faintly depressed trough. This probably marks the course of the valley in which ran the river, on the eastern bank of which the settlement at the North Kurgan was started, and on the west side of which the South Kurgan was founded at a very much later date.

One of the essential incidents of growth in all these oasis-deltas is the more rapid growth of the banks of the stream than of the general surface; for the stream, when in flood, is loaded with silt, the greater part of which is deposited as soon as the velocity is diminished in spreading over the banks on to the plains. On the steepest grades, on "fans" formed where mountain gorges debouch on to steep declivities, the torrent in depositing its load of large and small boulders builds up on each side a high and narrow dike, and maintains only a narrow channel between these. But on the gentle grades of an oasis surface and where the silts are less differentiated in size of grain, the resulting relative increase of height near the stream is only slightly marked. When in the course of time the valley of the stream is filled up by alluvial deposits during the process of "aggrading," these embankments it has formed no longer contain it and the waters seek a new course over the lower surface outside. Such would appear to have been the cause of the abandonment of the South Kurgan and of the founding of the now ruined city of Anau, a mile away to the east, on what is now the chief watercourse of the delta.

NOTE.—It is, in fact, because of this shifting from side to side, this bursting of the natural embankments of a delta's distributary channels, and of the shifting of the axes of maximum growth, that deltas and fans everywhere present such an aspect of symmetry, and it may be said that no great area of alluvial plains, such as the steppes of Central Asia, ever obtained without a wonderful transmigration of rivers and streams and revolutional changes in hydrography, such as must often have been sudden and catastrophic to man, especially to the sedentary population.

There can be little doubt that the above law, so universal to alluvial growth, had an important effect upon the history of Anau. The earlier generations of the North Kurgan had no difficulty in keeping their water-supply at hand, for the Anau-Su then flowed by in a well-defined channel incised in the plain, but when the flood-plain of this channel had aggraded to —20 feet, as shown in North Kurgan shaft 1, the stream could have had little or no natural obligation to flow by the North Kurgan. But though the inhabitants may have had to exercise their ingenuity, it could not have been for long, because —20 feet is the ultimate height to which filling attained here at this period, and marks the beginning of cutting-down, and a long period during which the stream again flowed in a well-defined channel by the North Kurgan. The South Kurgan was founded on the other side of this same channel, and as with the first kurgan, its earlier generations had no doubt but that their water would flow to them forever, of its own accord, but in the course of about a thousand years after the beginning of this kurgan, the flood-plain had again aggraded, to fill the little valley, and this time surely overflowed the neighboring lands in flood time. From this time on for about 1,500 years, this embarrassing state of affairs continued, while the neighborhood of the stream aggraded till the basal layers of the South Kurgan were buried to a depth of 12 feet in natural sediments, when at about 2600 B. C. the stream began to cut down again. We must credit these primitive people with no little amount of ability, for they succeeded in forcing the stream to flow by their town during a period of 1,500 years; and it must have been a much more vigorous flow than at present, and would naturally have deflected from side to side in order to maintain an even surface to the fan.