pink, and the brown—is not exact, for while certain parts are composed of true sand, small portions are shaly, and large parts are composed of very fine material, which is neither sand nor clay, but a sort of silt which often resembles loess. The bedding is very even at the base, but signs of subaerial deposition make their appearance below the middle of the pink beds. At first there are sun-cracks and ripple-marks, then thin lenses of a slighly different texture from the surrounding rock, and finally in the brown sandstone very distinct stream channels filled with fine gravel. Throughout the Tertiary series, from the limestones upward, the layers are discontinuous; at any given point the bedding seems horizontal and unbroken, yet if individual beds are traced for some distance they gradually die out.

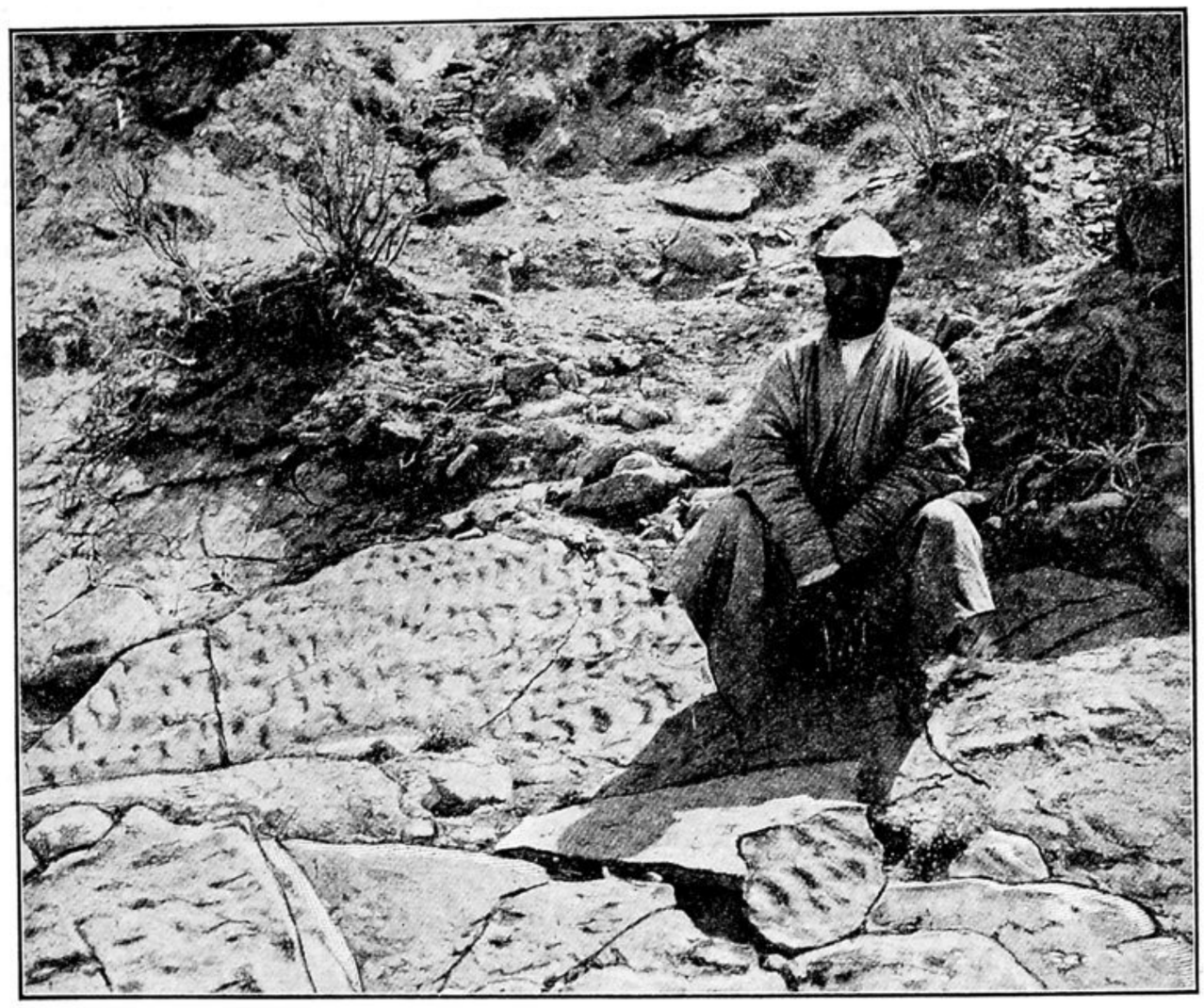

Fig. 123.—Ripple-marks on the lower half of the pink sandstone near Kan Su, west of Kashgar.

The conditions under which the Mesozoic-Tertiary series were deposited seem to have been largely subaerial, or at least non-marine. The coarse conglomerates at the base probably indicate arid or semi-arid conditions in a region of considerable relief. As relief grew less, or as the climate grew moister, the gravel of the conglomerate gave place to sand and that in turn to shale; in the latter are four or five coal seams. The next period, that of the vermilion beds, seems to have opened at a time of subaerial deposition when the conglomerates and the cross-bedded sandstones were formed; but toward the end the encroachment of the sea is indicated by the deposition of the marls and fossiliferous limestones. Elsewhere throughout the whole Mesozoic-Tertiary series fossils seem to be wholly absent, although the deposits are well fitted to preserve the remains of plants and animals if any had