outflowing streams, leaving only the largest and most advantageously situated of these in their old courses.

It has been shown that the later Mesozoic was a time of widespread base-leveling over much of the eastern United States, notably in the Appalachian region and in southern New England. While subsequent wear has removed much of that old surface, the many fragments that yet remain indicate, by their concordant summit levels and by their level ridge crests, that they are remnants of a former plain; and that it was an erosion plain is shown by the fact that its surface is notably discordant with, or bevels, the rock beds. An extensive erosion plain of the sort can only be produced, on a land surface, at stream grade, and during a protracted period of comparative stability of level.

It has been further shown that this plain has been tipped by subsequent movements, the evidence for which is the present diminution of altitude in certain directions. Thus the uplift of the Cretaceous peneplain of the Appalachians was greatest along a n.n.e.-s.s.w. axis, from which the old surface drops both to the east and to the west. The uplift was also unequal along the axis, being greatest in Virginia and descending both to the north and the south. The peneplain of southern New England, which is supposedly of the same age, is strongly tipped toward the south.

This uplift was followed by another period of comparative stability, during which large progress was made in reducing the surface of these districts to the new base level. This interval was not, however, so protracted as the previous, so that the region was only partially base-leveled. Broad valleys were opened on the weak rock belts, while but little progress was made in the reduction of the resistant rocks, which remain substantially at their previous level, and form today the remnants of the Cretaceous peneplain.[1] The widely opened valley bottoms on the weaker rock belts, with their concordant altitudes when compared with one another, furnish the main evidence for a long stability of the region at this grade.

[1]Campbell has recently urged the presence of a base level intermediate to these two, from evidence obtained in northern Pennsylvania and southern New York. Geol. Soc. Am. Bul. 14:277–96.