

see there, and so little was then known of the geological structure of the globe as a whole, that he could not add much to his acquaintance with the subject by reading what had been observed by others, though there can be little doubt that he stood greatly indebted to Lehmann and Füchsel. With this slender stock of acquirement, he adopted the old idea that the whole globe had once been surrounded with an ocean of water, at least as deep as the mountains are high, and he believed that from this ocean there were deposited by chemical precipitation the solid rocks which now form most of the dry land. He taught that these original formations were universal, extending round the whole globe, though not without interruption, and that they followed each other in a certain order. He affirmed that the first-formed rocks were entirely of chemical origin, and he called them Primitive, including in them granite, which was the oldest, gneiss, mica-slate, clay-slate, serpentine, basalt, porphyry, and concluding with syenite as the youngest. Succeeding these came what he afterwards separated as the Transition Rocks, consisting chiefly of chemical productions (greywacke, greywacke-slate and limestone), but comprising the earliest mechanical depositions, and indicating the gradual lowering of the level of the universal ocean. Still newer, and occupying, on the whole, lower positions, marking the continued retirement of the waters, were the Floetz Rocks, composed partly of chemical, but chiefly of mechanical sediments, and including sandstone, limestone, gypsum, rock-salt, coal, basalt, obsidian, porphyry, and other rocks. Latest of all