

and from one combination to another, constitutes surely a highly interesting subject of inquiry. The transmission of iron in a chemical form through chalybeate springs, from deposits in which it had been diffused in a form merely mechanical, is of itself curious ; but how much more so its passage and subsequent accumulation, as in bog-iron and the iron of the Coal Measures, through the agency of vegetation ! How strange, if the steel axe of the woodman should have once formed part of an ancient forest ! — if, after first existing as a solid mass in a primary rock, it should next have come to be diffused as a red pigment in a transition conglomerate — then as a brown oxide in a chalybeate spring — then as a yellowish ochre in a secondary sandstone — then as a component part in the stems and twigs of a thick forest of arboraceous plants — then again as an iron carbonate, slowly accumulating at the bottom of a morass of the Coal Measures — then as a layer of indurated bands and nodules of brown ore, underlying a seam of coal — and then, finally, that it should have been dug out, and smelted, and fashioned, and employed for the purpose of handicraft, and yet occupy, even at this stage, merely a middle place between the transmigrations which have passed, and the changes which are yet to come. Crystals of galena sometimes occur in the nodular limestones of the Old Red Sandstone ; but I am afraid the chemist would find it difficult to fix their probable genealogy.

In at least one respect, every geological history must of necessity be unsatisfactory ; and, ere I pass to the history of the two upper formations of the system, the reader must permit me to remind him of it. There have been individuals, it has been said, who, though they could see clearly the forms of objects wanted, through some strange organic defect, the