

be found to-day on the Chinese 'high road' from An-hsi to Hāmi, where it crosses the barren stony plateaus of the Pei-shan in nine marches of an average of about twenty miles each.⁶

Absence of
water and
vegetation
beyond.

Far more difficult conditions, however, had to be faced farther on. The experience we gained when tracing the ancient route from the Lou-lan side convincingly showed that, even in ancient times, neither water nor vegetation of any kind were to be found along it for a total marching distance of about a hundred and twenty-five miles. If the ancient route on the ground intervening between our Camps ci and civ led by a more direct line than the one followed in the course of our search, a saving of about twelve miles might have been practicable in distance. But this probably would have meant an increase in the length of the most trying portion of the journey—that leading across the hard corrugated salt crust of the sea-bed.⁷

Problem of
'supplies
and
transport'.

The problem of 'supplies and transport' presented by this section of the route must have been in ancient times quite as formidable as it would be now, except for two facts. One is that there existed then in the cultivated area around the Lou-lan station (L.A.) a western base of supplies such as would now have to be looked for on the Tārīm, some hundred and forty miles farther west; the other, that before the Kuruk-daryā ceased to flow, water and a plentiful growth of reeds and scrub could probably be found in most places along the ancient route from L.I., our Camp c, onwards. But the most serious difficulty remains: for a distance which neither laden animals nor carts nor men on foot could cover in less than five marches, those absolute necessities of water and food-stuffs for men and beasts, besides fuel, had all to be provided from afar.

Question
as to how
problem
solved.

The difficulty of assuring these necessities for troop movements and regular commercial traffic over this portion of the ancient route was certainly far greater than any which military or trade enterprise has ever been called upon to face in modern times, with the assistance of railways and mechanical transport. Apart from one important but all too brief Chinese notice to be presently mentioned, we have no information as to how the Chinese pioneers and organizers of Han times solved this hard problem. But we know from definite historical and archaeological evidence that the problem was faced and was solved. Therefore the antiquarian student who possesses practical experience of the ground cannot decline to consider the question of the methods which may have been adopted, even though, in respect of details, only a conjectural solution can be offered.

Han
Annals
notice.

It is obvious at the outset that in order to facilitate the supply of water and other absolute necessities recourse would be had to a system of depots for the use of the troops, convoys, &c., moving along the route. We find the use of this expedient on the Lou-lan side directly attested by an interesting passage of the Former Han Annals to which I have already referred, but which on account of its special bearing may here be quoted once more.⁸ 'Now the extreme eastern border of the kingdom of Lou-lan where it approached nearest to China was opposite to the *Po-lung-tui* 白龍堆 ('White Dragon Mounds'), where there was a scarcity of water and pasture; and it always fell to its share to provide guides, to carry water and forward provisions to meet the Chinese convoys; but being frequently exposed to the oppressive raids of the soldiery, they at last resolved that it was inconvenient to hold intercourse with China.'

Transport
of water,
&c., from
Lou-lan.

Our previous discussion of the topographical facts has made it quite certain that by the 'White Dragon Mounds' are meant the arrays of salt-coated Yārdangs which the route had to pass through on either side of the old sea-bed. If the above translation expresses the exact meaning of the Chinese text, it is permissible to assume that the eastern shore of the sea-bed was considered 'the

⁶ Regarding the physical conditions prevailing on this route, first opened by the Chinese in A.D. 73, cf. *Serindia*, iii. pp. 1141 sqq. From Chang-lui-shui, Map No. 34. D. 3, onwards, patches of cultivation and plentiful grazing are

found on the way to Hāmi.

⁷ See above, pp. 300 sq., 311 sq.

⁸ See above, p. 309; Wylie, *J. Anthropol. Inst.*, x. pp. 27 sq.