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two points, in the United States and in Europe, or in equinoctial America and Africa, which present all the same circumstances : as, for example, the same temperature, the same height above the sea, a similar soil, an equal dose of humidity ; yet nearly all, *perhaps all*, the plants in these two similar localities shall be distinct. A certain degree of analogy, indeed, of aspect, and even of structure, might very possibly be discoverable between the plants of the two localities in question ; but the *species* would in general be different. Circumstances, therefore, different from those which now determine the *stations*, have had an influence on the *habitations* of plants."

Stations and habitations of plants. — As I shall frequently have occasion to speak of the stations and habitations of plants in the technical sense in which the terms are used in the above passage, I may remind the geologist that station indicates the peculiar nature of the locality where each species is accustomed to grow, and has reference to climate, soil, humidity, light, elevation above the sea, and other analogous circumstances; whereas, by habitation is meant a general indication of the country where a plant grows wild. Thus the station of a plant may be a salt-marsh, a hill-side, the bed of the sea, or a stagnant pool. Its habitation may be Europe, North America, or New Holland, between the tropics. The study of stations has been styled the topography, that of habitations the geography, of botany. The terms thus defined, express each a distinct class of ideas, which have been often confounded together, and which are equally applicable in zoology.

In farther illustration of the principle above alluded to, that difference of longitude, independently of any influence of temperature, is accompanied by a great, and sometimes a complete, diversity in the species of plants, De Candolle observes, that, out of 2891 species of phænogamous plants described by Pursh, in the United States, there are only 385 which are found in northern or temperate Europe. MM. Humboldt and Bonpland, in all their travels through equinoctial America, found only twenty-four species (these being all Cyperaceæ and Gramineæ) common to America and any part of the They collected, it is true, chiefly on the mountains, Old World. or the proportion would have been larger; for Dr. J. Hooker informs me that many tropical plants of the New World are identical with African species. Nevertheless, the general discordance of these Floras is very striking. On comparing New Holland with Europe, Mr. Brown ascertained that, out of 4100 species, discovered in Australia, there were only 166 common to Europe, and of this small number there were some few which may have been transported thither by man. Almost all of the 166 species were cryptogamic, and the rest consist, in nearly every case, of phænogamous plants which also inhabit intervening regions.

But what is still more remarkable, in the more widely separated parts of the ancient continent, notwithstanding the existence of an uninterrupted land-communication, the diversity in the specific character of the respective vegetations is almost as striking. Thus