

trough to a depth of nearly three miles, was raised in a series of folds, transforming the former sea into a great mountain chain, although perhaps of no greater, if as great, proportions as it has to-day. From its first appearance above the waters, this mountain chain has been continually preyed upon by rain, wind, frosts and streams, with the result that the greater proportion of its bulk is to-day stretched out along our coastal border. Its growth was gradual—at least not the product of a sudden revolution—so that the period of its greatest elevation can be with difficulty determined. As the result of the elevation of the Appalachians into the great mountainous area the sea was crowded out of its position in the eastern interior portion of our continent; but early in Mesozoic time, already during the Triassic period, a long, narrow trough extended across Maryland near the eastern edge of the mountainous district, in what is to-day the Frederick valley, and in this trough was deposited a great thickness of red sandstones and shales (Newark formation), cut through and interbedded with flows of eruptive rock (Diabase). Toward the middle of Mesozoic time there was a decided continental elevation, which drained the interior trough, while the deposits of this period were doubtless laid down far to the eastward of the present coast-line.

Later in Mesozoic time, probably near the close of the Jurassic period, there was a marked depression of the continent along its eastern border which brought the sea to and beyond the present western margin of the Coastal Plain. There is good evidence that this eastward tilting of the continent was not at right angles to the present oceanic border or persistent for any great length of time in the same direction, as is shown by the irregular transgression of the several formations of the Cretaceous period. Broad reaches of shallow and brackish waters bordered the coast during the later Jurassic and early Cretaceous periods, and shore currents distributed the material brought to the sea by the rivers. Continuous depression, however, did not take place during this period; the deposits were several times raised and subjected to denuding agencies. At the close of the lower Cretaceous a pronounced erosion interval occurred prior to the depression, which brought in the marked marine conditions of upper Cretaceous