlog Parish.

5. Three cakes, found at Bryndu, near Amlwch, weight 29 lb. 6 oz.; 12 in. diameter; 2 in. thick. Two of them had letters—I V L S—in a circular die; the other, none. The bunch of metal on the top, supposed to be from the slow flow of metal from the furnace, not to make up weight, as had been supposed; once cold, the freshly molten metal would not

adhere.