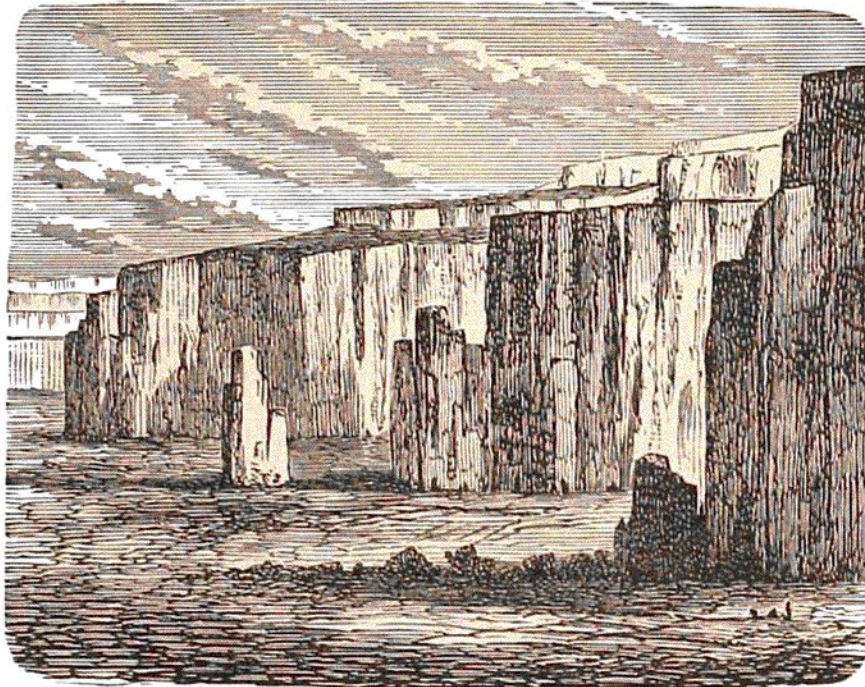


and deposition of the ephemeral streams and the thousands of little rills that are occasionally at work over the surface of the dry regions: the annual precipitation is less than 20 inches. The deposits in some places are hundreds of feet in depth. The calcareous portion is attributed to land-shells. It is various in composition, containing 1 to 14 per cent of alumina, 19 to 67 of silica, and 2 to 5 of water, with 3 to 60 per cent of calcium carbonate.

183.



Loess formation on the Hoang Ho, in the province of Shan-Si, China. Riechthofen.

Fine mud-like deposits are formed over the Great Basin in temporary lakes, called *playas*, produced by the overflow of rivers, the material of which is related to the preceding. The mud contains more or less of the saline ingredients of the evaporating waters.

(3) **Delta-formations.** — The larger part of the detritus of a river is carried to the ocean, or lake, into which it empties; and it goes to form more or less extensive flats about the mouth of the stream. Such flats, when large and intersected by a net-work of water-channels, are called *deltas*; they are river-made, and reach a large size only where the tides are quite small, or are altogether wanting.

The spread of a river into a delta at its mouth is a consequence of its enfeebled or decrepit state. Deposition is excessive and becomes an obstruction to the flooded river, and consequently, besides keeping open one or two main channels, the waters cut new channels at flood-times, which may partly disappear and become replaced by others in future floods. The surface thereby becomes intersected by many lines of sluggish waters, small and large, which flood-time puts into temporary activity. The deposits have a slight slope seaward, and thus approximate in character to an alluvial cone (Gilbert), although a consequence of the floods of a stream in decrepitude, and not of one in a torrential or vigorous state. Through the flood-deposi-