

deep and so narrow that there is only room for a single horseman to pass between the walls. Northeast of Radkan his party "plunged into a deep and narrow gorge that cut straight into the heart of the rock wall as though some Titan's axe had slashed a savage gash in the solid stone. Its walls were absolutely perpendicular and shaped in parts by the storms of centuries into windy buttresses and towers, while at the bottom brawled a stream which had hollowed pools in the rocks, and up and across the bed of which it was with difficulty that our horses could be persuaded to climb. The formation and scenery of this magnificent gorge, whose walls are in receding terraces, are a precise reproduction on a miniature scale of the unequaled canyon of the Colorado in Utah." This comparison is very appropriate, for just as the horizontal strata of the Colorado plateau were uplifted at the time of the formation of the Grand Wash fault and have for a short time been exposed to dissection, so, at a correspondingly recent date, the slightly tilted strata of Kopet Dagħ were uplifted at the time of the formation of the Meshed fault and are now in process of rapid dissection.

The drainage of Kopet Dagħ appears complex. In part, as at Anau, it is clearly consequent, depending entirely on the attitude assumed by the mountains in consequence of recent earth movements. The streams follow relatively straight courses in steep-sided young gorges, and the crests of the ridges form the main divides. Oftener, however, as Curzon (I, p. 144) points out, the streams flow along the main valleys parallel to the axis of the mountains for a certain distance, and then, without warning, turn suddenly at right angles and pierce the mountain ranges at almost their highest points, cutting gorges of almost incredible depth and grandeur. "The base of these defiles seldom admits more than a torrent bed blocked with enormous boulders, and the walls are frequently vertical to a height of from 500 to 1,000 feet. The main divides are seldom the highest ranges or crests. The streams start on one side of the main ranges, and after running parallel to them for a while, break through to the other side, and perhaps run in an opposite direction for a time." Apparently, though the data are very scanty, the drainage of Kopet Dagħ was originally like that of the Appalachians, subsequent for the most part, but with antecedent remnants of a former consequent drainage. This has been further complicated by the recent uplifts, which in some places have caused the previous drainage channels to become more deeply intrenched, while elsewhere they have given rise to a new consequent drainage.

THE MESHED BASIN.

The so-called Meshed Valley south of Kopet Dagħ is in reality a narrow, cigar-shaped basin or depression, 10 or 15 miles wide, and at least 150 miles long from northwest to southeast. On the north it is bounded by the Meshed fault; on the south it seems to be separated from the mountains of Binalud by a simple flexure. At Kuchan, in the western half of the basin, its floor is arched where the Meshed fault becomes a flexure. As a result, the basin is occupied by two streams, probably consequent, one of which, the Atrek, flows northwest to the Caspian Sea, while the other, the Meshed River, or Keshef Rud, flows southeast to the Heri Rud;