



Noah's Ark or 'Jurassic Park'?

Did God or Lucifer create the dinosaurs? Were they in or out of the ark? Adventists have given many answers.

by James L. Hayward

ADVENTISM ENJOYS A RICH ICONOGRAPHY—multiheaded beasts, resurrected corpses, crumbling mountains, dour angelic messengers. When I was a boy most of these images struck terror in my heart, but a painting by Harry Anderson in *The Bible Story* captured my fancy. Against a backdrop of blossom-covered hills, Adam stands, arms outstretched, surrounded by a newly created menagerie. The lion and the lamb, the wolf and the deer, the cat and the rabbit—all live together in harmony.¹

As I look at Anderson's painting today, however, I find myself asking, "What's wrong with this picture?" What's a vegetarian lion doing with large canine teeth? How come the zebra has cryptic coloration? Where are the dinosaurs?

Dinosaurs? Dinosaurs in Eden? The Bible doesn't speak of them. Why, then, are their

bones so common? Did God create them? Did the devil make them? Will there be dinosaurs in heaven?

After more than a century of wrestling with beasts of prophecy, Adventists are beginning to wrestle with the beasts of the distant past.

On the Origin and Demise of Dinosaurs

Recently I made a presentation to a church group on the challenges that face Adventists who attempt to evaluate the history of life in the context of faith. During the question-and-answer period I was asked for my opinion on the origin of dinosaurs. An elderly lady, unhappy with my equivocal reply, retorted that the problem was one of appearances: "Dinosaurs are ugly," she snapped, "and my God didn't make anything ugly!" Her reaction reflects the opinion of many Adventists.

"Big Animals Long Ago—The Dinosaurs" (1979) by Ruth Wheeler, a children's book published by the Review and Herald Publish-

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ing Association, illustrates this point well. The narrative begins with a description of the “beautiful world” God made. We see a color illustration of Eden, complete with a giraffe, raccoon, heron, wolf, deer, elk, wild turkey, a mare and her foal, a bear, and a pair of elephants—all creatures of the contemporary world. “Many kinds of animals lived in the beautiful world,” states the text. “All the animals were gentle and peaceful. None of them hurt the people or other animals.”

Turning the page we are transported to a different era, this one rendered in black and white. Dead snags border the scene and storm clouds gather in the distance. *Triceratops*, *Stegosaurus*, *Ornitholestes*, *Brontosaurus*, and duckbill dinosaurs feed along the lakeshore. In the foreground a *Tyrannosaurus* severs the spinal cord of a plant-eating reptile and a second vegetarian races toward the edge of the picture. The message is clear: These “strange” animals were not part of the Creator’s original plan; they “appeared” as a result of sin. Most Adventists would agree, but few have thought seriously about how this was accomplished.²

Ellen White, for one, never used the word *dinosaur* in her writings, though at one point she mentioned “a class of very large animals which perished at the flood.” She also wrote of “confused species which God did not create, which were the result of amalgamation, [and] were destroyed by the flood.”³ Many of her interpreters have assumed that she was referring to dinosaurs in these statements.

In *Creation and Catastrophe* (1972), Harry Baerg suggested that environmental changes brought about by sin had something to do with the origin of dinosaurs (see chart, Histories of Dinosaurs, p. 9). “After the Fall,” wrote Baerg,

the physical features of the earth may have gradually changed. . . . Small ponds and lakes, the home of waterfowl, fish, and frogs, grew into large morasses choked with rank swamp growth.

Fossils indicate that by the time of the Flood vast bogs had apparently developed.

In these stagnating waters certain of the reptiles descended from those God had made, found ideal homes. As they lived in the shallow water and fed on the lush plants they grew to enormous size. Later some, such as the *Brachiosaurus*, became so large and heavy that they needed to rely somewhat on the water to support their massive weight. . . . No wonder God chose not to preserve them.⁴

Later, when describing the Flood, Baerg provided a macabre illustration of the deep waters filled with the bloated corpses of the enormous reptiles.⁵

Harold Coffin devoted a short chapter to dinosaurs in his college text *Creation—Accident or Design?* (1969). After examining the diversity of dinosaurs and their sudden extinction by the Flood, he cautiously broached the problem of their origin. One explanation, he noted, might be that they were the result of “amalgamation” between different subclasses or orders. But, said Coffin,

This seems somewhat questionable in the light of the laws of reproduction and genetics today. The original created kinds are more likely to be comparable to the smaller classification units. To equate them to orders or higher units, and to allow hybridization between different types of so large a kind is to suggest a great deal of change. It must be remembered, however, that the Bible does not say that animals may cross only within their species, or genus, or even within their created kind.⁶

A 1983 revision of Coffin’s book excluded any direct reference to dinosaur beginnings.⁷

Pastor R. F. Correia, known as “Dinosaur Bob” to grade school audiences, exhibited considerably less caution than Coffin in explaining the origin of dinosaurs. In his pamphlet “An Examination of the Unique Osteological Features of Dinosaurs as a Special ‘Class of Very Large Animals’” (1985) Correia asked:

Is the apparent over-ossification of the dinosaurian skull as seen in the abnormal ceratopsian frill, the peculiar hadrosaur crest, and the grotesque skull of Pachcephalosaurus with its weird rugosities the result of strange forces which caused malfunction of the petuitary [sic] gland, or are they attributable to mutation, hereditary maladjustments [sic], some pathological condition or even perhaps hybridism? If cross-breeding is the most feasible possibility, then there is some merit in the conclusion of Ellen G. White when discussing what well might be the reason for the demise of the dinosaurs.

Correia went on to quote Ellen White's statement about "confused species," then postulated that dinosaurs arose through "amalgamation" from crocodiles:

If dinosaurs were hybrids and missed the boat [Noah's ark] because they were not original species, then from what true type of creature could they have branched off? From the available data, one of the most plausible possibilities of progenitorship of dinosaurs is the crocodile which shared more homologies with them than any other known creature, ancient or modern.

In Correia's view, dinosaurs were a part of Satan's wicked scheme, a scheme that also resulted in the production of the sinful antediluvians and "all purposeless and troublesome plants."⁸

Armed with statements by Ellen White and "the guidance and research of R. F. Correia," the Dinosaur Committee of the Atlantic Union Conference Office of Education in 1983 published an attractive, two-volume curriculum guide on earth science for elementary school teachers titled *A Creationist View of Dinosaurs*. "Many of us have questioned the existence of dinosaurs," noted the committee on its introduction, but considering "all of the evidence presented by the thousands of specimens that have been found and placed on exhibit in museums throughout the world, there can be no doubt that these animals once

lived on our earth."

Through the use of cutouts, activity sheets, task cards, games, and suggested field trips, *A Creationist View of Dinosaurs* provides children with a wealth of factual information on various species of dinosaurs. This information was packaged within Correia's interpretive framework:

The [pre-Flood] sin that hurt God the most, and caused Him to destroy the earth, was amalgamation (3 *Spiritual Gifts*, p. 64). Amalgamation means the combining, or mixing, of living things to produce other living things that God did not originally create. Amalgamation caused harmful plants to grow (1 B.C. [SDA Bible Commentary], p. 1086). A change occurred in some groups of animals. They grew into strange, monster-like creatures. . . . This was all a part of Satan's wicked plan.

Noah's attempt to convince the antediluvians of God's impending judgment, the building of the ark, and the destruction of all terrestrial life except those inside the vessel are carefully reviewed. Then, lest anyone miss a point crucial to the argument of the entire two-volume document, the Dinosaur Committee states why it thinks dinosaurs became extinct: "We believe that the dinosaurs were among the animals that did not go into the ark."⁹

In striking contrast to the traditional Adventist position that dinosaurs perished in the Flood was the view of Frank Lewis Marsh, an otherwise conservative creationist, who proclaimed that some dinosaurs survived the Flood (see chart, *Histories of Dinosaurs*, opposite page).

There can be no question that dinosaurs were represented [in the ark], possibly by forms like *Compsognathus*, which was no larger than a rooster. But we would expect the terrible flesh-eating *Tyrannosaurus* to be left outside, along with his vegetarian but tremendously ungainly "relatives," *Diplodocus* and *Brontosaurus*, whose very bulk . . . would make them a hazard around the houses of postdiluvian man.¹⁰

Marsh had more than dinosaurs on his mind when making this assertion. He had engaged in a lengthy disagreement with fellow creationist Harold W. Clark over the meaning of Ellen White's amalgamation statements. Clark had been using White's ambiguous remarks to explain the development of prehistoric creatures and certain races of humans. Marsh, by contrast, did not believe that hybridization was possible between the so-called "Genesis kinds," and he had listed dinosaurs along with "mastodons, lions, wolves, beaver, deer, and apes" as having been created on the sixth day of Creation week.¹¹

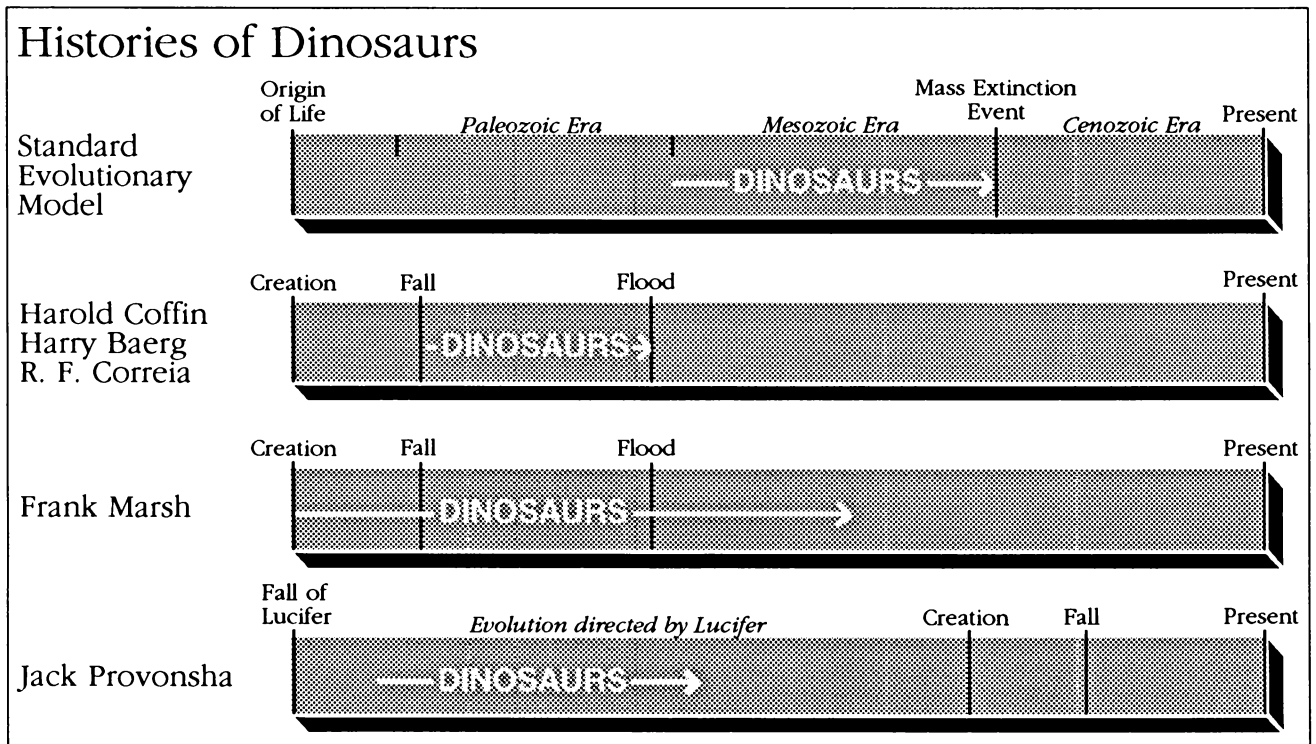
I am persuaded that when God formed plants and animals "after their kinds," He endowed them with chemically different protoplasms which were incapable of crossing, even when manipulated and directed by a very wise devil. In other words, God did not make organisms in such a way that they could cross and then say to them, "Now don't hybridize."¹²

Given his antipathy toward Clark's amalgamation views and his rejection of large-scale

evolutionary change, Marsh, along with many non-Adventist creationists, had no alternative but to suggest that the dinosaurs were divinely created.

While Marsh's views fell somewhat outside the Adventist mainstream, it was theologian and physician Jack Provonsha who proposed the most radical Adventist apology on the topic. After years of pondering the problems of paleontology and biblical interpretation, he became convinced that the very foundation of Adventist belief was "placed in jeopardy by this issue." According to Provonsha, two sets of reality had to be accommodated in any Adventist model of history of life. First, the great controversy theme upon which Adventism is built must be assumed. Second, irrefutable scientific information could not be ignored.

Provonsha's model, inspired by Ellen White and containing elements of the once-popular "ruin and restoration" theory, suggested that Lucifer was given "a long period of time" to work out his principles after his fall from heaven (see chart, Histories of Dinosaurs, below). During this time the "godlike" fallen



angel engaged in creative activity, the record of which “is attributed by the secular scientist to the autonomous working of nature in its process of evolution.” Provonsha even postulated that Lucifer’s genetic experiments progressed “to the level of hominids, lacking only the ‘image of God,’” a reference to human-like fossils. Then, “at some point of relatively recent time, after Satan’s principles [had] become clear to the hosts of heaven, God stepped in to demonstrate the alternative to the devil’s method—the Genesis story.” While Provonsha did not mention dinosaurs by name, it was clear that his model included them in Satan’s pre-Edenic kingdom.¹³

Adventist paleontologists have thus entertained a variety of views on the history of dinosaurs to counter the conventional geological model (see chart, *Histories of Dinosaurs*, p. 9). Until recently these views were informed more by exegesis of Ellen White’s writings than by serious study of the fossil record. However, several highly publicized fossil finds and an increasing number of church scientists trained in paleontology began forcing Adventists to look beyond their parochial concerns to the wider, if not less perplexing, world of science. Indeed, Harold Coffin, who in 1969 admonished anyone finding dinosaur remains “to cover the site with soil, mark the spot well, and inform the biology department of the nearest Seventh-day Adventist college or university,” was suggesting in 1983 that they be reported to “qualified persons in a large museum or university.”¹⁴

Dinosaur Eggs and Babies

Jack Horner, a young fossil preparator at Princeton University during the 1970s, took every opportunity to escape New Jersey to scour the mountains and badlands of his native Montana for dinosaur fossils. On one such trip in 1977 he was exploring the Two

Medicine rock formation along the eastern foothills of the Montana Rockies when he stumbled upon the first intact dinosaur egg ever uncovered in the Western Hemisphere. The discovery of the egg suggested this might be a good place to look for baby dinosaur fossils. If he could find baby dinosaur fossils he might learn about how dinosaurs grew and lived.

A year later Horner and several of his fossil-hunting friends visited a Bynum, Montana, rock shop which, they had been told, contained some interesting fossils. It was Sunday, but the shop was open because, as Horner put it, “the owners were Seventh-Day Adventists [sic] and their sabbath is Saturday.” The paleontologists were in no hurry, and much to proprietor Marion Brandvold’s delight they “wandered around in the shop, picking out all the fossils that had been misidentified and giving them the correct identification.”

Mrs. Branvold then showed the paleontologists some small bones that she and her family had collected some weeks earlier. Horner immediately recognized the bones as those of baby duckbill dinosaurs. They were from the Two Medicine formation near the town of Choteau, not far from where he had discovered the dinosaur egg the previous year. Upon learning of how important the fossils were, Branvold filled a coffee can with the bones and gave them to the grateful paleontologists.

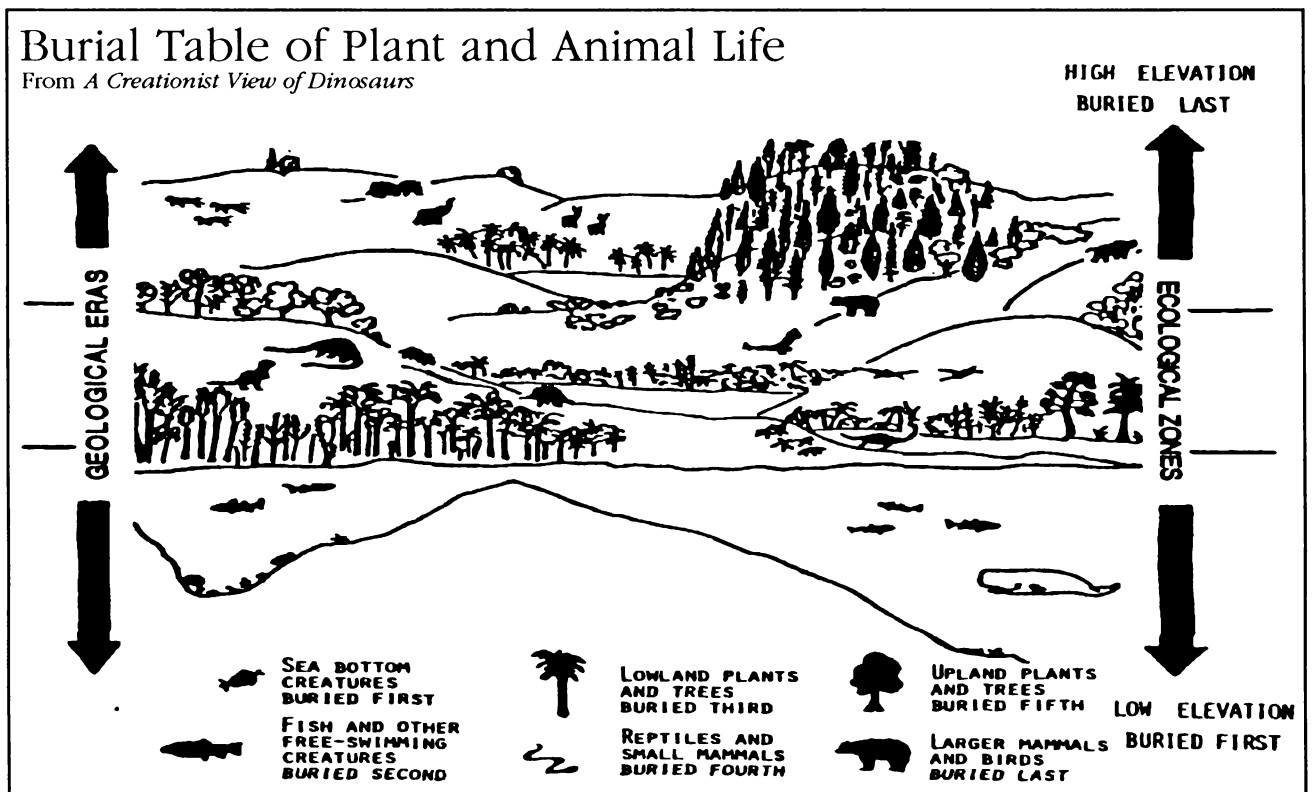
Horner notified his boss, Don Baird at Princeton, of his find and Baird wired him \$500 to cover the expenses for further exploration. The Branvolds took him back to the spot where they had found the baby bones, and it wasn’t long before the group located more juvenile fossils. Then on August 9, 1978, only two and a half weeks after his initial visit to Branvold’s shop, Horner made another historic discovery: a nest containing 15 baby dinosaurs. The babies were all about the same size and their teeth showed evidence of wear, indicating that they had been feeding for some time before they were buried.¹⁵

Over the next few years this remarkable site proved to be a fossil treasure-trove. Nests of at least two kinds of dinosaurs were found: herbivorous duckbill dinosaurs (*Maiasaura peeblesorum*) and smaller, presumably omnivorous, hypsilophodontids (*Orodromeus makelai*). Some nests contained complete sets of eggs arranged in double-layered circles (duckbills) or in single-layered spirals (hypsilophodontids), with their large ends pointed upward. One hypsilophodontid nest contained 19 eggs, each with a fossilized dinosaur embryo inside. Multiple nests were found in at least three different stratigraphic horizons. Finally, a bone bed containing a herd of 10,000 duckbill dinosaurs, perhaps destroyed by a volcanic eruption, was uncovered nearby. As Yale paleontologist John Ostrom noted, this was "one of the most amazing and important fossil discoveries of all time."¹⁶

Horner made several inferences from these fossils. First, the nests were preserved in the precise locations where they were built; it would have been impossible to transport struc-

tures such as these from other locations, and at the same time maintain the arrangement of fragile eggs within spirals or circles. Second, the spacing between the nests, about 20 feet for duckbills and seven feet for the smaller hypsilophodontids, indicated that these animals nested in colonies, much like gulls and other ground-nesting seabirds do today. Significantly, coloniality implies the existence of social order maintained by communication. Third, an apparent lack of a food source close to the nests and the preservation of same-aged juveniles with worn teeth in some nests suggests that the parent dinosaurs fed their babies for extended periods of time. Fourth, the preservation of nests at multiple levels indicated that this area was used as a breeding colony by the dinosaurs for more than one season. Fifth, the sudden destruction and subsequent preservation of 10,000 duckbill dinosaurs in one place by a catastrophe demonstrated that these animals lived in vast herds, perhaps like bison in 19th-century America.¹⁷

Horner's view revolutionized people's con-



cepts of how dinosaurs lived. The fossil hunter himself became something of a folk hero in Montana where he is now curator of paleontology at the Museum of the Rockies in Bozeman. As for the Branvolds, they moved their rock shop from Bynum to Choteau and continued to be lauded by Horner. "Marion Branvold had discovered a lovely little window on the Cretaceous [time period]," wrote the paleontologist in his 1988 book *Digging Dinosaurs*. "What we did was open that window and climb through it."¹⁸

The Branvold-Horner site in Montana is the world's most spectacular example of a dinosaur nesting ground, but it is by no means the only one. Roy Chapman Andrews, on an expedition to Mongolia from the American Museum of Natural History in 1923, found a nesting colony of *Protoceratops*. Reports of Andrews' discovery created a sensation, prompting Flood geologist George McCready Price to grumble in *Signs of the Times* the following year that "a good deal of unnecessary fuss has been made over these ancient eggs."¹⁹

In the early 1980s still other dinosaur nests were found at Devil's Coulee, Alberta; in the Kheda District of Gujarat, India; and at Rennes-le-Château in Aude, France. At all these locations nests were grouped into colonies, and usually the colonies occurred at multiple levels indicating prolonged use by the animals. Numerous other places throughout the world have yielded single dinosaur eggs, eggshell fragments, or bones. Dinosaurs were obviously widespread, diverse, numerous, and prolific inhabitants of the planet.²⁰

Dinosaurs and the Geologic Column

Dinosaur fossils are restricted to the middle or Mesozoic rocks of the geologic column (see chart, Burial Table of Plant and

Animal Life, p. 11). Most scientists interpret this to mean that dinosaurs evolved from a primitive group of reptiles during the Triassic period, or early part of the Mesozoic era, and for 150 million years dominated the landscape. Each of the three major divisions of the Mesozoic rock strata—Triassic, Jurassic, and Cretaceous—contains its own characteristic pattern of dinosaur diversity, indicating that these animals changed and diversified. Then at the end of the Cretaceous period they went extinct, due perhaps to the impact of an enormous meteorite. The demise of these animals, say scientists, opened the way for the diversification of mammals, a group that continues to dominate the world today.²¹

This story is not without its problems. Various types of dinosaurs appear suddenly in the fossil record without antecedent forms. Some paleontologists say this is the result of the incompleteness of the fossil record. Others suggest that new dinosaur species evolved very quickly, making it unlikely that incipient forms were commonly preserved as fossils. Indeed, the presumed "missing links" are sometimes found. For example, an early dinosaur, *Eoraptor*, showing predicted structural affinities with earlier reptiles and later dinosaurs, recently turned up in Argentina.²²

Another problem involves the extinction of dinosaurs at the end of the Cretaceous period. Why would a catastrophe such as a meteorite impact wipe out the dinosaurs and leave non-dinosaurian reptiles, birds, and mammals unscathed? One response is that the dinosaur dynasty was on its way out anyway; the Cretaceous catastrophe was a mere *coup de grâce*. A more radical view suggests that dinosaurs never really went extinct—that birds are feathered dinosaurs carrying on the family tradition.²³

Flood geologists, by contrast, often explain the restriction of dinosaur fossils to Mesozoic rocks with reference to the "ecological zonation theory," a model developed

during the first half of this century by Harold W. Clark. This model suggests that the sequence of fossils in the rocks parallels the sequence of altitudinal life zones in the pre-Flood world. As the Flood waters rose, the successive ecological zones and their inhabitants were destroyed. In this view, Paleozoic sea animals, amphibians, and non-flowering plants lived in the lowest zone, Mesozoic dinosaurs, toothed birds, and a mixture of plants resided in the middle zone, while Cenozoic mammals, non-toothed birds, flowering plants and humans dominated (or as the Flood waters rose, fled to or floated to) the highest altitudes, a sequence reflected in the fossil record (see chart, Burial Table of Plant and Animal Life, p. 11).²⁴

The incompatibility of the ecological zonation theory with the preservation of dinosaur nesting colonies has become apparent to many Adventist scientists. It would have been impossible to float entire nesting colonies into their current positions, one atop another, with eggs and young neatly arranged in ideally spaced nests. Moreover, at the Montana site the herd of 10,000 duckbill dinosaurs is preserved beneath volcanic ash deposited between two of the nesting horizons. As Harold Coffin once observed, "evolutionists have difficulty explaining the sudden disappearance of the dinosaur, but Seventh-day Adventists are not without interpretive problems either."²⁵

Currently, several Adventist geologists are wrestling with the question of where to locate the dinosaur nests with respect to the Flood in

the geologic column. One suggestion is that the nesting colonies and dinosaur herds were buried by post-Flood catastrophes. Adventist sedimentologist Elaine Kennedy, in a recent issue of *Signs of the Times*, alluded to the Montana colony and suggested that the residents lived after the Flood and made their nests "on what is now the surface." Careful examination of this site indicates the inadequacy of this explanation. Not only were multiple colonies superimposed one atop another, but in many cases the eggs and nests had to be jack-hammered out of very hard rock. It is clear from the surrounding stratigraphy that the colonies were buried under significant sediment loads that have experienced much subsequent erosion. It is unlikely that the few thousand years of postulated post-Flood time would allow for the development of such a large overburden and subsequent massive erosion.²⁶

Conclusion

Seventh-day Adventists will continue to build, modify, destroy, and rebuild their models of the past as new discoveries come to light. While some of these models will be developed solely from sacred writings, others will be based on the recent findings of geology, paleontology, geochemistry, and biology. In any event, the fascination of Adventists with prehistoric beasts will persist, at least in some circles, with a fervor rivaling 19th-century attempts to understand the beasts of prophecy.

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