

the configuration or at least the size of the lake may be quite different. However, the maximum extent of the terminal lake 1921—1930 is also fairly well known.

The lake Qara-qoshun, when still existing, was never so closely surveyed, and the outline of its eastern extremity was never determined.

In view of such changes in the extent of the lake it is very hard to determine the position of the water level at the time of Lou-lan, and matters are also complicated by human activities, especially irrigation in the delta region.

HÖRNER found at the salt terminal lake traces of a shore-line 0.8 m. above the water level at the beginning of 1931, and this shore may have belonged to the lake of Lou-lan's time or possibly to a post-Lou-lan lake. Other observations of his indicate that the water level in the Lou-lan oasis cannot have exceeded the present one in the same area by more than a metre or two, probably not that much.

The extraordinary physical conditions prevailing in the Lop desert create a good many relatively rapid changes in the morphology of the ground. Besides the major river changes occurring at intervals of centuries, there are other changes going on almost constantly.

The wind with the sand as the carving medium is forcefully grinding the dry clay or mud surfaces of the ground into deep hollows and trenches, leaving curiously shaped yardangs as temporary witnesses of an older land surface. After HÖRNER'S investigations it is clear that the bulk of the fine sediments, so easily eroded by the force of the wind, is of a fluvial rather than a lacustrine nature.

As the strong winds almost constantly come from north-east and north-north-east, the loose material carried away moves in the same direction. In the southwestern part of the desert, sand dunes are thus formed. The amount of such sand accumulations is bound to increase. From the distribution of stray finds from Lou-lan's time it is also obvious that the sand is so increasing.

The wind erosion in the northern part of the basin during a dry stage is of greater importance for the configuration and situation of the delta which will be formed when water returns than for the configuration and situation of the terminal lake then formed, because the salt crust where the last of the water evaporates offers an efficient resistance against wind erosion. The present new delta is very different from the delta of Lou-lan's time, and even when it has become old and "stabilized" it will remain different.

The river branches of the present delta show a very marked tendency to turn to the north-east. This circumstance is due to the fact that the wind-scoured troughs run in this direction. These troughs between the yardang-formations are of course much deeper now than 2000 years ago, if they existed at all at that time. It is therefore quite certain that the present delta does not cover exactly the same region as the delta of Lou-lan's time. The occurrence of numerous ruins and cemeteries in curious nooks and corners of the present delta also indicates that the delta was not so split up in numerous branches at the time of Lou-lan as it now is. By and by the