

which in some places, where the remains lie thick, pervades the crevices of the rocks, and has not unfrequently been mistaken for coal. In its more solid state it can hardly be distinguished, when used in sealing a letter, — a purpose which it serves indifferently well, — from black wax of the ordinary quality; when more fluid, it adheres scarce less strongly to the hands than the coal-tar of our gas-works and dock-yards. Underneath a specimen of *Asterolepis*, first pointed out to me in its bed among the Thurso rocks by Mr. Dick, and which, at my request, he afterwards raised and sent me to Edinburgh, packed up in a box, there lay a quantity of thick tar, which stuck as fast to my fingers, on lifting out the pieces of rock, as if I had laid hold of the planking of a newly tarred yawl. What had been once the nerves, muscles, and blood of this ancient Ganoid still lay under its bones, and reminded me of the appearance presented by the remains of a poor suicide, whose solitary grave, dug in a sandy bank in the north of Scotland, had been laid open by the encroachments of a river. The skeleton, with pieces of the dress still wrapped round it, lay at length along the section; and, for a full yard beneath, the white dry sand was consolidated into a dark-colored pitchy mass, by the altered animal matter which had escaped from it, percolating downwards, in the process of decay.

In consequence of the curious chemical change which has thus taken place in the animal juices of the *Asterolepis*, its remains often occur in a state of beautiful preservation: the pervading bitumen, greatly more conservative in its effects than the oils and gums of an old Egyptian undertaker, has maintained, in their original integrity, every scale, plate, and bone. They may have been much broken ere they were first committed to the keeping of the rock, or in disentangling