

benighted on the glacier, resulted in the toes of my feet being severely injured by frostbite. The urgency of securing surgical aid obliged me to have myself carried by forced marches to Leh which was reached by October 12th and where the toes of my right foot were amputated. However, I had the satisfaction of knowing that the exploratory tasks of this journey had been completed.

I could leave the heavy caravan of antiques which had awaited my arrival lower down the Kara-kāsh valley, to be brought safely across the high passes under the care of Lāl Singh. He carried the plane-table survey up to the Indian frontier on the Kara-koram pass⁷⁹ and proved to the end, as throughout the journey, the most devoted and energetic of helpers. It was to me a special satisfaction that the recommendation of the Surveyor General secured for him due official recognition by the bestowal of the title of Rai Bahādur at the close of the year, and that this was followed some months later by the award of the Back Grant on the part of the Royal Geographical Society.

A detailed cartographical record of the surveys made on this journey was prepared at the Trigonometrical Survey Office, then under the direction of Colonel Sir Sidney Burrard, R.E., in the shape of an atlas of 94 sheets, drawn on the scale of 4 miles to 1 inch and each extending over one degree of latitude and longitude. These sheets reproduced by helio-zincography were intended primarily for publication with *Serindia*, the Detailed Report on the scientific results of my expedition. But the preparation of this large work was bound to take some years owing to the great abundance and very varied nature of the archaeological discoveries, etc., and to the need of utilizing for it also the help of numerous expert collaborators. Hence a certain number of copies of this atlas were made available in advance by presentation in 1913 to leading geographical institutions in Europe and America and to scholars specially interested in researches concerning these parts of Central Asia. This advance issue has proved all the more justified because the publication of *Serindia* has suffered considerable delay, first on account of the break caused in its preparation by my third Central-Asian expedition and subsequently, after my return in 1916, by the difficulties arising from the war which beset the printing and issue of those bulky volumes.

The technical execution of these map sheets considerably benefited by the comparatively large scale and by improved methods of reproduction introduced since the publication of the map showing the surveys of my first journey. But the heavy tasks awaiting me at the British Museum in connection with the elaboration of the archaeological results necessitated my departure for England immediately after my return from the expedition and my stay there for the next three years, and these circumstances together with the rapid production of the maps which other considerations demanded, made it difficult for me to bestow upon their details all the precise care which I should otherwise have done. This applies in particular to the hill-shading, done by hachuring instead of the 'form lines' of the original plane-tables. Owing to the great distance separating me from the Dehra Dun drawing office my revision of the sheets had to be restricted to the two stages of 'outline' and 'black and brown' proofs. No examination of the drawings themselves having been possible in the first instance, the range of corrections in these proofs was necessarily limited by considerations of delay and expense.

Fortunately the difficulties just indicated did not make themselves felt in the case of the maps illustrating my explorations of 1906-08 which with the kind permission of the Surveyor General I was able to get prepared and published by the Royal Geographical Society and subsequently to use also for my *Ruins of Desert Cathay*.⁸⁰ They comprised a general map of the whole area over which the surveys of those years extended, on the much reduced scale of 1:3,000,000, and two maps, on the scale of 1:1,000,000 showing important mountain regions, portions of the K'un-lun range south of the Karghalik-Khotan-Keriya line and of the Western and Central

Journey across
Kara-koram.

Quarter-inch maps of
1906-08 surveys.

Difficulties besetting
map revision.

Maps reproduced by
R. Geogr. Society.

⁷⁹ See Sheets Nos. 9. A, B. 4; 10. A. 7.

⁸⁰ See *Note on maps illustrating explorations in*

Chinese Turkestan and Kansu, Geographical Journal,
March, 1911, pp. 275 sqq.