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ANIMAL MORPHOLOGY IN ITS RELATION TO OTHER SCIENCES.

IN the system of classification adopted by the organizers of this congress the science of animal morphology is apparently to be defined so as to exclude comparative anatomy. I take it, consequently, that it is intended to include only the broader problems connected with the form of animals—such as the phylogenetic evolution of form, the embryological development of form and the restoration of the mutilated form—in general, the form-producing and form-maintaining factors.

Expressed in this way the relations of animal morphology become more evident; and clearly the first and most intimate of these relations is with the morphology of plants. The separation of animal morphology from plant morphology in the department of biology, while according with a division of the subject found to-day in our universities, is, I think, not an ideal condition. For the form-producing and the form-maintaining factors are, at bottom, the same in all organisms. The problem of what factors have worked to determine whether a fish or a man shall have such and such a form is identical with that of the determination of the form of a fern or an oak. Little by little the morphologists that deal with the broader aspects of their science are being forced to face the absurdity of its division on the basis of the material studied. In cytology it is found that the maturation of the germ-cells, the fertilization of the egg and cell-divisions, are identical processes in the two 'king-