> IX.-AMBOGLANNA : Communicated to the Society of Antiquaries, Newcastle-upon-Tyne, Nov. 6, 1850. By H. Glasford Potter, F.L.S., F.G.S., Cor. Mem. Royal Academy, Turin, etc.

BeLieving that an account of some excavations, recently made at Birdoswald, would be interesting to the members of this Society, I have drawn up a few notes, made at the time, and now proceed to lay them before the meeting.

It may be proper to state, that the excavations were undertaken in September, 1850, by Mr. H. Norman, the proprietor of the camp; Mr. W. S. Potter, of London; and the writer of this paper.

Birdoswald is the Amboglanna of the Romans, and the twelfth city or station on the Wall. It is between five and six acres in extent; and is certainly one of the most perfect Roman camps in the North of England. ${ }^{\text {a }}$

More inscriptions have been found at this station than at any other on the Wall. From these it appears, according to Horsley (Brit. Rom. 25\%), that about the middle of the third century, the Cohors Prima Aliana

[^0]Dacorum was stationed here, where it continued till the beginning of the fourth.

Horsley, in his Britannia Romana, published in 1732 ( $p$. 152), thus describes Birdoswald :-"The fort of Burdoswald stands upon a large plain, at the head of a steep descent towards the river, having the outbuildings chiefly on the south-east. Severus' Wall . . . forms the north rampart of this station; and Hadrian's Vallum, which is lost near the fort, must have fallen in with the southern. The foundations of the houses, within this fort, are very visible. I measured the thickness of their walls, and found them to be about 28 inches, and the distance, or breadth of the passage, between the rows of houses or barracks, to be no more than 32 inches. The ramparts about the fort are in the third degree [by which he means that the original stones remain on the spot, though not in their regular order], and the ditch in the second, except on the north side, where it is not so much. [By the second degree, Horsley means that the rubbish is high and distinct, though covered with earth, or grown over with grass.] The foundation of the western rampart is distinct, and measures about five feet. There are regular entries visible on the north and south sides, opposite to one another, as also faint appearances of entries on the east and west. On the northern part of the station, there seem to be the remains of a temple. ${ }^{\text {b }}$ The turrets, in the south rampart, on each side of the gate, are still very visible; and over against the entry are the ruins of the prætorium, on which a house or two stand at present."

Since Horsley's time, the ditch has been cleared in various places, and more especially on the south side of the camp ; but no traces whatever a gate can now be found ; and I am therefore inclined to believe the: Horsley must be mistaken on this point, though he speaks very decidediy. He observes, there are "faint appearances of entries on the east and west;" and I shall now proceed to give an account of our excavations it

[^1]these entries. I shall begin with the west gate-the Porta Principalis Sinistra.

On removing a considerable quantity of fine soil, a rough wall presented itself, and was found to occupy the entire gateway. This wall differed, in structure, from the camp wall on each side of the gate, the stones being, for the most part, uncut, and the mortar of the coarsest kind, being a mixture of lime, pebbles, and very coarse sand. It was evident, that this wall had been erected long after the gateway had been built, and that it belonged to a ruder
 age. Having removed the whole of this wall, and cleared out the lower part of the gateway, we found the sill-stones to be in perfect preservation.

There are two grooves in the still-stones, one about four inches deep, and the other shallower. These grooves must have been produced by a carriage or carriages having wheels about three inches broad, and about four feet apart. The deeper groove bears evident marks of having been worn by a wheel of the above breadth.

We know that the Romans employed the currus or chariot, the carpentum or cart, and the cisium or gig. We are told that "carpenta or covered carts were much employed by our ancestors the Britons, and by the Gauls, Cimbri, Allobroges, and other northern nations. These, together with the carts of the more common form, including baggage-waggons, appear to have been comprehended under the term carri or carra." " The cisium, a light open gig, was kept for hire, at the stations along the great roads, and the drivers, or cisiarii were subject to penalties for careless or dangerous driving." ${ }^{\text {" }}$

Immediately within or behind the pillars or antepagmenta of the gate,

[^2]are two holes or sockets in the stone, in which the pivots or cardines of the gates have moved. I very carefully examined the socket on the south side, and found the bottom formed an inclined plane, with a deep groove at its lower part, which was towards the outside of the gate. The effect of this arrangement would be, that the gate, when opened, would rise a little from the ground, and when not held open, would shut by its own gravity. The gate would fall against a part of the threshold which rises two or three inches above the bottom of the gate, when closed. I have not been able to find any description of a similar formation of hinge in any ancient author, and have therefore come to the conclusion that this is something novel. A patent, for a similar hinge, was taken out a few years ago; but I cannot find that any one was aware that the Romans had a like construction.

|  |  |  |  | Ft. In. |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| Breadth of gateway between the pillars, | $\ldots$ | $\ldots$ | $\ldots$ | 11 | 2 |  |  |
| Breadth between the side walls | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 13 | 6 |  |
| Breadth of pillars the stones, varying in thickness, | $\ldots$ | $\ldots$ | 2 | 0 |  |  |  |
| Breadth of the camp wall, including pillars, | $\ldots$ | $\ldots$ | $\ldots$ | 5 | 6 |  |  |
| Height of south pillar, | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 4 | 11 |
| Height of north pillar, | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 4 | 2 |
| Height of north side wall | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 5 | 5 |
| Height of south side wall | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 5 | 9 |

A hundred and thirty-six paces from the west gate, and at a point to the south of east, is the east gate, or Porta Principalis Dextra, of the camp. Between these gates would be the Via Principalis, which was, in some camps, one hundred feet wide. The length, from north to south, of the camp at Birdoswald, is about one-third greater than

the breadth from east to west, which, according to Vegetius, who lived in the reign of the emperor Valentinian, A.D. 385, was the most approved form.

The eastern gateway has been formed of mnch larger stones than that on the west ; and the accumulation of earth, around it, was much greater than at its opposite side of the camp.

Two trees grow very near it, and their roots, together with the weight of earth on the inside, have forced the whole wall much out of the perpendicular. This gateway was also walled up; but in this case the stones which blocked it up, were much larger than at the west side, and some of them appeared to have been taken from the upper part of the pillars of the gateway. From the bad and coarse workmanship of this wall, it seemed to have been constructed in a hurry, and with whatever materials that were at hand.

On examining the sill-stones, we find similar grooves to those in the west gateway.

| Breadth of gateway between the pillars, |  |  | $\ldots$ | ... | $\cdots$ | Ft. In |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 10 |  |  | 3 |
| Breadth between the side | alls, | ... |  | $\ldots$ | ... | $\cdots$ | 12 | 10 |
| Breadth of pillars, |  | $\ldots$ | $\ldots$ | $\ldots$ | ... |  | 10 |
| Breadth of walls, includin | pillars, | ... | $\cdots$ | $\cdots$ | $\cdots$ | 5 | 0 |
| Height of north pillar | ... | ... | $\cdots$ | $\cdots$ | $\ldots$ | 6 | 0 |
| Height of south pillar, | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ | 5 | 8 |
| Height of north side wall, | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\ldots$ | 8 | 0 |
| Height of south side wall, | $\ldots$ | $\ldots$ | $\cdots$ | ... | ... | 8 | 4 |

The Roman road may be distinctly traced at a short distance to the south-east of this gate, near a spring of water ; a cut has been made in the bank for the road.

A few years ago, a hypocaust was discovered within the camp, and not far from the east gate. As it was supposed to belong to a bath, the place has been designated ' the baths.'

Wishing to ascertain whether or not this was a bath, I proceeded to uncover the foundations in the immediate vicinity; but I am sorry to say, that my stay at Gilsland, was too limited to allow me time to carry my researches far enough. The excavations I made, laid bare a room adjoin-
ing the one with the hypocaust, and having a door-way leading into it. Both the chambers have the same kiad of floor, which is formed of flags laid on pilæ, or pillars formed of rough stones, and covered above with a hard composition formed of lime, and, perhaps, powdered shells. It has the same appearance as the floors of some old farm houses, and is of a red colour on the upper surface. The length of the room, I uncovered was 10 feet, and the breadth 8 feet 9 inches. That with the hypocaust was 10 feet, by 9 feet 6 inches. The walls of these rooms have been covered with a red-coloured stucco.


Behind the hypocaust, there is a common room, or perhaps a yard, measuring 9 feet 8 inches, by 9 feet 6 inches; it is flagged, but there is no cement upon the flags. It is entered from the west, and does not communicate with the hypocaust.

While excavating in the first mentioned chamber, we found a stone statue, without the head and fore-arms. It appears to represent an emperor, seated on a chair. The height of the statue is 34 inches, including the seat or throne; breadth at shoulders, 13 inches; length from feet to neck, 26 inches. The drapery is beautifully cut, and has evidently been sculptured by a master-hand. ${ }^{\text {d }}$

Not far from this statue, we found a broken water-trough, which had been used as a whetstone. The trough is about a foot square, and a few inches deep.
a The head represented in the cut, and supposed to belong to the statue, was found by Mr . Nicholson, a few years ago, while clearing the ground near the hypocaust. Mr. Roach Smith, in the Gentleman's Magazine, for November, 1851, has given an incorrect account of the discoverer of this head: he calls the statue a Dea Mater.

Further excavations may, perhaps, make known to us whether the chambers have belonged to a bath, a dwelling-house, or a guard-room for the gate. That hypocausts were used for heating houses, as well as baths, we know ; we have the authority of Seneca for this, who states that ${ }^{\circ}$ the heating of domestic apartments, by the hypocaust, came into fashion within his memory.

## H. GLASFORD POTTER.

X. - AMBOGLANNA: Communicated to the Society of Antiquaries, Newcastle-upon-Tyne, Nov, 5, 1851. By H. Glasford Potter, F.L.S., F.G.S., Cor. Mem. Royal Academy, Turin, etc.

IN a paper, read to this Society, in November, 1850, I stated that "no traces whatever of a gate could be found on the south side of the camp, at Birdoswald ; and that I inclined to believe, Horsley's description of a gate, with turrets on each side, was erroneous."

Being anxious, however, to ascertain whether or not any traces of a gateway could be found below the surface of the ground, I commenced an excavation, midway between the east and west corners of the south rampart. At first, nothing indicating the site of a gate was met with; but, at the depth of three feet, I came upon a large stone, which appeared to belong to the pillar of a gate. This encouraged me to persevere; and, in the end, I laid bare the remains of a fine double gateway.

In order that the Society may form some idea of the quantity of rubbish over this gateway, I may mention, that, in addition to my brother, Mr. W. S. Potter, of London, who assisted me in these excavations, I had


[^0]:    ${ }^{\text {a }}$ It is said that the name Amboglanna is derived from the Welsh am, about or around, and glen, signifying around or about the glen. I confess, to me, this derivation is not satisfactory, inasmuch as the camp is not around or about the glen, but the glen is about the camp. It is more probable that it comes from the Latin word ambo, both, and the British glan, the brink or bank of a river. This exactly describes the position of the camp, which stands upon a tongue of land having the steep banks of the river on each side.

[^1]:    ${ }^{\text {b }}$ A defaced altar, erected perhaps in honour of some standard-bearer, lies half-hid in ie grass where this temple may have stood. The only letters, upon the altar, are SIGNI, wl ch may be the commencement of the word Signifero, To the standard-bearer.

[^2]:    c Smith's Dict. of Greek and Roman Antiquities-verba Carpentum et Cisium.

