

easily found, however. The delta of the Helmund, like every other delta, not only slopes from apex to front, but consists of a number of broad, almost imperceptible ridges separated by hollows equally broad. The ridges indicate the location of the main stream in former times when it built up the inner edge of its flood-plain and left slight depressions on either side. To-day the ridges are largely abandoned to the encroaching sand, although in the not far distant past they were the most populous parts of the country. Their slight elevation of 5 or 10 feet adds to the difficulty of bringing water to them, although this is of relatively slight importance. The main reason for abandoning them seems to be that they lie above the level where perennial underground water can be reached by the roots of the crops. Therefore a greater amount of water is required for irrigation, and a drought does much more damage than in the regions a few feet lower. In proof of this it is only necessary to examine the distribution of vegetation. The ridges and the upper parts are for the most part, though by no means universally, abandoned to the prickly camel thorn where they are not being overwhelmed by sand. The troughs, on the other hand, are occupied by the tamarisk jungle wherever they are liable to inundation, and are thickly studded with villages. The larger part of the cultivated land, however, lies in the low, flat regions along the borders of the delta, where the level of permanent underground water is but a few feet below the surface and can be easily reached by the crops. Lovett (*b*, p. 146) cites a good example of the rapidity with which changes in cultivation take place in response to changes in the water level, although he himself ascribes the change to an improvement in the government and a temporary sense of greater security. Arriving in Sistan in 1872, at the end of a six years' drought, during which the lake had practically disappeared, he found that the country around Kuh-i-Khoja was dry and was covered in part with tamarisks and in part with fields, although Connolly in 1842 described it as under water. "Now, however," says Lovett, "cultivation has advanced to within two miles or so of the island (Kuh-i-Khoja); in fact, has been developed *pari passu* with the retreat of the waters which has been assigned as the cause." To-day the villagers endeavor to plant their fields as close to the lake as possible. In February I saw men ploughing in deep mud on the very edge of the water, and rode across old fields which went under the lake and had evidently been cultivated a few years before during some drier season. At present, ruins, camel thorn, and sand occupy the higher portions of the delta, while villages, fields, and tamarisks occupy the lower portions. Strangely enough, the latter contain no ruins of any considerable age, although if conditions in the past were the same as to-day these must have been the most desirable parts of the country. The only adequate explanation of this phenomenon seems to be that the lake stood at a higher level during a past not far remote.

THE SHILA AND THE GOD-I-ZIRRAH.

In times of heavy flood the lake of Sistan overflows and sends a stream of water down the Shila 40 miles to the south and then 50 to the southeast, to the God-i-Zirrah. The Shila, where Sykes (*a*, p. 364) crossed it on the road from Kirman, is "a watercourse 350 yards wide, with banks 50 feet high." It lies in a "great