

sand to the west and south in which lie the dry beds marking the connection between the Kuruk-daryā and the present course of the Konche-daryā.⁷⁶ This area is of particular hydrographical interest as it witnessed the change which sometime after the middle of the third century A. D. caused the waters of the Konche-daryā and, perhaps, a Tārīm branch united with it, to abandon the Kuruk-daryā bed and the easterly direction towards Lou-lan for a south-easterly course and the subsequent junction with the Tārīm.⁷⁷

From Ying-p'an I sent Afrāz-gul to Tikenlik to survey the main Lop-Kara-shahr route along branches of the Tārīm and across the Inchike-daryā to the new settlement of Kara-kum on the Konche-daryā. He subsequently surveyed the course of the latter river as far as Korla.⁷⁸ I myself

Survey from 'Dry River' to Korla.

proceeded to this place by Dr. Hedin's interesting desert route of 1896 along the line where the gravel glacis stretching down from the foot of the Kuruk-tāgh overlooks the riverine belt of jungle extending along the left bank of the Konche-daryā. This route, now waterless almost throughout for a length of about a hundred miles, is marked by a series of ruined towers and watch-stations which my explorations have proved to date back to approximately the same period as the construction of the Tun-huang Limes (end of 2nd century B. C.). They clearly mark a continuation of the ancient Chinese high road *via* Lou-lan.

By the end of the first week of April our four lines of survey had been successfully brought to their appointed meeting point at Korla, the flourishing oasis in the north-eastern corner of the Tārīm basin, Muhammad Yakūb having rejoined from the Turfān side after a survey of the southern shore of

Parties re-united at Korla.

the Baghrash lake.⁷⁹ We then set out in three separate parties for the long journey westwards with Kāshgar as our common goal. Lāl Singh's task was to keep close to the T'ien-shan and to survey as much of its southern main range as the early season and the available time would permit. Muhammad Yakūb, with most of our brave camels, was sent southwards across the Konche and Inchike rivers to the Tārīm,⁸⁰ with instructions to survey its present main channel to the vicinity of Ābād in the Yārkand district.

My own antiquarian tasks obliged me to keep in the main to the long line of oases which fringes the southern foot of the T'ien-shan and through which since ancient times the chief trade and military route of the Tārīm basin has always passed. Well-known as is this high-road, over which lay most of my journey to Kāshgar, some 900 miles in length, yet its detailed survey proved of distinct interest by the light thrown both on its physical and historical geography.

By detaching Afrāz-gul wherever the need of inspecting old remains off the main road rendered this advisable, it became possible to survey also portions of the scrub-covered desert southwards before reaching Kuchā on April 14th.⁸¹ Three busy weeks spent within and around this great oasis, important both on historical and archæological grounds, enabled me with Afrāz-gul's efficient help to survey in some detail both its present cultivated area and that which, by the evidence of the numerous ancient sites scattered in the scrubby desert from south-east to south-west, must have once formed part of it.⁸² Apart from archæological finds of interest, these surveys have furnished clear evidence of 'desiccation'. They have shown that the volume of water available for the irrigation needs of the oasis from the Kuchā and Muz-art rivers has considerably decreased within historical times.

Surveys around Kuchā.

The centre of the Kuchā oasis was touched also by the survey of Lāl Singh who from Korla had kept as close to the T'ien-shan as transport and other conditions would permit. From Yangi-hissār he had succeeded in reaching the top of the Kara-dawān pass, still covered by deep snow, over which

Lāl Singh's surveys along T'ien-shan to Ak-su.

⁷⁶ See Sheet No. 25. C, D. 3.

⁷⁷ For an important early Chinese record bearing on the former course of the Konche-daryā towards Lou-lan, cf. my comments in *Serindia*, i. pp. 420 sqq.

There also I have discussed the hydrographic facts underlying the story related in the same text about a barrage which appears to have been constructed in the second century A. D. in order to assure to the

Kuruk-daryā bed the water needed for irrigation in the Lou-lan area.

⁷⁸ See Sheets Nos. 25, A. 2, B, C. 3; 21. D. 1.

⁷⁹ See Sheet No. 25. A, B. 1.

⁸⁰ See Sheet No. 21. D. 1-3.

⁸¹ See Sheets Nos. 21. A-D. 1; 17. C, D. 1, 2.

⁸² See Sheet No. 17. A-D. 1, 2.