

on the deposits beneath. Such appears to be the deduction from the Georgia, Swanton, and Highgate sections when compared with those of the Potsdam about the eastern and southeastern base of the Adirondack Mountains.

§ 36. The view expressed by the section, fig. 2, page 23, is that there was a practically conformable deposition of sediments, against and over the Archean area of the Adirondack Mountains, from early Cambrian times up to the close of the deposition of the sediment forming the Utica shale, except in the case of the unconformity by non-deposition between the Potsdam and the Chazy. The writer has seen the deposition contact of the Utica shale, against the granite, on the eastern side of the Adirondack Mountains, in Essex County, New York, and takes that as the upper line of the ideal section, although he has little doubt that the formations overlying the Utica shale, even through the Silurian, were deposited against and over the Archean of the Adirondacks and subsequently removed by denudation. Numerous minor faults now bring the strata of the ideal section in various relations to one another, e. g., the Potsdam sandstone resting against the Chazy and the Trenton, as at Chazy, N. Y.; the limestone of the Middle Cambrian of the Georgia section thrust over on the Trenton series, &c.

§ 37. In Fig. 2, the Potsdam formation, near the Adirondacks, is represented as a sandstone; to the eastward, as an arenaceous argillaceous shale; and beyond, as an argillaceous slate with irregular masses of limestone (lentiles) and thin beds of limestone intercalated in the slate or shales. This succession shows shore, off-shore, and deeper water deposits. The Trenton, Chazy, and Georgia limestones are represented as deposited directly against the Archean. We know this was the case with the Utica shale, and it appears to point to the submergence of the Adirondacks in the vicinity of the contact observed in Essex County, so as to prevent the disintegration and deposition of the materials composing the Archean, the mud, forming the Utica shale, being deposited against the ledges of granite that were entirely below atmospheric or wave action.

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§ 38. The conglomerate limestones of Bic Harbor, St. Simon, and up the St. Lawrence to the island of Orleans, and thence southwest toward Lake Champlain, do not appear to have been derived from pre-existing strata where they were deposited, as appears to be the case with the brecciated limestone in the vicinity of Troy, N. Y., but to have been transported and deposited as a portion of formation of a later geologic age. Dr. Selwyn has shown this to be the case with the Point Levis beds which contain bowlders, some of which carry Georgia fossils, others Potsdam fossils, and others Calciferous fossils, the last being nearly contemporaneous with the matrix of the conglomerate, the noted graptolite-bearing shales.