is not the effect of local causes peculiar to each locality, but is communicated to water which has fallen on the surface, and penetrated to great depths in the earth. Returned to the surface by hydrostatic pressure, these springs bring with them the temperature of the interior, modified and slightly diminished by the comparatively cool rocks near the surface of the earth. This diminution of their heat is perhaps but slight, owing to the feebly conducting power for heat which the rocks possess; yet upon some very small streams it may have a powerful influence. Most of the very warm waters, as those of Bath, Aix-la-Chapelle, the springs of Nassau, and the Pyrenees, are very abundant. To see these rivers of hot water pouring forth for a thousand years undiminished in heat or abundance, is one of the most remarkable and even (as professor Forbes truly says) romantic circumstances which fall under the notice of geology. The conclusion to which they obviously point of the existence of a general heat below the surface of the earth, is indisputable, whether, with Dr. Daubeny, we view that heat as the result of chemical action, and call it volcanic, or, with Humboldt and Arago, regard it as the residue of the original ignition (*chaleur d'origine*) of our planet.

Experimental Inquiries into the Heat of the Globe.

That the earth has below its surface a source of *great heat*, independent of solar influence, is perfectly ascertained by volcanic phenomena; that this heat is very *generally diffused*, is equally certain, from the extent of country in which thermal springs are found; that it is *universally spread* below our feet, becomes continually more and more probable from experimental researches in countries uninfluenced by any chemical actions supposed to go on at the base of volcanos, where no hot springs burst to the surface, and where the fractures of the strata yield both pure and mineralised waters at common temperatures. Before, however, stating the