

nature of the ground, incessant little détours were necessary for the sake of the camels, which could not negotiate steep banks, and whose feet were already sorely tried by the hard, cut-up surface of the Yārdangs. The Surveyor, whom rheumatism severely taxed in physical endurance and morale, was all through this desert expedition unable to render me effective assistance.

Ancient  
branches of  
Kuruk-  
daryā.

If, notwithstanding these drawbacks, I now feel justified in recognizing the successive strips of dead forest as indications of ancient water-channels, this is due to the definite evidence which three subsequently surveyed route lines across this desert area have yielded. The one which I followed at the close of December, 1906, on my way from the Lou-lan Site to the Tārīm, is recorded in Map 60. It led from north-east to south-west, and lay thus at a constantly increasing distance to the west of the route just described. There, too, at least five well-defined belts of dead riverine jungle were crossed, and their carefully observed direction from north-west to south-east, as seen in the map, clearly indicated that they marked southerly branches of the Kuruk-daryā, the ancient 'Dry River', which, as Dr. Hedin's explorations had already shown, once carried its water to the area of the Lou-lan ruins. Their diverging point, as suggested by our Lop surveys of 1914 and 1915, appears to have lain some distance to the west-north-west of the Lou-lan Site.

Later sur-  
veys of  
Kuruk-  
daryā delta.

An examination of Map No. 60 suffices to make it highly probable that these southerly branches of the Kuruk-daryā had their continuation in the ancient beds the existence of which I had been led to infer from the riverine jungle strips passed, between Camps 121 and 123, on my way to the Lou-lan Site. This supposition has since received full confirmation from the surveys which were carried out by us, in 1914 and 1915, on two different routes across the desert area separating the two former route lines. As the final adjustment and compilation of the map embodying these recent surveys has not yet been completed, it is impossible for me to discuss and illustrate here in detail the way in which they have linked up the riverine forest belts previously observed. It must be enough to state that the beds of the several conjecturally assumed river branches have now been actually traced at a number of points and the general direction of their courses determined. These led in each case first from north-west to south-east and then took a turn towards the great salt-encrusted depression eastwards which was proved to have once received the waters of the whole Kuruk-daryā delta.<sup>3</sup>

First relics  
of Stones  
Age.

The topographical conclusions thus arrived at as to the character and significance of the several belts of dead riverine forest crossed on our march to the Lou-lan Site have received full confirmation from antiquarian finds. It was not the physical aspect of the ground alone which suggested that the area we were moving across had been capable of occupation at some early period preceding the present stage, when, owing to complete desiccation and consequent denudation, it is undergoing a continuous process of erosion and deflation. We had scarcely proceeded for more than a mile from Camp 121, and had just cleared a belt of drift-sand full of dead wild poplars, when on the bare eroded ground beyond it relics of the Stone Age began to crop up in numbers. The first to attract my attention were two flakes of jasper (C. 121.0010, 0011, Plate XXX) and a small knife-like blade of the same material. As the men with me were encouraged to keep a look-out for such small objects, similar finds of worked stones followed in frequent succession wherever the ground was bare and exposed to wind-erosion.

Search for  
stone and  
pottery frag-  
ments.

As the soil north of the present Lop-nōr marshes right up to the foot of the Kuruk-tāgh consists entirely, except for drift-sand, of lacustrine clay or loess deposits, it was obvious from the outset that all stones picked up on this ground must have been brought there by the hand of man with some object. Fragments of very coarse hand-made pottery, grey, brown, or red, as well as

<sup>3</sup> Cf. regarding this ancient lake-bed and the area where the Kuruk-daryā debouched into it, my *Third Journey, Geogr.*

*Journal*, 1916, xlviii, pp. 121 sqq. [See now for the topography of this ancient delta Sheets 29, 32 of my 1 : 500,000 Atlas.]