

given the fullest effect to the variety of nature, and yielded that astonishing complexity of dependent phenomena which incessantly engages the mind of reasoning man in an endless train of inquiry. These local diversities are so great, as to permit us to propose questions concerning the degree of resemblance which fossil remains may offer to the recent tribes of different climates and regions of the globe.

Where shall we look for the living analogues of the numerous fossil ferns, including arborescent species of great size, the sigillariæ, lepidodendra, and gigantic equisetaceæ, which fill the coal shales of England, — the cycadeæ, coniferæ of the oolites, and the palms of the tertiary rocks of France?

In what climate grow the modern coral reefs comparable to the fossil zoophytic rocks? where live the parallels to thousands of echinida, crinoidea, trilobites, brachiopoda, cephalopoda, sauroid fishes, crocodiles, pachydermata, ruminantia, which characterise different geological periods?

It is difficult to answer this inquiry with precision; for, though upon a comprehensive review, the most prevalent analogies in modern nature point to a tropical climate; yet as the species always, and the genera and families frequently, differ, and as, besides, other causes than climate limit the distribution of life, it is not possible to found such a conclusion on individual instances. A *prevalence* of ferns to the extent which we observe among the plants of the coal formation, is only known among the islands and on the shores of warm tropical seas; but if these fossil plants had been much drifted or long immersed before inhumation, such a predominance of ferns, cycadeæ, &c., might be expected to happen, whatever was the original proportion; for Dr. Lindley's experiments on recent plants prove, that long immersion in water would destroy the greater number of plants, but leave the ferns, cycadeæ, coniferæ, &c. comparatively uninjured, as we find them in the earth. Compared as to form, the tree ferns, palms, cyca-