

some conception of the physical geography of that part of the globe during early Mesozoic time.<sup>18</sup>

2. Geological Chronology.—Although absolute dates cannot be fixed in geological chronology, it is not difficult to determine the relative age of different strata. For this purpose the fundamental law is based on the "order of superposition" (pp. 873, 1121): in a series of stratified formations, the older underlie the younger. It is not needful that we should actually see the one lying below the other. If a continuous conformable succession of strata dips steadily in one direction, we know that the beds at the one end must underlie those at the other, because we can trace the whole succession of beds between them. Rare instances occur, where strata have been so folded by great terrestrial disturbance that the younger are made to underlie the older. But this inversion can usually be made clear from other evidence. The true order of superposition is decisive of the relative ages of stratified rocks.

The order of sequence having been determined, it is needful to find some means of identifying a particular formation elsewhere, when its stratigraphical relations may possibly not be visible. At first, it might be thought that the mere external aspect and mineral characters of the rocks ought to be sufficient for this purpose. Undoubtedly these features may suffice within the same limited region in which the order of sequence has already been determined. But as we recede from that region they become more and more unreliable. That this must be the case will readily appear, if we reflect upon the conditions under which sedimentary

---

<sup>18</sup> See especially Neumayr, *Verh. Geol. Reichsanst.* 1871, p. 54, *Jahrb. Geol. Reichsanst.* xxviii. 1878, and his essay cited in the foregoing note.