

occasional floods, permit of cultivation in small patches. In the basin of Yai-döbe subsoil drainage supports sufficient vegetation for winter grazing of Kirghiz camps.

*Astronomically observed latitude.*

Tunguzluk, C. 346 (to N.W. of spring; C. 4) ... .. 40° 8' 31"

NOTES ON SHEET No. 5 (YANGI-HISSÄR, YÄRKAND)

This sheet embodies the surveys made on a series of routes on all three expeditions. The area surveyed is proportionate to the great extent of cultivated ground to be found within the limits of this sheet. The routes followed in 1900-01 lay mainly within and between the populous districts of Kāshgar and Yärkand.<sup>1</sup> Those of 1906-08 covered ground all along the Yärkand river as well as portions of the hill area in the north-west and south-west corners of the sheet, while on the journey of 1913-15, the new routes surveyed lay chiefly from Kāshgar to Marāl-bāshi and along the right bank of the Yärkand river below Yärkand.

The well-determined positions of Yärkand, Yangi-hissär, Kāshgar, Marāl-bāshi and Karghalik served as base points for the construction of the sheet. Of these, the last three fall outside its limits and for the observations which fix them reference may be made to the Notes on Sheets Nos. 2, 6 and 8.

For Yärkand the latitude observed in 1900 and 1906 at our quarters of Chīnī-bāgh (about one mile south of the city walls) is supported by the observations of the Yärkand Mission of 1873 and Sir F. De Filippi's expedition of 1914, while the longitude now shown, which is derived from the wireless observation of the latter (77° 15' 46"), differs only by 15 seconds from the one which was adopted in Sheet 11 of our 1906-08 map.<sup>2</sup> For Yangi-hissär the co-ordinates adopted are those deduced from

*Astronomically observed latitudes.*

1900-01. Eski, Camp 23 (A. 1)	...	...	...	39° 33' 59"
Yamān-yār, Camp 24 (A. 2)	...	...	...	39° 25' 17"
Dong-arik, Camp 25 (B. 2; symbol omitted in map)	...	...	...	39° 16' 1"
Achchik-bāzār, Camp 26 (B. 2)	...	...	...	39° 7' 49"
Ordam-pādshāh-mazār, Camp 27 (B. 3)	...	...	...	38° 55' 34"
Kizil-bāzār, Camp 29 (half a mile S. of Sarai; B. 3)	...	...	...	38° 39' 20"
Ak-rabāt, Camp 111 (B. 3)	...	...	...	38° 32' 39"
Kök-rabāt, Camp 30 (beyond S.E. end of village; B. 4)	...	...	...	38° 25' 40"

the observations of Cav. De Filippi's expedition. For the determination of other positions the latitude observations of 1900-01 and 1906-08, as noted below, have been used, as well as those of Captain H. H. P. Deasy on his route from Kāshgar to Yärkand *via* Khān-arik; those of Dr. Hedin along the Yärkand river, and others recorded in the Yärkand Mission Report.

In respect of topographical details full advantage was taken of the fact that several of the chief routes in this sheet were surveyed more than once in the course of my three expeditions (see the routes from Kāshgar to Karghalik; from Kizil-dawān to Yärkand; from Ābād to Kāshgar, etc.). The physical character of the area comprised in the sheet exhibits considerable variety. Besides the compact well-cultivated tracts of the Kāshgar, Yangi-hissär, and Yärkand districts and the minor oases between, or near, them we find here a fairly large outlier of the central drift-sand desert around Ordam-pādshāh and extensive belts of riverine jungle below Faizābād in the north (B-D. 1) and below Ābād in the east (C,D. 2).

For brief descriptive accounts of the routes followed by me, cf. *Ruins of Khotan*, pp. 133 sqq.; *Desert Cathay*, i. pp. 126 sqq.; for the early historical topography of the region, see *Ancient Khotan*, i. pp. 42 sqq., 86 sqq.

<sup>1</sup> I have kept the conventional spelling of Yärkand without using the hyphen between the clearly recognizable parts of the compound name (*Yär-kand*, i. e. settlement by the 'Yär' or eroded ravine).

<sup>2</sup> As evidence of Rām Singh's very careful work

I may mention that his plane-table of 1900-01 showed for Yärkand the longitude of 77° 19' 10", a remarkably close approach to the true one, considering the small scale used and other circumstances.