

and they invariably exhibit the appearance of deposition from water, sometimes tranquil, sometimes more or less agitated.

Diluvial waters appear to have first transported, and then, in a state of comparative quietude, to have arranged these masses by sedimentary deposition.

The effects of diluvial devastation are in a considerable degree veiled, by the gradual depositions of sedimentary matter, during the decline of the waters.

Granting that the earth has been, from any cause, covered by water, and that it has been in any way withdrawn, there must evidently have been a multitude of local lakes, determined, by the basin shape, so often traced by contiguous hills and high grounds; in these, separate and independent deposits were doubtless going on, for a length of time, perhaps even after the earth began to be peopled at the creation, or re peopled after the deluge; for this view will apply equally to the waters which covered the earth originally, and to those that returned upon it by an universal deluge. Those lakes that had no permanent supply of water, would, of course, be exhausted by soakage and by evaporation: others would burst their barriers, or gradually wear them down, and during their escape, renew the diluvial ravages; while those only would be perennial, which were fed by streams or springs.

Many valleys of denudation, as they are called by Prof. Buckland, were probably produced by diluvial action. Such valleys are conspicuously seen in the South of England: similar strata are found capping contiguous hills, projecting at their sides, and running beneath their foundations; a curve or hollow having been scooped out between, thus indicating the effects of great rushing torrents, attended perhaps by convulsions, that more or less, broke up the superficial strata.\*

It is not intended that all valleys were produced in this manner; many doubtless were thus formed, and many more were thus deepened and modified, but a multitude of them were probably among the original features of the planet, or produced by early convulsions.

#### *Extraneous contents of the diluvium.*

Single bones, parts of skeletons, and entire skeletons of the larger animals, often of extinct species, but mostly of known genera, are

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\* See this subject ably investigated and illustrated in the *Reliquiæ Diluvianæ*.