



I. THE AEGER NEAR GAINSBOROUGH.



2. THE DEVIL'S ARROWS, BOROUGHBIDGE.

LINES OF COMMUNICATION AND THEIR RELATION IN
PRE-ROMAN AND ROMAN TIMES TO THE VALLEYS OF
TRIBUTARIES OF THE HUMBER.

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The detailed examination of the configuration of a country often proves of great interest in relation to its earliest inhabitation, and where prehistoric and Roman remains lie close together a text is suggested for an interesting study.

I have endeavoured elsewhere to trace prehistoric routes, and I have noted that evidence of their direction and place is often to be found in accepted Roman roads. It became apparent, therefore, that the Romans took their first direction from existing tracks and straightened them in detail.

At Aldborough in Yorkshire, where a Roman town lies within a short distance of that important prehistoric monument, the Devil's Arrows at Boroughbridge, we find them together, and as we journey to London by the Great North Road, we find on the same road the seven mounds of Stevenage in Hertfordshire. We are therefore tempted to imagine a traffic from London to Yorkshire on the same ground through all civilisations. The facts, however, are opposed to such a satisfactory theory, as would appear if we re-state very generally the development of the Roman lines of communication in England.

Caesar's entry into Britain was in the south-east of Kent. In his second invasion his objective appears to have been a good ford across the Thames which he found, it is supposed, at Brentford, ten miles west of the place where London bridge now stands.

When the Romans returned nearly a hundred years later under Claudius the same crossing appears to have been used by them. As the capital of their chief opponent lay at Camulodunum (Colchester), they then turned to the east and subdued the East Anglian region, their sphere of influence being defended on the north by the swamps

of the Wash. This accomplished, they seem to have carried on in the direction to which their faces were turned as in their approach to the Thames river. For they proceeded towards the Avon and the Severn and founded camps upon these rivers.

When the Brigantes, or Yorkshiremen, proved dangerous neighbours to them they attacked, not from the line which history has associated with the Great North Road and the Great Northern Railway, but from North Wales.

Indeed the Roman army was almost wholly on service in the Welsh district, so firmly was their control in Colchester established. It is true that owing to the misuse of that control Boadicea arose and massacred the Roman colonials and their adherents, but the army from Wales must have had a remarkably good route running on the line north-west and south-west, for it returned with such speed as to destroy the rebellion before it spread.

Under Vespasian the Brigantes again became a menace, and in order to deal with this difficult race, the Romans fortified a base in the east as well as in the west. Their East Anglian sphere was extended north beyond the Wash marshes, and Lindum (Lincoln) was held. At the same time Deva (Chester) was occupied.

We have then an interesting lay-out of Britain. Firstly an equilateral triangle, the angles at the base being London and Bath, the apex Venonae (High Cross in Leicestershire).

This is the point where the Watling street (Dover-London-Chester) crosses the Fosseway (Bath-Lincoln) very near to a divide between the waters of the Trent. And symmetrical with this triangle there stands out a definite quadrilateral with corners at London, Bath, Chester and Lincoln. I think we may accept the theory that the Roman crossing of the Thames was at the spot chosen by the prehistorics as the best ford. But they did not follow the prehistorics directly to the north over the *col* at Stevenage. Rather they struck east and west. They then adopted the east and west coast routes in order to get at Yorkshire.

Our concern is with the Romans on the east. We have brought them to Lincoln, and their way thence to York and Boroughbridge is a matter of great interest. They were on the east, or wrong, side of the great furrow

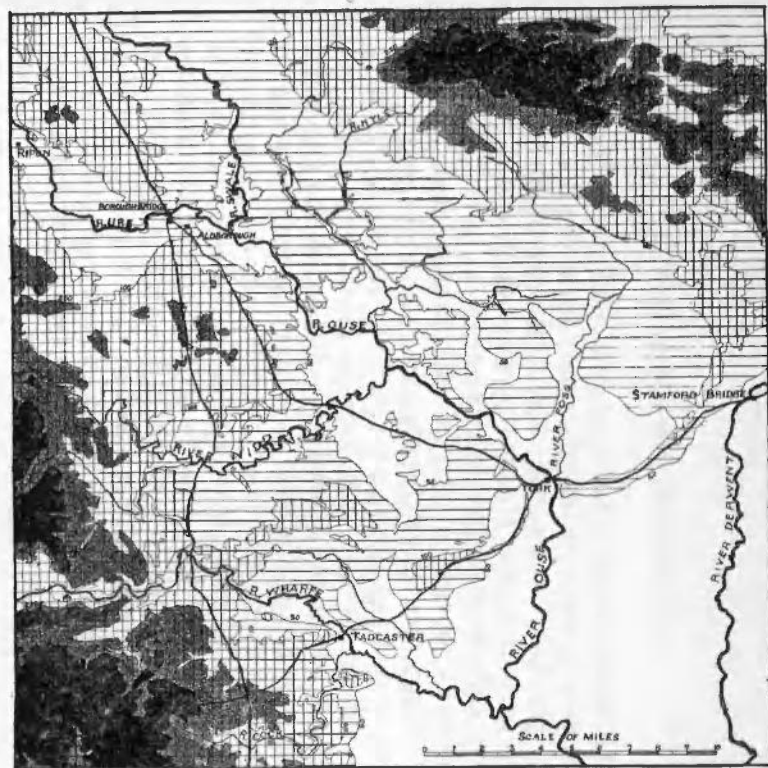
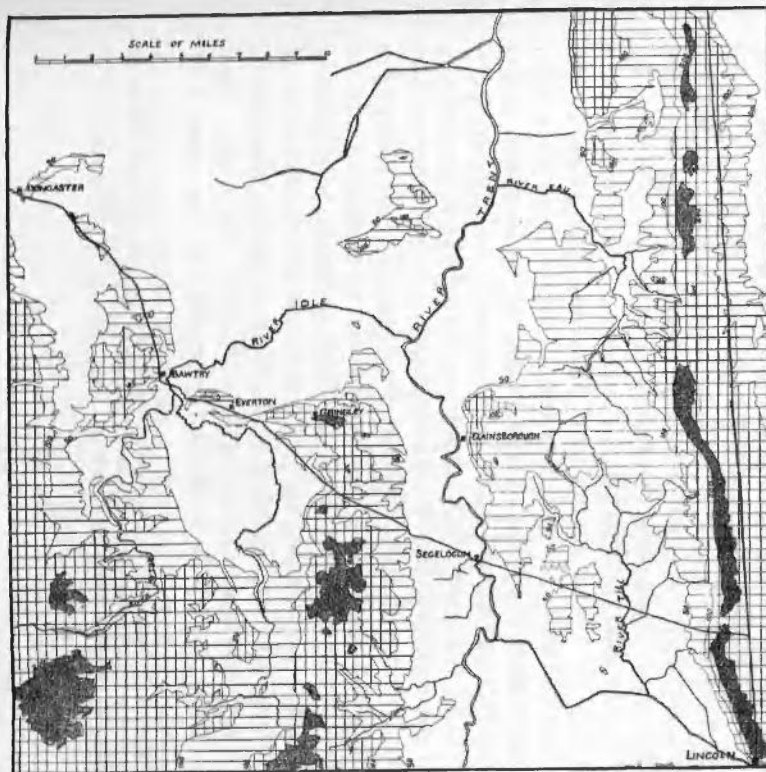


FIG. I. PREHISTORIC TRACKS AND ROMAN ROADS.

I. LINCOLN TO DONCASTER.

2. ROUTES TO ALDBOROUGH.

which separates the massif of east and north Yorkshire in the north and the Lincoln ridges from the backbone of England, that is to say, they were to the east of all that low-lying ground of the Humber system which is fed by the Trent and Ouse and their tributaries.

Now the obvious northward route from Lincoln avoided this trough, and ran naturally along the high ground due north of that post until it reached the Humber. Crossing this difficult estuary, the Romans would find themselves on the wolds of east Yorkshire and then on the Cleveland moors, where quantities of prehistoric remains are found. But, when there, they were in a very wrong position for developing a campaign against the Brigantes of the Aldborough district, or for projecting lines of communication towards Scotland, which had become a pressing and even a still more difficult problem that required solution.

For the later purpose was no easy crossing of the Tees at the estuary. The Brigantes could be reached if one was only across the swamps of the plain of York. The northern glacier had left a terminal moraine on a line on which are now Stamford Bridge, York and Tadcaster, and by that way the prehistorics had a traffic route from east to west across England (fig. 1, 2). At some date the Romans used the same raised terrain, but that would probably only be after the settlement of their northern centre at York. But the route by way of the Humber and East Yorkshire would have made a seriously circuitous march from Lincoln. We come therefore to examine the other roads or tracks from that city. If the attraction of the Lincoln ridge was to be resisted, the Trent swamps would have to be crossed. They had been passed by the prehistorics who had found their line by the high ground that faced Gainsborough by Gringley on the Hill, Everton, Barrow Hills to Bawtry. The Romans took another course (fig. 1, 1). They left the ridge road at a point four miles north of Lincoln. They crossed the Trent at Segelocum (Littleborough) seven miles by river south of Gainsborough¹ and thence by Erming street to Castleford.

They seem to have turned off from the ridge road sufficiently far north to avoid the swamps of the river Till,

¹ Segelocum, Erming Street, is mentioned in the fifth and eighth routes of the Antonine Itinerary. The milliarium found at Lincoln

—A Lindo Segelicum millia passuum xiiii— agrees with the Itinerary.

for we find that the crossing of that small stream is made where the twenty-five-foot contours on either side approach nearest together. But the selection of the Segelocum crossing of the Trent would seem to require some special reason, and as to this I am going to venture a conjecture, the value of which I must leave to others to determine.

Owing to the curious conformation of the mouth of the Trent, this river is distinguished by a strong tidal wave called the aeger. A photograph is given which shows the effect of this wave in the reaches near Gainsborough (plate 1, 1). I understand from Mr. Wheeler's excellent description in the *Practical Manual of Tides and Waves*, p. 150, that the aeger in ordinary spring tides now ascends seven to ten miles above Gainsborough. This limit is now rather further up the river than Littleborough. I am inclined to think, however, that in the days before the river was confined to artificial banks, the aeger would have been dissipated somewhat earlier in its course and would have ceased to exert so dangerous a force by the time the inflowing tide reached this Segelocum.

To the Romans this route was evidently of great importance. They therefore required a paved ford, and it would appear to me that they selected a spot beyond the ravages of this powerful aeger. For I should imagine that the cumulative effect of a periodical wave such as the aeger would be to destroy the setting of the stones in the pitching of their permanent ford.¹

Once across the river they were soon above the fifty-foot contour and were able to continue their direction along the outskirts of the Gringley ridge. North of them were the immense marshes of the river Idle and all the low country of Hatfield Chase which even now is only kept dry by numberless artificial drains.

From Bawtry to Doncaster and further north, the Romans followed the line which would have been acceptable to prehistoric man, for they were on the slopes intermediate between the lower part of the foothills and the great Trent-Ouse furrow. They seem to have crossed the rivers Don,

¹ The paving of the ford was removed by the Trent Navigation Co. in 1820. It consisted of rough squared stones with piles on each side 10 to 12 feet long driven into

the bed of the river. Roman materials were found in the walls of the church and many coins have been discovered.

Aire, Wharfe, and Nidd at the natural places which prehistorics would choose, that is, where high ground comes nearest on either side; so both arrived at Isurium or Aldborough (fig. 1, 2). To both it must have been an important situation, and I think the lie of the land gives a reason. Along this western side of the York plain the glacier before alluded to had piled a lateral moraine. This blocked the waters of the hill country and formed a marshy pan in the hinterland immediately to the west of Boroughbridge and Aldborough. The flow from this lake or marsh land forced its way through the piled-up moraine at Boroughbridge, and here the prehistoric people have been in megalithic times, for they raised the magnificent Devil's Arrows (plate 1, 2). It is not necessary to discuss the actual purpose of this series of three (by tradition four) great stones, for the alignments of Carnac come naturally to one's mind, but it can be safely maintained that this spot must have been considered in prehistoric days to be one that was worthy to be marked by a great work. It is on the easiest point of crossing from north to south, where the marshes of the plain of York lay to the east, the Ure swamps to the west, and this is the point that the Romans also chose.

It is submitted that the combination of prehistorics and Romans, the natural phenomena of glacial moraines and tidal waves, provides a subject worthy of archaeological speculation.