observed latitudes in the azimuth derived from this setting. All surveys were done in May-June, 1914, when the atmospheric conditions of the season seriously interfered with both astronomical observations and distant views.

The terminal course of the Etsin-gol and the drainageless basin into which it carries all the moisture brought down from the ranges of the Central Nan-shan, are of distinct geographical interest, both in their physical aspects and with regard to historical topography. The route leading along the river has always possessed importance as a great natural highway from the Mongolian steppes into westernmost Kan-su and thus into China. This has been briefly explained by me in *Geograph. Journal*, 1916, xlviii. pp. 196 sqq., with special reference to Marco Polo's notice of the 'City of Etzina', marked by the ruins of Khara-khoto (45.C.1), and to Chingiz Khān's conquest of Kan-su. There, too, attention has been drawn to the striking parallel presented by this route to that once leading from Tun-huang, past the ancient Lop sea bed, to Lou-lan and the Kuruk-daryā delta. The evidence of desiccation noticed along the Etsin-gol aptly illustrates conditions such as are likely to have prevailed in the Lou-lan area before its final abandonment.

The riverine area comprised in our surveys falls into three distinct sections. From below Mao-mei to the outlying rocky spur of Bayin-bogdo (45.B.2), the river is confined to a single wide bed, lying in a trough which is flanked on the west by the steep gravel glacis of the Pei-shan and on the east by one sloping down more gently from the westernmost hill chain of the Ala-shan.

At the southern end of the Bayin-bogdo spur the river spreads out into a steadily widening delta. Among a number of traceable branches but few ever receive water now, and these, too, only during the short season of summer floods. For the greater part of the year water can be obtained in them only from wells dug in deep hollows at rare intervals. Yet in the narrow belts of riverine jungle flanking the beds, wild poplars are found living right down to the two terminal salt lakes, the Gashūn-nōr and Sogo-nōr, (No. 44. C.3,4).

The presence of these two lakes separated by a well-marked ridge and occupying different levels—the Sogo-nōr lies about 200 feet higher than the Gashūn-nōr [31]—strikingly illustrates the relations which our surveys at the end of the Su-lo-ho delta have led me to suppose between that river's present terminal marsh bed and the ancient lacustrine basin found at the head of the Bēsh-toghrak depression. [32]

There is definite evidence, as the map shows, of the shrinkage which the Sogo-nōr must have undergone in comparatively quite recent times, and which is obviously connected with the drying-up of the eastern beds of the delta. Having been prevented by my excavations at the Khara-khoto site from visiting the terminal depression myself, I am unable to judge what indications of older shore-lines, etc., may also be traceable in the case of the larger lake. In the north the whole basin is fringed by low hills, evidently outliers of the great Altai system of Mongolia proper.

*Corrections.* 44. C.4. *Owang-gol* should be printed in blue.

45. B. 1. For *Kök-zilgda* read *Kök-zigda.*

*Astronomically observed latitudes.*

| | | |
|---|---|---|
| 1913-15. | Buk-tokhai, Camp 142 (on right bank of Etsin-gol, near ruined tower; 45. B.3) ... ... ... ... | 40° 58′ 32″ |
| | Atik-tsagan, Camp 145 (on right bank of Etsin-gol; 45.C.1) ... | 41° 30′ 27″ |
| | Ulān-börük, Camp 151 (on right bank of western river branch; 44.B.4) | 42° 3′ 0″ |

## NOTES ON SHEET No. 46 (KAN-CHOU)

The surveys recorded in this sheet represent the easternmost extension of our work. They were made mainly in June-August, 1914; but some of the routes west

[31] This difference of level is marked also in the Russian Transfrontier map No. XXII, which shows the Sogo-nōr at 2,885 feet above sea-level and the Gashūn-nōr at 2,790 feet.

[32] See above pp. 31, 92.