

THE TRAFFIC BETWEEN DEVA AND THE COAST OF NORTH WALES, IN ROMAN TIMES.

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THIS subject is one which has not previously been under consideration. Of late years various facts have come to light, which seem to me to afford material for the discussion of this question.

The existence of a traffic, such as I have indicated, seems highly probable. Deva we must think of, not only as a walled castrum, a military fortress, but as the seat of government for the north-west provinces and North Wales, just as Eburacum (York) was for the more northern provinces of Britain. We may reasonably infer, that whatever the Romans thought proper to impose upon the surrounding tribes, in the shape of tribute or taxes, either in money or in kind, would be payable or deliverable by the tribes at Deva. Here we have at once the commencement of what might in time develop into a regular trade route, even supposing that trade had not already begun to gravitate towards that place. It is worth notice that this traffic, initiated in Roman times, is still in active operation in our day. In the one article of lead there are brought into Chester by water, along the route followed by the Romans, many hundreds of tons annually, the produce of the lead mines of North Wales.

We will proceed now to examine what traces we have of this ancient traffic. The first question we have to ask is, what were the facilities for water traffic then existing? We must regard the Roodeye as the port of Chester in the past. Here we have something to unlearn. When Deva was in existence, the greater part of the Roodeye was covered with water, having deep water in front of and up to the present Watergate. The evidence for this we have in the discoveries, made in June last on the site of the gas works. In an excavation made to receive a gas-holder, at the depth of twenty-three feet, there was found ordinary river gravel charged with fragments of Roman pottery and bones of living animals. The age of this material is placed beyond doubt, by the finding among it a pig of lead, bearing an inscription corresponding to the year 74 A.D. From the gas works, we proceed to the open space in front of the Watergate. Here in 1874, in the excavation for the sewer, the same river gravel was met with, containing a profusion of Roman pottery, much of it, of course, broken, yet containing many fine examples of Roman workmanship, including no fewer than eight antifixes. Passing under and along the walls southward, for some two hundred yards, we come to the corner of Black Friars. At this point the excavations in 1874, of which we have spoken above, showed that here existed at one time a branch of the river which ran at the back of Black Friars, and under the present walls, from an eastward direction. It was over one hundred yards wide. One thing about it is very sure, that it was an open water-way in Roman times, since the infilling material contained *débris*, dating from Roman to the present time.

We have now traced the river at three points: at Black Friars; along and under the walls to the Watergate; and from there to the site of the gas works, where we have

undeniable evidence of a deep channel of water connected with the river Dee, at a point where its waters were more than a mile in width. It was a branch of what was then a noble stream. The accumulation of twenty-three feet of material, since Roman times, over much of this area, is certainly a noticeable fact. There was at the beginning of this century some remnant of this old water-way. I allude to the drain which took the drainage of the south-western part of the city, and which ran at the back of Black Friars, across the Roodeye to Wilcox's Point, in front of the gas works. This may be regarded as the shrunken representative of the old channel.

The Roodeye, which now virtually faces the whole of the western front of the wall, was, as we have seen, covered by a considerable depth of water. The silting up commenced first, and arose in both instances from a projection of rock, around which as a nucleus the silt accumulated. The point of rock near the castle has been taken advantage of, to form the embankment leading to the Grosvenor Bridge. The other is opposite to the infirmary, and is evidenced by the scarped rock face there to be seen under the walls. With the silt gathering in this way at either corner of the walls, we can understand how the open channel for navigation would be at a point somewhere between the two, just where in fact we found the river gravel. As to the later silting up of the river, all our historical records go to show, that it followed closely upon the erection of the dam across it in Norman times. In connection with this growth of land, we may notice the evidence to be gathered from the older maps of the district. The oldest map of Chester shows that in the time of Queen Elizabeth, *circa* 1574, three-masted vessels sailed past the Watergate. Another map, two hundred years later (1753), shows the same area enclosed by land, and ships of

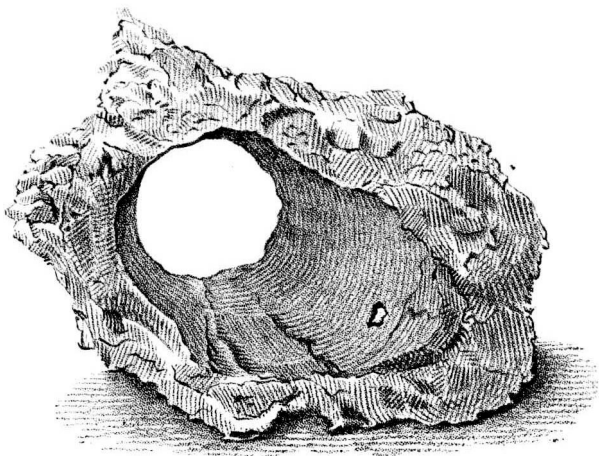
fair size moored close by the Water Tower. Fifty years later, even this condition of things came to an end, and the iron rings fastened in the walls of the Water Tower are the only indications left of the former traffic.

From the consideration of water-way we pass naturally to the question of boats, with which to carry on the traffic. It is true that as yet we have found no remains of boats in the silt; nor is it necessary for our purpose. The people, who could transport legions across the English channel, would not experience any difficulty in providing vessels wherewith to navigate the Dee. Indeed we have them specifically mentioned by Tacitus, as in use along the same coast of Wales by Sergius Paulinus, for the transport of troops across the Menai Straits, for the invasion of Anglesea. This was in A.D. 59, while the earliest pig of lead found about here, and we doubt not the subject of this traffic, bears the date of A.D. 74. Looking to the ample supply of timber provided by the forests around Deva, we may reasonably conclude that the boats used by Paulinus were built at Deva. We have not as yet found here any inscription mentioning the *Classarii*, or Marines. Such a body of troops we doubt not formed at one time part of the legionary staff of the 20th Legion. No remains then of boats used in this river traffic have as yet been found, but we have something else. Landing-places for traffic, in however primitive a way constructed, are almost indispensable on a river such as our own, with its treacherous clay banks. The excavations at the gas works have not only demonstrated the existence of a deep channel, but also of a bank of clay close by parallel with it. The important thing is, that there was found lying across the cutting a quantity of wrought oak timbers, which from their arrangement could only have been used as the main supports for a stage or wharf in front of the clay bank. They were not

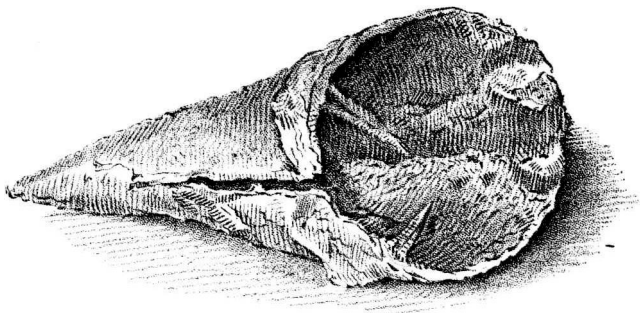
in their original position, but inclined in various directions, as if they had fallen after having been undermined. As there can be no question about the piles being Roman, a description of them will not be out of place. Young oak trees, from some of our forests, had evidently been utilised. Each pile was very carefully tapered off at the extremity, from eleven inches wide at the top to half an inch at the base. The proper length could not be ascertained, since only eight and a half feet were removed, the part in fact which obstructed the excavation. Each pile at the point was protected by an iron shoe fifteen inches long and a quarter of an inch thick, secured by iron nails. The pile had further been bedded in concrete, much of which is still adherent. The points of these oaken piles have, agreeably to the instructions of Vitruvius, been subjected to the action of fire. A good example of one of these piles and its shoe is now in the Archæological Museum. An interesting account of a similar find of Roman oaken piles has been given by the Rev. Dr. Bruce, of Newcastle-upon-Tyne.¹

The next point of interest is the open space in front of the Watergate. Across this point, from north to south, the sewer was carried in 1874, at a depth of fifteen to eighteen feet, through silt and gravel. In its course a line of oaken posts was encountered, placed east and west. To connect these with a wharf, or landing-place suitable for the present Watergate, was a difficulty, owing to their direction. The later discovery on the site of the gas works has made it intelligible. Alongside of the river channel, which ran from the Watergate to Wilcox's Point, was a clay bank, and on the sides of this at intervals there has been a wharf or landing-place built up of these oaken timbers. We have found them at either end of the bank, and probably these

¹ *Archæologia Eliana*, vol. x., pp. 1-11.



IMPRESSION OF IRON SHOE OF OAK PILE.



POINTED END OF IRON SHOE.

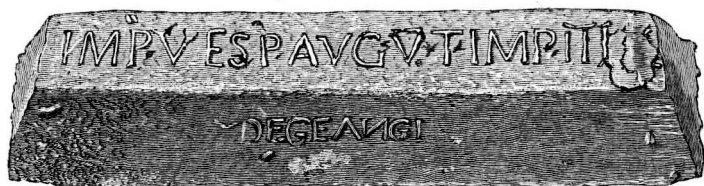
OTHER REMAINS,
FOUND AT THE ROODEYE, 1885.

erections extended more or less along its entire length. This in itself is suggestive of a considerable traffic in and out of the port of Deva. It would also allow vessels to discharge cargo at all conditions of the tides, whether neap or spring. In short, it was a Roman high and low water landing-stage.

So far our inquiry has been limited to Deva. We have indicated the river and the needful appliances for commerce. The question now arises with what towns or stations was the traffic carried on. I propose to limit myself in this inquiry to the coast of North Wales. At the furthest point we have Holyhead, Carnarvon (Segontium), and Caerhun (Conovium). The only mineral wealth around these places is copper, and of this we find a trace at Caerhun (Conovium), on the Conway river, in the cake of copper found here in the last century, marked *Socio Romae*, and now preserved at Mostyn Hall. Between Caerhun and Deva the road is inland, and there are no other itinerary stations along the coast, that will fall in with our purpose. We must remember, however, that there are other towns and stations besides those mentioned in the *Itinerary of Antoninus*. Ravenna's anonymous geographer mentions one such town, which he places between Deva and Conovium (Caerhun). The name is Sandonium. The latter part of this word is seen on the pig of lead found in Common Hall Street. Mr. Thompson Watkin has gone fully into the question, and I think proves that Sandonium was situated near Flint.¹ Here we may remark that along the coast, the centre of the lead industry is at the present, as it has been in the past, in the locality of Flint, a position which answers to the location of it by Ravenna's work, as being between Deva and Conovium. That this conjecture is

¹ Watkin's *Roman Cheshire*, pp. 161-162.

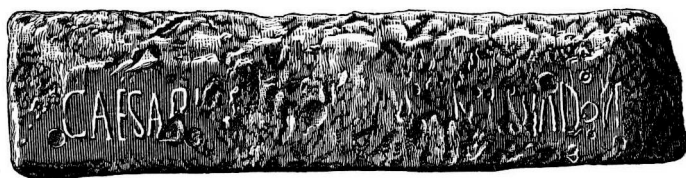
correct, is seen when we remember the singular mineral wealth of the district. In the range of hills, which run parallel with the coast, we have a succession of carboniferous rocks, which furnish excellent clay for pottery, limestone in abundance, and many varieties of coal, as well as the ores of lead and zinc. That wealth of this kind would be neglected, with the building of the Devan castrum in hand, is not probable. That this neighbourhood has not been overlooked, and that Flint has been a Roman settlement, there can be no doubt after the discovery of the Roman relics recorded by Pennant. More to our purpose is the fact that with these remains there have been found, extending for a mile or more along the shore, furnaces and hearths which have been used in the manufacture of lead from the native ore. This circumstance has been happily preserved for us in the Welsh name *Pentre-ffwrn-dan*, the villa of the burning furnace. This, taken in conjunction with the remains of hypocausts, clearly establishes the production of lead on the site under Roman superintendence. Here then we have the production on the spot of lead, a prime article of commerce in those days, one extensively used in the production of water pipes, lamps, ossuaria, coffins, weights, stamps, etc. Examples of these will be found on the table. The pig of lead found in the Roodeye excavations has, according to my theory, formed part of this traffic, and has been lost overboard in process of landing. This will be the more apparent if we remember that the itinerary road branched off from Eccleston, to some point between Dodleston and Hope, and there divided into three roads, one going past Minera for the Bala district, another the itinerary road past Mold for Varis, the other through Northop, for Flint (*Sandonium*). The boundaries of the river Dee were more extensive then than at present, hence to have used the itinerary road would have involved a hilly



PIG OF LEAD, FOUND AT THE ROODEYE, 1885.



PIG OF LEAD, FOUND NEAR TARVIN BRIDGE, 1838.



PIG OF LEAD, FOUND IN COMMONHALL STREET, 1849.

PIGS OF LEAD,
FOUND IN OR NEAR CHESTER.

journey of many miles, and a river to ford at the end, while by river a vessel, setting out from Flint on the flood tide, would reach Chester with little effort the same tide. The distance between the two places is not more than twelve miles. Water carriage is notoriously a safe means of transit; the fine condition of the pig of lead is best accounted for, by supposing it to have been brought by water. The traffic in lead from Flint was not limited to Chester, since Camden tells us, that in his day "20 sows of lead" were found at Halton on the banks of the Mersey.¹ As they all bear the stamp of being the tribute of the Cangi, and as Sandonium was, so far as we know, the only smelting-place for lead hereabouts utilised by the Romans, we may infer with considerable probability that they were produced at Sandonium. Other evidence might be adduced to show the extent of this local traffic, and that from Deva it was transported to the continent, but I forbear, as foreign to my present purpose. In the extent of ground covered by these ancient smelting works at Flint, we have ample proof of the former production of lead on an extensive scale, leading to an important traffic with surrounding Roman stations, but mainly with Deva. The inscription on the upper face of the pig of lead found on the Roodeye, is:—

IMP. VESP. AVG. V. T. IMP. III. C.

The expansion is: Imperatore Vespasiano Augusto V. Tito Imperatore iii. Consulibus. On the side are the letters: DE CEANGI, or expanded: De Ceangis, showing that the lead came from the territories of the Ceangi, who then inhabited the present counties of Flint, Denbigh, and Carnarvon. It is in remarkable preservation, and only here and there coated with oxide. The letters are bold in type,

¹ Camden's *Britannia*, 3rd ed., p. 488, and Thompson Watkin's *Roman Cheshire*, p. 294.

and nearly one inch and a half high, with leafy stops between the words. The lettered surface is twenty inches long by three inches wide, and the base twenty-four inches long by five inches and a half wide. It is four and three-quarters of an inch in depth, and weighs one hundred and ninety-two pounds. Other tributary pigs of lead from the Ceangi have been found. In 1838, in cutting the Crewe and Chester railway, a similar pig of lead was found near the railway bridge on the Tarvin Road, on the edge of the Roman Street to Mancunium (Manchester). It is stamped—

IMP. VESP. V. T. IMP. III. COS.
DE CEANGI.

and is now preserved at Eaton.¹ Although it bears the stamp of being the tribute of the Ceangi, and cast in the same year, it is not from the same mould as the Roodeye ingot, which has AVG(usto) after Vespasian, and c only instead of COS at the end. Another pig of lead of the same DE CEANGI type was found on the line of the Roman street across Hints Common, in Staffordshire. And again, we have the twenty pieces mentioned by Camden as occurring on the shore near Runcorn. These facts show the dispersion of lead, along four distinct lines of trade routes from the smelting station at Sandonium, supplying valuable evidence to the extent of the traffic in this one article of lead.

With the pig of lead were found four second brass Roman coins, three of Vespasian and one of Titus. As coins, they are intimately associated with the subject of traffic, as well as corroborative of its age, and are therefore described.

¹ Watkin's *Roman Cheshire*, pp. 162-3.

IMP. CAESAR. VESPASIAN. AVG. COS. II.

Rev. FORTVNAE REDVCI. In field S.C. Fortune standing to left with cornucopiæ and rudder.

IMP. CAESAR. VESPASIAN. AVG. COS. VIII.

Rev. FIDES PVBLICA. In field S.C. Female standing to left with cornucopiæ in left hand, patera (?) in right.

IMP. CAESAR. VESPASIAN. AVG. COS. . . .

Rev. PAX AVG. In field S.C. Female standing to left, with patera in right hand over altar, olive branch, and caduceus in left.

Obv. T. CAES. IMP. AVG. F. TR. P. COS. VI. CENSOR. Laureated head of Titus to left.

Rev. In field S.C. Hope walking to left, holding in her right hand a flower, and with her left holding up her gown.

Coming now to the question of date brought out by these inscriptions, the fifth consulate of Vespasian, and third of Titus on the pig of lead, corresponds to A.D. 74, while the ninth consulate of Vespasian is five years later, or A.D. 79, a period we know of much activity on the part of the Romans, in which they were engaged in the construction of their fortified stations, and connecting streets, and in many ways consolidating their power in Britain.

From lead we proceed to deal with coal as an article of commerce in these early times. In my visits to the excavations at the gas works, I noticed the occurrence of coal in the gravel, and I further noticed that the edges of the fragments were rounded, showing that they had been exposed to the rolling action of the tide. An examination of these showed that it was chiefly the more valuable variety known as cannel, and more, that it was of good quality, as will be seen in the following analysis:—

Ash - - - - -	3'63
Sulphur - - - - -	'89
Moisture - - - - -	2'00
Volatile hydrocarbons - - - -	42'71
Fixed carbons - - - - -	50'77
	<hr/>
	100'00
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Ordinary coal was also present, but cannel largely predominated. These fragments of coal found in association with the pig of lead, I can only regard as evidence of a traffic in that mineral. The quantity found was not inconsiderable. From first to last, the amount found was little less than a ton. The discovery of coal under these circumstances is in harmony with our best information on the question, for whatever may have been thought at one time to the contrary, there is now no reason to doubt the use of coal by the Romans when available. Stores of it have been found in Roman stations along the great wall. In the case of the heap of it at Uriconium, there was no difficulty in assigning it to the Coalbrookdale coalfield. In like manner, the pieces we have found may be regarded as having been derived from certain beds of coal occurring in the immediate neighbourhood of Flint.¹ The Romans, it is well known, did not employ the system of mining by pits or shafts sunk perpendicularly in the earth, but followed the vein or band of coal into the hill side by an open working. The coalfield extends along the shore from Queen's Ferry to Mostyn, a distance of fifteen miles. At Queen's Ferry a seam of coal comes to the surface. Cannel also occurs at the surface in many places, particularly in the Leeswood district, offering precisely the conditions suitable

¹ On this subject a letter from Mr. Henry Taylor, the general honorary secretary of the Society, will be found on page 106.

for getting the coal with the appliances available in early times.

In seeking to account for the occurrence of this coal in these gravels, we must recognise the fact that it also occurs in drift gravels of prehistoric age. Here, on the Roodeye, we find it abundantly in material of comparatively recent date, certainly historic times. It could not have been brought down the river, since there are no coalfields to furnish it. Our nearest supply of coal comes from Queen's Ferry. The circumstance of finding this coal freely distributed among the river gravels, associated with articles of Roman fabrication, admits of only one solution, namely, that, following on a line from the gas works to the Watergate, the Romans constructed a landing-place for goods brought by water from the North Wales coast, and that the coal and lead we now find were lost overboard, in process of landing from the boats employed for the purpose. It only remains to be mentioned that cannel-coal was a neglected commodity in this country, until fifty years ago. Up to that time its value as a heating and lighting agent was not appreciated. Our discoveries, then, go to show that the valuable properties of cannel-coal were utilised by the Romans during their occupation of Deva. After this time, with all our boasted discoveries and modern appliances, a long period elapsed before it again came into use.

The next item to be noticed is limestone. Fragments of limestone were found among the gravels, but were not so abundant as the coal. Limestone would be utilised then as now for conversion into lime for mortar. While everywhere along the Welsh coast the limestone fringes the coal measures, and would therefore be readily accessible, yet I do not think that the main supply of lime for the building of Deva came from that locality. The Roman station of Caergwrle not only secured the road to Carnarvon, but

was the nearest point at which lime in an inexhaustible quantity could be obtained. Rough blocks of limestone have been found at various times in the city, showing the importation of limestone. I know of no evidence in either direction to determine the question, whether the lime was burnt at the quarry or here.

Copper. Although our subject is exhausted with the mention of coal, lead, and limestone, as articles of traffic, yet copper is deserving of a passing notice. The finding of the cake of copper at Caerhun, taken in connection with the fact that it is about the only mineral found in the Snowdon district, and that in Anglesea there have been vast deposits of copper, so placed as to be got by open quarrying, lead to the conclusion that the metal in question was the produce of the Anglesea mines. But as the production was on a more limited scale, it was doubtless conveyed at least part of the way by the land route to Deva. Other cakes of copper have been found in Anglesea, so that after all there may have been a considerable production of the metal around Snowdonia, of which Anglesea has contributed the greater part. As it was most likely sent to Deva by the land route, it is not our purpose to further discuss the question.

We have now gone over the evidence we possess of the nature and extent of the traffic in Roman times between Chester and the coasts of North Wales. Future discoveries will enable us to amplify the items and enlarge its area. For the present we desire to record the advance in our information as to the purpose served by the Roodeye, since it was regarded as a spot on which Roman soldiers exercised and held their sports, a combination of drill ground and amphitheatre.¹ Looking at the extent of the ground

¹ *Chester Archaeological Society's Journal*, vol. i., page 19.

familiarly known as the Roodeye, all recovered from the river since Roman times, in the light of recent discoveries, and remembering that although at three points only has the nature of its infilling deposits been disclosed by excavations, yet in every instance in which it has been done, valuable data have been furnished as to its past physical condition during historic times. The conviction arises that the Roodeye, with its fifteen or twenty-five feet of recent deposits, contains much that will doubtless occupy the investigations of future archæologists. Already its revelations have filled up a blank page in our local history at the period of the Roman occupation of Britain. Contemporary history is silent as to Deva, hence these records are the more precious. These discoveries have enabled us with the mind's eye to see the Roodeye as it then was, covered from bank to bank with deep water and its shores lined with gravel and shingle, as along the Dee estuary now. On the higher ground above, in a line with the river bank, ran the western wall of the castrum, while not far from the present Watergate, on the rising ground, was the Porta Flumentana, the termination of the principal street through Deva, running east and west. On the right of the Watergate, and over a site now crowded with houses, was a bank of high ground extending as far as Wilcox's Point, between the railway bridge and the gas works. On the southern front of this bank existed a structure built of oaken piles, forming a series of landing stages, and, from the difference in levels, available at varying conditions of the tide; while alongside we can imagine boats busily engaged in discharging their cargoes of lead, copper, coal, lime, clay, or even the well-known terra cotta tiles of various sizes. Further away, in deeper water, floated the Roman fleet, which so effectually co-operated with Agricola in his expedition from Deva northwards. Hereabouts also,

if anywhere, were built the flat bottomed boats, with which, as Tacitus tells us, Seutonius Paulinus used to invade Anglesea.¹ Not unlikely some portions of these are still entombed in the muddy ooze of the Roodeye.

The objects and scenes we have been endeavouring to depict were, we know from the date of the Roman coins and the pig of lead, in existence in the first half century of the Roman occupation.

Other articles of commerce there doubtless were, of which our information is at present too limited to need notice. In conclusion, it is my pleasant duty to thank the directors of the Gas Company, for so generously placing the various objects found at the service of this Society, and to Mr. Stevenson, for the facilities afforded towards ascertaining the circumstances under which they were found.

¹ *Annals*, book xiv., ch. xxix.

