

ground, salt-encrusted but supporting abundant reed-beds, bore then the appearance of a marshy basin liable to inundation by flood channels taking off from the right bank of the river higher up and but recently dried up. This observation helps on the one hand to throw light on the fact referred to above that the seventeenth-century Chinese map shows a marsh or lake in this area. On the other it also explains clearly why the line of the Limes from Shih-êrh-tun was taken along the foot of the Sai glacis north-westwards to T. XLI. o, instead of being carried straight across to the right bank of the river.²⁵

The special geographical interest presented by the easterly course of the Hsi-wan-ho lies in the fact that it carries water gathered from the Su-lo-ho into ground hydrographically quite distinct from the lower valley of the river. We have here accordingly a very striking case of a river's bifurcation hundreds of miles above its proper terminal basin. Below Shih-êrh-tun the Hsi-wan-ho, flowing eastwards, winds as a small limpid stream along the grass and scrub covered bottom of a well-marked depression which divides the foot of the gravel glacis of the Pei-shan from a bare peneplain forming here the last outlier of the Nan-shan. Where we measured the volume of the Hsi-wan-ho on April 24th just above Shih-tun, it still carried about 50 cubic feet of water per second after supplying irrigation to the fields of the small village. Beyond this a low rocky ridge, which crops out for some distance at the foot of the peneplain on the south, narrows the grassy depression. But some five miles farther on this widens out again into a broad basin with abundant vegetation. Judging from our survey of 1907, it seems possible that this basin is also reached by the drainage that a large but usually dry flood-bed of the Su-lo-ho and the canals watering the north-eastern extremity of the Yü-mên-hsien oasis carry in this direction, as may be seen from Map No. 40. c. 5. At this point a number of abandoned farms could be sighted in the distance to the south of our route, evidence that cultivation prevailed until the time of the Tungan devastations. On the south this basin was seen to be edged round by detached rocky ridges cropping out from the slopes of the utterly barren peneplain. The basin could evidently receive water only from the Su-lo-ho, besides occasional drainage descending the bare slopes from the south; it sloped gently but unmistakably down from the south-west to the north-east.

Interest of
river bifur-
cation.

It was in this direction that the lively stream was flowing to which reference was made above. We reached it after leaving the line of the Limes at the tower T. XLII. j in order to gain the main route leading to Ying-p'an (Map No. 40. d. 5). It carried about 60 cubic feet of water per second where we crossed it and beyond spread out in a marshy bed. The survey subsequently carried out along the line of the Limes north and north-east of Camp 126 kept us on a gravel plateau overlooking the previously mentioned basin from the east. It did not allow us directly to trace the continuation of its drainage into a wide depression which was found to extend to the north of that plateau and of the cultivated area of Hua-hai-tzü 花海子. But when I sent Lāl Singh on April 26th from the latter place northward into this depression, in order to search for the line that the Limes is likely to have followed there, he came upon the narrow terminal beds of a stream coming from the west-north-west. One of these beds still carried a sluggish flow of water. This observation was verified by myself on the next day: proceeding for about three miles to the ENE. of the Limes tower T. XLIII. l I found the shallow terminal lagoons formed by this stream amidst tamarisk-cones and low dunes.

Drainage
into basin
of Hua-
hai-tzü.

²⁵ Judging from the route maps illustrating Messrs. Grishmailo and Potanin's travels, these Russian explorers appear to have marched from Shih-êrh-tun to the Su-lo-ho by a route keeping north of this marshy basin and approximately corresponding to the line followed by the Limes.

Both maps mark marshes to the south of the route indicated.

Of M. Potanin it is certain that he travelled in the month of August, when much of this ground is likely to be still inundated from the summer floods; see Futterer, *Wüste Gobi*, p. 30.