

its eastern side by a table-land, *d e*, about two hundred feet higher than the river, and extending twelve miles eastward with a gentle upward slope. This elevated platform ends abruptly at *d*, in a line of perpendicular cliffs or bluffs, the base of which is continually undermined by the great river.

The table-land, *d e*, consists at Vicksburg, through which the annexed section, fig. 26, passes, of loam, overlying the tertiary strata, *ff*. Between the loam and the tertiary formation there is usually a deposit of stratified sand and gravel, containing large fragments of silicified corals and the wreck of older palæozoic rocks. The age of this underlying drift, which is one hundred and forty feet thick at Natchez, has not yet been determined; but it may possibly belong to the glacial period. Natchez is about eighty miles in a straight line south of Vicksburg, on the same left bank of the Mississippi. Here there is a bluff, the upper sixty feet of which consists of a continuous portion of the same calcareous loam as at Vicksburg, equally resembling the Rhenish loess in mineral character and in being sometimes barren of fossils, sometimes so full of them that bleached land-shells stand out conspicuously in relief in the vertical and weathered face of cliffs which form the banks of streams, everywhere intersecting the loam.

So numerous are the shells that I was able to collect at Natchez, in a few hours, in 1846, no less than twenty species of the genera *Helix*, *Helicina*, *Pupa*, *Cyclostoma*, *Achatina*, and *Succinea*, all identical with shells now living in the same country; and in one place I observed (as happens also occasionally in the valley of the Rhine) a passage of the loam with land-shells into an underlying marly deposit of subaqueous origin, in which shells of the genera *Limnea*, *Planorbis*, *Paludina*, *Physa*, and *Cyclas*, were embedded, also consisting of recent American species. Such deposits, more distinctly stratified than the loam containing land-shells,