The great extent of the ground and the varied nature of the materials brought back from the different journeys necessarily made the task of compiling, drawing, and reproducing these maps a very heavy one. The work, begun in 1916, had to be carried on for the most part during a period when operations connected with the war threw a great strain upon the Survey Department. My special thanks are therefore due to Colonels Sir GERALD LENOX-CUNYNGHAM, E. A. TANDY, and H. McC. COWIE, R.E., successively in charge of the Trigonometrical Survey Office, for the steadily continued efforts which secured the final completion of the maps by the summer of 1922. Preparation of maps.

These maps have come to comprise a vast but well-defined region of innermost Asia which, by its present conditions and by its important role in the past as the meeting-place of the civilizations of India, China, and the West, is attracting more and more the attention both of the geographer and of the historical student. It had been my constant endeavour in the field to make our surveys as exact and detailed a record of the prevailing physical features as limitations of scale, time, training, &c., would permit, and the revision of the maps in the successive stages of drawing and reproduction has during the years which followed involved no small amount of personal labour on my part.[2a] I feel therefore glad that the preparation of a detailed *Memoir*, which with the sanction of Colonel C. H. D. RYDER, Surveyor-General of India, was published as Vol. XVII of the *Records of the Survey of India*,[3] has enabled me fully to record the history of all the surveys carried out under my direction, to discuss the chief physical features determining the character of each distinct geographical area, and to furnish detailed notes on the materials used for each individual map sheet. In that Memoir full explanations will also be found as regards the methods of compilation, the representation of physical details, and the record of local names. To that publication I may be allowed to refer also for my grateful appreciation of the manifold and most willing help I received in the preparation of the cartographical records of my journeys from Officers connected with the Trigonometrical (now Geodetic) Branch of the Survey, especially the late Colonel R. A. WAUCHOPE, Colonel H. H. TURNER, Dr. J. DE GRAAFF HUNTER, and Majors F. J. M. KING, K. MASON, and W. E. PERRY. Memoir on Maps.

To the amount of work which Rai Bahādur Lāl Singh, a veteran of indefatigable energy, accomplished in the course of my third expedition, the *Memoir* and the maps themselves bear ample testimony.[4] Of the very serious hardships, not always free from risks, under which his surveys in waterless deserts and high wind-swept ranges were carried out, it will be possible for the reader of the present volumes to form some idea. Work of R. B. Lāl Singh.

My selection of two other Indian assistants who completed my small staff also proved very fortunate. In Naik Shamsuddīn, a corporal and now a Jamadār of the Bengal (King George's Own) Sappers and Miners, the loan of whose services the kind offices of Major-General J. E. DICKIE, R.E., enabled me to secure from that distinguished Corps, I found a very capable and helpful 'handy-man' for all work requiring technical skill. The other assistant was a young military surveyor, Miān Afrāz-gul Khān, a Pathān of the saintly Kāka-khēl clan and then a Sepoy in the Khyber Rifles. Having been first employed by me in 1912, on Sir GEORGE ROOS-KEPPEL's recommendation, in connexion with excavations on the NW. Frontier, he soon proved by his energy and Other Indian assistants.

[2a] The fact that the map drawings, proofs, &c., had in most cases to be revised by me before the corresponding portions of my report were written will help to explain the instances where slight mistakes of compilation or draughtsmen's errors escaped my attention.

[3] See '*Memoir on Maps of Chinese Turkistān and Kansu.* From the surveys made during Sir Aurel Stein's explorations, 1900–1, 1906–8, 1913–5, by Sir Aurel Stein, K.C.I.E. With Appendices by Major K. Mason, M.C., R.E., and J. de Graaff Hunter, Sc.D.' Trigonometrical Survey Office, Dehra Dun, 1923. Fol., pp. xiii, 208; 29 plates; 12 charts.

[4] As far as possible I arranged for R. B. Lāl Singh to follow routes independent of my own; for the method by which these routes have been distinctly marked on the maps, see *Memoir*, pp. 60 sq.