

Desert
ground
crossed by
Limes.

This rapid survey of the ground between Tun-huang and An-hsi will suffice to prove that, here as elsewhere, those who laid down the line of the ancient Chinese Limes well knew how to turn to account any advantage that could be secured from the natural configuration. By running their line on the belt of rising ground they kept the wall well above the inundation level of the spring and summer floods, and yet sufficiently close to the river to secure access to water from wells or other supply. At the same time a sufficiency of scrub and reeds was assured for grazing and fuel. But it is equally certain that the whole of this Limes line from Tun-huang to An-hsi or Kua-chou, as the oasis was called until long after its construction, lay through desert ground. In ancient times, just as now, no cultivation was possible along it or anywhere near it, until a point was reached, about fifteen miles west of An-hsi 'town', to which water could be carried by the canals of the An-hsi oasis.

Line of
wall east of
T. xxvi.

On the morning of March 31, when the thermometer still showed a minimum temperature of 39 degrees Fahr. below freezing-point, I proceeded from T. xxviii to explore the line of towers eastwards. On the eroded ground between T. xxvii and T. xxvi I searched again for remains of an intermediate tower, such as in view of the distance intervening, over two and a half miles, is likely to have stood here, but in vain. As soon as the gravel-covered plateau was regained near the tower T. xxvi, where the first wooden records had been found, the wall could be traced unbroken for about six miles. There was here no need even of taking the direction from the four towers which still rose high along this stretch and had already been sighted from a distance. So clearly the line of the wall showed itself above the uniform expanse of bare gravel, both in the straight curtains between the towers and in the bastion-like semi-lunes by which the line curved round to the north of each tower. In some places, the alternating layers of brushwood fascines and gravelly clay still rose to three feet or thereabouts; in others, erosion had almost reduced the *agger* to the ground level. But even there the layer of thick tamarisk branches used for a foundation was quite distinctly seen emerging on either side of the low gravel-covered swelling.

Wall line
parallel
to wind
direction.

The general bearing of the line was from east-north-east to west-south-west, as seen in the map. It is parallel to the direction of the strongest of the winds which in this dreary desert couloir rarely cease blowing for long and are particularly violent in the spring, and there could be no doubt that it had helped much to preserve the unbroken stretch of wall. Yet the wall was not absolutely straight over the whole of it, the towers not being placed exactly on one line, but with slight variations of bearing. Thus from the foot of T. xxvi the next four towers could be seen at the same time. As these slight deviations could not be due to any reason connected with the ground, the configuration being the same throughout, the idea suggests itself that they were intended, perhaps, to facilitate the simultaneous observation of fire-signals and the like on a number of these watch-towers. The distances between the towers also varied, from about three-quarters of a mile (T. xxxiv to T. xxxv) to over one and a quarter miles (between T. xxvi and T. xxxi). The ground to the north was everywhere an absolutely bare gravel flat, and for a distance of at least two miles could be watched even from the level of the wall with ease.

Watch-
towers
T. xxxi,
xxxii.

The towers were all uniformly built of layers of stamped clay, usually four to five inches thick, with tamarisk brushwood between them. The base appears to have been always about twenty feet square, but it could not be exactly measured in each case as the state of preservation differed, the effects of erosion becoming more marked towards the east. T. xxxi still rose in a fair state to a height of twenty-six feet. Among slight *débris* on its east side, probably marking the position of a small hut, there was found a pentagonal stick (*Doc.*, No. 704). The Chinese characters on four of its faces still await interpretation. Near the tower, too, was found the small bronze arrow-head T. xxxi. 001, with the usual triangular blade of Han type (Plate LIII). The next tower,