



<https://www.biodiversitylibrary.org/>

Edinburgh Journal of Natural and Geographical Sciences.

<https://www.biodiversitylibrary.org/bibliography/2464>

2: <https://www.biodiversitylibrary.org/item/20001>

Article/Chapter Title: Suggestions on the relation organized bodies

Author(s): HHC

Page(s): Page 65

Holding Institution: Natural History Museum Library, London

Sponsored by: Natural History Museum Library, London

Generated 7 January 2019 2:59 PM

<https://www.biodiversitylibrary.org/pdf4/087822100020001>

This page intentionally left blank.

wise annexed a faithful representation of the true Northern Elk, (*Cervus Alces*) with the view that a comparison between the two might be instituted; adding, that the representation of the true Elk (the *Cervus Alces*) was expressly made for him in Prussia.

"It is rather curious that Munster, in drawing two animals of this anomalous species of *Cervus*, which we shall presume to be male and female, gives to each of them horns; those of the animal in the front of the drawing, which we shall suppose to be of the male sex, being somewhat larger and more inflected than those of the female. The coincidence of this delineation with the observations of Baron Cuvier and Mr. Hart, but more particularly of the latter, is very striking; for both of them suppose that the female, as well as the male of the fossil elk, possessed horns, after the manner of the rein-deer."

"But it would be unfair to criticise," adds Dr. Hibbert, "with too much minuteness and severity, a drawing, accompanied with a description, made nearly three hundred years ago, during the very infancy of our knowledge of natural history, and at a time when the race described was evidently becoming extremely rare, if not extinct; and this forbearance is the more demanded as an act of justice, in a case where the essential and permanent characteristics of the form and figure of the animal appear to be given with such a degree of accuracy and fidelity, as to render it impossible that we should confound them with those of any other race of *Cervi* then known to be in existence. If, however, some slight discrepancies should be insisted upon, I am quite willing that Munster's *Cervus* be considered as a variety only of the *Cervus euryceros*, or Fossil Elk of Ireland, analogous to such varieties as we find in the breed of horses, of dogs, of foxes, of wolves, or of hares."

*Suggestions on the relation between Organized Bodies, and the Conditions of their Existence.**—Every student of natural science must have found the advantage of possessing some leading principles, however hypothetical, under which he may consider the many unconnected facts which daily fall under his observation. The following propositions are suggested as at least capable of proving serviceable in this respect, at the same time that they may possibly be found, from future developement, to be explanatory of several of the phenomena of organization. Though founded on the comparison of numerous facts, hitherto unexplained, no claim is advanced for these generalizations, except that they are not commonly received, and that they merit some consideration from the philosophical anatomist.

1. The developement of the process of organization,—a power imposed by the Deity upon matter,—depends upon the conditions of existence.

2. The perfection of organized bodies, or the number and complexity of organs, has a direct ratio with the number of the conditions of existence.

Thus the lower the animal or plant in the scale of perfection, the fewer the conditions of its existence, and *vice versa*.

3. All organized bodies possess the power of varying the developement of the organs, by addition or subtraction of parts, as changes in the conditions of existence occur.

It is easy to conceive that an organized body can assimilate elements in the form of a new organ, as new functions are required, when we recollect that it is constantly exercising a power of converting inorganic matter into the living emblem of its original form.

4. The characters of organized bodies will be permanent during the continuation of the same conditions of existence which led to their developement, and no longer.

5. The more numerous the conditions of existence, the less liable the characters of the organized body to change, and *vice versa*.

6. It has been observed that the older the formations of the earth's crust, generally speaking, the less perfect the organic remains they contain. This progressive increase of perfection in organization, would lead us to expect, from the foregoing principle, that, with the advancing age of the earth, the conditions have increased in number; and this seems to be the fact.

7. Adaptation is the law by which organized bodies change with the variation of the conditions of existence; and separation of the functions of relation, and concentration of the vital functions, seems to be the mode of perfection. H.H.C.

* By the "conditions of existence," we mean the external physical agents with which an organized body is in necessary relation, and upon which the integrity and action of its functions depends.