

Upon the whole it appears, that the strata of loam, clay, and gravel, forming the elevated terraces on both sides of the Ohio and its tributaries, and which we know to have remained unaltered from the era of the Indian mounds and earthworks, originated subsequently to the period of the existing mollusca, but when several quadrupeds now extinct inhabited this continent. The lower parts both of the larger and smaller valleys appear to have been filled up with a fluviate deposit, through which the streams have subsequently cut broad and deep channels. These phenomena very closely resemble those presented by the *loess*, or ancient river-silt of the Rhine and its tributaries, and the theory which I formerly suggested to account for the position of the Rhenish loess (also charged with recent land and freshwater shells, and occasionally with the remains of the extinct elephant) may be applicable to the American deposits.

I imagined first a gradual movement of depression, like that now in progress on the west coast of Greenland, to lessen the fall of the waters, or the height of the land relatively to the ocean. In consequence of the land being thus lowered, the bottoms of the main and lateral valleys become filled up with fluviate sediment, containing terrestrial and freshwater shells, in the same manner as deltas are formed where rivers meet the sea, the salt-water being excluded, in spite of continued subsidence, by the accumulation of alluvial matter, brought down incessantly from the land above. Afterwards, I suppose an upward movement gradually to restore the country to its former level, and, during this upheaval, the rivers remove a large part of the accumulated mud, sand, and gravel. I