

globe, and was as deep as the mountains are high, where was the excavation? As an acute writer in the *Edinburgh Review* pointed out, the excavation spoken of by Werner "can mean nothing else than the convexity of the solid nucleus round which the universal water was diffused. To call this convexity an excavation, is to use such a freedom with language as can only be accounted for by the perplexity in which every man, of whatever talents, must find himself involved when he attempts to describe a whole, of which the parts are inconsistent with one another."¹

The theory of a primeval universal ocean that overtopped the mountains, which formed the basis of Werner's teaching, led in every direction to such manifest contradictions and absurdities, that we need a little patience and some imagination to picture to ourselves how it could have been received and fervently believed in by men of intelligence, to whom the facts of the earth's structure were not wholly unknown. It was claimed for Werner that the doctrine of a universal and gradually subsiding ocean, though it had been taught long before his time, was first demonstrated by him to be true, (1) because he found the older strata occupying the highest eminences, and the younger coming in at successively lower levels, down to the modern alluvia of the plains and the sea-shore,² and (2) because the primitive and loftiest rocks are entirely formed of chemical precipitations, those of

¹ *Edin. Review*, xviii. p. 90 (1811).

² But as has been shown in a previous chapter, this idea had been clearly enunciated long before by Buffon and was recognized by Werner's German predecessors.