

has resistant Potsdam on one side as against weak limestones on the other. Farther southwest, however, where it passes into higher ground, the prominent east face of Rand hill is its scarp. So far as these low altitude faults are concerned, they give no evidence of recent faulting.

Some slight relief has been produced along some of the small cross faults, in cases where the dip is fairly high, 10° or more. These are dip faults; and, since the limestones which they cross have slightly variant resisting power, the more massive beds stand slightly above the surface as ridges, and their lateral shifting by the fault is clearly brought out in the topography. The Black river limestone, and some of the beds of the Crown Point division of the Chazy, are the more prominent ridge makers of this type. This topography is very characteristic of the cross-faulted strip shown in plate 12.

The drainage is not so independent of the faults in this district as it is along the Mohawk. Many of the streams follow the fault lines for considerable distances, Tracy brook and the Little Chazy river, as shown in plate 12, for example.

It is however in this eastern district that the evidence of recent faulting is forthcoming. In the rapid rise in altitude from the Champlain level to the main axis of elevation, which is from 25 miles to 30 miles west from the lake only, are many eastward facing cliffs which resemble fault scarps. The larger number of these show equiresistant rock on both sides. Thus there are apparent faults which are wholly in the Potsdam, having that rock on both sides and with no detectable difference in the resistance, which, notwithstanding, present a prominent easterly cliff. Wear, because of renewed uplift, could by no possibility have brought out this topographic relief; and, in the total absence of evidence of any other mode of origin, a belief that they are fault scarps is compelled, necessitating the further belief that they can be no older than the date of uplift of the Cretaceous base level, and may perhaps be younger.

The majority of the supposed faults are in Precambrian rocks. In many cases there seems little difference in resisting capacity of the rocks on the two sides, and in certain cases the rock is