

The Jurassic fauna⁴² presents a far more varied aspect than that of any of the preceding systems. Owing to the intercalation of fresh-water, and sometimes even terrestrial, deposits among the marine formations, traces of the life of the lakes and rivers, as well as of the land itself, have been to some extent embalmed, besides the preponderant marine forms. The conditions of sedimentation have likewise been favorable for the preservation of a succession of varied phases of marine life. Prof. Phillips directed attention to the remarkable ternary arrangement of the English Jurassic

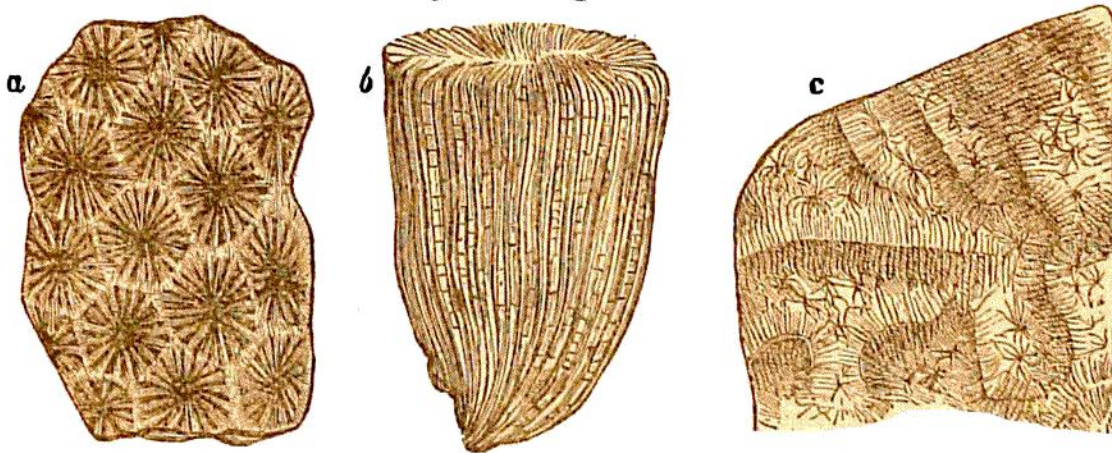


Fig. 884.—Jurassic Corals (Middle Oolite).
a, *Isastræa helianthoides*, Goldf.; *b*, *Montlivaltia dispar*, Phill.; *c*, *Comoseris irradians*, M. Edw.

series.⁴³ Argillaceous sediments are there succeeded by arenaceous, and these by calcareous, after which the argillaceous once more recur. These changes are more or less local in their occurrence, but five repetitions of the succession are to be traced from the top of the Lias to the top of the Portlandian stage. Such an alternation of sediments points to interrupted depression of the sea-bottom.⁴⁴ It permitted the growth and preservation of different kinds of

⁴² The total Jurassic fauna of Britain up to the top of the Portlandian stage was estimated in 1882 to include 450 genera and 4297 species, which is likewise but a small proportion of the whole original fauna. Etheridge, Q. J. Geol. Soc. 1882, Address.

⁴³ "Geology of Oxfordshire," etc. p. 393.

⁴⁴ Ante, p. 870.