

sediments were deposited over the old channel shown in shaft B, there has been no recurrence of dissection. Had irrigation not come to the rescue, the aggrading shore-line would have receded desertward, and the prolonging channels would have carried the sediments onward to form barren takyr on the dune-covered plain.

At present practically only the excess of water in the high floods carries fine sediments beyond the delta, for the water that is allowed to escape after the irrigating season is nearly clear. Thus practically all the detritus is retained in the delta. The coarser material is rolled along in the ditches; the rest is distributed over the fields, where it accumulates as a creamy white formation of even texture, of evenly mixed clay and very fine sand. The marked characteristic of this formation is an entire absence of stratification. This is doubtless due to growth of vegetation and the annual comminution of the soil through the processes of cultivation, for while the annual increment of sediment is only a small fraction of an inch, the yearly manipulation breaks up the ground to a depth of several inches.

At present our only way of estimating rate of growth of irrigation sediments is by comparison with that of the accumulation of culture-strata. Both the city of Anau and the irrigation formation started on the natural surface of the delta; and, while in the city the culture-strata have grown to a height of 38 feet, the irrigation formation has risen on each side to a thickness of 15 feet, which would give a ratio of 1 of irrigation to nearly 2.5 of the loosely compacted culture-strata of the city of Anau.