

formation. In Attica, in the island of Eubœa, and in the Peloponnesus, it has been remarked, "that the limestone, when superposed on mica slate, is beautiful and crystalline in proportion to the purity of the latter substance and to the smallness of its argillaceous contents; and, as is well known, this rock, together with beds of gneiss, appears at many points, at a considerable depth below the surface, in the islands of Paros and Antiparos."* We may here infer the existence of an imperfectly metamorphosed flötz formation, if faith can be yielded to the testimony of Origen, according to whom, the ancient Eleatic, Xenophanes of Colophon† (who supposed the whole earth's crust to have been once covered by the sea), declared that marine fossils had been found in the quarries of Syracuse, and the impression of a fish (a sardine) in the deepest rocks of Paros. The Carrara or Luna marble quarries, which constituted the principal source from which statuary marble was derived even prior to the time of Augustus, and which will probably continue to do so until the quarries of Paros shall be reopened, are beds of calcareous sandstone—macigno—altered by Plutonic action, and occurring in the insulated mountain of Apuana, between gneiss-like mica and talcose schist.‡ Whether at some points granular limestone may not have been formed in the interior of the earth, and been raised by gneiss and syenite to the surface, where it forms vein-like fissures,§ is a question on which I can not hazard an opinion, owing to my own want of personal knowledge of the subject.

* Leop. von Buch, *Descr. des Canaries*, p. 394; Fiedler, *Reise durch das Königreich Griechenland*, th. ii., s., 181, 190, und 516.

† I have previously alluded to the remarkable passage in Origen's *Philosophumena*, cap. 14 (*Opera*, ed. Delarue, t. i., p. 893). From the whole context, it seems very improbable that Xenophanes meant an impression of a laurel (*τυπον δάφνης*) instead of an impression of a fish (*τύπον ἀψύγης*). Delarue is wrong in blaming the correction of Jacob Gronovius in changing the laurel into a sardel. The petrification of a fish is also much more probable than the natural picture of Silenus, which, according to Pliny (lib. xxxvi., 5), the quarry-men are stated to have met with in Parian marble from Mount Marpessos. *Servius ad Virg., Æn.*, vi., 471.

‡ On the geognostic relations of Carrara (*The City of the Moon*, Strabo, lib. v., p. 222), see Savi, *Osservazioni sui terreni antichi Toscani*, in the *Nuovo Giornale de' Letterati di Pisa*, and Hoffmann, in Karsten's *Archiv für Mineralogie*, bd. vi., s. 258–263, as well as in his *Geogn. Reise durch Italien*, s. 244–265.

§ According to the assumption of an excellent and very experienced observer, Karl von Leonhard. See his *Jahrbuch für Mineralogie*, 1834 s. 329, and Bernhard Cotta, *Geognosie*, s. 310.