

ARCHAEOPTERYX, ARCHAEORAPTOR, AND THE “DINOSAURS-TO-BIRDS” THEORY—[PART II]

Brad Harrub, Ph.D. and Bert Thompson, Ph.D.

[EDITOR’S NOTE: Part I of this two-part series appeared in the April issue. Between the mailing of that issue and the writing of this one, yet another “missing link” has been reported in the scientific and popular media. The April 26, 2001 issue of *Nature* contained an article on a newly announced “feathered dinosaur” from China that supposedly represents the missing link between reptiles and birds. The May 7, 2001 issue of *Time* presented—with great flourish—an artist’s concept of what the creature is supposed to have looked like. You will find our comments on this new discovery in the section of our article titled “The Quest Continues.”]

BREATHING—BIRD STYLE

In analyzing the fabric strength of the material that evolutionists have woven together to promote the importance of *Archaeopteryx*, we must invest some time looking at an important anatomical feature, for it is at this point that we begin to see the threads of evolution unravel. Current evolutionary theory **demand**s that the lungs of certain land-dwelling animals “somehow” evolved into



Photographic reproduction of one of the famous *Archaeopteryx* fossils

bird lungs. However, birds’ lungs are quite unlike the lungs of other animals because they do not “breathe out.” The lungs of land-dwelling animals work somewhat like a bellows in which the “good” air is inhaled and the “bad” air is exhaled. Birds’ lungs, on the other hand, are unique because they have an opening at each end and thus possess a one-way respiratory system. In birds’ lungs, the new air comes in one end, is stored in special sacs until needed, and then is released out the other end.

So how do the millions of years required for evolution mesh with the fact that “air breathers” can survive for only a few moments (at most) if a disruption to their respiratory system occurs? How can you take a “two-way” reptile lung and over a period of minutes evolve it into a fully functional “one-way” bird lung? The simple answer is, you cannot. John Ruben, an expert in respiratory physiology from Oregon State University at Corvallis, addressed the problem of such a hypothetical intermediate.

Recently, conventional wisdom has held that birds are direct descendants of theropod dinosaurs [those dinosaurs that are said to have been “beast-footed” and bipedal Saurischians—BH/BT]. However, the apparently steadfast maintenance of hepatic-piston diaphragmatic lung ventilation in theropods throughout the Mesozoic poses a fundamental problem for such a relationship. The earliest stages in the derivation of the avian abdominal airsac system from a diaphragmatic-ventilat-

ing ancestor would have necessitated selection for a diaphragmatic hernia [or hole—BH/BT] in taxa transitional between theropods and birds. Such a debilitating condition would have immediately compromised the entire pulmonary ventilatory apparatus and seems unlikely to have been of any selective advantage (1997, 278:1269).

To suggest that the “debilitating condition of a diaphragmatic hernia would have immediately compromised the entire pulmonary apparatus” and thus be “unlikely to have been of any selective advantage” is nothing more than scientific “prestige jargon” for stating the obvious: in other words, the animal would not have been able to breathe. We think it is a gross understatement, therefore, to suggest that this “seems unlikely to have been of any selective advantage.” **Death—to put it bluntly—is not a good survival mechanism!**

ARCHAEOPTERYX—DINOSAUR OR BIRD PELVIS?

Overall, dinosaurs can be divided into two groups based on the shape of their pelvis. The Saurischia are “lizard hip-ped” dinosaurs, whereas Ornithischia are considered “bird hip-ped.” Strange as it may seem, *Archaeopteryx* (and thus all modern birds) allegedly evolved from the Saurischia, not the bird-hipped Ornithischia. Evolutionists, therefore, have spent countless hours trying to connect *Archaeopteryx* with its fellow Saurischian, the theropod—a “beast-footed,” bipedal, carnivorous dinosaur.

CONTENTS

ARTICLES

- Archaeopteryx, Archaeoraptor, and the “Dinosaurs-To-Birds” Theory [Part II]*
Brad Harrub and Bert Thompson . . . 33

DEPARTMENTS

- Speaking Schedules 37

Note from the Editor

- Announcing a New Book for Young People: Out With Doubt*
Bert Thompson 40

Reason & Revelation is published monthly by Apologetics Press, Inc., a non-profit, tax-exempt work dedicated to the defense of New Testament Christianity. Copyright © 2001. All rights reserved.

Editor:

Bert Thompson, Ph.D.*
(*Microbiology, Texas A&M University)

Associate Editor

Brad Harrub, Ph.D.*
(*Neurobiology, University of Tennessee)

Annual Subscription Rates:

\$ 8.00 Domestic
\$13.00 Canada & Overseas Airmail

Mailing Address:

Apologetics Press, Inc.
230 Landmark Drive
Montgomery, AL 36117-2752

General inquiries, changes of address, or international callers:

Phone: (334) 272-8558
Fax: (334) 270-2002

Orders:

Phone: (800) 234-8558
Fax: (800) 234-2882

On-line Web store/catalog, subscription order/renewal form, current issues, archives, and other information (all orders processed on a secure server):

URL: www.ApologeticsPress.org
E-mail: mail@ApologeticsPress.org

Discovery—Scripture & Science for Kids

is a sister publication for children. For more information, please contact our offices or visit the Discovery Web site at:

URL: www.DiscoveryMagazine.com

A comparison of the pelvic bones of modern perching birds and *Archaeopteryx* reveals that both probably assisted their breathing while perching by means of muscles attached between their pubis and tail. In contrast, the pelvic bones of the theropod dinosaurs look nothing like that of either modern birds or *Archaeopteryx*, but instead look more similar to those of modern reptiles (like the crocodile, for example). There is no way for the pubis of modern reptiles or the theropod dinosaurs to serve as an attachment point for suprapubic muscles that are needed to assist in breathing during perching.

Numerous studies have pointed out that the curvature of *Archaeopteryx*'s claws, compared to the curvature of modern birds' claws, puts it firmly in the “perching bird” category (see Feduccia, 1993). In fact, the habits of birds that are similar to *Archaeopteryx* (such as the earthbound Australian pheasant cuckoo) can be distinguished on the basis of claw curvature. Furthermore, the unusual claws on the wings of *Archaeopteryx* resemble those of various tree-climbing birds, and differ noticeably from the claws of its supposed dinosaurian relatives. As ornithologist Alan Feduccia put it: “*Archaeopteryx* probably cannot tell us much about the early origin of feathers and flight in the true protobirds because *Archaeopteryx* was, in the modern sense, a bird” (1993, 249:792). Our point exactly!

MISSING “LINKS” FOR AN AILING “MISSING LINK”?

Much controversy has occurred in scientific circles regarding whether *Archaeopteryx* should be classified strictly as a bird or as a “transitional intermediate” between dinosaurs and birds. Many researchers automatically place this animal into the “bird” category based solely on the presence of feathers. As Feduccia noted: “Feathers are unique to birds, and no known structure intermediate between scales and feathers has been identified” (Feduccia, 1980, p. 52). Creationists, of course, have long made that very point. In fact, writing in volume two of their *Modern Creation Trilogy* on this matter in regard to *Archaeopteryx*, Henry Morris and John Morris stated:

Archaeopteryx is a “mosaic” of useful and functioning structures found also in other creatures, not a “transition” between them. A true transitional struc-

ture would be, say, a “sceather”—that is, a half-scale, half-feather—or a “ling”—half-leg, half-wing—or, perhaps a half-evolved heart or liver or eye. Such transitional structures, however, would not survive in any struggle for existence (1996, 2:70).

Recent intriguing discoveries have caused researchers to speculate with wild abandon about exactly how *Archaeopteryx* fits into the dinosaurs-to-birds theory. As you will see later in this article, some evolutionists have haplessly fashioned a fascinating tale of dinosaur-to-bird descendants, only to realize after the fact that they actually have created a huge time-line fiasco for themselves (and for the birds!). Much of this began after several important recent finds in China, in what some believe is ever-increasing evidence that establishes a direct link between dinosaurs and modern birds. The first find, uncovered in the early 1990s, was a newly discovered bird named *Confuciusornis* from the Yixian formation of Liaoning province in northeastern China. The find, which is considered more modern in form than *Archaeopteryx*, was described from three partial skeletons, and is said to be roughly half the size of the London specimen of *Archaeopteryx* (while sharing several common features). In his 1999 book, *In Search of Deep Time*, zoologist (and senior editor for *Nature*) Henry Gee noted:

Unlike *Archaeopteryx*, which had a conventional reptilian spout, *Confuciusornis* had a beak, the earliest record of a beak in the fossil record. In more than 150 years, only seven specimens of *Archaeopteryx* have ever been found, and each one is treated as a priceless relic. The contrast with *Confuciusornis* could hardly be greater; in only a few years, hundreds of specimens had been excavated from Liaoning province. *Confuciusornis* joined a steadily accumulating catalogue of fossil birds unearthed in the 1980s and 1990s from a small number of fossil sites in China, Spain, and other countries. Most fossils came from the mid to late Cretaceous. None were [sic] as old as *Archaeopteryx* itself, which still remained the oldest bird (pp. 188-189).

The exact age of these combined specimens, however, has turned out to be a matter of intense debate among evolutionists, having been reported to be either “as old as” or “older than,” *Archaeopteryx* (Hou, 1995), or almost the same age (Gee, p. 189).

In 1996, two additional finds were discovered. The first was *Compsognathus*, a small theropod about the size of a chicken (see Gibbons, 1996a, 274:720-721; Corliss, 1998, p. 281). Dated at 121 million years old, *Compsognathus* is too recent to have given rise to *Archaeopteryx*. Initially, it was believed to have had a mane of downy feathers running along its neck, back, and tail, which caused Yale paleontologist John Ostrom to state: "If it does have feathers, it could be a descendant of the dinosaur that gave rise to birds" (as quoted in Gibbons, 1996a, 274:720). At first, Dr. Ostrom believed that the structures on the back of *Compsognathus* were, in fact, some kind of primordial feathers. Later, however, he abandoned that idea as erroneous (see Corliss, 1998, p. 280). Furthermore, University of North Carolina ornithologist Alan Feduccia and University of Kansas paleontologist Larry Martin have suggested that the creature's anatomy was all wrong and much too distinctly un-bird-like: Feduccia noted: "It's biophysically impossible to evolve flight from such large bipeds with foreshortened forelimbs and heavy, balancing tails" as *Compsognathus* (as quoted in Gibbons, 1996a, 274:721). In his 1998 volume, *Biological Anomalies: Birds*, scientist William R. Corliss concluded: "*Compsognathus* was too good to be true.... [T]he structures along the fossil's back were not really feathers. Just what they were remains a mystery" (p. 280, emp. in orig.).

That was not the end of the story, however, because the discovery of another fossilized creature was announced later that same year (1996). *Sinosauropteryx* [Chinese winged lizard] originally was uncovered in China in 1992 and is believed by evolutionists to be about 135 million years old. It differs from *Archaeopteryx* in that its main toes face away from its other toes rather than all of them pointing forward. This placement allows for better gripping of branches, and thus is viewed as an important advance over *Archaeopteryx*. However, some have suggested that *Sinosauropteryx*'s features are due to the manner in which the damaged fossil was reconstructed (a not-too-improbable scenario, as you will see later in this article when we discuss the fossil fraud, *Archaeoraptor*).

The skeleton of *Sinosauropteryx* was said to be surrounded by a halo of "fuzz," which resulted in the discovery making headlines on the front page of the respected *New York*

Times and being viewed by many as confirmation of the dinosaurian origins of birds. However, after all the facts were gathered the verdict was somewhat different. Henry Gee stated in regard to the *Sinosauropteryx* "feathers":

At the time, there was a great deal of debate about the significance of the fibers. They did not really look much like either hairs or feathers. Chen [Chen Pei-Ji from Nanjing, the Chinese scientist who discovered the *Sinosauropteryx* fossils (see Chen, 1998)—BH/BT] and his colleagues called them "integumentary structures," in a way to avoid seeming to prejudge the functions or affinities of these structures. Some even supposed that they were not external at all, but internal collagenous struts supporting a lizard-like frill....

The range of types of skin covering in extant tetrapods is rather limited; apart from bare skin, there are scales, hair, or feathers, and that's it. The not-quite-feathery, not-quite-hairy fibres of *Sinosauropteryx* may represent a completely different, hitherto unknown variety of vertebrate skin covering.... [T]he significance of fibres of *Sinosauropteryx* in understanding the origin of birds in particular is hard to estimate.... *Sinosauropteryx* remained an enigma: were its puzzling integumentary structures peculiar to itself, revealing nothing about the ancestry of feathers, or did they represent a significant discovery that might further understanding of the origin of feathers, and therefore of birds? (1999, pp. 190, 191).

Since the initial find of *Sinosauropteryx*, two additional discoveries of the creature have been made (one is a dromaeosaur and the other is a therizinosaur), both of which have the same type of *Sinosauropteryx*-like fibers. Larry Martin of the University of Kansas (Lawrence) thinks the fine structures may be "frayed collagenous fibers" beneath the skin **that have nothing whatsoever to do with either feathers or birds**. John Ruben of Oregon State University (Corvallis) dissected a sea snake's tail and showed that such fibers can indeed look feathery [see Gibbons, 1997, 278:1229]. In an intriguingly titled article ("Plucking the Feathered Dinosaur") published in *Science*, Ann Gibbons referred to "roughly a half-dozen Western paleontologists who have seen the specimens" and who admitted that "the structures are not modern feathers" (1997, 278:1229).

And now, to add to the confusion, hotly disputed claims from China of the discovery of two species of dinosaurs that allegedly possessed feathers (*Protoarchaeopteryx robusta* and *Caudipteryx zoui*) have many evolutionists scratching their heads and reevaluating their time lines altogether. *Protoarchaeopteryx*, the larger of the two specimens, is about the size of a turkey and has a patch of bird-like feathers at the tip of its tail. *Caudipteryx* had a fairly short tail, a fan of tail feathers, and a fringe of feathers along the trailing edges of each of its forearms. Two Chinese scientists, Ji Qiang and Ji Shu-An, discovered these so-called "feathered dinosaurs" in the same location as the *Sinosauropteryx*, and suggested in an article in *Chinese Geology* (and then later in another article in the June 25, 1998 issue of *Nature* [393:753-761]) that the feathers link these creatures both to theropods and to birds. That same year, in an article in *Science*, Philip Currie asserted: "You can't get around the fact that these are feathers on dinosaurs" (as quoted in Gibbons, 1998, 280:2051). In his book, *In Search of Deep Time*, Gee wrote:

This time, the nature of the skin was quite unambiguous, because these dinosaurs had unmistakable feathers, rather than enigmatic fibres.... The feathers are like those of birds; each one has a central stalk, and vanes on either side. Given the smallness of these creatures' arms, it is extremely unlikely that either dinosaur was capable of flight. ... The implications of these discoveries are profound: the discovery of feathers in patently non-flying dromaeosaurs demonstrates that feathers existed before the evolution of flight. It can no longer be claimed that the origin of birds is inextricably linked with the origin of flight or denied that the heritage of the birds is closely linked with that of the theropod dinosaurs.... The discovery of these feathered dinosaurs has brought the debate about the origin of birds to a close (1999, pp. 191, 192).

Even evolutionists who do not accept the dinosaur-to-bird concept of evolution agree that the feathers are real. They stress, however, that **the feathers document the fact that the two creatures were birds, not dinosaurs**. Larry Martin wrote: "I think they've found a group of flightless birds" (as quoted in Gibbons, 1998, 280:2051). The radiometric dating of the sites in which the finds were discovered has presented serious problems as well. In an article in *Science*, Ann Gibbons reported on this aspect of the controversy.

Until recently, many paleontologists thought that *Archaeopteryx* itself gave rise to opposite birds [birds whose foot bones are fused from the top down, as opposed to modern birds, whose foot bones are fused from the bottom up—BH/BT] which in turn gradually evolved into modern birds.... [Alan] Feduccia and his colleagues now challenge that view with fossils of a bird the size of a sparrow, called *Liaoningornis*. The specimen, unearthed by a farmer in the Yixian formation in northeastern China's Liaoning Province, lacks a skull but includes a nearly complete skeleton with foot bones and a keeled sternum that resemble those of modern birds. Yet the Chinese scientists cite radiometric dates of 137 to 142 million years for the volcanic rock of the Yixian formation, which would make the bird almost as old as *Archaeopteryx*. And the same beds also yielded a magpie-sized primitive bird called *Confuciusornis*, which shares many traits with both *Archaeopteryx* and modern birds.... According to Feduccia and Martin, the discoveries imply **that by the time of *Archaeopteryx*, birds had already diverged into two lineages and had a rich history that is missing from the fossil record.** One lineage led to modern birds. Another led to *Archaeopteryx* and the opposite birds, which they view as sister taxa, closely related to each other but distinct from the line that led to modern birds. And both of these bird lineages must have descended from a much earlier ancestral bird. **Feduccia reckons that the first bird must have lived about 76 million years before the birdlike dinosaurs of the Cretaceous—a fact that he says raises questions about the dinosaurian origins of birds** (1996b, 274: 1083, emp. added).

Evolutionists admit that radiometric dates for the Yixian formation (estimated at anywhere between 121 million and 142 million years) are controversial. As Feduccia has suggested: "Whatever the date is, we're getting both types of birds shortly after *Archaeopteryx*" (as quoted in Gibbons, 1996b, 274:1083). His point is well taken. Ann Gibbons noted in another *Science* article: "...the Chinese fossil is too recent—121 million years old—for the dinosaur to have given rise to the 150-million-year-old Jurassic bird, *Archaeopteryx*" (1996a, 274:720). In his article in *Science* ("The Forward March of the Bird-Dinosaurs Halted?"), Richard Hinchliffe commented on the con-

troversy over the "recent nature" of these fossil finds when he noted that "most theropod dinosaurs and in particular the birdlike dromaeosaurs are all very much later (i.e., more recent—BH/BT) in the fossil record than *Archaeopteryx* (1997, 278:597). So unless birds perfected time travel millions of years ago, these latest finds do little to support the theory that dinosaurs gave rise to birds.

"DINOSAURS-TO-BIRDS"— A THEORY ON LIFE SUPPORT

In the February 1998 issue of *Scientific American*, Kevin Padian and Luis Chiappe, while fully backing the dinosaurian origin of birds, added a sidebar explaining the major points of contention:

1. The hands of theropod dinosaurs and birds differ in important ways.
2. Theropod wishbones differ significantly from those of birds.
3. Avian lungs are very complex and could not have evolved from theropod dinosaur lungs.
4. Theropod dinosaurs appear to have been exclusively ground dwellers; thus, flight would have had to originate from the cursorial or "ground-up" theory, which many scientists do not accept (Padian and Chiappe, 1998).

In his review of an article on "Developmental Patterns and the Identification of Homologies in the Avian Hand" by Ann Burke and Alan Feduccia in the October 24, 1997 issue of *Science*, Richard Hinchliffe reiterated many of these same problems by pointing out problems with the "dinosaur-to-bird" hypothesis. These included:

1. The much smaller theropod forelimb (relative to body size) in comparison with the *Archaeopteryx* wing. Such small limbs are not convincing as proto-wings for a "ground-up" origin of flight.
2. The rarity in theropods of the semilunate wrist bone—known in only four species. Most theropods have relatively large numbers of wrist elements difficult to homologize with those of *Archaeopteryx*.
3. The time problem. Theropod dinosaurs are found too recently in the fossil record to have given rise to *Archaeopteryx* (Hinchliffe, 1997).

ARCHAEORAPTOR— A TALL TAIL, OR A TALL TALE?

The controversy over the alleged connection between reptiles and birds in the evolutionary scenario increased dramatically with the publication in November 1999 by *National Geographic* of a feature article by Christopher P. Sloan titled "Feathers for *T. Rex*?" The article claimed to provide "a true missing link in the complex chain that connects dinosaurs to birds" (Sloan, 1999, p. 100). The fossil, named *Archaeoraptor liaoningensis*, was discovered at Xiasanjiazi in China's northeastern Liaoning Province and appeared to have the body of a primitive bird with the teeth and tail of a small, terrestrial dinosaur or dromaeosaur. This definitely fit the criteria of the type of fossil that evolutionists had hoped to find to fill in some of the gaps in their popular "dinosaur-to-bird" scenario because it manifested the long, bony tail of dromaeosaurid dinosaurs along with the specialized shoulders and chest of birds.

The Associated Press quickly picked up the story, and soon all the major news networks were reporting about this "fierce turkey-sized animal with sharp claws and teeth" (Recer, 1999). Philip Currie of the Royal Tyrrell Museum in Alberta, Canada, and one of the scientists involved in the examination of *Archaeoraptor* for *National Geographic*, boasted: "We're looking at the first dinosaur that was capable of flying" (as quoted in Recer, 1999). However those words barely had left Currie's mouth before the questions about this fossil started flying (no pun intended). After a short-lived period of "pomp and circumstance," *National Geographic* suddenly found itself embroiled in one of the hottest scientific controversies in decades.

In an "open letter" dated November 1, 1999 and addressed to Peter Raven, Secretary of the National Geographic Society Committee for Research and Exploration, Dr. Storrs L. Olson, the eminent curator of birds at the prestigious Smithsonian Institution's National Museum of Natural History, verbally castigated the Society, Dr. Raven, Christopher P. Sloan (author of the *National Geographic* article), and Paul Allen, the magazine's editor, for what he called "an all-time low for engaging in sensationalistic, unsubstantiated, tabloid journalism." And that was the **nicest** thing he had to say! Dr. Olson continued:

Sloan's article takes prejudice to an entirely new level and consists in large part of unverifiable or undocumented information that "makes" the news rather than reporting it. His bald statement that "we can now say that birds are theropods just as confidently as we say that humans are mammals" is not even suggested as reflecting the views of a particular scientist or group of scientists, so that it figures as little more than editorial propagandizing. This melodramatic assertion had already been disproven by recent studies of embryology and comparative morphology, which, of course, are never mentioned....

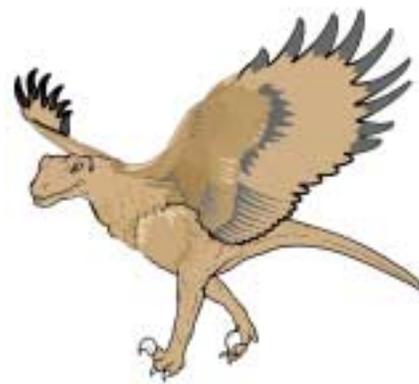
The idea of feathered dinosaurs and the theropod origin of birds is being actively promulgated by a cadre of zealous scientists acting in concert with certain editors at *Nature* and *National Geographic* who themselves have become outspoken and highly biased proselytizers of the faith. Truth and careful scientific weighing of evidence have been among the first casualties in their program, which is now fast becoming one of the grander scientific hoaxes of our age—the paleontological equivalent of cold fusion. If Sloan's article is not the crescendo of this fantasia, it is difficult to imagine to what heights it can next be taken. But it is certain that when the folly has run its course and has been fully exposed, *National Geographic* will unfortunately play a prominent but unenviable role in the book that summarizes the whole sorry episode (Olson, 1999).

It is unlikely that anyone—outside *National Geographic's* offices—ever will know the severity of the damage Dr. Olson's highly publicized, widely distributed letter inflicted.

And it is equally as unlikely that Dr. Olson could have known how prescient his predictions would prove to be. But one thing we do know with certainty: *National Geographic* found itself in the embarrassing position of having to retract the entire article because, as it turned out, **the *Archaeoraptor* fossil was a fake**—a neatly contrived composite of a bird and a dinosaur tail! In the March 2000 issue of *National Geographic*, the magazine published a "letter to the editor" from Xu Xing, one of the scientists who first examined and discussed the fossil find.

After observing a new, feathered dromaeosaur specimen in a private collection and comparing it with the fossil known as *Archaeoraptor*, I have concluded that *Archaeoraptor* is a composite. The tail portions of the two fossils are identical, but other elements of the new specimen are very different from *Archaeoraptor*, in fact more closely resembling *Sinornithosaurus*. Though I do not want to believe it, *Archaeoraptor* appears to be composed of a dromaeosaur tail and a bird body.

Seven months later, the October 2000 issue of *National Geographic* contained a five-page article by veteran investigative reporter Lewis M. Simons, describing how this massive debacle transpired (Simons, 2000). [For additional information on how this story unraveled, see also: Dalton, 2000a, 2000b; *National Geographic*, 2000; Rummo, 2000.] In his *National Geographic* article, Simons explained how farmers in many regions of China have made a very profitable hobby of selling the fossils they find. The only problem is that these farmers realize that fossil fanciers prefer specimens assembled and suit-



National Geographic refused various groups permission to reproduce its images of *Archaeoraptor*. Thus, in order to document for our readers what the "dino-bird" is supposed to have looked like, we are employing a reconstruction drawn by artists at the Institute for Creation Research in El Cajon, California and published in their March 2000 issue of *Acts & Facts*. Used by permission.

able for display. Therefore, on occasion the farmers will "doctor" the fossils to follow basic market economics and thus increase the value of their finds. *Archaeoraptor* actually "evolved" in a Chinese farmhouse where homemade paste was used to glue together two completely different fossils. The result was the now-famous (or infamous, as the case may be) "missing link" that allegedly had the body of a primitive bird with the teeth and the tail of a terrestrial dinosaur.

Unfortunately, *National Geographic* chose to run its November 1999 story before the "find" had been reported in a peer-reviewed scientific journal. In an effort to capitalize on this rare find, participants in the *Archaeoraptor* discovery rushed a paper to both *Nature* and *Science* but, as *USA Today* reporter Tim Friend learned, that paper "was never published" (2000). In his report for *National Geographic*, Simons acknowledged that

...a plan was cobbled together [to] first write a paper and have it published in the prestigious scientific journal *Nature*. *National Geographic*—which attempts to bridge the gap between hard-core science and popular interpretation—prefers not to break scientific discoveries without having them peer reviewed in advance by scientists. The effort to coordinate publication between *Nature* and *National Geographic* would eventually break down, contributing in large measure to the *Geographic* publishing a false article (2000, p. 130).

SPEAKING SCHEDULES

Dr. Brad Harrub		
June 21	Montgomery, AL	(334) 272-2561
Kyle Butt		
June 6	Prattville, AL	(334) 365-4201
June 22-24	Haleyville, AL	(888) 759-5600
Eric Lyons		
June 13	Dothan, AL	(334) 793-1500
June 16-17	Forth Worth, TX	(817) 246-4242

With time constraints nipping at its heels, and peer-review rejections piling up, *National Geographic* decided to go out on a limb (again, no pun intended) and run the story on its own. Writing for *Science News*, Richard Monastersky observed:

Red-faced and downhearted, paleontologists are growing convinced that they have been snookered by a bit of fossil fakery.... “There probably has never been a fossil with a sadder history than this one,” says Storrs L. Olson of the Smithsonian Institution’s National Museum of Natural History (2000).

In an e-mail to his co-authors and to Sloan, Xu Xing wrote: “I am 100% sure, we have to admit that *Archaeoraptor* is a faked specimen” (as quoted in Simons, 2000, p. 132).

Proof of that fact was not long in coming. In the March 29, 2001 issue of *Nature*, Timothy Rowe and his colleagues published the results of their X-ray computed tomography studies on the *Archaeoraptor* fossil (2001, 410:539-540). Their study documented the fact that “the *Archaeoraptor* slab was built in three layers,” and concluded that *Archaeoraptor*

represents two or more species and that it was assembled from at least two, and possibly five, separate specimens. Additional work in China verified that the tail is from an entirely different specimen, which has been described previously as a new species of dromaeosaur. Sadly, parts of at least two significant new specimens were combined in favour of the higher commercial value of the forgery.... Knowing the history of human handling can be critical to proper evaluation and scientific interpretation of specimens (410:540).

That last statement—that “knowing the history of human handling” is considered a prerequisite to accepting a fossil as genuine—presents a sad commentary on the current state of evolutionary theory, does it not? In what other area of science do we encounter such embarrassing forgeries as Haeckel’s “human gill slits,” England’s Piltown Man, or China’s *Archaeoraptor*? It seems that all too often someone is prepared to make an outlandish claim—and back it up with what turns out to be “faked” evidence. In their *Nature* article on the *Archaeoraptor* forgery, Rowe et al. commented: “Fortunately, a growing array of techniques can now be applied to forensic analysis of fossils” (410:540). Good thing—considering the nature and number of the forgeries that continue to appear!

As a side note, we might mention that normally the privilege of naming a fossil goes to the primary author of the scientific paper describing the specimen. However in this instance, the published name *Archaeoraptor liaoningensis* appeared in Christopher Sloan’s article in *National Geographic* [Sloan is the magazine’s art director, not a trained scientist], and therefore the final scientific moniker carries his name: *Archaeoraptor liaoningensis* Sloan. Unfortunately, no correction or retraction ever will be able to separate Sloan’s name from this publicly exposed forgery.

In his investigative report submitted to *National Geographic*, Lewis Simons documented the fact that authors of the original account were told several times of discrepancies in their data and problems with the fossil, but apparently never took the opportunity to establish the accuracy of the specimen (Simons, 2000). The desperate desire to find the long-sought-after “missing link” between dinosaurs and birds overshadowed the truth. As American humorist Mark Twain suggested in *Life on the Mississippi*: “There is something fascinating about science. One gets such wholesale returns of conjecture out of such a trifling investment of fact” (1883, p. 156).

THE QUEST CONTINUES

In the short span of time that has passed since we mailed Part I of this series, yet another “missing link” has been reported in the scientific and popular media. The paper describing the latest in a long (but failed) series of missing links, “The Distribution of Integumentary Structures in a Feathered Dinosaur” (Qiang, et al., 2001), appeared in the April 26, 2001 issue of *Nature*. In a review article, *Time* magazine extolled this latest find as “as good a missing link as anyone could want” (Lemonick, 2001, 157[18]:56).

Interestingly, one of the authors of the *Nature* paper, Ji Qiang, had made the same type of claim regarding an earlier “missing link” known as *Caudipteryx zoui*, boasting that it represented “a missing link between dinosaurs and birds which we had expected to find” (as quoted in Chang, 1998). University of Kansas biologist Larry Martin was not so quick to agree with Ji Qiang’s expectations regarding “feathered dinosaurs.” In referring to *Caudipteryx zoui*, Martin suggested that it was merely a flightless bird, and stated: “You have to put this in perspective. To people who wrote the paper, the chicken would be a feathered dinosaur” (as quoted in Chang, 1998).

Martin’s words of caution are especially important in light of the last report of “feathers” from Liaoning fossils, since those “feathers” eventually were dismissed as little more than frayed internal fibers of collagen (a structural protein found in connective tissue).

With memories of *Archaeoraptor* still fresh in their minds, Ji Qiang and his colleagues included the following statement in the second paragraph of their latest “feathered dinosaur” report: “Although some specimens from Western Liaoning have been shown to be composites or forgeries, the integrity of the specimen described here is assured because both slabs match up exactly...” (2001, 410:1084).

Fossil composition data and X-ray computed tomography results were not included in Qiang’s latest report of this “feathered dinosaur,” so further research will be necessary to determine its authenticity. It is a well-known fact that many fossils from this area of the world have been unwittingly or deliberately subjected to misleading reconstruction. Additionally, Ji Qiang and his team explained that the fossilized bones were brittle and that “most shattered when the specimen was collected by splitting the slab, so many skeletal details cannot be scored adequately” (410:1085). This lack of proper skeletal scoring, and the admission that the tail is “unusual” in that it has “no individual vertebral segments,” make it difficult to determine the exact category in which this specimen should be placed—bird or dinosaur. But if this as-yet-unnamed creature is categorized as a “dinosaur,” then scientists will face an even more daunting task because the date assigned to it suggests that feather “evolution” precedes almost all of the dromaeosaur fossil finds (the theropod from which birds allegedly evolved) [see Padian and Chiappe, 1998, 278[2]:43]. This would indicate that the “insect-catching” theory, the “tree-down” theory, and all other ideas regarding the evolution of feathers for flight, are completely inaccurate. Therefore scientists are left to explain why (and how!) these early dinosaurs “evolved” and maintained feathers that would not be used for flight? Some have suggested that perhaps feathers were used to maintain body temperature. But that then poses the question: Why didn’t other animals (like, for example, crocodiles and snakes) evolve feathers as a means of warmth? Stay tuned; the quest continues.

CONCLUSION

For more than a century, the approach of some evolutionists has been to find some supporting evidence, tout it as “proof” of evolution, and then ignore conflicting theories or data. But what do the actual facts reveal about creatures such as *Archaeopteryx*? In reality, the story that scientists have attempted to weave in regard to this ancient “missing link” is unraveling before their very eyes. Scientific data have shown colossal differences in reptilian and bird lungs, scales as opposed to feathers, and the embryological hand development of dinosaurs versus birds. **It may well be that we are witnessing the last gasps of a dying hypothesis about how birds evolved from dinosaurs!** Faced with such overwhelming evidence against true evolutionary descent, it would be unrealistic to accept the position that *Archaeopteryx lithographica* is anything like the missing link that evolutionists once claimed it was.

Lewis Simons, the reporter who was commissioned to investigate the *Archaeoraptor* fiasco for *National Geographic*, stated that what he had uncovered was “a tale of misguided secrecy and misplaced confidence, of rampant egos clashing, self-aggrandizement, wishful thinking, naïve assumptions, human error, stubbornness, manipulation, backbiting, lying, corruption, and most of all, abysmal communication” (Simons, 2000, p. 128). It may well be that we routinely witness the same kind of “tale” (albeit admittedly to a much less-publicized degree) every time a new “missing link” is uncovered and then shown to be either incorrect or fraudulent. The history of science is replete with just such events (to wit, Nebraska Man, Piltown Man, etc.). Certainly many authentic fossils do exist. However, as the late Colin Patterson (who served with distinction for many years as the senior paleontologist at the British Museum of Natural History in London) admitted in his 1999 book, *Evolution*: “Fossils may tell us many things, but one thing they can never disclose is whether they were ancestors of anything else” (p. 109). While the “Piltown Man” hoax was able to fool evolutionists for more than 40 years, the *Archaeopteryx* hoax appears to have lasted far longer—and continues in some quarters to this very day, in spite of such admissions as this one from evolutionary ornithologist Allan Feduccia who wrote in *Science* almost a decade ago:

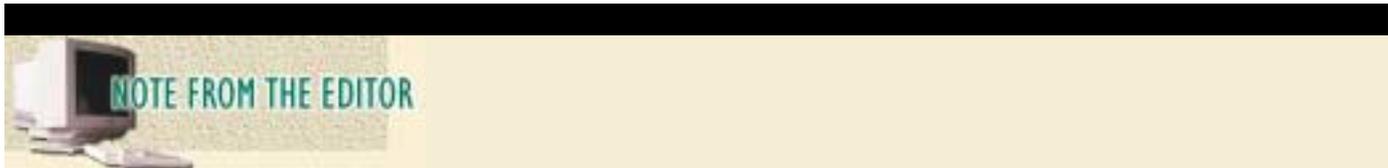
I conclude that *Archaeopteryx* was arboreal and volant [i.e., possessing extended wings for flight—BH/BT], considerably advanced aerodynamically, and probably capable of flapping, powered flight to at least some degree. *Archaeopteryx*...was, in the modern sense, a bird (1993, 259:792).

And so, once again, it is not merely the “link” that’s missing in evolutionary theory—it’s the entire chain! Given **all** the facts about the origin of birds, it is little wonder that Charles Darwin remarked in a letter to his American friend, Asa Gray, on April 3, 1860: “[T]rifling particulars of structure often make me very uncomfortable. The sight of a feather in a peacock’s tail, whenever I gaze at it, makes me sick!” (as quoted in MacBeth, 1971, p. 101). Mr. Darwin, considering the paucity of the fossil record, and the elegance of the design inherent in a single feather, we certainly can understand why.

REFERENCES

- Burke, Ann C. and Alan Feduccia (1997), “Developmental Patterns and the Identification of Homologies in the Avian Hand,” *Science*, 278:666-669, October 24.
- Chang, Kenneth (1998), “A Feathered Dinosaur,” [Online], URL: <http://abcnews.com> <http://www.abcnews.go.com/sections/science/DailyNews/dinobird980623>.
- Chen, Pei-ji (1998), “An Exceptionally Well-Preserved Theropod Dinosaur from the Yixian Formation of China,” *Nature*, 391:147-152, January 8.
- Corliss, William R. (1998), *Biological Anomalies: Birds* (Glen Arm, MD: The Sourcebook Project).
- Dalton, R. (2000a), “Feathers Fly Over Chinese Fossil Bird’s Legality and Authenticity,” *Nature*, 403:689-690, February 17.
- Dalton, R. (2000b), “Chasing the Dragons,” *Nature*, 406:930-932, August 31.
- Feduccia, Allan (1980), *The Age of Birds* (Cambridge, England: Harvard University Press).
- Feduccia, Allan (1993), “Evidence from Claw Geometry Indicating Arboreal Habits of *Archaeopteryx*,” *Science*, 259:790-793, February 5.
- Friend, Tim (2000), “Dinosaur-bird Link Smashed in Fossil Flap,” *USA Today* [Online], URL: <http://www.usatoday.com/life/science/paleo/lsp024.htm>.
- Gee, Henry (1999), *In Search of Deep Time* (New York: Free Press).
- Gibbons, Ann (1996a), “New Feathered Fossil Brings Dinosaurs and Birds Closer,” *Science*, 274:720-721, November 1.
- Gibbons, Ann (1996b), “Early Birds Rise from China Fossil Beds,” *Science*, 274:1083, November 15.
- Gibbons, Ann (1997), “Plucking the Feathered Dinosaur,” *Science*, 278:1229, November 14.
- Gibbons, Ann (1998), “Dinosaur Fossils, in Fine Feather, Show Links to Birds,” *Science*, 280:2051, June 26.
- Hinchliffe, R. (1997), “The Forward March of the Bird-Dinosaurs Halted?,” *Science*, 278:596-597, October 24.
- Hou, L., Z. Zhou, L.D. Martin, and A. Feduccia (1995), “A Beaked Bird from the Jurassic of China,” *Nature*, 377:616-618, October 19.
- Lemonick, Michael D. (2001), “Down-Covered Dinosaur,” *Time*, 157[18]:56-57, May 7.
- MacBeth, Norman (1971), *Darwin Retried* (Boston, MA: Gambit).
- Monastersky, Richard (2000), “All Mixed Up Over Birds and Dinosaurs,” *Science News*, [Online], URL: <http://www.sciencenews.org/20000115/fob6.asp>.
- Morris, Henry M. and John D. Morris (1996), *The Modern Creation Trilogy—Volume 2* (Green Forest, AR: Master Books).
- National Geographic* (2000), “*Archaeoraptor* A Composite, Panel of Scientists Determines,” [Online], URL: <http://www.nationalgeographic.com>, April 4.
- Olson, Storrs L. (1999), Letter to Dr. Peter Raven, Secretary of the Committee for Research and Exploration, *National Geographic Society*, [Online], URL: www.answersingenesis.org/docs/4159.asp.
- Padian, K. and L.M. Chiappe (1998), “The Origin of Birds and Their Flight,” *Scientific American*, 278[2]:38-47, February.
- Patterson, Colin (1999), *Evolution* (Ithaca, NY: Cornell University Press), second edition.
- Qiang, J., P.J. Currie, M.A. Norell, and J.I. Shuan (1998), “Two Feathered Dinosaurs from Northeastern China,” *Nature*, 393:753-761, June 25.
- Recer, P. (1999), *From Dinosaur to Bird*, [Online], URL: <http://www.abcnews.go.com/sections/science/DailyNews/flyingdino991014.html>.
- Rowe, Timothy, Richard Ketcham, Cambria Denison, Matthew Colbert, Xing Xu and Philip Currie (2001), “Forensic Paleontology: The *Archaeoraptor* Forgery,” *Nature*, 410:539-540, March 29.
- Ruben, J.A., T.D. Jones, N.R. Geist, and W.J. Hillenius (1997), “Lung Structure and Ventilation in Theropod Dinosaurs and Early Birds,” *Science*, 278:1267-1270, November 14.
- Rummo, G.J. (2000), “Another ‘Missing Link’ Proven to be a Fraud,” *Independent News*, November 9.
- Simons, Lewis M. (2000), “*Archaeoraptor* Fossil Trail,” *National Geographic*, 198[4]:128-132, October.
- Sloan, Christopher P. (1999), “Feathers for *T. Rex*,” *National Geographic*, 196[5]:99-107, November.
- Twain, Mark (1883), *Life on the Mississippi* (Boston, MA: J.R. Osgood).
- Xing, Xu (2000), “Feathers for *T. rex*?” [Letter to the editor], *National Geographic*, 197[3]:no page number, March.

ADDRESS SERVICE REQUESTED



ANNOUNCING A NEW BOOK FOR YOUNG PEOPLE: OUT WITH DOUBT

Doubt represents a real and present threat to a Christian's faith. Consider the apostle Peter. When Jesus invited him to step out of the boat and walk on the water of the Sea of Galilee, (Matthew 14:28-33), the apostle began that walk with bold determination. But when he glanced away and saw the treacherous wind and waves licking at his heels, he doubted—and lost his faith in the divine power that had borne him across the water to that point. As he drew near the boat—having been saved by the hand of the Master—he was admonished by his Lord with these words: “O you of little faith, why did you doubt?” (14:31).

Throughout the Bible, doubt generally is mentioned in negative terms. For example, it is something we are to avoid in prayer (James 1:6). Jesus reminded His followers that they could move mountains if only they would believe, and not doubt (Matthew 21:21-22; Mark 11:23-24). Paul advised the Roman Christians that they stood condemned if they doubted the propriety of eating food sacrificed to idols (14:23). The classic example, of course, is that of the apostle Thomas—“doubting Thomas,” as we so often call him. When Thomas doubted, Christ told him: “Be not faithless, but believing” (John 20:27).

Doubt, left unresolved, can cause serious problems for a Christian—especially a young Christian. God holds each of us responsible—individually—for addressing the cause of our doubt, and for seeking a remedy so that doubt does not prevent us from doing what faith requires. If we do not **know** whether God answers prayers, for example, then how can we honestly go to God in prayer? If we eat meat sacrificed to idols (or the modern-day equivalent), and yet we are not **sure** that this is something we can do, then how can we have a good conscience before God? In the end, doubt can be extremely detrimental to faith.

This is especially true for young people today, who are exposed to atheism, agnosticism, evolution, situation ethics, and numerous other false concepts at an almost non-stop pace. Our children and grandchildren need to be exposed to, and understand, the vast amount of irrefutable evidence upon which biblical faith is based. They need to know that biblical faith is not a “leap into the dark,” but is gleaned through testimony based upon reliable evidence. They need to know that Christianity is not a “pie-in-the-sky-by-and-by” type of belief, but rather a commitment rooted in historical fact. And when Satan tempts them to doubt the faith they are beginning to grow for themselves, they need to be able to say “Out with doubt!”—and mean it.

In his new book, *Out With Doubt*, Kyle Butt, the Director of Biblical Research at Apologetics Press, has provided a means by which they can do exactly that. Written in a vocabulary and style aimed specifically at junior high and high school students, this 150-page book examines the existence of God, the composition, uniqueness, and inspiration of the Bible, the creation/evolution controversy (including chapters on dinosaurs and the age of the Earth), miracles, the historicity and deity of Christ, and the resurrection. In an extremely well-written “Afterword,” Kyle talks plainly to young people about

what they must do to be saved.

The book has 13 lessons, which makes it perfect for use in quarterly Bible class situations (for which it was designed). It also would work well in a summer camp setting. Each lesson contains discussion questions that teachers can use to help students grasp the concepts being presented. Cost per book is only \$7.95 (\$1.45 s/h). Why not order one today for the teenager(s) in your life? They will thank you, I have no doubt.

Bert Thompson

