

formability really indicated a longer period than the massive succession of deposits.

6. Fossil evidence furnishes the chief means of comparing the relative chronological value of groups of rock. A break in the succession of organic remains marks an interval of time often unrepresented by strata at the place where the break is found.² The relative importance of these breaks, and therefore, probably, the comparative intervals of time which they denote, may be estimated by the difference of the facies of the fossils on each side. If, for example, in one case we find every species to be dissimilar above and below a certain horizon, while in another locality only half of the species on each side of a band are peculiar, we naturally infer, if the total number of species seems large enough to warrant the inference, that the interval marked by the former break was very much longer than that marked by the latter. But we may go further, and compare by means of fossil evidence the relation between breaks in the succession of organic remains and the depth of strata between them.

Three series of fossiliferous strata, A, C, and H, may occur conformably above each other. By a comparison of the fossil contents of all parts of A, it may be ascertained that, while some species are peculiar to its lower, others to its higher portions, yet the majority extend throughout the group. If now it is found that, of the total number of species in the upper portion of A, only one-third passes up into C, it may be inferred with some probability that the time represented by the break between A and C was

² See ante, p. 1100, and the classic essays of the late Sir A. C. Ramsay there cited.