

from the first of June to the end of September, Merv suffers under almost tropical heat, the thermometer day after day rising to 100° F. or more in the shade. The ground becomes so hot that one can scarcely touch it, and to lie upon it is torture. At even a slight elevation, however, the radiation from the ground is robbed of its effect, and the wind, whose evaporating power brings coolness and comfort so quickly in this dry atmosphere, has opportunity to play. An elevation of only 10 feet makes a great difference, and at a height of from 30 to 60 feet the heat is quite bearable. The rulers, it would seem, lived in comfort on the tops of their hills, while down below in the heat and dust labored the common people. The ruins of whose small dwellings can be seen as little heaps clustering at the foot of the great kurgans, or stretched in lines along the courses of the canals.

One kurgan, more than any other, lends credence to the theory that has just been suggested. Churnuk Tepe (No. 28 in the table), one of the several that go by that name, is the smallest, the youngest, and the best preserved of all the kurgans of the last period. It alone shows abundant ruins of a superstructure, a thick-walled mud house surrounding a small courtyard. With the extreme elaboration that so often marks the last days of any line of development, the architect not only adopted the square form with the axis almost north and south, and the square tower projecting toward the south, but added to his design the touch that made the house almost bizarre, the square rooms projecting at the ends of the diagonals, one each to the north, south, and west, and two to the east. The main body of the structure consisted of a courtyard, on either side of which were ranged from four to six rooms. Beneath the rooms ran broad, arched passages, which may have been divided into apartments for storerooms or for the use of servants.

#### AGE OF THE KURGANS.

The dating of ruins is at best a difficult matter, and in the case of a reconnaissance like the present it is well-nigh impossible. One thing, however, can be stated, tentatively at least. The kurgans of the highly developed type appear to belong to the same era as Ghiaur Kala. The basis for this statement has already been mentioned. The pottery, with its characteristic designs, the glazed ware, the glass, and the stone-ware are of identically the same sort in the old city and in the mounds. At Gechekran Tepe a portion of a brown glazed lamp was found, identical in material and apparently in form with those found so abundantly in what seems to have been an old shop at Ghiaur Kala. Then, again, the peculiar method of construction with sun-dried bricks is identical in both cases, and is so unusual as to be significant. The beginnings of Ghiaur Kala may date back to the time of some of the earlier kurgans, but its final greatness appears to have been coincident with the construction of the kurgans of the highly developed type.

In this connection the old ruin of Kirk Tepe is of interest. Here, 15 miles north-northwest of Ghiaur Kala, we have what seems like a small imitation of that ancient capital. Kirk Tepe is a square inclosure, 1,000 feet on a side, with thick mud walls which in their present ruined state are 20 or more feet high. In the course of centuries they have been worn down into the form of rounded and semi-