Since the position of the mountain streams and the activity of the agencies described have been, generally speaking, constant, it follows, as shown by R. W. Pumpelly in his report, that the conditions now visible on the surface of the zone of depression continue in a general way in depth. Therefore, a longitudinal section in the axial plane of the trough of depression should show the delta structure extending downward to the extreme depth, while the whole of the intervals would appear occupied by wind-borne materials from the desert and from the flood-plains, mixed with detritus brought by cloudbursts from the declivities. While the building-up process was constant, orogenic and climatic changes would be recorded by dovetailings of sand and delta interbeddings where the two kinds of columns meet. And periods of adequate local precipitation would probably be marked by beds of sandy loess that had formed over the dune-sands. A similar set of conditions should appear in the downward extension of the foot of the delta in the relation between takyr strata and dune-sand. Indeed, this condition was observed by R. W. Pumpelly in a shaft at Bal Kuwi on the desert, a few miles north of Anau.

We have seen that the essential factors in the process of delta-building are precipitation to facilitate movement of detritus, and mountain-rising to maintain the grade needed for transportation through and beyond the highlands. Of these factors we may, I think, take the rising of the mountains to average a constancy adequate to the maintenance of a relatively constant grade. On the other hand, we shall probably be right, in dealing with considerable periods of time, if we assume that precipitation is a factor of more varying intensity. It is evident that, other things remaining equal, the amount of detritus brought from the mountains will be proportionate to the amount of precipitation to supply the volume of water needed to move it. After this detritus emerges from the mountains, the manner in which it builds up the delta depends largely on the relation between the secularly maintained volume of water and the established grade. The tilting of the edge of the plain favors erosive action and deepening of the channels of watercourses across the deltas. Such a channel having been established across a delta, all the material that is not dropped on account of its coarseness at the apex near the mountain is carried onward. Where the floods can overflow the banks, they deposit silts on the general surface. But the greater part of the detritus carried goes to the gently inclined and dune-barred foot-plain of the delta, where it spreads out, forming an alluvial plain around the lower slope of the fan. We may call the upper edge of this aggrading plain the grade-contour line or alluvial shore. The mouth of the valley will always be at this shore-line and move with it upstream or downstream.

If there were no differential movement and the plains did not yield and sink under the accumulating load, the rising surface of the plain would extend into the mountains, and the valleys would gradually become filled with the sediments. On the other hand, if the zone of deposition sank gradually throughout its width, the valley would always end at the mouth of the mountain gorge. But the slower sinking of the border is shown in the up-tilted strata of old delta sediments along