936 RUINED SITES WITHIN THE OASIS OF PERSIAN SISTAN [Chap. XXIX

keystone. The whole looked as if the mason had tried to apply a new style of vaulting but did not fully understand its principle.

Site of Ghala-tappa.

About one mile to the NW. of the last-named site there rises above the neighbouring ground a low mound known as *Ghala-tappa*. Its top bears a double circumvallation of stamped clay, of oval shape and badly decayed. The interior measures about 340 feet by 240. The outer enclosure rises about 10 feet above the present level of the fields near by and measures from 52 to 64 feet across; the inner rampart is about 16 feet higher and varies from 24 to 28 feet in thickness. The far-advanced decay suggests that this is an ancient site, and the abundance of pottery debris, ribbed and plain, of the same type as prevails at Ghāgha-shahr fully supports this conclusion. The List below also includes specimens of glazed ware and of pieces decorated with simple designs incised or raised, both types far less frequent.

Ruins of Muhammadan period. From my camp at the small village of Kāsimābād, which has given its name to the Minār above described, I paid short visits in succession to a series of ruins scattered in groups to the north and north-west. They occupy ground slightly raised above the level which is reached by the inundations of the Rūd-i-Pariūn on the east and by the rare floods that occasionally fill the old bed of the Rūd-i-Nāseru on the west, and to this fact they obviously owe their preservation. They all belong to the Muhammadan period, as had already been correctly recognized by Mr. Tate, who briefly refers to them. The remains, which are mainly those of old mansions, fortified dwellings, or windmills, are so numerous and extend over so wide an area that a detailed survey would have required far more time than it was possible for me to spare. I shall therefore have to content myself with short notes on their position and general features, and an indication of such observations as have a bearing on their probable date.

Ruined dwellings near Bībīdōst. From a point about 1½ miles beyond Ghala-tappa lines of ruined dwellings stretch for more than half a mile northward, as far as the extensive graveyards that cluster around the Ziārat of Bībī-dōst. The ground here and at the other sites to be mentioned in this vicinity is protected from wind-erosion by abundant scrub. Yet the ruins all show decay more advanced than that observed at Zāhidān. Many of them are very massively built and comprise tower-like structures evidently intended to assure safety in case of disturbances (Fig. 497). As far as my examination extended, I saw only vaults built in the same fashion as first observed at Ghāgha-shahr, with bricks set on edge along the curve of the vaulting. The indication thus furnished of a date somewhat earlier than that of Zāhidān finds support in what I noted of the potsherds. By the side of the abundance of plain glazed fragments in bright greens and blues, pieces decorated with painted and glazed patterns such as abound at Zāhidān seemed very rare. Plain 'ribbed' ware was represented, but not as plentiful as at Ghāgha-shahr. The size of the bricks was the same as in the ruined structures adjoining the Mīl-i-Kāsimābād. In one ruined hall the remains of squinches showed the same fashion of vaulting as seen in the entrance hall, Gha. ii, at Ghāgha-shahr; the side walls are decorated with arched niches formed by overlapping brick courses.

Ruins near Rindān.

Proceeding about 5 miles to the north and crossing several 'Shēlas' or narrow beds filled by the Rūd-i-Pariūn at flood time, we reached the low mound of *Rindān*, presenting traces of former occupation in the shape of pottery debris. To the east of it extends a narrow belt of badly decayed ruins for over 3 miles from SE. to NW., evidently aligned on an old canal which lay parallel to the present beds of the Rūd-i-Pariūn on either side of this area. The most striking of these ruins are the very massive remains of a *Chiginī* or windmill which still rise to close on 40 feet in height. Its type is illustrated by another and probably later ruin of a windmill shown in Fig. 498. The