The great basaltic plateau in the counties of Antrim and Londonderry rests upon chalk; there are no tertiary strata above it: its date is therefore only known approximately: it was effused during the tertiary eras. The great basaltic masses of Mull and Skye, of Arran and Ayrshire, the Ochill Hills, &c., appear in directions and under circumstances which seem to connect them with the same seat of volcanic action as the Irish basalts; but data are wanted for determining the age of their eruption.

Mere association of igneous rocks with particular strata only proves that such rocks are at least not older than these strata: the case of the dyke traced by Mr. Murchison from the Breiddyn Hills (amid primary strata) and under and into the new red sandstone of Acton Reynolds, shows how very little propriety there is in classing trap rocks by the strata among which they have been injected ; since this is, in fact, "a geological accident."

It is remarkable with regard to granite and rocks closely allied to it, that, excepting at a very few spots, among which Weinbohla on the Danube is the most remarkable, these igneous products are not seen in contact with any of the strata of the secondary or tertiary class. Granite touches gneiss at Strontian; mica schist in Ben Nevis; hornblende schist, argillaceous schist, and primary limestone in Glen Tilt; clay slate and grauwacke slate in Wicklow, Anglesea, Devon, and Cornwall.

It has been supposed that granites of different antiquity possess distinguishable mineral characters. The opinion is not improbable; but it is difficult to assure ourselves of its truth, because, as Humboldt confesses, it would be difficult to mention a granite which geognosts unanimously consider as anterior to every other rock. The same author observes, while speaking of "primitive" granite, "it appears to me that in both hemispheres, particularly in the New World, granite is most ancient when it is richer in quartz and less