

that smaller stream. Turned aside, probably by depth of drift, the river encounters the ponderous rock ridge at the High falls, in which it has cut a very considerable gorge, which appears wholly postglacial. The position of the preglacial channel hereabout has not been ascertained, a fairly continuous line of rock outcrops occurring to the northward and many appearing to the south of the present channel.

Beyond the High falls the valley is again broad and filled with drift. At Cadyville the river is once more out of its old channel, and has cut quite a gorge in the Potsdam sandstone at that point. From Cadyville to the mouth of the river at Plattsburg the fall is 400 feet and the distance 10 miles, giving a rate double the average fall of the stream, yet the bottom of the drift filling is nowhere reached save at the pulp mill, 2 miles above Plattsburg, where a long but not deep cut through the Beekmantown limestones has been made, and at Plattsburg itself.

Two thirds of the 1400 foot fall of the Saranac is made in the lower one third of its course, giving a highly convex profile. The Ausable follows its old valley more closely, crosses the 1000 foot contour much farther from its mouth and has a profile not notably convex. The northwesterly streams all have convex profiles also.

The Raquette drainage shows some interesting and puzzling features. The reach from Raquette falls to Piercefield is much the longest shown by any Adirondack stream. In all this distance the valley is wide and mature, the river flows in great loops which reach the rock walls but seldom, cut-off oxbows are exceedingly common, and the valley floor is mainly one great swamp. The valley narrows to Raquette falls, where there is a fall of 70 to 80 feet in a gorge $\frac{3}{4}$ of a mile long, in which the water is rapid throughout, but with two principal falls [pl. 18]. There is an impassable rock barrier here, with no opportunity for a buried channel, so that there could have been no preglacial drainage line; rather, there was here a col between small streams flowing both ways from the obstruction. Above Raquette falls the valley widens southward, as it should on this supposition. It was occupied by a small preglacial, south flowing stream, which either