

naturalists of the age, and who, to his minute acquaintance with existing forms of being, adds an acquaintance scarcely less minute with those forms of primeval life that no longer exist. He it was who first discovered, in the Upper Old Red Sandstones of Fifeshire, the large scales and plates of that strikingly characteristic ichthyolite of the higher formation, now known as the *Holoptychius* — of which more anon — and, unquestionably, no one acquainted with his writings, or the character of his mind, can doubt that he examined carefully.

---

the formation yet discovered; and in this precipice Mr. Martin first commenced his labors in the Red Sandstone of the district, and found it a mine of wonders. It is a place of singular interest — a rock of sepulchres; and its teeth, scales, and single bones occur in a state of great entireness; though, ere the deposit was formed, the various ichthyolites whose remains it contains seem to have been broken up, and their fragments scattered. Accumulations of larger and smaller pebbles alternate in the strata; and the bulkier bones and teeth are found invariably among the bulkier pebbles, thus showing that they were operated upon by the same laws of motion which operated on the inorganic contents of the deposit. At a considerably later period the fossils of the upper group were detected in the precipitous and romantic banks of the Findhorn, by Dr. Malcolmson, of Madras, when prosecuting his discoveries of the organisms of the lower formation. He found them, also, though in less abundance, in a splendid section exhibited in the Burn of Lethen, a rivulet of Moray, and yet again in the neighborhood of Altyre. The Rev. Mr. Gordon, of Birnie, and Mr. Robertson, of Inverugie, have been also discoverers in the district. To the geological labors of Mr. Patrick Duff, of Elgin, in the same field, I have already had occasion incidentally to refer. The patient inquiries of this gentleman have been prosecuted for years in all the formations of the province, from the Weald of Linksfield, with its peculiar lacustrine remains — lignites, minute fresh-water shells, and the teeth, spines, and vertebræ of fish and saurians — down to the base of the Old Red Sandstone, with its *Cocosteï*, *Dipteri*, and *Pterichthyes*