
XII. An Account of some Antiquities presented to the Society by William Chapman, Esq. Civil Engineer, communicated by him to the Secretaries. See Plate III.

Newcastle, 24th December, 1823.
Dear Sir,
I concerve the various Relicks I send you can no where be so appropriately placed as with the Antiquarian Society of Newcastle, who, I hope, will deem some of them to be worthy of their acceptance.

I remain, dear Sir, Your's truly,
John Adamson, Esq.
WILLIAM CHAPMAN.

Newcastle, December 18, 1823.
Dear Sirs,
As the course of the Canal from Carlisle to the Solway Frith, which was lately executed under my chief direction, crossed the line of the Roman wall several times, I had hoped to have obtained some remains of antiquity worthy of being presented to the Antiquarian Society of Newcastle; having desired the different contractors to inform their men that I would give the full value of whatever they found. It has, however, so happened, that they either found nothing of any material value, or sought for such purchasers as were at hand ; therefore the only antiquities that came to my possession, are enumerated in the enclosed letter to me, from one of the contractors for the work, and are now.
sent, for the acceptance of the Society, in the same package they were forwarded to me.*

The church spoken of in the letter, is that of Burgh, the ancient Axelodunum, on the south side of Severus's wall; and the bog which is mentioned, is close to the entrance of Burgh marsh, the surface of which is below the level of high tides.

The rude figure upon the stone, of 20 inches in length by 8 inches in breadth, is apparently a figure of Mercury in one of his characters, on which I shall make no comment, as it will now be correctly ascertained; the floor of hard cement, near to which it was found, can at present only afford basis for conjecture.

The coin appears to bear the image of Faustina, but is so eroded as not to be easily definable.

The metal pot seems to be of comparatively recent origin ; and on the small earthen vessel, I have formed no decided opinion.

There were also found, near the same place, parts of red earthen pipes, which may indicate the vicinity of a Roman bath: but what I deem to be more worthy of observation than any of the preceeding, is a small specimen of oak wood, $\dagger$ from a subterraneous forest, which was cut through in the excavation of the canal, near the banks of Solway Firth, between the stations of Gabrosentum and 'Tunnocelum, viz. about half a mile north west of the village of Glasson, and extending into Kirklands. The trees were all prostrate, and they had fallen, with

[^0]little deviation, "in a northerly" direction, or a little eastward of it.Some short trunks, of 2 or 3 feet in height, were in the position of their natural growth; but although the trees, with the exception of their alburnüm'and all the branches, were perfectly sound, yet the extremity of the trunks, whether fallen or standing, were so rugged, that it was not discoverable whether the trees had been cut down, or had fallen by a violent storm. $:$ The level upon which the trunks lay, was a little below that of high tides; and from 8 to 10 feet below the surface of the ground:they were embedded in; which, excepting the superficial soil; is a soft blue clay, having the appearance of marine alluvion; I brought a specimen of it to Newcastle, with a view to its being analysed; but, by some non-attention, it has been lost; as also has a paper of efflorescent salt, which had formed upon the vertical face of a pillar of this earth in the. middle of the canal; therefore I can only say, that the taste and appearance of the salt was ammoniacal. Although the precise period at which this forest fell is not ascertainable, there is a positive proof that-it must have been long prior to the building of the wall of Severus, because the foundations of that wall passed obliquely over it, and lay 3:or 4 feet above the level of the trees; all of which were of oak, and several of them above 4 feet in girt.

I have seen numerous trunks of oak trees, both in Ireland and this island, but all of them were embedded in peat bog; and their sap ves-sels-were uniformly decayed, so that the ligneous fibres were easily separable. On the contrary, you will see in the specimen I send you, which is superscribed with my name, that the wood appears as sound as if recently cut. It was saturated with moisture, and rather expanded, but not more than if newly cut timber had been exposed to moisture; in fine, it was in so perfect a state, that I authorised the contractor for some jetties protecting the outlet of the canal into Solway Frith, to use it under few limitations in the construction of those jetties, in common with other oak timber procured for the purpose.

I have also seen, interspersed with short trunks in a standing direction, prostrate trees in beds of peat moss, on both shores of this island, as low, and even below the level of spring tide low water, which as the
level of the sea rises slowly from the fall of precipices, and from the constant protrusion of alluvial matter from the various rivers of the globe, it follows, that even with the aid of some not yet ascertained auxiliary cause, numerous centuries must have elapsed since those trees, upon the lower levels, were in a growing state; but in all those instances, whether ancient or more modern, the sap vessels were reduced to a black pulp, as already implied, and the concentric ligneous fibres only remaining, which were more or less divided by the vessels communicating through each concentric ligneous-ring, so as to be easily separable, in small slips, like whalebone. Therefore the preservation of the sap vessels in the trees under discussion, appears to be owing, either to the saline matter I have mentioned, or to the substance in which they were embedded being more impervious to air, and to the transmission of water. Amongst the causes tending to raise the level of the ocean, I have not, as has been some time done, enumerated the constant formation of coral islands, because the matter of which they are formed must previously have been in or under the ocean; nor can the islands formed by sub-marine volcanoes raise the level of the sea; but must, on the contrary, depress it, so far as the volcanic mass shall be raised above its level.

The accuracy of astronomical observations prevents me attributing it to a slight polar deviation, insufficient to bend the crust of this sphere, by any local change of centrifugal tendency.
Besides those relicks found near the western end of the wall of Severus, I also' send, for the Society's acceptance, two fragments of an elegant Roman vase, of fine red pottery, which was found at its oppositeextremity, close to or in the site of the station of Segedunum, which 'were presented by me many years since, to the late Hugh Hornby, Esq. Alderman of this Corporation, and returned to me by Miss Hornby, after her father's death. I shall not attempt to describe the various figures embossed upon them, because these fragments will now pass into the possession of those more competent to decipher them than,

Dear Sirs, 'your's faithfully, WILLIAM CHAPMAN.
$\left.\begin{array}{l}\text { Rev. John Hodgson, } \\ \text { John Adamson, Esq. }\end{array}\right\}$ Secretaries to the Antiquariàn Society, Nerwastle.

Explanation of, and Remarks on, the accompanying Plan.
The extensive agger, $y$ and the smaller one, $x$ are deserving of the examination of an Antiquary.

In Horsley's Britannia Romana, the wall of Severus is described to run on the north side of the highway over Burgh Marsh, which accords with the general plan, p. 158; but he also says, that the wall passed through Bowstead and Easton ; both of which lie on the south edge of the marsh, and the course of the wall is so marked by dotted lines on an enlarged plan.

In Gough's edition of Camden's Britannia, vol. iii. p. 228, the line of Severus' wall appeared to go straight over Burgh and Easton Marshes, which accords with the vallum and stony vestiges in the extensive agger at $y$. As the marshes in the time of the Romans must have been more overflowed by the high tides than they now are, which seldom occurs but in the equinoxes, it is not improbable that they might have had castella, or small stations, on the eminences of Bowstead and Easton, which project into the southern boundaries of those marshes, and if so, the ruins of these minor stations may account for the discordance of opinions. At $x$ the mounds are simply of earth; they appear to be military works; and as it is dubious whether Hadrian's Vallum extended so far west, it is not unlikely that they have been thrown up during the various contests antecedent to the union of these kingdoms.


[^0]:    * Sir,' $\quad$ Burgh, 26th August, 1823.

    I have sent you all the curiosities that I was able to obtain, and perhaps you will he desirous to know in what situation they were found. The stone was discovered with its face down, about 50 yards east of the church, about 8 feet below the surface, near to a large floor of hard cement, about 3 feet below the surface.
    The coin was found about 100 yards east of the church, at about the same depth from the surface as the stone.

    The small earthen pot was found among the peat moss beside the culvert.
    The small metal pot w̧as found very near the same place where the coin was found.
    Your obedient Servant, THOS. THOMPSON.
    $\dagger$ A sufficient quantity of this wood was afterwards obtained, through Mr. Chapman, to make a President's chair for the Society:

