where to erect buttresses so as best to provide for the security of its structure, indicates, in a striking degree, the superintendence of Providence directing its blind efforts and unconscious operations.

After considering all the wonderful facts here stated with regard to the proceeding and progress of these seemingly insignificant animals, a speculative imagination may not only picture to itself, with respect to any group of coral islands, its conversion into one vast plain, yielding forests of bread-fruit and other trees, and ultimately sustenance to a numerous population, and a variety of animals subservient to their use, but taking a wider range, and still further enlarging its view, might behold the tropical portion of the vast Pacific, not only studded with these islands, but exhibiting them in such frequent clusters and so large, as almost to form a kind of bridge of communication between Asia and America. Indeed, at present, we know not how far these founders of islands may have been concerned in rearing a considerable portion of those continents that form the old world. Calcareous strata and ridges occur everywhere, and though other causes may have contributed to their formation,\* yet it is not improbable, that at the time when our northern climates were inhabited by tropical animals, our seas also might abound in madrepores, &c., which might bear their part in the erection of some of our islands.

Professor Buckland, in the appendix to Captain Beechey's Voyage, states that even within the arctic circle there are spots that can be shown to have been once the site of extensive coral reefs. The old coral reefs that existed previously to the deluge, by that great catastrophe, in many cases, might be formed into chalk ridges. This indeed

<sup>\*</sup> See Lyell's Geol. i. 130, 210.