## CHAPTER II

## THE REGIONS SURVEYED

## SECTION I.—THE TARIM BASIN AND ITS MOUNTAIN RAMPARTS

In the introductory remarks reference has already been made to the decision arrived at after my return from the third expedition in the spring of 1916 that its topographical results should be published in the form of maps embodying also the surveys of my previous Central-Asian journeys. This decision was due mainly to the fact that the great extent of the new surveys and the care which had been taken to fill up gaps left by the preceding ones had rendered it possible to use the accumulated materials for the preparation of maps which could serve as comprehensive cartographic representations of certain vast and yet well-defined regions of innermost Asia. Great as is the area of these regions, yet a striking uniformity of physical features prevails within each of them. The consistency of the methods employed throughout our surveys in the field and in the cartographic record of their results is bound to bring out these characteristic features of each region in a way specially useful to the geographer, and in this may be found compensation for whatever defects and lacunae may appear in these mapsprepared from 'reconnaissance surveys' and without the help of extraneous materials.

This memoir is in no way intended to include a systematic treatment of the geography of any of those regions. But a brief indication of the limits of each of them and of the chief physical features determining their geographical character may usefully precede a description

of the methods followed in preparing the maps.

Starting from the west, we have first the great meridional mountain chain, the Imaos of the ancients, which divides the elevated region of the Pāmīrs from the huge drainageless basin of the Tārīm. Sheets Nos. 2, 3 show the Meridional range of Imaos. main portions of that chain which lie between the headwaters of the Kāshgar river in the north and the easternmost Hindukush in the south. While the high snowy range of Muz-tagh-ata and those of Kongur and Ulugh-art continuing the chain northward, are adjoined on the west by open Pāmīr-like valleys, the rivers draining the latter as well as the eastern slopes of the ranges all descend towards the Tārīm basin in deep-cut and

extremely narrow gorges, shown on the maps along the courses of the Gez, Kara-tash and Tāsh-kurghān rivers. The ranges themselves break up eastwards in mazes of deeply eroded arid hills. These rise abruptly above the wide piedmont gravel glacis which everywhere fringes their foot, and form the western rim, as it were, of the great basin proper.

This basin slopes gently away eastwards to its deepest part within the bed of the dried-up Lop sea. Even here it does not appear to sink below an elevation of about 2,000 feet. Its whole drainage is collected in the Extent of Tarim basin. Tārīm river and is ultimately lost in the marshes of Lop-nor which now occupy the western extremity of that ancient sea. From the plain around Kashgar at its westernmost limit to the easternmost inlet of the salt-encrusted bed of the ancient Lop sea, the greatest length of the Tarīm basin stretches over some 850 miles. Its greatest width, from the alluvial fan of Kuchā in the north to the foot of the K'un-lun glacis south of Niya,

is not less than about 330 miles. On the south this huge drainageless area is bordered throughout by the northernmost chain of the mighty mountain system of the K'un-lun and by the spurs it sends down towards the plains. Carrying perpetual snow on its crest line K'un-lun range. for almost the whole of its length, this great rampart of the northernmost K'un-lun is broken through by the Yarkand river, the main feeder of the Tarīm, and a number of other considerable rivers, such as those of Khotan, Keriya and Charchan, all of which have their sources further south. But all their valleys and those directly descending from the main range are extremely confined, and nowhere within these high barren mountains do we meet with cultivable areas of any size.