

adequate supply of water, which has since turned the once habitable area between the extant Lop marshes and the Kuruk-tāgh into the lifeless wilderness of wind-eroded clay, salt, and sand now found there. We have seen above that the difficulty about water must already have been serious during the period when Lou-lan was still occupied by a Chinese station; for there is evidence of this difficulty both in a record from the site and in what Li Tao-yüan's story tells us about the foundation of So Man's military colony.⁵

It is easy to realize even now what change the drying-up of the Kuruk-daryā and of the canals dependent upon it must have brought about in the Lou-lan region. But we have no adequate materials for determining what was the immediate cause of this drying-up, and in what way it proceeded. The progress of general or regional desiccation, i. e. a diminution of the water-supply from all sources reaching the Konche-daryā and Tārīm; a gradual diversion of the waters previously feeding the Kuruk-daryā into a southern branch of the Tārīm through some natural process affecting all deltas; failure of maintaining barrages, etc., which previously assured a sufficient head of water for the Kuruk-daryā, through the disappearance of an effective administration, internal troubles, etc.,—all these and others besides might be causes adequate in themselves to bring about that great change in the physical conditions of the Lou-lan region. Which of them were actually at work is a question which the total want of definite records does not allow the critical student to answer even in a tentative fashion.

There is, however, one observation I made at the ruins which suggests that the change, whatever its direct cause was, did not come over the doomed settlement suddenly. The thick layers of consolidated sheep-dung which covered and protected the floors of the large and well-constructed dwelling L.B. iv⁶ point to this building, once probably the residence of a local notable, having served for a fairly long number of years as a shed for flocks. Such base use of a structure which at the time seems still to have been in a state of substantial repair is best explicable on the assumption that the site, though no longer capable of cultivation or permanent occupation, retained enough vegetation, with a minimum supply of water, to be fit for use as a grazing ground. The fact of ruins both at the Niya Site and at Mirān showing signs of similar use by herdsmen, after these settlements had become deserted, distinctly supports this inference.⁷ But even this last lingering trace of life is likely to have vanished from the Lou-lan Site before T'ang times, if the negative evidence of coins and other antiquarian finds may be trusted.

Drying-up
of Kuruk-
daryā.

Site visited
later for
grazing.

SECTION XII.—LIST OF ANTIQUES FROM LOU-LAN SITE

MISCELLANEOUS OBJECTS FOUND AT LOU-LAN SITE, L.A.

L.A. 001. Pottery fr., hand-made, of ill-levigated light red clay, fired on an open hearth (?) and 'smothered' (?). Outer surface orig. covered with black, and had incised orn. of lines and circles. Much sand-worn. $2\frac{1}{4}'' \times 2'' \times \frac{3}{16}''$.

L.A. 002. Pottery fr., hand-made, of well-levigated grey clay, fired on an open hearth. Outer face corrugated as L.A. 00146; vi. ii. 0024; L.B. iv. ii-v. 006; prob. by contact with woven rush-work in which the pot was shaped. This mat-marking is found on early Chinese pottery, and was freely used on the pottery found in the dolmens of Japan. $1\frac{7}{8}'' \times 1\frac{9}{16}'' \times \frac{1}{4}''$.

L.A. 003. Pottery fr., of hard red clay covered inside and out with deep blue-green glaze. Possibly Chinese. $1\frac{1}{16}'' \times 1\frac{9}{16}'' \times \frac{1}{4}''$.

L.A. 004. Pottery fr., trimmed round and pierced for use as a spinning-whorl. Diam. $1\frac{3}{16}''$, thickness $\frac{1}{4}''$.

L.A. 005. ($\frac{1}{2}$ mile S. of L.A.) **Base of red stoneware vase**, wheel-made and kiln-fired; mud-coloured clay with red haematitic face; surface much crackled. Prob. Chinese. Diam. $2\frac{1}{8}''$.

L.A. 006. Pottery lamp, hand-made, of ill-levigated clay; hemispherical, with side pinched out to take wick. Cf. L.A. ii. 001. Diam. $2\frac{5}{8}''$, h. $1\frac{1}{8}''$. Pl. XXXVI.

⁵ See above, p. 411 and pp. 421 sq.

⁶ See above, p. 400.

⁷ Cf. above, p. 245; below, chap. XIII. sec. i.