

for the accomplishment of any other. In the various notices of our Scotch Grauwacke which occur in the Transactions of the Edinburgh scientific societies during the years in which the battle raged between the two schools, I do not find trace of a single discovery worthy of being introduced into a history of the system. Curious observers, however, outside the area of the conflict, seem to have been now and then finding in the deposit occasional traces of the organic. I have been told by the late Mr. William Laidlaw (the trusted friend of Sir Walter Scott), whose acquaintance I had the pleasure of forming early in 1839, that on two several occasions, many years before, he had found minute bivalves, and what he deemed vegetable impressions, in the Grauwacke slates of Peebleshire.

The second notice of fossils in our Grauwacke at all definite in its details, and which intimated original discovery, occurred long after the first, — at a time when geology had made rapid strides towards the position which it at present occupies, — and was of a peculiar interest to Edinburgh geologists, from the near neighborhood of the locality which it indicated to the Scottish metropolis. In 1839, Mr. Charles Macklaren published his “Geology of Fife and the Lothians;” and in that ingenious work, — equally remarkable for the boldness of its theories and the truthfulness of its observation, — geologists were first told that there exist fossils in the Grauwacke slate of the Pentlands. The organisms of the older rocks are not unfrequently restricted to a single stratum: even in the Lower Old Red Sandstone one may pass along sections of the strata many hundred feet in thickness, without detecting a trace of aught organic, and then find in some thin layer, perhaps not a foot in thickness, the fucoids, or fishes, or minute bivalves, of the formation, congregated by hundreds and thousands; and in the Scotch Grauwacke this