

BACKBONE

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Osteoblasts...

BIRDS—DINO FLAP

*Countdown to Pildown at
National Geographic*

The Rise and Fall of *Archaeoraptor*

by Storrs L. Olson

We should expect that something unplanned will always arise to divert us from what we ought to be doing, but last October I had no idea I would be drawn into the thick of the bird-dinosaur controversy to the detriment of other research. In the mid-70's, I thought that John Ostrom's newly revived idea of a dinosaurian origin of birds was a reasonable hypothesis that deserved consideration. On later appraisal of the evidence, and after long exposure to the often disingenuous and propagandistic tactics of the theory's strongest advocates, I became convinced that the whole idea was seriously flawed, although I had never taken a public stance on the debate. This changed with the arrival of the November *National Geographic* magazine (the first issues of which were mailed at least by 29 September), with an article entitled "Feathers for *T. rex*?" by *National Geographic* staff writer Christopher Sloan. The focal point of the article was a new fossil from the famed early Cretaceous lake deposits of

Liaoning Province, China, that supposedly combined the forepart of a bird with the tail of a dinosaur and was breathlessly hailed as a "missing link."

By *Geographic's* own admission, the specimen was illicit, having been illegally exported from China. Also, the Latinized binomial name *Archaeoraptor liaoningensis* accompanying a 2-page photograph of the specimen had never been previously published and thus became available for purposes of nomenclature as of its appearance in *National Geographic*, with Sloan as its author. Topping this all off was the fact that Sloan's article was a model of sensationalistic, tabloid journalism containing practically no information that was true, verifiable, or anything more than the wildest conjecture (despite what you read, there is absolutely no uncontested evidence of any dinosaur having feathers). As in their previous article on birds and dinosaurs (July 1998), *National Geographic* strongly advocated what is still an arguable hypothesis (the dinosaurian origin of birds) with such outrageous statements as "We can now say the birds are theropods just as confidently as we say that humans are mammals." Never does *Geographic* inform their readers that contrary viewpoints exist.

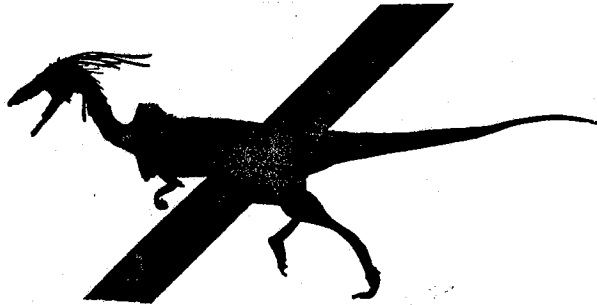
This was more than I could bear. I drafted what was to be an open letter of protest to Peter Raven, Secretary of the Committee on Research and Exploration at the National Geographic Society, outlining my vigorous objections and I



Smithsonian
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sent out drafts to several colleagues to have them check for accuracy. Imagine my amazement to hear back from two of them that it was rather common knowledge at the October meeting of Society of Vertebrate Paleontology that the specimen of *Archaeoraptor* was probably a fake, a composite. Because I had no direct knowledge of fraud, I could not mention it in my open letter, but in a confidential cover memo to Raven I alerted him to the possible forgery and suggested that the *Geographic* launch its own investigation immediately. This went out on 1 November 1999, along with my open letter, which I copied to colleagues in avian paleontology with no restrictions on their forwarding it. The effect was like Sherwin Williams paint--it covered the world in an instant.

Although I received only a sentence of acknowledgment from *Geographic*, huzzahs and hoorahs poured in from colleagues everywhere, including quite a few from professors who intended to make my letter required reading in their ornithology courses. But the media paid little attention, apart from a reporter from a right wing Canadian news magazine who



From : The Origin and Evolution of Birds, 2nd edition , by Alan Feduccia, 1999, Yale University Press, p. 131.

contacted me and published a respectable article critical of *National Geographic* that hinted at fraud as early as 6 December. This went unnoticed.

According to *Geographic* editor Bill Allen, my warning of 1 November was ignored because of "Storrs Olson's position in opposing anything that might link dinosaurs and birds" (*USA Today*) and because I was "known to be a vocal opponent of the bird-dinosaur theory" (*Nature*, 6 April). This is ironic because the only time that I had ever taken a stance on the issue was in my letter to *Geographic*. From Allen's responses one would have to conclude that anyone who opposes *Geographic's* highly biased views can be dismissed out of hand no matter what their credentials.

But frauds will out, and in December, Chinese scientist Xing Xu informed U.S. colleagues that he had found the counterpart of the tail of *Archaeoraptor* still

associated with the partial skeleton of a small dromaeosaurid dinosaur. Now the media were definitely interested, and because of my early stance I became one of the foci of attention. I was contacted by reporters from *USA Today*, *Science News*, *U. S. News and World Report*,

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Manchester Guardian, *Geotimes*, and *Lingua Franca*, among others. The best coverage was a front-page story in *USA Today* on 1 February. Even ABC Evening News with Peter Jennings ran a short segment on it. I also endured television interviews with *Discovery* and *Discovery Canada*.

Eventually, *National Geographic* proposed to convene a panel, including myself and four other paleontologists, to examine the specimen of *Archaeoraptor* and compare it with the fossil of the small Chinese dinosaur to attempt to ascertain whether the tail of the former was indeed the counterpart of the tail of the latter. The panel's viewing was contingent on the owner signing it over to a Chinese institution, and when the venue for the viewing was changed from NSF to the National Museum of Natural History, I reminded *Geographic* that the specimen should not be brought onto the Smithsonian campus until its ownership had reverted to China. This was done at the last possible moment on the morning of 4 April 2000.

The panel met in Nick Hotton's old office in Paleobiology later that morning (not at the National Geographic building as reported in *Science* and the *Post*), and after careful examination of the specimens and associated photographs and other documents, unanimously concluded that the specimen of *Archaeoraptor* is indeed a composite, most of the skeleton being that of a bird. The five pieces of shale containing bones of the tail of a small dromaeosaur associated with this composite specimen are definitely the counterparts of the tail of dromaeosaur specimen V12330 of the Chinese Institute of Vertebrate Paleontology and Paleanthropology and I here designate them as the lectotype of *Archaeoraptor liaoningensis* Sloan. This means that the name now goes with the dinosaur and may be expunged from the literature of avian paleontology. The truly avian portions of the composite may now be described and named properly.

The forgery of the specimen has always been assumed to have been done by someone in China, but the story gets more complicated with regard to persons who supposedly knew that it was a fake in time to prevent its being published in *National Geographic* but held the facts back. If you don't have one, get a copy or two of the November 1999 *National Geographic* for posterity. I can promise you that a few years from now it will be regarded as some of the strangest reading on the planet (it already is, come to think of it).

Note: Subsequent to conclusions of the panel of experts, the *Washington Post*, April 17, 2000 reported on page 9A in "Science Notebook," (at the bottom of the page in three short paragraphs) that according to the *National Geographic*, "A fossil once described as a possible "missing link" between birds and dinosaurs is actually a composite of at least two unrelated animals." See also, *Science*, 14 April 2000, Vol. 288, No. 5464, pp.238-239 and *Nature*, 13 April 2000, p. 696 for further details, not all of which are accurate.

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Please contact **RICH VARI** (357-4027 or E-MAIL) to schedule a seminar or suggest speakers for the upcoming year. All seminars are held in the Waldo Schmitt Room (W-218B) from 12 noon to 1:15 on **MONDAY** unless otherwise noted.