

But quite as important from the antiquarian point of view is another geological fact which Professor Lóczy's examination of the specimens submitted to him has clearly established. He has been able to show that not only is there almost complete uniformity in composition between the recently formed loess of Yōtkan and the soil of the ancient sites in the desert such as Dandān-Uiliq, Niya River Site, Rawak, but that even the dunes of moving 'sand' now surrounding and partly covering these sites contain nothing but naturally fertile river-silt brought either direct from the river-beds or derived from eroded loess beds.

Identity of loess at Yōtkan and at ancient desert sites.

We shall have occasion, when discussing the conditions prevailing at the sites just named, to recur more than once to the antiquarian significance of these observations. In the meantime it may suffice to point out that, if archaeological research in the Khotan region has every reason to be grateful for the guidance obtained from geological observations, it can also in its own field offer evidence which ought to prove useful to the geologist. The scrutiny of the antiques yielded by the Yōtkan culture-strata supplies, as the next section will show, a sufficiently exact *terminus a quo* for the formation of the loess bed overlying them. It thus enables us to gauge the rate at which the deposit of fresh soil is proceeding. We shall later on see that equally valuable testimony is afforded in the opposite direction by the remains at those ancient sites in the desert where the level of the ground has been greatly lowered through wind erosion. Here again it is archaeological investigation alone that can lead to a correct estimate of the time needed for this geologically interesting process.

Geological interest of observations.

### SECTION III.—THE SITE OF THE ANCIENT CAPITAL

Having acquainted ourselves with the physical aspects of the Yōtkan site, we may now proceed to examine its archaeological character and the remains which it yields. There can be no doubt that the 'culture-strata' brought to light beneath the fields of Yōtkan owe their origin to the débris accumulated during centuries on the site of an ancient town. The Yār which passes through Yōtkan from west to east, and the excavations to the south of it resulting from gold-washing operations, enable us to form some idea of the extent and position of this old town.

The banks of the Yār cease to yield any gold or antiques about 200 yards to the south-east of the houses of Khalche. Accordingly digging has stopped there. To the south the diggings, after extending for nearly half a mile from Khalche, have been abandoned just below the houses and gardens of the Allāma portion of the village, as the coveted gold could not be obtained in paying quantities from the banks reached there. It is along the banks on the west and north-west of the excavated area that the work of washing still continues vigorously each season; and it is under the fields lying in that direction, and particularly northward, that the remaining parts of the old town are likely to have been situated. It is important to note that the Yārs of Kāshe, which, as the detailed map shows, intersect the ground to the south and east at distances varying from a quarter to three-quarters of a mile from the edge of the excavated area, nowhere cut through layers containing any old remains. Seeing that these Yārs are at least as deep as the Yōtkan-Yār, and that any discoveries along their banks would certainly have been followed up by similar diggings, the negative evidence thus furnished is sufficient to exclude the idea of the town having ever extended in those directions.

Extent of ancient site.

M. Grenard was undoubtedly right when he recognized in the town site disclosed by the Yōtkan remains a part of the area once occupied by the old capital of Khotan. It is, however,

Alleged tradition of 'old town.'