travelled by the Manasarowar Lake, and the road thence east­ward, parallel to the course of the Tsangpo, reaching Lhasa on the 10th of January 1860, and leaving it on the 21st of April 1867. On the second journey (1874) he started from Ladak, crossing the vast and elevated plateau by the Tengri Nor and other great lakes, and again reaching Lhasa on the 18th of November. Nain Singh gave an account of his journeys, and of his residence there, which, though brief, is full of intelligence and interest. This enterprising and deserving man, on the comple­tion of his journey in 1875, was rewarded by the Indian govern­ment with a pension and grant of land, and afterwards received the gold medal of the Royal Geographical Society and the Companionship of the Star of India. He died early in 1882.

In 1878 A.-K also revisited Lhasa, stayed a year, and after­wards continued into Tsaidam, not returning to India till 1882. Lama Ugyen Gyatso, a semi-Tibctan, who was originally a teacher of Tibetan in a Darjeeling school, was trained by the Indian Survey Department as a surveyor, and being deputed to take tribute from his monastery to Tashilhunpo, he secured permission in 1879 from the Tashilhunpo authorities for Sarat Chandra Das, Bengali schoolmaster at Darjeeling, to visit that monastery, where his name was entered as a student. This was the opportunity for a series of valuable exploratory journeys through the Tibetan provinces adjoining the Indian and Nepalese frontiers, which added greatly to our stock of information about Lhasa and the districts surrounding that city. In their first journey the travellers set out from Jongri in Sikkim, and travers­ing the north-east corner of Nepal, crossed into Tibet by the Chatang la, and travelled northwards to Shigatse and Tashil­hunpo. They returned by much the same way to near Khamba jong, and re-entered Sikkim by the Donkya pass. The journey was fruitful of information and valuable for mapping. Ugyen Gyatso undertook another journey in 1883 to complete and extend his former surveys. Travelling by way of Khamba jong directly to Gyantse and Shigatse, he turned eastwards at the latter town, finished the survey of the Yamdok t’so, and crossed the Himalaya into the valley of the Lobratsangpo or Upper Manas river. At Shakhang jong he was arrested, and his true character discovered. He managed, nevertheless, to extricate himself, and turning north-eastwards he passed through Chetang, and reached Lhasa by way of Samye monastery. From this city he started for Darjeeling, which he reached on December 15th, 1883. Chandra Dasmadeasecond journey in 1881, with the intention of reaching Lhasa. He travelled by way of Tashilhunpo, lay dangerously ill for some time at Samding monastery, duly reached Lhasa, where he visited the Dalai Lama, but owing to small-pox in the city could remain there only a fortnight, though he made full use of this time. During a journey home occupying nearly half a year he collected much further valuable information. Sarat Chandra Das’s reports of his two journeys were published by the Indian government, but for political reasons were until 1890 kept strictly confidential. In 1899 they were edited by the Royal Geographical Society and in 1902 published. They contain valuable information on the superstitions, ethnology and religion of Tibet. Chandra Das also brought back from his journeys a large number of interesting books in Tibetan and Sanskrit, the most valuable of which have been edited and published by him, some with the assistance of Ugyen Gyatso and other lamas.

The Russian explorer Prjevalsky, although he was not, strictly speaking, an explorer of Tibet, did much incidentally towards determining the conformation of its north-eastern and eastern mountain systems. His third journey into Central Asian wilds, which lasted from March 1879 to October 1880, included the sources of the Hwang Ho, or Yellow river, till then unmapped and unknown. His fourth journey, between November 1883 and October 1885, covered much of northern Tibet, and established the true character of Tsaidam. It was when setting out in 1888 to make an attempt to reach Lhasa that he died.

After Prjevalsky’s death, V. I. Roborovski, with several companions, explored the western ranges of the Kuen-lun, and crossed southwards into Tibet, tracing the course of the Kiria river to the north-western plains of the central plateau. The distinguishing feature of these explorations, led by Russian officers, is their high scientific value and the contributions they have offered to the botany, natural history, geology and meteor­ology of the regions under investigation in addition to the actual geographical data attained. The Kuen-lun is known in their writings as the Russian Range.

In 1888 Mr W. W. Rockhill, an American possessing the unique qualifications for Tibetan exploration of a profound knowledge of the language and history of the country, coupled with the instincts and training of a scientific explorer, left the lamasery of Kumbum in north-western Kansuh with three Chinese servants and a small caravan, proceeded round the north shore of Koko Nor, crossed eastern Tsaidam, and explored some of the rivers and lakes directly south of that region. Leaving Barong Tsaidam, he travelled south by way of the sources of the Yellow river, till he reached the Dre chu (upper Yangtsze-kiang), which he crossed to the north of the important trading centre of Yekundo. From this point he followed the valley of the Dre chu till about lat. 30° 31', when he passed into the basin of the Yalung river, traversed the Horba states and finally reached Tachienlu by the Gi la and the valley of the Darchu.

In 1891 Mr Rockhill, starting again from Kumbum with three Chinese, passed south of Koko Nor through the country of the pastoral Panaka Tibetans, and by a very difficult pass (Vahon jamkar la) entered again the basin of the Tsaidam. He then turned west, followed the base of the south Tsaidam range as far as the Naichi Gol, where he entered the southern mountainous region forming the northern borderland of Tibet. From this point the traveller followed a general south-westerly direction around the heads of all the feeders of the upper Dre chu, and thence into the lake region of northern central Tibet, crossing Bonvalot’s route south of the Chi-chang t’so and that of Bower a few days farther south. Near the Namru t’so his farther progress south was arrested and he was compelled to take an easterly course. After making a long detour north, often crossing the roads previously travelled by Bonvalot and Bower, and passing by Riwoche, he came to Chiamdo and Tachienlu. The results of Mr Rockhill’s two journeys were important and valuable.

Messrs A. D. Carey and A. Dalgleish in 1885-1887 made a protracted journey from Ladak, in the course of which they crossed the Aksai Chin, reached Khotan, entered the Tarim basin, and subsequently made their way east­ward and then southward across the Altyn Tagh and other ranges to the Tsaidam region. Finally a great circuit was made to the north and west, across the Humboldt range, and by Hami, Urumchi, and Yarkand to Ladak again.

Bonvalot, accompanied by Father Dedeken of the Belgian Catholic Mission and Prince Henri d’Orléans, left Charkhlik, south-west of the Lob Nor, in November 1889, and taking a very nearly due southerly course, reached on the 13th of February 1890 the eastern end of the Tengri Nor. Then pushing on southwards, he crossed the Nien- chen-tang-la and entered the Dam district near the Lhasa-Sining high road. Here the party was stopped by Tibetan authorities and forced to take the tea route through Chinese Tibet (Gyade) by way of Batasumdo, Chebotenchin, Riwoche, Chiamdo to Chiangka, near the upper Yangtse-kiang, whence they proceeded to Tachienlu by Batang and Litang. Bonvalot noted some extinct volcanoes in the northern Tibet desert.

Accompanied by Dr W. G. Thorold, of the India Medical Service, and a native sub-surveyor, Captain Hamilton Bower, I.S.C., set out from Leh on the 1st of June 1891, and crossed the Lanak la and the Ladak frontier on the 3rd of July. From this point the party took a general easterly direction past the Mangtza t’so, Horpa t’so, Charol t’so, and around the northern end of the Aru t’so, all important lakes, at an average altitude of about 16,500 ft. From the Aru t’so the travellers took a south-easterly direction