

to think of any other mechanism for **natural** species-transmutation (let alone more-far-reaching macroevolution) that does not suffer from the same crippling defects as the neo-Darwinist one: namely, unworkability, whether per saltum [punctuated equilibrium] or by gradualism, unless systematically abetted by miraculous **luck**.' (p. 52)

The author leans towards a mechanism that he calls 'Butlerian evolution', taken after Samuel Butler, a late 19th century critic of Darwin. This mechanism is a pantheistic, 'non-natural Lamarckism' in which an organism directs its own genetic change to meet an environmental need. As examples, Mebane points to industrial melanism and the resistance of some bugs and bacteria to man-made poisons as examples of 'Butlerian microevolution'. For the macroevolution part, he suggests adaptive radiation, citing such examples as Darwin's finches, the Hawaiian honeycreepers, and the cichlid fishes of east African lakes. To me, these are all examples of

shifting alleles within a Genesis kind. The author does admit that 'Butlerian evolution' is very speculative (not to mention the origin of life in the first place):

'I think it prudent to admit that we are in complete ignorance of the real capabilities and limitations — if any — of Butlerian evolution.' (p. 61)

Mebane does consider supernatural creation by an intelligent designer. This option he rejects, and throughout his book he seems to have an unreasonable bias against the supernatural and an axe to grind against the God of the Bible. He has a long list of complaints and seeming contradictions of a loving God. He brings up long ages, the fossil record, stellar evolution, and man's many 'environmental sins' as evidence that God does not exist. He accepts uncritically that there are two creation accounts in Genesis. He rightly points out that if God cares why did he take so long to create us.

If only the author would examine just as critically all these complaints as he does neo-Darwinism, and if he

would *seriously* read Genesis 1-11, especially Genesis 3, he may see that supernatural creation is the only viable possibility. Otherwise, the author will continue in limbo, with no reasonable answer to origins.

Nevertheless, Mebane's book can be added to the growing list of non-creationist books that are critical of neo-Darwinism. The author ends his book with a prediction that neo-Darwinism will continue to dominate the intellectual establishment, with which I also agree. This is in spite of overwhelming evidence against the theory and the many secret doubters within the scientific establishment. He lists the 'political threat' of creationists and the psychological inability of scientists to give up on natural causes as two reasons for this prediction. Another reason is because of 'an old Stalinistically-enforced orthodoxy'. (p. 31)

REFERENCE

1. Corliss, W. R., 1994. Book supplement to *Science Frontiers*, 96:1.

Dinosaur Eggs and Babies

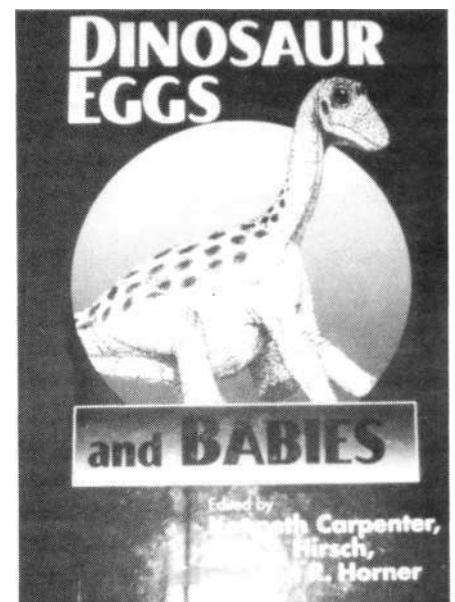
*edited by Kenneth Carpenter, Karl E Hirsch
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Reviewed by Michael J. Oard

This is a thoroughly evolutionary book, but it contains much information on dinosaur habits that should be of value in reconstructing a creationist geological paradigm. The data on dinosaur eggs and babies should be especially valuable for deducing where to place the Flood/post-Flood boundary; for instance, whether all the dinosaur activity occurred during the Flood¹ or whether it occurred after the Flood.² However, we must be careful drawing conclusions from the data in the book because the study of dinosaur

eggs and babies is still in its infancy (p. 153).

A number of general characteristics of dinosaur eggs and babies can be gleaned from the available information. First, there are thousands of dinosaur eggs, with many more eggs represented as fragments. These come from all over the world (chapter 1) — especially from central Montana, eastern Utah, and western Colorado in the USA; southern South America; south-eastern France and north-eastern Spain; central Asia;



India; Mongolia; and China. Second, many of the eggs are found as clutches

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and/or nests, which indicates the eggs were laid *in situ* and not transported. Third, hardly any whole eggs contain embryos, and most of those that do are found in Montana. Fourth, hatchlings associated with nests are just as rare, and again these are found mostly in Montana.

The authors make claims for many more hatched eggs, but without any trace of hatchlings. They appeal either to broken egg shells in a nest, or to the bottom of an intact egg with the top pieces laying on the bottom part. However, this is an inference that may or may not be true for the broken eggshells. Crushed and broken eggs can easily be caused by the compaction of the sediments.

Where the bottom of the eggshell is still intact, the top could have been broken by a predator. Evidence of predators is found at many nest sites; for instance, the teeth and bones of theropods, and the remains of varanid lizards, crocodiles (chapter 9), mammals, and pterosaurs. The juvenile dinosaur remains of *Orodromeus makelai* lying around but not in the nests were missing the upper part of the skeleton, suggesting they were half eaten by predators (pp. 116, 117). Hatchlings would be expected to trample the bottom of their eggs (p. 139), and the eggs should dissolve easily after hatching (p. 8).

As with most dinosaur remains, rapid burial is required to preserve eggs. Several of the authors cite

evidence for burial by flooding or volcanic ash to preserve eggs.

The consensus of opinion on dinosaur metabolism is coming to the conclusion that dinosaur babies grew rapidly. Some of this is based on evolutionary inferences and some on bone structure. The incubation period for dinosaur eggs would be especially interesting to creationists, and this is estimated to be 50 to 60 days, but could vary from 10 to 100 days (chapter 6).

Eggs and babies are predominantly dated as Upper Cretaceous in the geological timescale. However, part of this conclusion is based on the manipulation of the fossils' dates. In at least three locations the dates of the strata were changed to Upper Cretaceous after eggs were found. In one instance an Eocene date was changed to Upper Cretaceous (p. 57). Is it any wonder that all dinosaurs supposedly died off by the end of the Cretaceous?

There is evidence that the dinosaur eggs are not really that old. Actual organic matter and proteins have been discovered with some eggs:

The discovery of proteins in dinosaur eggshell is rather remarkable because they are not very stable chemically . . . Even more remarkable than the discovery of eggshell protein is the report of organic material in eggshell (p. 3).

More data of interest are that at some locations egg clutches and nests

are found at different vertical levels, similar to dinosaur tracks. This can be interpreted in several ways by creationists. In at least one case, the different vertical levels are attributed to the relief of the ground (p. 222). Some eggs are pathological, especially the eggs with multiple layered shells, but this has not been evaluated in depth. In this book, healthy eggs were analysed. Possible signs of unusual egg laying conditions include sterile eggs, egg clutches too close together for the size of the dinosaur (p. 41), nests laid in conglomerate in Mongolia (chapter 7), and nests associated with the Deccan volcanics in India (chapter 13).

Although many geologists confidently believe that dinosaurs died out due to the Earth being bombarded by a meteorite or a comet, several authors in this book still consider dinosaur extinction an unsolved mystery. For instance, Zhao Zi-Kui states:

'The cause [of dinosaur extinction] poses a difficult question for which no ready answer is apparent (p. 197).'

REFERENCES

- Oard, M. J., 1994. Polar dinosaurs and the Genesis Flood (Creation Research Society Quarterly, 32:47).
Robinson, J., 1994. Flood geology explain the fossil record. CEN Tech. J., 10(1):32-41.

QUOTABLE QUOTE: Ethical Consequences of Evolution

'Let me summarize my views on what modern evolutionary biology tells us loud and clear. . . There are no gods, no purposes, no goal-directed forces of any kind. There is no life after death. When I die, I am absolutely certain that I am going to be dead. That is the end for me. There is no ultimate foundation for ethics, no ultimate meaning to life, and no free will for humans, either.'

Provine, W. B., 1994. Origins Research, 16(1-2):9.
(Provine is Professor of Biological Sciences at Cornell University.)