

more so, as Ehrenberg, as I have already remarked, has discovered that the nebulous dust or sand which mariners often encounter in the vicinity of the Cape Verd Islands, and even at a distance of 380 geographical miles from the African shore, contains the remains of eighteen species of silicious-shelled polygastric animalcules.

Vital organisms, whose relations in space are comprised under the head of the geography of plants and animals, may be considered either according to the difference and relative numbers of the types (their arrangement into genera and species), or according to the number of individuals of each species on a given area. In the mode of life of plants as in that of animals, an important difference is noticed; they either exist in an isolated state, or live in a social condition. Those species of plants which I have termed *social** uniformly cover vast extents of land. Among these we may reckon many of the marine Algæ—Cladoniæ and mosses, which extend over the desert steppes of Northern Asia—grasses, and cacti growing

spontanea aut primaria). "If," says he, "animals have not been brought to remote islands by angels, or perhaps by inhabitants of continents addicted to the chase, they must have been spontaneously produced upon the earth; although here the question certainly arises, to what purpose, then, were animals of all kinds assembled in the ark?" "Si e terra exortæ sunt (bestiæ) secundum originem primam, quando dixit Deus: *Producat terra animam vivam!* multo clarius apparet, non tam reparandorum animalium causa, quam figurandarum variarum gentium (?) propter ecclesiæ sacramentum in arca fuisse omnia genera, si in insulis quo transire non possent, multa animalia terra produxit." Augustinus, *De Civitate Dei*, lib. xvi., cap. 7; *Opera, ed. Monach. Ordinis S. Benedicti*, t. vii., Venet., 1732, p. 422. Two centuries before the time of the Bishop of Hippo, we find, by extracts from Trogu Pompeius, that the *generatio primaria* was brought forward in connection with the earliest drying up of the ancient world, and of the high table-land of Asia, precisely in the same manner as the terraces of Paradise, in the theory of the great Linnæus, and in the visionary hypotheses entertained in the eighteenth century regarding the fabled Atlantis: "Quod si omnes quondam terræ submersæ profundo fuerunt, profecto editissimam quamque partem decurrentibus aquis primum detectam; humilimo autem solo eandem aquam diutissime immorata, et quanto prior quæque pars terrarum siccata sit, tanto prius animalia generare cœpisse. Porro Scythiam adeo editiorem omnibus terris esse ut cuncta flumina ibi nata in Mæotium, tum deinde in Ponticum et Ægyptium mare decurrant."—Justinus, lib. ii., cap. 1. The erroneous supposition that the land of Scythia is an elevated table-land, is so ancient that we meet with it most clearly expressed in Hippocrates, *De Ære et Aquis*, cap. 6, § 96, Coray. "Scythia," says he, "consists of high and naked plains, which, without being crowned with mountains, ascend higher and higher toward the north."

* Humboldt, *Aphorismi ex Physiologia Chemica Plantarum*, in the *Flora Fribergensis Subterranea*, 1793, p. 178.