Likewise, more calcareous matter was precipitated and these sandstones, when fresh, effervesce freely when hydrochloric acid is applied. For about 200 million years, from early Cambrian to Upper Ordovician, deposition had been going on almost continuously in this region, and sediments had accumulated to a thickness of 7,500 to 10,000 feet. The continent of Appalachia and the inland sea underwent modification many times but there were few breaks in the process of deposition. A minor one occurred at the close of the Beckmantown. In New Jersey there appears to have been a more decided interruption than in Northampton County.

Taconic Disturbance

After Martinsburg deposition there was a marked disturbance in this region, so great that it has sometimes been called the Taconic Revolution. It is named from the Taconic Mountains of western Massachusetts where it was first studied. How much of the complex folding and faulting of this region is due to this period of compression and uplift and how much was produced by later movements of the Appalachian Revolution is still a matter of argument and discussion. The writer holds the belief that a large part, perhaps the major portion of the rock folding of this region, was produced at the close of the Ordovician. He is inclined to the belief that the slaty cleavage of the Martinsburg was chiefly produced at this time. The pressure seems to have come from the southeast.

A period of erosion followed the disturbance but the amount of material then removed can not be determined with any accuracy. Stose believes that the Taconic movements and the erosion following were so profound that all the middle (upper of Stose) member of the Martinsburg was removed by erosion so that the next deposits to be formed were laid down on the lower Martinsburg member. The writer does not accept this view.

Silurian and Later Paleozoic History

After a marked erosion period, during which time all of the Northampton County area was above water, the region again sank beneath the waters of the vast inland sea. The deposits then made constitute the Shawangunk conglomerates and sandstones that form the northern boundary of the county. The basal conglomerate layer exposed in Lehigh Gap rests unconformably upon the eroded edges of the Martinsburg slates. There is a difference of thirteen degrees between the bedding planes of the two formations.