

being intermingled with the fossiliferous strata, which are further separated by thick sheets of nodular felsitic lavas.⁹⁴

Basin of the Baltic, Russia and Scandinavia.⁹⁵—The broad hollow which, running from the mouth of the English Channel across the plains of northern Germany into the heart of Russia, divides the high grounds of the north and northwest of Europe from those of the centre and south, separates the European Silurian region into two distinct areas. In the northern of these we find the Lower and Upper Silurian formations attaining an enormous development in Britain, but rapidly diminishing in thickness toward the northeast, until, in the south of Scandinavia and the Gulf of Finland, they reach only about $\frac{1}{25}$ th of that depth. Along the Baltic shores, too, they have on the whole escaped so well from the dislocations, crumplings, and metamorphisms so conspicuous along the northwestern European border, that to this day they remain over wide spaces nearly as horizontal and soft as at first. In the southern European area, Silurian rocks appear only here and there from amid later formations, and almost everywhere present proofs of intense subterranean movement. Though sometimes attaining considerable thickness they are much less fossiliferous than those of the northern part of the region, except in the basin of Bohemia, where an exceedingly abundant series of Silurian organic remains has been preserved.

In Russia, Silurian rocks must occupy the whole vast breadth of territory between the Baltic and the flanks of the Ural Mountains, beyond which they spread eastward into Asia. Throughout most of this extensive area they lie in horizontal undisturbed beds, covered over and concealed from view by later formations. Along the southern margin of the Gulf of Finland, they appear at the surface as soft

⁹⁴ Op. cit. p. 159, and authorities cited. Consult on Irish Silurian rocks the Explanations to the one-inch Sheets of the Geological Survey.

⁹⁵ Consult Angelin's "Påkeontologiska Suecica," 1854; Kjerulf, "Norges Geologi," 1879, or "Geologie des Südl. Norwegen" (Gurlt), 1880; Linnarsson, Svensk. Vet. Akad. viii. No. 2; Zeitsch. Deutsch. Geol. Gesell. xxv. 675; Geol. Mag. 1876, pp. 145, 240, 287, 379; Geol. Föreningens Stockholm Förhandl. 1872-74, 1877, 1879; S. Törnquist, Kong. Vet. Akad. Förhandl. 1874, No. 4; Geol. Förm. Stockholm Förhandl. 1879; Lundgren, Neues Jahrb. 1878, p. 699; Brögger, "Die Silurischen Etagen 2 und 3 im Kristiania Gebiot," 1882; F. Schmidt, Q. J. Geol. Soc. 1882, p. 514; J. E. Marr, Quart. Journ. Geol. 1882, p. 313; A. G. Nathorst, "Sveriges Geologi," part i. 1892, and papers cited below.