

organism as passive, in regard to the vital conditions of the outer world, while Lamarck, on the contrary, regards it as active. Geoffroy thinks, for example, that birds originated from lizard-like reptiles, simply by a diminution of the carbonic acid in the atmosphere, in consequence of which the breathing process became more animated and energetic through the increased proportion of oxygen in the atmosphere. Thus there arose a higher temperature of the blood, an increased activity of the nerves and muscles, and the scales of the reptiles became the feathers of the birds, etc. This conception is based upon a correct thought, but although the change of the atmosphere, as well as the change of every other external condition of existence, certainly effects directly or indirectly the transformation of the organism, yet this single cause is by itself too unimportant for such effects to be ascribed to it. It is even less important than practice and habit, upon which Lamarck lays too much stress. Geoffroy's chief merit consists in his having vindicated the monistic conception of nature, the unity of organic forms, and the deep genealogical connection of the different organic types in the face of Cuvier's powerful influence. I have already mentioned in the preceding chapter the celebrated disputes between the two great opponents in the Academy of Paris, especially the fierce conflicts on the 22nd of February and on the 19th of July, in which Goethe took so lively an interest. On that occasion Cuvier remained the acknowledged victor, and since that time very little, or rather nothing, more has been done in France to further the development of the Doctrine of Filiation, and to complete the monistic theory of development. This is evidently to be ascribed principally to the