

to exhibit their organisms, than we found that what they submitted to our examination were tusks of the elephant and the mastodon, and bones of the rhinoceros, the ox, and the deer. If trees of the same dicotyledonous class as the plane and the buckthorn occurred in our Secondary or Palæozoic periods, in at least aught approaching to the recent or Tertiary proportions, how is it that amid their fossil woods, though they have yielded their specimens by thousands, not a single dicotyledonous specimen, save of the gymnospermæ, has yet been found? Or if the great Palæozoic period indeed abounded in mammals, such as the elephant and the deer, how is it that, while in the Palæozoic deposits of even our own neighborhood and country we have met with the remains of fishes by tens of thousands, and of molluscs by millions, all the Palæozoic systems of the world have hitherto failed to present us with a single mammalian tooth or bone? Or even if in these ancient deposits a few dicotyledonous woods or mammalian fragments were, after the search of years, to be found, what could we infer regarding the *proportions* in which either dicotyledons or mammals had existed in the periods which the deposits represented, save from the proportions in which we found their remains occurring in them? Nay, do we not find Sir Charles Lyell setting his imprimatur on an exactly similar style of induction as that upon which we found, when, in determining the various formations of the Tertiary division, he has recourse to his principle of per centages? He would assuredly not deem that a Pliocene or Miocene deposit among whose numerous organisms he had failed to find an existing plant or shell. In the geologic, as in other departments,

“What can we reason but from what we know.”

The gulf between mental and geologic science is still too broad, and perhaps too carelessly surveyed on the theologic