been beneath the sea since the close of the Utica, except for a submergence of the Champlain valley in very recent times. In all likelihood it was a depression of a channel, rather than of a wide area.

Paleozoic disturbances

Aside from the repeated oscillations of level in the region during Cambric and Siluric times, which have just been outlined, there were periods of more considerable disturbance. Following Utica deposition and uplift there came such a time. Compression acting from the east effected the elevation of the Taconic range with some folding and fracturing of the rocks, and in a minor way the Adirondack region was affected. Again toward the close of the Paleozoic the stresses which produced the folding and uplift of the Appalachian region must have been felt in this region also. Not unlikely there were other times of lesser stress. The effects produced on the rocks of the region during these various times were the same in kind, and, though the sum total of all can be recognized, the relative amount to be ascribed to each period can not be ascertained. The main results were the production of faults and joints in the rocks.[1] Minor undulations, or folds, were also produced, but these are relatively insignificant and entirely subsidiary to the other effects. The eastern Adirondack region by no means felt the full force of either disturbance, and in the west the effect was much less than in the east. The major line of both disturbances swerves round, and approaches the region most nearly at its southeast corner.

[1] A fault is produced by a sliding movement of the rocks on opposite sides of a fissure, with the result that the same rock stratum is higher on one side than on the other, as illustrated in the accompanying diagram. The stratum AA has been dropped on the right side of the fault relative to its position on the left side. The distance *ac*, measured along the fault plane, is called its *displacement*, the vertical distance *ab*, that separates the two ends of the stratum, is called the *throw*, and the horizontal distance *bc* is the *heave* of the fault.