

distance of about five miles from Camp xciii. Here the fragment of a neatly decorated bronze plate, C. xciii. 074 (Pl. XXIII), was picked up, together with small pieces of broken glass vessels (C. xciii. 075, 080, Pl. XXIII). From this point onwards the finds of such small relics, manifestly of Han times and the century immediately following, became frequent and continued till the end of the march. Among them were glass beads (C. xciii. 030, 033-4, 077-8, Pl. XXIII); bronze arrow-heads (C. xciii. 069, 071, Pl. XXIII); a piece from the edge of a bronze mirror (C. xciii. 068); and miscellaneous small fragments of bronze, lead and iron (C. xciii. 029, 067, 070, 072-3, 076, 0144-5, 0157, Pl. XXIII). Insignificant in themselves, these relics of the historical period acquire antiquarian interest from the fact that the southern limit of the area over which they were found falls almost exactly into line, as Map No. 29. D. 4 shows, with the point where, on my route of 1906 farther west, I first came upon worked fragments of bronze and potsherds of superior make, about nine miles to the north of Camp 122.¹¹ These new finds thus confirm the inference I had then drawn that the area to the north of this point had in some places been occupied during historical times, and in others been at least frequently visited.

Finds of
Han time
relics.

As regards the area to the south, extending on Map No. 29. c, D. 4 from about latitude $40^{\circ} 10'$ to $40^{\circ} 22'$, over which no remains whatever of the historical period were traced on either of my routes, I have already in *Serindia* called attention to the fact that it includes the belt about 10 miles wide across which Dr. Hedin's levelling of 1901 showed a distinct depression.¹² I have also given in the same work what I think a likely explanation of this depression, which, taking the mean value of the measured levels, works out at an average of less than four and a half feet below the present level of eroded ground at the Lou-lan station L.A. If the portion of the deltaic area comprising this depression had been devoid of water and its river-beds dry since the end of the local stone age, as is suggested by the total absence there of datable relics from the historical period of the Lou-lan occupation, its soil would have been unprotected by vegetation and consequently exposed to wind-erosion and gradual abrasion centuries longer than the riverine belts north and south. In the latter, as the ruined settlements of L.A., L.B. and L.K., L.M., respectively prove, the river-beds must have carried water down to the first half of the fourth century and are likely to have done so intermittently somewhat longer. The greater length of time during which wind-erosion could assert its full force on the ground lying between those two belts, assuming it to have already been left dry centuries before the Lou-lan sites were abandoned, is amply sufficient to account for that difference of average level observed by Dr. Hedin in the depression referred to; for my measurements at the Lou-lan station L.A. have proved that open ground near certain ruins there has been lowered by wind-erosion to the extent, on an average, of more than one foot per century.¹³

Depression
without
datable
relics.

The explanation here indicated, conjectural as it is, derives some support from the fact that two observations which still deserve to be noted can be readily reconciled with it. One is that the dry ancient beds traceable north of the latitude of L.M., up to the line where on both my routes relics of the historical period were first met with, were less clearly defined than those which we crossed on our way from that line to the Lou-lan station L.A. If the river-course of the area within the limits just mentioned had ceased to receive running water since neolithic times, i. e. centuries before the settlements of the Lou-lan sites and of L.M., L.K. were abandoned, the consequent longer exposure to wind-erosion would suffice to explain why the progress made in the effacement of the old beds was here greater. The other observation relates to the fact that the depression indicated by Dr. Hedin's line of levels does not extend over the southern portion of that area. This

Difference
in effects
of wind-
erosion.

¹¹ Cf. *Serindia*, i. p. 361.

¹² See *ibid.*, i. p. 359; Hedin, *Central Asia*, ii. pp. 234 sqq., 314 sqq., with Pl. 36, 37, 59.

¹³ See *Serindia*, i. pp. 371, 375, 388, 390, 392, 399; also below, p. 215.