

The nomenclature adopted for these subdivisions bears witness to the rapid growth of geology. It is a patchwork in which no uniform system nor language has been adhered to, but where the influences by which the progress of the science has been molded may be distinctly traced. Some of the earliest names are lithological, and remind us of the fact that mineralogy and petrography preceded geology in the order of birth—Chalk, Oolite, Greensand, Millstone Grit. Others are topographical, and bear witness to the localities where formations were first observed, or are typically developed—Oxfordian, Portlandian, Kimeridgian, Jurassic, Rhætic, Permian, Neocomian. Others are taken from local English provincial names, and remind us of the special debt we owe to William Smith, by whom so many of them were first used—Lias, Gault, Crag, Cornbrash. Others recognize an order of superposition as already established among formations—Old Red Sandstone, New Red Sandstone; while still another class is founded upon numerical considerations—Dyas, Trias. By common consent it is admitted that names taken from the region where a formation or group of rocks is typically developed, are best adapted for general use. Cambrian, Silurian, Devonian, Permian, Jurassic, are of this class, and have been adopted all over the globe.

But, whatever be the name chosen to designate a particular group of strata, it soon comes to be used as a chronological or homotaxial term, apart altogether from the lithological character of the strata to which it is applied. Thus we speak of the Chalk or Cretaceous system, and embrace,

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division subordinate in value to series and system that the attempt to alter its significance would introduce far more confusion than can possibly arise from its retention in the accustomed sense.