are rather discontinuous series, of which all the members change in a definite direction, and obviously form steps in a line of development which culminates in the last-extinct or still-existing representatives." Zittel refers to such instances as the succession from *Hyracotherium*, or it may be from *Phenacodus*, through *Palaplotherium*, *Anchilopus*, *Anchitherium*, and *Hipparion*, to the single-toed horse. To this best-known instance might be added that of the camels, the pigs, the crocodiles, the amioid fishes, the ammonoids, &c. At the same time, it must in fairness be noted that the palæontologists remain in darkness in regard to many of the most momentous *origins* in the history of life. For what is really known as to the ancestry of Mammals, Birds, Reptiles, Amphibians, or Fishes, not to mention many an Invertebrate stock?

One of the most interesting and important of modern palæontological problems is whether there are chronological series of fossil embryonic types corresponding to the different stages in the development of a modern form. Is there palæontological evidence of that generalization which appealed so strongly to Agassiz though he was unable to see its evolutionary import—Hæckel's "Biogenetic Law". If this law be crudely and carelessly interpreted as implying an exact correspondence between individual and racial history, the answer must be an emphatic negative. As we have seen, careful embryological work points to the fact that the embryo, say of a fowl or duck, pig or rabbit, exhibits from a *very* early stage *individual* characters peculiar to fowl or duck, pig or rabbit—characters which date from the respective origins of these species. There is certainly no detailed or exact recapitulation, but this does not exclude the possibility that there may be fossil forms which bear a general resemblance to the youthful stages of modern forms.

"In spite of these drawbacks," Von Zittel says, "fossil embryonic types are not entirely awanting, even among Invertebrates. The palæozoic Belinuridæ are bewilderingly like the larvæ of the living *Limulus*; the Pentacrinoid larva of *Antedon* is nearer many fossil crinoids than is the full-grown animal;

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