

via Hāmi must have become practically what it is still now, the main channel for trade and military movements alike between China and Central Asia.

Scarcity of  
fodder, fuel,  
and water.

Whether on the main road from An-hsi to Hāmi or on any of the previously mentioned tracks leading more or less parallel to it and over ground closely corresponding in character,<sup>3</sup> the movements of troops and of convoys for them must at all times have been seriously hampered by the difficulties about securing a sufficiency of reed straw, and in places even of water, for a large number of animals. To these must be added the equally great dearth of fuel, a trouble which the bitterly cold winter climate of the Pei-shan plateaus and the prevalence of icy north-east winds in the spring must always make particularly felt. It was thus easy for me, from what I observed on this journey and from the accounts of living witnesses, to appreciate the efforts which it had cost the Chinese, operating from the Kan-su marches recovered after the great Tungan rebellion, to assemble at Hāmi the relatively large force which overawed and quickly extinguished the Muhammadan dominion set up by Yāqūb Bēg in Chinese Turkestan.

Operations  
through  
Pei-shan  
difficult.

The difficulties which had to be overcome in the course of similar operations during Han and T'ang times are bound to have been equally serious. Even if we assume that desiccation may to some extent have affected the supply of water, grazing, and fuel available in this central portion of the Pei-shan since those times, there is plenty to show that it was then too a 'Gobi', not without reason dreaded by the Chinese. It must also be remembered that the enemies against whom the Chinese had to contend, when opening up and securing this vital line of communication on those early conquests, were far more formidable, not merely in military strength but also by the fact of their being nomads. Accustomed by their wanderings to cross barren tracts and with mounts trained to face privations and big distances, Huns, Turks, or Mongols could not have experienced anything like the same difficulties as the Chinese in operating across a desert which even now possesses occasional wells and springs and scattered patches of grazing. The experience gained on this journey and the still more instructive experience furnished in 1914 by the exploration of hitherto unsurveyed routes from the Su-chou River to the north-east of Hāmi have enabled me to realize better how in ancient times parties of raiding Huns could push south from the T'ien-shan for attacks on the Tun-huang Limes, before the desert of the western Pei-shan became wholly impassable through desiccation. With men and animals hardened by nomadic existence and with local knowledge secured long beforehand, large bands of raiders from the north might even at the present day be able to penetrate rapidly through the great natural barrier interposed by the central and eastern Pei-shan.

Hsüan-  
tsang's  
desert  
journey  
to Hāmi.

To the Chinese, with their strongly fixed notions of civilized existence, this desert crossing must have at all times presented a distinctly deterrent aspect, whether they had to face it as soldiers, traders, or casual travellers. This fact is brought home to us in a very striking fashion by the interesting account which the *Life* of Hsüan-tsang has preserved of the great pilgrim's adventurous journey through the desert from Kua-chou to I-wu, or Hāmi. The questions concerning its starting-point and the position which the *Yü-mên kuan* station occupied at the time have already been fully discussed above.<sup>4</sup> I have shown there, I believe, that Hsüan-tsang set out for his desert crossing<sup>4a</sup>

<sup>3</sup> For a very thorough description of the ground traversed by one of these eastern tracks, see Futterer, *Geographische Skizze der Wüste Gobi, Petermann's Mittheilungen, Ergänzungsheft, No. 139, pp. 3 sqq.*, and for a graphic account of the conditions of travel along it, *ibid.*, pp. 30 sq.

<sup>4</sup> See above, pp. 1097 sqq.

<sup>4a</sup> According to Julien, *Vie*, p. 14, note 1, Hsüan-tsang appears to have left the capital in the eighth month of the third

year of *Chéng-kuan*, corresponding approximately to September, A.D. 629. Allowing at least two months of travel, including brief halts, for the journey from Hsi-an-fu to Kua-chou, and taking into account the recorded stays of one month each at Liang-chou and Kua-chou, the start from Kua-chou for Hāmi would fall in the early winter months of A.D. 630. But the absence of any reference to sufferings from cold, and the incident when the pilgrim lost the contents