

CHAPTER XXXIV.

Alluvial Formations of the Mississippi, ancient and modern.—Delta defined.—Great Extent of Wooded Swamps.—Deposits of pure Vegetable Matter.—Floors of Blue Clay with Cypress Roots.—Analogy to ancient Coal-measures.—Supposed “Epoch of existing Continents.”—Depth of Fresh-water Strata in Deltas.—Time required to bring down the Mud of the Mississippi.—New Experiments and Observations required.—Great Age of buried and living Cypress-trees.—Older and Newer Parts of Alluvial Plain.—Upraised Terraces of Natchez, &c., and the Ohio, the Monuments of an older Alluvial Formation.—Grand Oscillation of Level.—The ancient Valleys inhabited by Quadrupeds now extinct.—Land-shells not changed.—Probable Rate of Subsidence and Upheaval.—Relative Age of the ancient Alluvium of the Mississippi, and the Northern Drift.

BEFORE leaving the valley of the Mississippi, I shall take this opportunity to offer some general remarks on the modern delta and alluvial plain of the great river, and on those fresh-water deposits before described in the bluffs of Port Hudson, Natchez, Vicksburg, and Memphis, which I regard as the monuments of a more ancient alluvial formation, one of high antiquity, yet formed when the physical geography of the country already bore a great resemblance to that now existing, and when, moreover, the land and waters were inhabited by the same species of terrestrial, fluviatile, and lacustrine mollusca, which now inhabit this region, although the land quadrupeds were almost entirely different.

The delta of the Mississippi may be defined as that part of the great alluvial slope, which lies below, or to the south of the branching off of the highest arm, or that called the Atchafalaya. Above this point, which is the head of the delta, the Mississippi receives water from its various tributaries; below, it gives out again, through numerous arms or channels, the waters which it conveys to the sea. The delta, so defined, is about 14,000 square miles in area, and elevated from a few inches to ten feet above the level of the sea. The greater part of it protrudes into the Gulf of Mexico, beyond the general coast line. The level plain to the north, as far as Cape Girardeau, in Missouri, above