

Leh flows on the boundary between crystalline rocks on the north and eocene rocks on the south. Nearly the entire ridge north of the Indus consists of syenitic gneiss, an extremely variable rock as regards its mineralogical composition. Schistose and chloritic rocks form the greater part of the left side of the Chang-chenmo valley, and also occur south of the Saser Pass. Stoliczka looks upon this whole series as the representatives of the silurian formation. After crossing the Chang-chenmo valley to Gogra, he met with dark shales, alternating with sandstones. He occasionally observed traces of fucoids and other plants in these shales, but no animal fossils. On the Chang-chenmo route these shaly rocks form the ridge of the Chang-lung Pass, as well as the whole of the western portion of the Lingzi-tang, and they are met again after crossing the high plains and entering the Kara-kash valley. On the Kara-korum route BELLEW brought specimens of similar rocks from the Kara-korum Range itself. Judging from similar rocks which Stoliczka had seen in Spiti, and from their geological relation to certain limestones, he has but little doubt that this shaly series belongs to the carboniferous formations. In many localities along the right bank of the Chang-chenmo River, and at the hot springs north of Gogra, and on the southern side of the Chang-lung Pass, he found the carboniferous beds overlaid by triassic limestone. At Gogra and several other places, dolomitic beds occur. North of the Lingzi-thang, to the west of which the hills are mostly composed of the same triassic limestone, a red brecciated, calcareous conglomerate is seen at the foot of the Compass-la, but this conglomerate gradually passes into the ordinary grey limestone, which forms the ridge, and undoubtedly belongs to the same group of triassic rocks. Dr. Bellew found similar triassic limestones on the northern side of the Saser-la and on the Kara-korum Pass, overlying the carboniferous shales and sandstones. At Shinglung in the upper Kara-kash valley, Stoliczka saw the last traces of triassic limestone. Here the limestone rests upon some shales, and then follow immediately the same chloritic rocks which were noticed on the Lankar-la, alternating with quartzose schists, to both of which he attributes upper palaeozoic age. At Kizil-jilga regular submetamorphic slates appear, alternating with red conglomerate and red sandstones; and farther on dark slate is the only rock he saw on the whole way down the Kara-kash, until the river assumes a north-easterly course, some 14 miles east of the Kara-tagh Pass. From here to Ak-tagh the same slaty rock was met with the whole route. On Dr. Bellew's route the same slates prevailed. They further continue northwards across the Suget-davan and in single patches down the Suget River to its junction with the Kara-kash. A fine-grained syenite forms the whole of the Kwen-lun Range along the right bank of the Kara-kash River. The slates he refers to belong to the silurian group. They correspond to the metamorphic schists on the southern side of the Kara-korum Ranges.