the junction of the Ohio, is of the same character, including, according to Mr. Forshey, an area of about 16,000 square miles, and is, therefore, larger than the delta. It is very variable in width from east to west, being near its northern extremity, or at the mouth of the Ohio, 50 miles wide, at Memphis 30, at the mouth of the White River 80, and contracting again further south, as at Grand Gulf, to 33 miles. The delta and alluvial plain rise by so gradual a slope from the sea as to attain at the junction of the Ohio (a distance of 800 miles by the river) an elevation of only 200 feet above the Gulf of Mexico.

First, in regard to the whole alluvial slope, whether above or below the present head of the delta, it will appear, from what has been already said, that sand is thrown down near the borders of the main river and its tributaries, and fine mud at more distant points. The larger portion, however, of the whole area consists of swamps, supporting a luxuriant growth of timber, interspersed with lakes, most of which are deserted river bends. These lakes are slowly filling up, and every swamp is gradually becoming shallower, the substances accumulated in them being, for the most part, of vegetable origin, unmixed with earthy matter. It is only on their exterior margins (except after a sudden subsidence, during an earthquake like that of 1811–12), that the waters of the Mississippi throw down sediment in the interior of any large swamp or lake, for the reeds, canes, and brushwood, through which the waters must first pass, cause them to flow slowly, and to part with all the matter previously held in mechanical suspension. Long before they reach the central parts of a morass or lake, they are well filtered, although still deeply stained by vegetable matter in a state of decomposition.

Over a large portion of the submerged areas of the great plain, trees are seen growing every where in the water. Into the deeper water, where no forest can grow, the trunks of trees are floated, and many of these sink, when water-logged, to the bottom, which is also raised by an annual deposit of leaves, and of peaty matter derived from decaying plants, of which there is an exuberant growth round the borders of every swamp. That the admixture of inorganic matter is very small, has been shown by the observ-