

in the spring greatly exceeded the irrigation needs of the present colony at that season. From June till September the volume of *ak-su* was said to be so great that besides filling completely the main channel of the river, known as *Kum-daryā*, which is over 170 yards wide at the canal head, it also overflowed into the two former river-beds to the east of the ruined site (see Map No. 26. c. 3).

Old canal
traceable.

It is clear in view of these statements that the abandonment of the old oasis marked by the ruined site to the west cannot be ascribed to any great diminution of the river's volume. The ancient canal, which once brought irrigation to the site and which the caravan route crosses, is according to Rōze Bēg's statement still clearly traceable for a considerable distance, in fact as far up as the point where the Vāsh-shahri river first spreads out on the gravel glaci. There a stone-built dam intended to protect the canal head still exists, as attested also by Professor E. Huntington.²⁰ The ancient canal, though about half as wide again as the new one, would yet, in Rōze Bēg's belief, not absorb all the water even now available in the river. But since the latter has cut its new main bed considerably deeper than the old, no attempt could be made to restore the old irrigation system.

Traces of
old routes
and canals.

I may here mention that Rōze Bēg reported the survival of traces suggesting that an ancient track was once carried over wooden scaffolding up the extremely narrow gorge through which the Vāsh-shahri river debouches from the mountains, a gorge which now is quite impracticable for traffic. The high grazing ground in the mountains known as Sulam-yailak, to which this track probably led, is now reached by another difficult path ascending the similarly narrow gorge of the river shown by the map (No. 26. B, c. 4) as Tāsh-sai. It was said that old canals, supposed to have once been fed by that river and by the stream of the Chukur-chap to the east, could be traced in places between the high dunes that cover the area to the south of the caravan track from the Charchan river to Vāsh-shahri. But Rōze Bēg himself had not seen them. On the other hand this energetic colonizer believed that water could be brought from the bed of the Tāsh-sai, which also carried spring water (*kara-su*), to the scrub-covered plain about Chapan-kāldi (Map No. 26. B. 3), and he proposed to open new cultivation there. The success of his venture at Vāsh-shahri, where the last harvest had yielded some 2,000 Charaks (approximately 32,000 lb.) of grain for his own share, had evidently encouraged him.

OBJECT PURCHASED AT CHARCHAN

Char. 02. Crystal bead; rectang., with corners chamfered. Said to have been found near Yalghuz-dong. $\frac{1}{2}'' \times \frac{5}{12}'' \times \frac{1}{4}''$.

OBJECTS FOUND AT VĀSH-SHAHRI SITE

V.S. 01. Copper (?) seal ring. Circular bezel with four projecting points equally disposed round edge. Device cut in the metal within incised ring. Well preserved. Diam. $\frac{1}{16}''$.

V.S. 02-5. Four frs. of glass, dull green; as V.S. 06, but thinner except 02 which possibly belongs to 06. Gr. fr. (03) $1'' \times \frac{3}{4}''$, thickness $\frac{1}{16}''$.

V.S. (Fort) 06. Fr. of neck of glass vessel, obscure green. Wavy band applied round neck. Diam. $1\frac{1}{2}''$, h. $\frac{3}{4}''$, thickness with band $\frac{1}{2}''$.

V.S. 07-12. Six frs. of glazed stoneware, prob. from same straight-sided bowl. Body of fine buff clay, glaze on each side dark black-brown. 010 and 011 are frs. of straight side, with plain rim and two raised bands moulded on exterior in faint relief, and similar fainter corrugations on sides. 012 is from wall thickening to base,

with glaze on outside coming down in irregular streaks, and glaze on inside cut away in band round turn of wall. 09 is from middle of base, unglazed on under-side. Same ware as So. 0031, Ser. iii. p. 1107. Chinese. Gr. fr. (011) $1\frac{1}{8}'' \times 1\frac{1}{8}''$. Thickness $\frac{5}{32}''$ to $\frac{3}{8}''$.

V.S. 013. Fr. of glass, olive green, clear but bubbly. $1\frac{1}{8}'' \times \frac{3}{4}'' \times \frac{1}{20}''$.

V.S. 014. Fr. of glazed stoneware, from plain rim and side of bowl. Body of fine porcellaneous buff frit, covered each side with slightly crackled glaze, brown at rim and turning to fine mauve below. $1'' \times 1'' \times \frac{3}{16}''$.

V.S. 015. Fr. of glazed stoneware; body of dark grey clay, with thick glaze either side of dull blue. Cf. V.S. 019, Pl. LI, for ware of same type but inferior glaze. $1\frac{1}{2}'' \times \frac{7}{8}'' \times \frac{1}{4}''$.

²⁰ Cf. *Pulse of Asia*, p. 222.