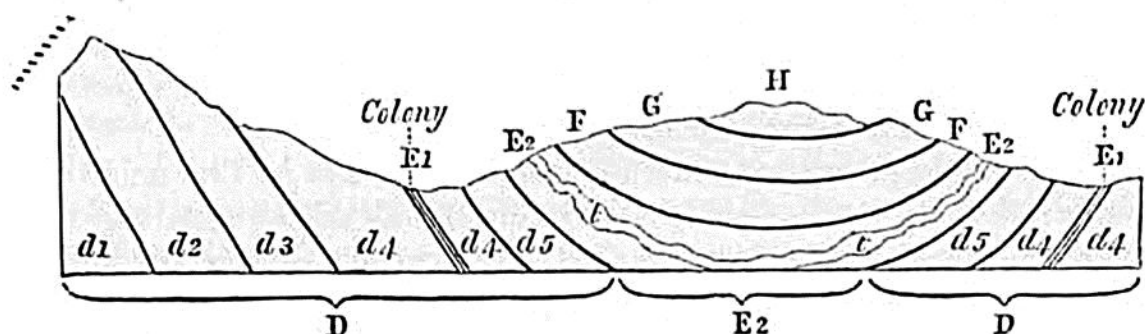


deposits. To this intrusive fauna he has given the name of "a colony," a name somewhat ambiguous, perhaps, yet which faithfully expresses one part of his theory, namely, that we have here an exemplification of a contemporaneous fauna, nearly allied to his third fauna E, or the Upper Silurian, which during the deposition of the strata D, obtained for a time a settlement within the Bohemian area, and was afterwards expelled, to reappear, after a lapse of ages, under a slightly altered aspect. The following is a copy of the section by which M. Barrande illustrates this doctrine of colonies, which, so far as relates to the geological sequence and position of the rocks, I have verified on the spot.

*Section through the basin-shaped Silurian Strata of the Centre of Bohemia.—Barrande.*

Fig. 7.



D. Lower Silurian, with fossils of the 2d fauna of Barrande, coeval with Llandello flags of Murchison.

d 1 to d 5. Subdivision of the same.

E 1. Colony or intercalated beds, with fossils specifically identical, for the most part, with those of E 2.

E 2. } Subdivisions of the Upper Silurian, with fossils of the 3d fauna of Barrande.  
F.  
G.  
H.

t. Trap of contemporaneous origin with E 2, and of which some also occur in the deposit E 1.

It will be seen that the colony styled E by M. Barrande, but which I shall call E 1, occurs in the midst of the strata d 4, one of the subdivisions of D, so designated by Barrande. The fauna proper to E 1 contains as many as 65 species, five of them peculiar, or not known elsewhere; two common to the fauna of d 4, in which they are intercalated; and the remaining 58 common to the base of Barrande's third or Upper Silurian fauna, which I have designated as E 2.

The late Edward Forbes, when commenting on this doctrine of colonies, observed that if accepted it would materially affect the value of the evidence of organic remains, as determining the age and sequence of geological formations, since the proposition involves the introduction of a group of species that experience has shown normally to belong to a later and distinct formation, not merely among and mixed with the fauna of an earlier stage, but amid and separate from that fauna.\* Professor Forbes, therefore, while expressing the highest admiration of M. Barrande's talents and labors, questions the accuracy of his geological facts, remarking "that in a disturbed Silurian country where the strata lie at

\* Quart. Geol. Journ., 1854, vol. x. p. xxxiv.