

seen, the lithological characters on which he based the discrimination of his various formations proved to be unreliable. Granite was soon found not always to lie at the bottom. Basalt, at first placed by him among the oldest formations, turned up incontinently among the youngest. He and his disciples were consequently obliged to alter and patch the Freiberg system, till it lost its simplicity and self-consistence, and was still as far as ever from corresponding with the complex order which nature had followed. Obviously the Wernerian school had not found the key to the problem, though it had done service in showing how far a lithological sequence could be traced among the oldest rocks.

Hutton's views on this question were in some respects even less advanced than Werner's. He realized, as no one had ever done so clearly before him, the evidence for the universal decay of the land. At the same time, he perceived that unless some compensating agency came into play, the whole of the dry land must eventually be washed into the sea. The upturned condition of the Primary strata, which had once been formed under the sea, furnished him with proofs that in past time the sea-floor has been upheaved into land. Without invoking any fanciful theory, he planted his feet firmly on these two classes of facts, which could be fully demonstrated. To his mind the earth revealed no trace of a beginning, no prospect of an end. All that he could see was the evidence of a succession of degradations and upheavals, by which the balance of sea and land and the habitable condition of our globe were perpetuated.