

northeastward across the present Gulf of St. Lawrence to Newfoundland; for it has been shown by Canadian geologists that the Upper Silurian fossils within the Acadian trough in Nova Scotia are not all of American type, but have many relations to those of Great Britain, much closer relations than the fossils of the island of Anticosti. The fact would put Anticosti within the Gaspé-Worcester trough. But such a confine could not have been an uninterrupted barrier, since the troughs of the Connecticut valley and Gaspé-Worcester belt must have had tidal connection with the Atlantic.

The two large islands of the Cincinnati uplift are those marked C and T. They partially divide off from the great Continental Interior a portion called the *Eastern Interior Sea*, which from this time onward was like a great bay, having a narrow southwest opening over Alabama, a length of about 700 miles, and its northern limits near the sites of Albany and Troy. Its waters communicated, in the Upper Silurian era, with those of the Central Interior Sea, over Michigan and northern Ohio. But this connection was diminished during the progress of Paleozoic time. It had probably, also, a shallow connection with the Atlantic over Pennsylvania and Maryland, where the land is now low, permitting of an interchange of water and life.

The conditions of this Eastern Interior Sea influenced not only its tides and currents, but also the temperature and purity of the waters, the supply of sediments, the kinds of life, and hence in various ways modified rock-making and biological distribution. And this influence was all the more profound that the eastern part of the great bay was within the limits of the slowly deepening Appalachian trough, or geosyncline, in which thick deposits were in progress for the future Appalachian Range.

West of the Mississippi there was another island, that of Missouri. Probably Upper Silurian beds exist to the south of it, according to recent observations by H. S. Williams. But farther southwestward, over much of Arkansas and over Texas, to the Pecos (R. T. Hill), Upper Silurian and Devonian beds are absent; and it is probable that a large area of dry land here existed. Its limits, however, are so uncertain that it is not indicated on the map. Moreover, Silurian and Devonian beds have not yet been reported from Mexico, and the Carboniferous are the only Paleozoic beds.

The dry land of the continent was small, and hence there were only small streams for the supply of sediments. Among them an embryo Hudson River brought down Adirondack waters and detritus to the head of the Eastern Interior Sea, near Albany, and an embryo Mississippi and a St. Lawrence drained other Archæan areas.

The rock-making of the period was confined, so far as has been ascertained, to the Interior Continental Sea and the troughs or channels of New England and eastern Canada. These troughs are those of Archæan origin, already reported: commencing to the eastward, the Acadian, the Gaspé-Worcester, the Connecticut valley, and, during the later part of the period only, the Hudson-Champlain trough. No Upper Silurian beds are known along the Atlantic border south of New York.