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## Appeals Court Bends Over Backwards

# Peloza Case Remanded to District Court

Eugenie C. Scott

**O**n July 25, 1994, the United States Court of Appeals for the 9th District ruled *Peloza v. Capistrano* that plaintiff John Peloza should be granted a hearing on his suit against the school district. The Peloza case, discussed in previous *NCSE Reports*, had been awaiting judgement at the Appeals Court level for over two years.

John Peloza is a high school biology teacher who was directed by his principal and district to teach evolution, not creation science, and to cease discussing religion with students on campus. He sued the San Juan Capistrano district for his right to discuss religious issues with students (on the grounds of freedom of speech). He also sued the district on the grounds that by "forcing" him to teach evolution "as fact," the district was causing him to violate the First Amendment's Establishment clause. Peloza claimed that evolution is actually a religious explanation, similar to creationism. Evolution is the foundation of the

"religion" of Humanism, according to Peloza's complaint. The District Court dismissed the case, calling it "frivolous."

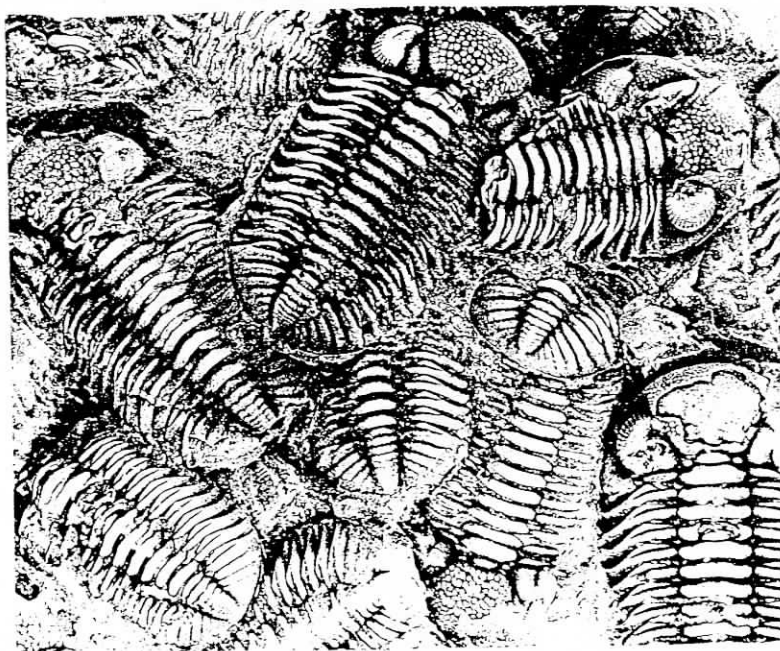
The Appeals Court remanded (sent the case back) to the District Court on a technicality. The district had asked for a dismissal of the case, one of several approaches possible (another would have been to ask for a summary judgement; yet another would have been to request a full trial). Technically, Judge David W. Williams' decision should have referred only to materials submitted in the "pleadings" — the complaint and the district's

response—when dismissing the case. Williams erred in going outside of the pleadings by referring in his decision to documents such as the California Science Framework and a letter from Peloza's principal.

In its comments, the Appeals Court took notice of the confusing way in which Peloza's complaint had been prepared, but bent over backward to give him the benefit of the doubt.

Peloza's complaint is not entirely consistent. In some places he seems to

*Peloza, cont'd on p. 7*



# EDITOR'S DESK

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Page 1: Detail from a Smithsonian Institution publication series cover, the trilobite *Phacops rana* Green; p. 19 drawing by Laurie R. Godfrey

**T**his summer has seen further escalation of the "creationism wars," although as we have already predicted, much of the rhetoric has shifted to euphemisms such as "intelligent design theory" or "abrupt appearance theory" or simply unspecified "alternatives to evolutionary theory." Somewhat surprisingly, though, there has also been a resurgence of straight-forward calls for "equal time for scientific creationism"—which suggests that creationists have been emboldened by recent political successes. In this issue we have various front-line reports. Unfortunately, they are too numerous to publish an article doing justice to each one! The Berkeley office's Information Hotline has been very busy, helping a large number of people with specific information, suggestions, and further references.

In this issue, NCSE is asking for information from members in a tear-out questionnaire—information about your willingness to be a local contact person to pass on information, help write letters, or whatever. Although the article asks for "expert" help, don't be put off if you think you aren't one of "them," because you *are* an expert on your home town and what the local newspaper is like, or you may, perhaps, be able to send us a list of local churches if we suddenly need it. In other words, we're not necessarily requesting any specific training or time commitment;

we'd just like to know a little better who you are and what your interests are.

We are inaugurating a new feature in the next issue—short questions and answers about creationist claims. This will be expanded in future issues. The section called "Tracking those incredible creationists" was originally intended to serve this purpose, but sometimes it has been too lengthy and/or philosophical to be the quick and pointed response sometimes needed. The new Q&A format will not pretend to have all the information or footnotes as it tries to give brief responses by experts to common questions. So do send me questions to pass on to experts for a paragraph or two of reply . . . and bear in mind that some of the items presented may be familiar to you already but not to a lot of other readers—remember the old saying that everyone is ignorant, but just on different topics!

Finally, thanks to everyone who has sent me clippings and notes and manuscripts. Keep them coming! Even if they are not published they are used in some way, and the clippings are archived at the resource center. The volume of mail means I cannot respond to everyone personally any more, for which I apologize, but the input is really heartening and appreciated.

John Cole

# Legislative Loopholes and Trojan Horses

**Molleen Matsumura**  
NCSE Network Project

**P**revious issues of *Reports* (e.g. 13(4)/14(1):32; 13(3):4-5) have described educational reform attempts in the form of voucher schemes and charter school plans, explaining how such plans can affect evolution education. Often, proposed legislation is a kind of Trojan horse; nobody would guess from its apparent substance or purpose that the legislation offers means for creationist and other religious messages to be brought into public classrooms.

In *California*, charter school legislation passed in 1992 called for no more than 100 charter schools to be created during a five-year period; the same legislation called for an evaluation at the end of the initial five years, before any further action could be taken on charter schools. Only two years have passed, not only fewer than called for in the legislation, but much less time than needed for any evaluation of the experiment; yet this year a bill—Senate Bill 1264—was introduced that would have increased the permissible number of charter schools. Unfortunately, whenever experimental legislation is introduced, there is the possibility that enthusiastic proponents will try to expand the experiment in this way before anything has been learned.

NCSE has learned that the original limits on the number of experimental charter schools have been retained, and the amended bill contains stronger require-

ments for assuring that anyone who might sign a charter school petition is fully informed of the plans for the school. Existing legislation already requires that charter schools be non-sectarian. Still, there is concern in the educational community that some charter schools will use their freedom from usual restrictions to introduce religious themes like creationism, and if the number of charter schools is expanded in the future, monitoring them will be a demanding task. SB 1264 teaches more than one lesson: The addition of requirements to attach charter applications to petitions requesting charter grants is a reminder of the kinds of loopholes that need to be closed; the attempt to expand the number of charter schools is a reminder that legislative “guarantees” aren’t necessarily permanent—citizens need to keep watch!

In *Michigan*, the first school to apply for a charter under the new state law is the “Noah Webster Academy,” which would be a resource facility for Christian home schoolers. The application stirred enough controversy to attract the attention of the *Wall Street Journal* (6/14/94). Under the Michigan law, proposed charter schools must apply to various entities such as school districts in which they would operate, and if the charter is granted, the state determines whether to give funding. The Noah Webster Academy applied to a financially troubled school district, promising to remit part of their state funding to the district—an arrangement that the state ACLU called a “kickback.” The school would use its funding to provide each member

family with a computer and printer, and founder David Kallman says instruction would be “a combination” of evolution and creationism, explaining, “If we have a family that’s die-hard evolutionists and they want to teach it as fact, that’s up to them. There are a lot of theories out there.”

The Noah Webster Academy should fail, since it doesn’t conform to a number of legal requirements. The charter school legislation requires that schools have a physical plant where students will meet, located in the district granting the charter; but the academy would offer a few, optional classes at most. Michigan’s state constitution also has strong provisions forbidding funding of religious schools. As of this writing, NCSE is waiting to learn whether the school board, which has been divided along political lines, has agreed to fund the Academy. There are several organizations that might bring suit if the funding goes through. Whatever happens in Michigan, we can be sure Noah Webster Academy won’t be the last we hear of creative attempts to get public funding for schools with creationism in the curriculum.

In New York, another kind of Trojan horse, Senate Bill 8262, was introduced on May 4 to amend the education code to read (capitalizations are the same as in the original),

“The regents shall promulgate rules which shall permit the boards of education

❖

“If we have a family that’s die-hard evolutionists and they want to teach it as fact, that’s up to them. There are a lot of theories out there.”

❖

Trojan, cont’d on p. 7

## Creationism in an Off-Year

**Molleen Matsumura**  
NCSE Network Project

No, creationists aren't having an "off year," like grape harvests in rainy weather. In fact, judging by the amount of calls for help NCSE is getting, creationists are having a very good year, from their point of view. And what could make it even better is that this is the year for "off-year" elections. Off-year elections, when voter turn-out is notoriously poor and many more or less obscure local offices are on the ballot, provide the ideal climate for the grass roots efforts of creationists and other candidates with strong ideological focus. It's a time NCSE members need to be alert to local issues and candidates.

This election year in California is an example of what may be a crucial turning point. As a very populous state, and one of the nation's largest textbook buyers, California influences the educational climate of the whole country. For several years, the state had a Superintendent of Public Instruction, Bill Honig, who was a staunch supporter of teaching evolution. This year, a new Superintendent will be elected—from among no less than twelve candidates, a bewildering array. Before the June primary, NCSE contacted the campaigns of the four people widely considered to be leading candidates and found that three had prepared positions on the issue of creationism in the classroom.

The spokesman for Maureen DiMarco, current secretary of education in Gov. Pete Wilson's cabinet, said, "Creationism should not be

taught in science classes, but in classes that teach about religion."

Joseph Carrabino, who chaired meetings on the approval of California's Science Framework, expresses the same views he held at the time. In October, 1989, the *San Francisco Chronicle* reported that Carrabino responded to creationist testimony by commenting, "It's an eye-opener to me. The feeling I'm coming to is I don't think they are mutually exclusive. To give students a good education, you have to give them both sides of an issue." He now says that he *supports* the Science Framework, but he says that, "The policy as of now is that schools can teach creationism and evolution as theories, not as fact." Carrabino's restatement of the Framework contrasts with the statement on page 126 that, "The unifying theory of biology is evolution. . . . It is accepted scientific fact, and has been since the mid-1800s, that organisms are descended with modification from other organisms."

Delaine Eastin, chair of the Assembly Committee on Education, couches her support of teaching evolution in the broader framework of separation of church and state, insisting that only educational, not religious, concerns should determine content of humanities and social studies, as well as science classes. She has promised to take an active role in any local controversies.

This array of positions, and also strongly creationist positions, can be expected in other state races, and local schoolboard races as well. A good question to

ask candidates is simply, "What, if anything, do you think should be taught about creation and evolution in science classes?" An open-ended question like this gives candidates the best chance to demonstrate their understanding of the issues.

Other election-year news, even on apparently unrelated issues, can also give you insight into the views of elected and appointed officials, as well as various politically active groups. For example, many observers feel that a recent spate of "voluntary school prayer" bills were proposed (and in some cases, passed) partly to win favor with religiously-oriented voters. In Florida, a legislator proposed an amendment in the form of a resolution "recognizing" that various Supreme Court decisions supposedly permit teaching creationism in public schools. Maybe the reason that amendment never got out of committee is that it "recognized" a result that is opposite to what the decisions really say. But it is significant that such legislation was even proposed, that other legislators co-signed it, and that there were community activists prepared to support it. "Feel-good" legislation needs to be watched because it tells us what policies make the sponsors feel good!

A difficult problem in any election year is deciding whether any issue is worth "single-issue voting." What about the creation/evolution issue? When it comes to any electoral race or ballot proposal affecting education, I think the answer is "yes." It's not a matter of ideology, politics, or religion—just competence.

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"The policy as of now is that schools can teach creationism and evolution as theories, not as fact."  
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# NEWS

## American Physiological Society Science Teachers Summer Research in Physiology Program \$5,000 Summer Stipend

The American Physiological Society is pleased to announce the continuation of a program aimed at providing high school and middle school science teachers with experience in physiology research. Each teacher selected for the program will:

- receive a stipend of up to \$5,000 to support his/her full time involvement in physiology research in the laboratory of an APS member for 8-10 weeks during the summer;
- attend a 1 week seminar on translating research activities

into teaching activities at the APS headquarters in Bethesda, Maryland (suburban Washington, DC); and

- receive a \$750 travel allowance to attend the annual APS meeting, *Experimental Biology '96*, April 14-18 in Washington, DC. At the meeting, a special luncheon for the teachers and their research sponsors will be held so participants can share their experiences. Cost sharing of the teacher's stipend or travel award by APS member's institution is encouraged but not required.

Proposals are submitted jointly by a teacher and researcher. Additional information and application forms can be obtained from:

Dr. Marsha Lakes Matyas  
Education Officer  
American Physiological Society  
9650 Rockville Pike  
Bethesda, MD 20814-3991  
Phone: (301) 530-7132  
FAX: (301) 571-8305  
email: marsha@aps.mhs.com  
puserve.com

*Application Deadline:*  
*January 4, 1995* ❖

## NY Candidates Embrace Creationism

John Cole

A number of Monroe County, New York school board candidates embraced teaching creationism in May 1994 elections. Some rejected other aspects of the religious right agenda such as antiabortionism, school prayer requirements, opposition to the right of gays to speak to school assemblies, school vouchers, etc., and other religious right candidates ran on these issues without mentioning creationism.

Bob Guardino won a seat on the Greece School Board, calling for creationism education, school prayer, and removal of "offensive" school library books. Joseph Doran won another seat on a platform calling for equal time for creationism but oppos-

ing teacher-led prayer, and Daniel Richardson favored teaching evolution and still won.

Four Fairport, NY, pro-creationism candidates lost in the Spring election. East Rochester elected at least one school prayer advocate, and Rush-Henrietta narrowly defeated a creationist who called for a recount. Elsewhere in Monroe County, religious right candidates lost or made no new gains.

Guardino campaigned on the platform of the national group, Citizens for Excellence in Education. CEE sounds unexceptionable—unless you know that its stated purpose is to "Reclaim our public schools to a Christian morality and elect Christians to public school boards (and all other government offices)." And to CEE, the label "Christian" only applies to a narrow slice of the

population, leaving most believers out in the cold. By 1993, CEE boasted they had helped elect 1,965 school board members nationally.

Other counties in NY undoubtedly had similar mixed results, but Monroe County is fortunate in having an active group called MCPEARL—Monroe Citizens for Public Education and Religious Liberty, whose newsletter we quote here. Our thanks to Martha Laties. (MCPEARL, P.O. Box 10296, Rochester, NY 14610-0296) ❖

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CEE boasted they had helped elect 1,965 school board members nationally.  
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### Galapagos Trip Correction

The ship from Ecuador to the Galapagos Islands will be from Bahia, not Guayaquil, as mistakenly announced in the previous issue. This means more time in the islands and less time in transit. ❖

## Another Wall Chart of World History

**Stephen W. Wells**  
Pocatello, Idaho

Whenever I visit school for parent-teacher conferences, I am in the habit of looking around the classroom a bit. I like to see the children's artwork and the educational material the teacher has displayed. But last fall, when my wife and I visited my son's sixth grade class, we were startled by what we found.

Along the wall of the classroom was a 14-foot-long chart entitled, *The Wall Chart of World History*. Since we live in a predominantly Mormon community, we expected that it would be the Mormon chart that was described in previous issues of *NCSE Reports* [9(2):18-19; 9(4):19; 9(6):9]. But this chart, as far as we could tell after a quick look, had no references to the book of Mormon or any other Mormon scriptures. This chart was based upon the Bible, and very little else.

After looking at the chart for a few minutes, we asked the teacher about it. She quickly explained that she never, or at least rarely, referred to it in class, and that it was not intended to be an educational tool. Just what she did use it for was left unexplained. We discussed it a bit further, during which we expressed our objections to the chart, and went home wondering just what we should do next.

We decided to wait and see if she would take down the chart without further complaint. But when it became clear that the chart was

not coming down, my wife called the principal to discuss the issue with him. After reviewing the chart with the teacher, he informed us that he considered the display of the chart appropriate and had no intention of requiring it to be removed. We expressed our disappointment with his decision, and told him that we would pursue it with the superintendent.

It was not necessary for us to take the matter to the superintendent, however, since the principal dropped by our house a few days later announcing that the chart had been taken down. Apparently, after more thorough review, he decided that the chart was promoting a biblical view of history and was inappropriate for a public school classroom.

Through it all, we retained a good relationship with both teacher and principal. The teacher allowed us to borrow the chart so that we could review it for the NCSE. And we hope that the principal will in the future be more vigilant in preventing religious views from being promoted in the school.

*The Wall Chart of World History*, which claims to include a "complete geological diagram of the earth," begins with the first verse of the King James Version of the Bible: "In the beginning God created the heaven and the earth." The chronology of Archbishop Ussher is followed throughout, which the authors state provides "a correct outline of the sequence of events." This places the creation at 4004 BC, and all subsequent events are dated from this year.

The chart consists of 14 one-foot panels, each 17 inches high. The first four panels deal exclusively with biblical matters, from the creation to the deluge—which the chart says occurred in the year 2348 BC or 1656 AM (*Anno Mundi*). This portion of the chart shows in great detail the genealogy of the biblical patriarchs. It is here that we learn such historical facts as:

The only four women whose names are preserved in the records of the world before the flood are Eve; Adah and Zillah (wives of Lamech); and Naamah (daughter of Lamech).

Adam walked with Seth 800 years, and with Enos 695 years, and with Cainan 605 years, and with Mahalaleel 535 years, and with Jared 470 years, and with Enoch 308 years, and with Methuselah 243 years, and with Lamech 56 years.

2369 years of History are contained in Genesis, 1238 years in the other 38 books of the Old Testament, or 3607 years of History in the whole of the Old Testament.

Eight souls were saved from the "Old World" which perished, who passed over to possess and people the "New World." viz.—Noah, Shem, Ham, and Japheth, and their four [nameless] wives.

The fifth panel shows a large drawing of the Tower of Babel, which the chart tells us was constructed 101 years after the flood (2247 BC). From out of the Tower come the various human races which

❖  
This chart  
was based  
upon the  
Bible, and  
very little  
else.

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# NEWS

were founded by the sons of Noah, with Shem, Ham, and Japheth dispersing to Asia Africa, and Europe, respectively.

The next five panels continue to display the biblical genealogies, with particular emphasis given to lineage of Jesus. The books of the Bible are shown above the events that are displayed on the chart. Scattered throughout are informative drawings of such things as Jephthah's daughter, Nebuchadnezzar's dream, and Daniel's fourth beast with ten horns. Finally, on the tenth panel, the biblical material culminates in a prominent drawing of the crucifixion.

The final four panes, while no longer biblical in content, continue to be religious and ethnocentric in

theme. Crosses are shown with the names of Christian martyrs, and church councils, cathedrals, and crusades are given a grand and glorious treatment, while Asia, Africa, and Australia, and pre-Columbian America are scarcely even mentioned. Finally, the chart ends in 1989, having covered a total of 5993 years.

The entire chart is fourteen feet long and purports to show the entire history of the world. But if it actually covered the earth's 4.5 billion year history at the same rate of 450 years per foot, the chart would be nearly 2000 miles long. Such a distorted view of history should not be found in any classroom. It's not in my son's anymore. But have you looked in your child's classroom lately? ❖

## Peloza con't from p. 1

advance the patently frivolous claim that it is unconstitutional for the school district to require him to teach, as a valid scientific theory, that higher life forms evolved from lower ones. At other times he claims the district is forcing him to teach evolution as fact. Were we to disregard Peloza's liberal use of "ism" and the adjectival phrase "a religious belief system" and to ignore his occasional use of "fact" instead of "scientific theory," *we would not hesitate to hold his claim frivolous* [italics added]. On his motion to dismiss, how-

Peloza, cont'd on p. 9

❖  
Putting  
creationism  
on the  
biology  
classroom  
wall  
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## Trojan cont't from p. 3

... to allow and encourage any teacher or administrator ... to read or post ... excerpts or portions of the preamble to the state constitution of New York; the declaration of independence; the constitution of the United States; the mayflower compact; the national motto; the national anthem; the pledge of allegiance; the writings, speeches, documents and proclamations of the founding fathers and presidents of the United States; organic documents from [various, named] eras; United States supreme court decisions; and acts of the United States congress including the published text of the congressional record. Such rules shall provide that there be no content based censorship

of American history or heritage in this state with reference to these writings, documents and records.

This legislation is virtually identical to a Kentucky law (*Reports* 13(2)) that sought to circumvent the ruling in *Stone v Graham* that struck down a law requiring the posting of the Ten Commandments in classrooms. The New York law adds some documents to the list, and most significantly, substitutes the phrase "history or heritage in this state with reference to these writings ..." for "history or heritage in the Commonwealth based on religious references in these writings. ..." By omitting the reference to religious content, the New York legislation, in one stroke, *appears* to meet any objection that the legislation unduly advances religion, and disguises its true intent. Many of the documents listed ex-

press the religious beliefs of their authors, which might easily be quoted out of context. Senators and congress members can and do read anything they like into the Congressional Record, including Biblical passages, the Ten Commandments and other religious views, or lists of allegedly obscene book titles (though the last probably wasn't contemplated by the authors of the bill!). So, a bill which describes itself as dealing with "courses of instruction in patriotism and citizenship" was in fact designed to put the Ten Commandments (and other religious ideas) back on the schoolhouse wall, and *Genesis* in the biology class.

What other states have had this legislation introduced? It is being promoted by televangelists and religious right politicians nationally, and NCSE will appreciate any updates. ❖

## School District Requires "Evolution Only a Theory" Disclaimer

Eugenie C. Scott

**T**he Tangipahoa Parish (Louisiana) School board rejected the introduction of "intelligent design" and scientific creationism last February, (see *NCSE Reports* 13(4)/14(1):4-5), but it shortly thereafter in its April, 1994, meeting passed requirement for a disclaimer on the topic of evolution designed to please creationists. The disclaimer must be read to students before a teacher teaches evolution:

Whenever, in classes of elementary or high school, the scientific theory of evolution is to be presented, whether from textbook, workbook, pamphlet, other written material, or oral presentation, the following statement shall be quoted immediately before the unit of study begins as a disclaimer from endorsement of such theory.

It is hereby recognized by the Tangipahoa Parish Board of Education, that the material to be presented, regarding the origin of life and matter, is known as the Scientific Theory of Evolution and should be presented to inform students of the scientific concept and not intended to influence or dissuade the Biblical version of creation or any other concept.

It is further recognized by the Board of Education that it is the basic right and privilege of each student to form his/her own opinion or

maintain beliefs taught by parents on this very important matter of the origin of life and matter. Students are urged to exercise critical thinking and gather all information possible and closely examine each alternative toward forming an opinion.

The Board passed the resolution 5-4, even though warned by its attorney that the disclaimer was probably unconstitutional because of its sectarian reference to the Bible and to creationism.

Although the local newspaper inveighed against the Board's decision, the papers were flooded with letters largely supporting the decision. NCSE member Nicole Okazaki, a professor at Louisiana State University, in an "op-ed" piece published in the *Hammond Daily Star* (5/2/94) noted that it was peculiar that of all scientific theories, only evolution should be singled out for such special treatment.

Such disclaimers weaken the position of evolution in the curriculum by making it appear as if evolution is less scientific, or on shakier ground than other theories. Disclaimers of this sort exploit the public's understanding of the word "theory" to mean "guess" or "hunch" rather than explanation. Many teachers will simply cease to teach evolution when faced with having to begin the lesson by telling the students the controversial issue is coming up or that the "following material may be bad science." Disclaim-

ers are also a "soft" variety of "equal time" for creationism and should be challenged in court whenever they are required. ♦

## Does Teaching Evolution Cause Student Violence?

John Cole

Columnist Barbara Reynolds wrote a column we missed last summer (*USA Today* 8/27/1993)—she was warning about the effects of evolution education. "Don't be surprised if our little darlings go ape . . . when they return to class."

She criticizes *USA Today* for objecting to creationism in the public school science classroom.

"Prohibiting the teaching of creationism in favor of evolution creates an atheistic, belligerent tone that might explain why our kids sometimes perform like Godzilla instead of children made in the image of God." "Under the rules of evolution, teachers are forced to answer to King Kong rather than to the King of Kings."

Reynolds' "Opinion USA" article repeats virtually every cliché you have ever seen or heard about the evil fruits of evolution.

This is only a personal reaction, but I seem to remember Godzilla sort of fondly—he or she was ticked off about humans despoiling the environment with atomic weapon tests and got a bit carried away petitioning governments for redress of grievances. ♦

❖  
"Under the rules of evolution, teachers are forced to answer to King Kong rather than to the King of Kings."  
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# NEWS

**Peloza** con't from p. 7

ever, we are required to read the complaint charitably, to take all well-pleaded facts as true, and to assume that all general allegations embrace whatever specific facts might be necessary to support them.

"Charitably read," the opinion continued, one may conclude that Peloza might have two First Amendment complaints. One that the Court rejected was the notion that by "forcing" Peloza to teach evolution, the district is establishing a religion. "We reject this claim because neither the Supreme Court, nor this circuit, has ever held that evolutionism or secular humanism are "religious" for Establishment Clause purposes. The Supreme Court has held unequivocally that while the belief in a divine Creator of the Universe is a religious belief, the scientific theory that higher forms of life evolved from lower ones is not."

The Appeals Court seemed to work hard to say something nice about the Peloza complaint. "Parsing Peloza's various formulations of his claims, however, we read them as possibly alleging a second claim. . . ." This second possibility was whether "The school district forced Peloza to teach the belief that life and the Universe came into existence without a Creator, and to teach this belief as if it were undisputed fact rather than scientific theory." If the district were doing so, it might be showing hostility to religion, "preferring those who believe in no religion over those who do believe."

At the District Court level, the judge had dismissed this argument, agreeing with the school

district's lawyers that Peloza was only being required to teach the scientific theory of evolution, as described in the California Science Framework. It was this "going outside of the pleadings" that caused the Appeals Court to send the case back to the lower court.

Even in its direction to remand, however, the Appeals Court hinted that it would find the district's position acceptable. It suggested that the school district request a summary judgement (rather than opting for a full trial) and "If it turns out that all the school district required was that Peloza teach evolution as scientific theory, no Establishment Clause violation occurred."

A motion for a summary judgement is more complicated than a motion for dismissal but is still a more limited undertaking than a full trial. After making this suggestion, the Appeals Court stated in a footnote that Peloza's likelihood of winning was small. "To defeat a motion for summary judgement, Peloza would have to establish issues of fact as to whether the school district ignored its own policies and required him to teach that life and the Universe came into existence without a Creator, and whether the school district required him to teach such ideas as fact rather than as scientific theory."

Peloza's lawyer, Cyrus Zal, said to the *Los Angeles Times* that he will have "no trouble proving that point."

On Peloza's free speech claim, the Appeals Court supported the district's right to prevent Peloza from discussing religion with students. In this case as in many others where

the Free Speech clause is in conflict with the Establishment clause in the setting of the public schools, the courts are clear that the Establishment clause wins out. The public schools, having children in a "captive environment," have a special responsibility to safeguard religious neutrality, even at the expense of inhibiting free religious speech.

While at the high school, whether he is in the classroom or outside of it during contract time, Peloza is not just any ordinary citizen. He is a teacher. He is clothed with the mantle of one who imparts knowledge and wisdom. His expressions of opinion are all the more believable because he is a teacher. The likelihood of high school students equating his views with those of the school is substantial. To permit him to discuss his religious beliefs with students during school time on school grounds would violate the Establishment Clause of the First Amendment. Such speech would not have a secular purpose, would have the primary effect of advancing religion, and would entangle the school with religion. In sum, it would flunk all three parts of the test articulated in *Lemon v. Kurtzman*.

The Appeals Court reversed the lower court's decision to grant the district costs. Lawyers for the district think the Peloza case may return to Judge Williams' court as early as this fall. NCSE will keep you informed.

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The  
Supreme  
Court has  
held  
unequivocally  
that while  
the belief in  
a divine  
Creator of  
the Universe  
is a religious  
belief, the  
scientific  
theory that  
higher  
forms of life  
evolved  
from lower  
ones is not.

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# TRACKING THOSE

## Carl Baugh on the Air and in It

**Bret A. Corum**  
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**T**exas creationist Carl Baugh has been very busy these last few months, adding to his museum, appearing on TV, and planning major trips. Last summer, he hosted a creationism fair in Glen Rose, Texas, but he will not have time this summer. The reason? Baugh will be leaving for an island off the south coast of New Guinea in July—in search of *pterodactyls*.

Accompanying him on the *Pterodactyl* Trip will be Don Patton, leader of a creationist group in Dallas called the Metroplex Institute of Origin Science. Patton said that Baugh interviewed at least 6 people, including a Lutheran missionary, who claimed to have seen live *pterodactyls*. Baugh and Patton will be exploring caves on the island in search of their elusive quarry.

Baugh and Patton used to claim that dinosaur tracks in Glen Rose limestone had “mantracks” alongside; after their claim was debunked, they began to see “mantracks” *within* the dino tracks. The “mantracks” were debunked by Glen Kuban and others, including Ronnie Hastings, John Cole, Laurie Godfrey, and Steve Schafersman (*Creation/Evolution* XV, XVII, etc.). Even creationists John N. Clayton and John Morris have been known to ridicule Baugh’s claims. Kuban exposed more false claims in his article “A Matter of Degree: An Examination of Carl Baugh’s Credentials” (*NCSE Reports* 9(6):15), when

he showed that Baugh only has doctorates in his imagination.

Baugh appeared on the pseudoscience documiniistry *The Amazing Discovery of Noah’s Ark*, aired by CBS on February 20, 1993 (*NCSE Reports* 12(4):22, 13(1):4, etc.). He and hoaxster George Jammal were touted as Ark eyewitnesses. Baugh and his team of Arkaeologists are supposed to build a hospital near Mt. Ararat as part of a 49-year lease to excavate for the Ark (*NCSE Reports* 13(3):6). Baugh planned to travel to Turkey after the *Pterodactyl* Trip to meet with Kurdish tribal leaders to discuss plans for the hospital. Patton planned to join the team in September to help in yet another amazing re-discovery of Noah’s Ark. Alas, the Turkey Trip may be postponed due to insufficient funds.

In May, “Dr.” Baugh twice appeared on *Praise The Lord*, a TV show on the Trinity Broadcasting Network, to share his odd ideas. During the first show, he purposely shocked himself with a stun gun, as part of his explanation of how rattlesnake bites used to be good for one’s health. He explained that the beneficial effects were due to the extreme strength of the Earth’s magnetic field before The Fall. (Huh?! As Baugh told his audience when I visited his museum several days later, the magnetic field “re-charges the venom so it becomes serum” —or snake oil?). The present field is too weak to achieve this effect, he said.

In the second *Praise The Lord* program, Baugh said that Carb-

on-14 is created in the upper atmosphere by ultraviolet light (*sic*), which was shielded out by a pre-Flood water canopy (he usually refers to it as an ice shell). The actual scientific explanation was never mentioned: neutrons from cosmic rays collide with nitrogen nuclei in the upper atmosphere and form radioactive carbon-14. Audio tapes of these programs are available from *Praise The Lord*, Box A, Santa Ana, CA 92711 for your “Love Gift” (they will send the tape for free, but request a gift of \$2.00 to cover postage and handling).

When I visited Baugh’s museum on June 4th, he was there lecturing in a new double-wide trailer building. A medical hyperbaric chamber (pressure chamber) sat in one end of the new trailer, to simulate the pre-Flood model of Baugh’s imagination: an airtight ice shell suspended 11 miles above the Earth’s surface. According to Baugh, all of the atmosphere was contained under the ice shell, so that air pressure was doubled, improving growth. He intends to grow animals and plants into giants (as suggested by *Genesis* 6:4, “There were giants in the earth in those days . . .”; see Cole, *C/E* 15, pp. 48-56). An agitated rattlesnake was inside the chamber (presumably growing into a *giant* agitated rattlesnake). A more ambitious, Texas-size “hyperbaric biosphere” is on hold, and continues to rust in the museum lot.

Baugh repeated the lecture he gave on *Praise The Lord*, but he didn’t use the stun gun on himself this time. Instead, he found

# INCREDIBLE CREATIONISTS

two volunteers, one as shockee and the other as shocker, in sort of an abbreviated Stanley Milgram experiment. Baugh was wearing a shirt that had "Dr. Baugh" embroidered on the sleeve, so he continues to misrepresent his credentials. It was the first time I'd seen someone's name embroidered literally AND figuratively.

John Heffner, whom Baugh referred to as a science teacher,

helped Baugh by collecting museum admission fees and selling books. Heffner sold at least one copy of the creationist book *Of Pandas and People* under the pretense that it was "approved by the state of Texas as a supplemental biology textbook." The couple who bought the book seemed much impressed by Heffner's claim, although the woman joked that state approval usually meant a book was terrible. The book is terrible, but not due to any state approval: I called

June 7th and was told the book was *not* adopted by Texas as a textbook, supplemental or otherwise (see Schadewald, 1991).

I'd had my fill of creationist pseudoscience for the day, but before I left the museum, I took photos of a so-called "fossilized snake" on display. I'm not a geologist, but it appeared to be a coprolite instead (i.e., fossilized dung). Needless to say, it fits right in at Baugh's museum. ❖

## Metamorphosis and Evolution

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I offer the following as one possible answer to a common creationist challenge—the supposed inexplicability of insect metamorphosis. It has the advantage of not getting bogged down in details of developmental biology, though it will probably take some skill and creativity at stage presentation to get the point across most effectively to a lay audience.

The supposed problem is: how could such a complex and "mysterious" process as metamorphosis have evolved? Fact 1: Not all insects undergo butterfly-like metamorphosis; in many, the adults look like larger versions of the young (e.g., silverfish, cockroaches). So the question can be rephrased: Starting with a non-metamorphosing kind of ancestor, how could purely natural processes result in a

change to a butterfly-like type of development?

Fact 2: no one denies that metamorphosis of even the most radical sort is a purely natural process. (If the creationist in the debate wants to argue instead that a separate act of direct divine intervention is required in the development of each individual moth and butterfly, that's an admission his opponent should welcome!) If metamorphosis evolved, then the evolutionary stage immediately preceding it involved a slightly less dramatic transformation from larva to adult; the stage before that was less dramatic still, and so on back to a non-metamorphosing ancestral form, the larva or the adult. Hence, if natural processes can go so far as to change a caterpillar into a butterfly *today*, then natural processes in the past should surely also have sufficed to cross any *lesser* developmental "gap" in body shape.

In other words: if we can cross THIS\_\_\_ big a distance without a miracle, then surely we can cross

a distance only *this*\_\_\_ big, or any lesser distance, with as little need of a miracle. Again, the key point to hammer home is that if an individual instance of metamorphosis (the most difficult of all developmental feats, in the view of the creationist) can be accomplished without a miracle, then there is no reason to think that miracles should be needed to accomplish lesser feats, or to get from simple to more complex developmental pathways via a step-by-step process. The viability of the intermediate stages is, of course, evident from the diversity of such pathways in living insects. There's no need to get involved in explaining exactly how metamorphosis works, or how it evolved, because the only real issue is whether it requires any divine interventions; and every butterfly that emerges testifies that it doesn't. Complicated and amazing, yes, like many other things in nature; miraculous in the immediate and literal sense, no.

I hope this will be useful as an outline to be fleshed out by evolutionist debaters. ❖

## RESOURCES

## Books

	LIST	MEMBERS		LIST	MEMBERS
Berra, <i>Evolution and the Myth of Creationism</i>	8.95	7.00	McGowan, <i>In the Beginning... A Scientist Shows Why the Creationists Are Wrong</i>	18.95	15.25
<b>NEW</b> Bowlby, <i>Charles Darwin: A New Life</i>	14.95	11.95	McIver, <i>Anti-Evolution, An Annotated Bibliography</i>	15.95	12.75
Bowler, <i>The Non-Darwinian Revolution</i>	12.95	10.35	McKown, <i>The Mythmaker's Magic</i>	23.95	19.15
Cartmill, <i>A View to a Death in the Morning</i>	*29.95	23.95	Moore, <i>Science as a Way of Knowing: The Foundations of Modern Biology</i>	32.50	26.00
Clark, <i>Evolution and Cultural Literacy</i>	7.00	5.60	<b>NEW</b> Moreland, ed., <i>The Creation Hypothesis</i>	12.99	10.50
<b>NEW</b> Dalrymple, <i>The Age of the Earth</i>	24.95	19.95	Newell, <i>Creation and Evolution: Myth or Reality?</i>	12.95	10.35
Dawkins, <i>The Blind Watchmaker</i>	10.95	9.50	Numbers, <i>The Creationists</i>	*27.00	21.50
Deford, <i>A Reparation: Universal Gravitation a Universal Fake</i>	6.00	4.80	<b>SPECIAL</b> Quammen, <i>The Flight of the Iguana</i>	*19.95	9.00
Desmond & Moore, <i>Darwin. The Life of a Tormented Evolutionist</i>	*34.00	27.25	Raup, <i>Extinction: Bad Genes or Bad Luck?</i>	*19.95	15.95
Dietz & Holden, <i>Creation/Evolution Satiricon</i>	12.95	10.25	Robinson & Tiger, eds. <i>Man and Beast Revisited</i>	16.95	13.55
Diamond, <i>The Third Chimpanzee</i>	13.00	10.40	Ruse, <i>But is it Science?</i>	*29.99	23.95
Ecker, <i>Evolutionary Tales</i>	10.00	8.00	Sagan & Druyan, <i>Shadows of Forgotten Ancestors</i>	*23.00	18.00
Eldredge, <i>The Miner's Canary</i>	20.00	16.00	Strahler, <i>Science and Earth History, the Evolution/Creation Controversy</i>	*48.95	39.15
Eve and Harrold, <i>The Creationist Movement in Modern America</i>	13.95	11.15	Strahler, <i>Understanding Science</i>	*26.95	21.55
Godfrey, <i>Scientists Confront Creationism</i>	10.95	9.50	<b>NEW</b> Toumey, <i>God's Own Scientists</i>	15.00	12.00
<b>NEW</b> Goldsmith, <i>The Biological Roots of Human Nature</i>	16.95	13.50	Van Till, Young, & Menninga, <i>Science Held Hostage</i>	10.99	8.75
Gould, <i>Bully for Brontosaurus</i>	10.95	8.75	<b>NEW</b> Webb, <i>The Evolution Controversy in America</i>	*34.95	28.00
Gould, <i>Ever Since Darwin: The Panda's Thumb</i> (2 bks, each:)	9.95	7.99	<b>NEW</b> Weiner, <i>The Beak of the Finch: The Story of Evolution in Our Times</i>	*25.00	20.00
Gould, <i>Hen's Teeth and Horse's Toes</i>	6.95	5.55	<b>NEW</b> Wilson, <i>The Diversity of Life</i>	14.95	11.95
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Harrold & Eve, <i>Cult Archaeology and Creationism</i>	*24.95	19.95			
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Howells, <i>Getting Here</i>	19.95	15.95			
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Larson, <i>Trial and Error</i>	9.95	7.95			
Lewin, <i>In the Age of Mankind</i>	19.95	15.95			
Lewin, <i>The Thread of Life</i>	19.95	15.95			
Maynard Smith, <i>Did Darwin Get it Right?</i>	*25.00	20.00			
Mayr, <i>One Long Argument: Charles Darwin and the Genesis of Evolutionary Thought</i>	10.95	8.75			
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McGowan, <i>Dinosaurs, Spitfires and Sea Dragons</i>	14.95	12.00			

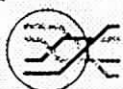
## Kids' Books

Barker, <i>Maybe Yes, Maybe No</i>	12.95	10.25
Cole, <i>Evolution</i>	4.50	3.60
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## Audio Cassettes

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1982 AAAS Pacific Division Symposium "Evolutionists Confront Creationists"	6 tapes	30.00
with papers by Patterson, Dalrymple, Craycraft, Sarich, and Thwaites		
1988 AAAS Pacific Division Symposium "Communicating Evolution to the Public"	3 tapes	15.00
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### Lecture

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Now in pb:  
Dalrymple's  
*The Age of  
the Earth*  
and  
Wilson's  
*Diversity of  
Life*  
❖

Allen, W.H. 1993. The Great Flood of 1993. *BioScience* 43(11):732-737. Researchers study the effects of a great flood on animal and plant life (compare with creationist flood theory!).

ASA. 1993. *Teaching Science in a Climate of Controversy: A View from the American Scientific Affiliation*. Ipswich, MA: Comm. for Integrity in Science Education. 64 pp, \$7. "All portions of this book are copyright 1986" by ASA, yet it claims to be a revised edition. Evangelical scientists try

to walk a tightrope. There are changes, and we will have a new review.

Barss, Peter. 1984. Injuries Due to Falling Coconuts. *The Journal of Trauma* 24(11):990-991.

Berry, Wendell. 1993. Christianity and the Survival of Creationism. *Cross Currents* 43(2):149-163. Role of Christianity in destroying natural environment has been exaggerated.

Bower, Bruce. 1994. Talking Back in Time: Prehistoric Origins of Language Attract New Data and Debate. *Science News* 145(24):376-377. How early did speech apparatus evolve?

Cremona, Michael, and R. Thompson. 1993. *Forbidden Archaeology: The Hidden History of the Human Race*. Badger, CA: Govardhan Hill Publishing Co. 949 pp, hb, \$49.95. Hare Krishna antievolutionism, review C/E by W. Tarzia. Also: "Your book is pure humbug and does not deserve to be taken seriously by anyone but a fool."—R. Leakey. "Dreck."—J. Marks.

Crews, D. 1994. Animal Sexuality. *Scientific American* 270(1):108-115 (Jan). Evolution of sex.

Erwin, D.H. 1994. The Permo-Triassic Extinction. *Nature* 367:231-236 (20 Jan). The granddaddy of extinction events was probably due to a variety of causes.

## NEW BOOKS

### God's Own Scientists: Creationists in a Secular World

Christopher Toumey

Anthropologist analyzes the scientific creationist movement.

### Eight Little Piggies

Stephen Jay Gould

Gould's new essay collection: "A lovely mixture of bizarre facts, nice arguments, clever insights into the workings of evolution and a quality of writing that can make your skin prickle..."

—*Nature*. (1993; 479 pp.)

### The Beak of the Finch: a Story of Evolution in Our Time

Jonathan Weiner

Studies of Darwin's finches demonstrate evolution—as scientists

watch! An accessible, entertaining book that should become a classic of popular science. (332 pp.)

### The Evolution Controversy in America

George E. Webb

Historian views evolution in US, and creationist reaction to it, from 19th century to the present. More biology than usual "history of creationism" books. (1994; 297pp.)

### Charles Darwin: A New Life

John Bowlby

Darwin the person, as well as Darwin the scientist, is explored in this biography now in paperback. (1990; 511 pp.)

### The Biological Roots of Human Nature: Forging Links Between Evolution and Behavior

Timothy H. Goldsmith

Biologist looks at human behavior from evolutionary standpoint. Now avail. in paperback.

### The Creation Hypothesis: Scientific Evidence for an Intelligent Designer

J. P. Moreland, editor.

Evidence for special creation/design in the origin of life, major of organisms, and human language, and the origin and formation of the Universe—mostly from old-Earth creationists like Hugh Ross, Walter Bradley, Steven C. Meyer. Contributions from Kurt P. Wise and Phillip E. Johnson. (1994; 335 pp.)

To order see  
pp. 12-13

# RESOURCES

Eve, Raymond, and Francis B. Harrold. 1992. Scientific Creationism and the Politics of Lifestyle Concern in the United States. In *Religion and Politics in Comparative Perspective*, ed. by B. Miszatal and A. Shupe. Boulder, CO: Praeger.

———. 1993. The Influence of Group Processes on Pseudoscientific Belief: "Knowledge Industries" and the Legitimation of Threatened Worldviews. In *Advances in Group Process*, vol. 10, ed. by E.J. Lawlor, et al. JAI Press.

Fulljames, Peter, and Leslie J. Francis. 1993. The Influence of Creationism and Scientism on Attitudes Toward Christianity among Kenyan High School Students. *Educational Studies* 14(1):77-96. "Scientism" correlated significantly, "creationism" did not.

Godfrey, Laurie R. 1994. Review of *The Creationists: The Evolution of Scientific Creationism*, by R. Numbers. *American Scientist* 82(1):92.

Gould, James L., and Carol Grant Gould. 1994. *The Animal Mind*. San Francisco: Scientific American Library. 236 pp, NP. Humans and other animals differ mentally in complexity but not in kind.

Gould, S.J., and N. Eldredge. 1993. Punctuated Equilibrium Comes of Age. *Nature* 366:223-227 (18 November). Good review article with copious references.

Hamre, James S. 1991. The Creationist-Evolutionist Debate and the Public Schools. *Journal of Church and State* 33(4):765-784. Why the 1987 Supreme Court decision must change the terms of the debate on the part of evolutionists.

Jacoby, Russell. 1994. *Dogmatic Wisdom. How the Culture Wars Divert Education and Distract America*. NY: Doubleday. 235pp, \$22.95. Unorthodox leftist critique of education, for a change from the long series of conservative/centrist critiques.

Klein, J., N. Takahata, and F.J. Ayala. 1993. MHC Polymorphism and Human Origins. *Scientific American* 269(6):78-83 (Dec.). Amount of genetic variation in Histocompatibility Complex locus indicates that ancestral human population was large—not a single Adam and Eve pair.

Lawson, Anton E., and John Weser. 1990. The Rejection of Non-scientific Beliefs about Life: Effects of Instruction and Reasoning Skills. *Journal of Research in Science Teaching* 27(6):589-606. Less skilled reasoners were more likely to be-

lieve in creationism and other unscientific beliefs and less likely to change their minds after college classes taught about evolution.

Leslie, John. 1993. Creation Stories, Religious and Atheistic. *International Journal for Philosophy of Religion* 23(2):65-77. Two main types of narratives analyzed.

Levy, Steven. 1994. Dr. Edelman's Brain. *The New Yorker* 70(11):62-73, 2 May. Profile of Gerald Edelman, Nobel Laureate working on a Darwinian explanation of mind and consciousness.

Lewin, Roger. 1994. Fact, Fiction and Fossil DNA. *New Scientist* 141(1910):38-41 (29 Jan). Evaluation of fossil DNA studies by a molecular biologist and journalist.

## NCSE Can Sell You Darwin!

The first electronic collected works of Charles Darwin has been published by Lightbinders, Inc. in CD-ROM format—and you can get it from NCSE. Recommended for pleasure, education or research, it's suitable for all ages. Contents include the complete text and illustrations of *On the Origin of Species*, *The Voyage of the Beagle*, and *The Descent of Man*, and Darwin and Wallace's original 1859 paper. In addition, the disc includes the 5-volume *Zoology of the Voyage of the Beagle*—the first publication since the 1800s of the original specimens collected by Dar-

win, and Michael T. Ghiselin's *Triumph of the Darwinian Method*. There are commentaries by leading scholars from around the country, discussion and debate, and maps, natural sound recordings to accompany the 650 illustrations, indices and the ability to search almost instantly for dates, subjects, animals, birds, plants, and more.

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## RESOURCES

❖

Some school districts schedule student votes on whether evolution or creation is correct.

❖

Lewin, Roger. 1994. A Simple Matter of Complexity. *New Scientist* 141(1911):37-40 (5 Feb). Does evolution go from simple to complex?

Lippard, Jim. 1994. Sun Goes Down in Flames: The Jammal Ark Hoax. *The Skeptic* 2(3):22-33.

Lord, Thomas. How University Students View the Theory of Evolution. *Journal of College Science Teaching* 22(6):253-357. PA students supported evolution more as college careers went on (60% of Freshmen-sophomores vs. 80% of juniors-seniors).

McInerney, Joseph D. 1993. Voting in Science: Raise Your Hands if You Want Humans to Have 48 Chromosomes. *American Biology Teacher* 55(3):132-133. Some school districts schedule student votes on whether evolution or creation is correct.

McMullin, Ernan. 1993. Evolution and Special Creation. *Zygon* 28(3):299-335. Did God act in a "special" creation at crucial moments? Explores A. Plantinga's theology and evolution.

Monastersky, R. 1994. Fossil Whale Feet: A Step in Evolution. *Science News* 145(3):36 (16 Jan). Early Eocene whale with four fully developed legs.

Neumann, Joseph K. 1982. Creationism in Christian Psychology. *Journal of Psychology and Christianity* 1(1):51-54. A guide to creationist resources for mental health professionals.

Nowak, R. 1994. Mining Treasures from 'Junk DNA.' *Science* 263:608-610 (4 Feb). The 97% of

human DNA that does not encode proteins may play big role in normal genome function.

Peacocke, Arthur. 1993. Science and God the Creator. *Zygon* 28(4):469-484. Divine Being and divine Becoming explored.

Pendleton, Y.J., and D.P. Cruikshank. 1994. Life from the Stars? *Sky and Telescope* 87(3):36-42 (March). Review of sources of organic material from space.

Raizen, Senta A., and Arie M. Michelsohn, eds. 1994. *The Future of Science in Elementary Schools*. Jossey-Bass Publishers, 350 Sansome St., San Francisco, CA 94104. 162 pp. \$26.95 + \$4 shipping.

Reisenberger, Azila Talit. 1993. The Creation of Adam as Hermaphrodite—and Its Implications for Feminist Theology.

### Ark Still Sunk

*The Skeptic* (2, No.3, 1994) devotes 21 pages to last year's CBS Television "Noah's Ark" fiasco. Jim Lippard describes the hoax which fooled Sun International, the producer of the show, in "Sun Goes Down in Flames: The Jammal Ark Hoax." David Bloomberg discusses "The Incredible Mystery of Sun Pictures," and Gerald Larue contributes, "Flood Myths and Sunken Arks: Who Needs to Believe in Noah's Ark and Why?" Together, they sum up the story (which you read about here last Spring (13(1):4, 6)) and Summer (13(2)).

*Judaism* 42(4):447-442. Title seems self-descriptive!

Renfrew, Colin. 1994. World Linguistic Diversity. *Scientific American* 270(1):116-123 (Jan.). The pattern of language evolution (no recent Tower of Babel!).

Scott, Eugenie C. 1994. The Struggle for the Schools. *Natural History* July, pp. 10-13. NCSE exec. on the new creationism and the schools.

Shankar, Ganga. 1993. Emphasis Given Evolution and Creationism by Texas High School Biology Teachers. *Science Education* 77(2):221-233. Teacher knowledge shown to be the important variable.

Shreeve, J. 1994. Infants, Cannibals and the Pit of Bones. *Discover* 15(1):39-41. Latest info on Neandertals.

Sterling, Bruce. 1993. Science: "Creation Science." *Fantasy and Science Fiction* 85(2):98-111. Not either-or, it's how much or how little supernaturalism one can accept in science.

Taylor, Charles A. 1992. Of Audience, Expertise and Authority: The Evolving Creationism Debate. *Quarterly Journal of Speech* 78(3):277-295. Author says the scientific community's arguments are unresponsive to the public appeal of creationism.

Thewissen, J.G.M., S.T. Hussain, and M. Arif. 1994. Fossil Evidence for the Origin of Aquatic Locomotion in Archaeocete Whales. *Science* 263:210-212 (14 Jan).

Tiemal, C., Y. Quan and W. En. 1994. Antiquity of *Homo sapiens* in China. *Nature* 368:55-56 (3



# RESOURCES

Mar). New data suggest *sapiens* may be 200,000 years old—contemporary with *erectus*.

Toumey, Christopher P. 1994. God's Own Scientists. *Natural History* July, pp. 4-9. Similar to Toumey's *C/E* article on the creationist movement in North Carolina.

Weiner, Jonathan. 1994. *The Beak of the Finch. A Story of Evolution in Our Time*. NY: Knopf. x + 332 pp, hb. \$25.00. Twenty years of Galapagos research showing ongoing evolution. [Avail. at discount from NCSE—see centerfold]

Woodrum, Eric. 1992. Support for Prayer in School and Creationism. *Sociological Analysis* 53(3):309-321. Are they examples of widespread political conservatism?

Zimmer, Carl. 1994. Masters of an Ancient Sky. *Discover* 15(2):42-54. Cover story on Pterosaurs. well-illustrated, incl. a 4-pp foldout; interviews with paleontologists Alexander Kellner and NCSE's Kevin Padian, Christopher Bennett, others. ❖

## Who Said This?

“Usually, even a non-Christian knows something about the earth, the heavens, and the other elements of this world, about the motion and orbit of the stars and even their size and relative positions, about the predictable eclipses of the sun and moon, the cycles of the years and the seasons, about the kinds of animals, shrubs, stones, and so forth, and this knowledge he holds to as being certain from reason and experience. Now, it is a disgraceful and dangerous thing for an infidel to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; and we should take all means to prevent such an embarrassing situation, in which people show up vast ignorance in a Christian and laugh it to scorn. The shame is not so much that an ignorant individual is derided, but that people outside the household of faith think our sacred writers held such opinions, and, to the great loss of those for whose salvation we toil, the writers of our Scripture are criticized and rejected as un-

learned men. If they find a Christian mistaken in a field which they themselves know well and hear him maintaining his foolish opinions about our books, how are they going to believe those books in matters concerning the resurrection of the dead, the hope of eternal life, and the kingdom of heaven, when they think their pages are full of falsehoods and on facts which they themselves have learnt from experience and the light of reason? Reckless and incompetent expounders of Holy Scripture bring untold trouble and sorrow on their wiser brethren when they are caught in one of their mischievous false opinions and are taken to task by those who are not bound by the authority of our sacred books. For then, to defend their utterly foolish and obviously untrue statements, they will try to call upon Holy Scripture for proof and even recite from memory many passages which they think support their position, although *they understand neither what they say nor the things about which they make assertion.*”

(( Answer on p. 23) ❖

❖  
Incompetent  
expounders  
of Holy  
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trouble and  
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### Jack Friedman

A memorial contribution to NCSE can be a useful salute to whomever you wish to honor. Many people appreciate a contribution made to an intellectual and academic cause rather than spent on ritual flowers or candy. In addition, it is an opportunity for *you* to support science education.

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Let us know, and we will notify the designated person or family that you have sent a gift to NCSE in their name. We will also send you a receipt for your records to show the matter was handled promptly. A donation envelope is enclosed with this issue of *Reports*. If you don't

need it this month, stash it away and use it soon. (Note: This envelope is for memorial gifts, not regular correspondence which should still go to the Berkeley office or the editor, as appropriate.)

If you have any questions or would like more donation envelopes, please call me at (516) 921-5522. ❖

## Exporting Ideas

**Molleen Matsumura**  
NCSE Network Project

❖  
The  
relation of  
newly-  
published  
religious  
books to  
books of  
popular  
science is  
about 10:1!

**T**he Institute for Creation Research reports that after two successes, they are planning their third "annual International Creation Conference" for Eastern European countries, to be held in Moscow (actually, the first "annual conferences" were two years apart). This isn't a surprising activity; even before the dissolution of the Soviet Union, Western countries were an important source of forbidden or hard-to-obtain literature—everything from Russian novels that had to be smuggled abroad for publication, to King James Bibles. In recent years there has been a great rush to pour literature and information into the new vacuum of power and ideas. There's no reason that creationists shouldn't be doing their share, but international conferences sound so grandiose—could it be that the ICR is bragging a bit?

NCSE recently got the answer to this question in a letter e-mailed to us by an Estonian professor of biology (yes, East meets West on the Internet!). He wrote, in response to a notice that NCSE has reprints of an article about our work, "I should be very thankful if you could send me a copy. I have several old copies of the Creation/Evolution newsletter, but not new ones (there are some financial problems in this country...). My homeland Estonia... has turned to be a Mecca for all kind of very rich Western missionaries, including creationists... On book-

shelves of our bookshops the relation of newly-published religious books to books of popular science is about 10:1!... [I teach] a course on methodology of science(s) for the first year university students (biology) and first some hours are about 'what is the difference between science, religion, and arts/humanities,' and any reprints on the subject are welcome."

To understand the depth of the need for information about evolution and good scientific thinking, it's important to remember that the Soviet government long had its own ideological reasons for suppressing the modern theory of evolution. Instead, they promoted "Lysenkoism," including the idea that acquired traits can be inherited. They taught that evolution was a Marxian theory of progress towards Communism and part of a theory of "scientific atheism." So

it's easier for creationism to build a false impression of *scientific* credibility, given the past, distorted view of evolution.

With the help of members like you, NCSE wants to try to add evolution to the export of ideas for Eastern Europe. Send us orders for any book in our catalog, or for giving memberships (which include subscriptions to *Creation/Evolution* and *NCSE Reports*) at U.S. rates, mark them as donations for Eastern Europe, and NCSE will absorb the cost of shipping to appropriate individuals and institutions.

It may be that ideas are the most important U.S. export; let's send the *best*. ❖

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## Calling All "Experts"

**Molleen Matsumura**

Director, Network Project

**N**CSE members know very well that the struggle to keep evolution in the schools is a continuous, grass roots effort. At the same time that we work to improve general public understanding of science, we have to be prepared to react to a variety of challenges in communities scattered across the nation. One week we'll hear about a school board trying to adopt curriculum guidelines that call for teaching "arguments against evolution," another we'll hear about a teacher who boasts that he's been teaching creationism for years while colleagues look the other way.

When NCSE responds to these challenges, member participation is vital. Teachers, administrators, and school board members who want to "do the right thing"—maintain a strong science curriculum—need to know they can rely on community support. Proponents of creationism often *do* change their minds about imposing it upon schools or museums when they meet strong resistance.

You can help NCSE be more effective by letting us know if you're willing to help. We need to create a directory of members who can be called on when there is creationist activity in their regions, both to use at the main office and to share with state liaisons. For this effort, *everyone* is an "expert." The involvement of many segments of the community—concerned parents, scientists, and religious representatives—is always more impressive than one segment alone. We've made it easy for you to tell us how you will help. This page is a short, ready-to-mail form that will get us better acquainted with you. Cut it out, fill out the questionnaire on the back, fold it, mail it—and give yourself a pat on the back. Even if we never have to call on you for local action, it's great to know you're there. Send it to me at the Berkeley office: P.O. Box 9477, Berkeley, CA 94709-0477.

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WHERE? (e.g., an Iowa HS or College grad might have some influence with a letter back home even if he or she had moved elsewhere!)



# NCSE NEWS

## James Gavan, NCSE Supporter, Dies

Eugenie C. Scott

**J**ames A. Gavan, anthropology professor emeritus at the University of Missouri, died on July 12, 1994 at the age of 77. Jim was a physical anthropologist and one of the original Supporting Scientists of NCSE. He is remembered as a scholar and an activist (serving as NCSE Missouri Liaison) in our circles, but he is known more widely as a respected scholar of primate and human growth, the author of scores of papers, the editor of several books, and a former President of the American Association of Physical Anthropologists.

On a personal note, Jim was also my professor, and I will miss him greatly. He was a man of great warmth and humor, who enter-

tained both colleagues and students with wonderfully-told tales of our academic forefathers—most of whom he knew personally. His was a gentle, never caustic humor, and he taught students by example how to vigorously defend their ideas while still maintaining a sense of civility and courtesy. Even those who disagreed with him professionally could not help but respect the way in which Jim carried on the debate.

I recall a story he told us about the Scopes trial. Defense attorneys had brought a team of scientists to Dayton, intending to prove in court that evolution was acceptable scientific theory and special creation was not. Because of the popularity of the trial, there were no rooms in town for the scientists, so it was arranged that

they could stay in an old farmhouse outside of town. The night before the trial began, the scientists found themselves in a torrential thunderstorm, with lightning flashing all all around them—but more frightening were the thoughts of the response of the community (and, presumably, the jury) if by luck (they assumed) the old house were struck by lightning. . . . Jim created in our minds the picture of the finest scientific minds of the day huddled in a dark house, knowing that their credibility in the days that followed (though it turned out they were not allowed to testify) relied on the forces of nature that they had devoted their lives to studying.

His counsel was always valuable. NCSE will miss him, and I will miss him.

## Cleveland Freenet

Penny O'Connor

Cleveland Public Library  
Cleveland, OH

**P**eople with computers still report some problems finding our Freenet and its Skeptics (and NCSE) bulletin board space. (Note: If you don't "speak computerese," the following may look odd, but if you do speak it, I hope it clarifies this for you!) Here is how people with access to a gopher on the Internet can go to Cleveland Freenet:

On your host gopher, find the area that has "all the gophers in the world." Once in that, press the / (not a back-slash) and type: <case> and then <enter> or <return>. **The Freenet is on the Case Western Reserve University gopher.**

**OR:**

**Pick the menu with gophers by area. choose North America. Choose USA. Choose Ohio. Find Case Western Reserve University. Enter here.**

If your gopher lets you, you can also locate the freenet via the search tool

Veronica. You get lots of hits with Veronica. Pick one that has / at the end, or <TEL>.

**OR:**

Telnet directly to one of these addresses:

freenet-in-a.cwru.edu

freenet-in-b.cwru.edu

freenet-in-c.cwru.edu

If one is busy, try another.

Freenet menus should take you from there. Via any of these routes, you should log in as guest. Anyone can browse; to post on Freenet, you need to register. (It's still free.) ❖

## LETTERS

**Comet Impact Debate**

David Morrison's report "The Big Splash" (*NCSE Reports* 13:4/14:1, pg. 6) on comet Shoemaker-Levy 9's collision with Jupiter was overall very informative. He, however, greatly overstepped the evidence regarding the purported impact of a 10-20 km object on Earth some 65 million years ago and the general role of such impacts in evolution.

Most scientists do not, as Dr. Morrison suggests, believe an impact caused the extinction of most species, including dinosaurs some 65 million years ago. This is simply the "darling" theory of the media and some prominent scientists. It is probably fair to say that many scientists, myself included, think the evidence is now compelling that there was an impact 65 million years ago. This time interval, however, also includes the single greatest loss of coastal plains and increased continentality (Smith *et al.*, 1994), and possibly the greatest volcanic eruptions in the past 250 million years. Thus we have an extremely cacophonous time in Earth history, and at best (or worst, for these species), the impact was a contributing factor. Events such as the global wildfire and rapid temperature decrease noted as fact by Dr. Morrison simply are not supported by the data we have on fossil vertebrates, and thus are rejected.

Dr. Morrison's discussion of the role of impacts on evolution is even more troubling. His third paragraph, which is on this topic, ends by saying the "[m]odern students of

evolution are beginning to accept that major impacts, occurring at intervals of tens of to hundreds of millions of years, must be considered an important part of the environment in which evolutionary change takes place." What he fails to tell us is that of the 5-7 widely accepted mass extinctions in the past 550 million years, only one also correlates with good physical evidence (e.g., an iridium spike, shocked quartz, a crater, etc.) of an impact. This is the mass extinction 65 million years ago, when, as I noted, other major physical events were also occurring.

It is fair to say that many evolutionary biologists are re-examining the role mass extinction plays in reshaping the trajectory of evolution, but it is disingenuous of Dr. Morrison to state that impacts are the widely accepted cause.

Dr. J. David Archibald  
Department of Biology  
San Diego State University

**More Impact**

I wish to comment on the article in *Reports* 13:4/14:1, "The Big Splash" by David Morrison. In discussing the Alvarez (Impact) Hypothesis of the K/T extinction he refers to "the resulting collapse of . . . ecosystems," and "the widespread acceptance of this scenario for the Cretaceous extinction." I believe that *belief* in the impact is widespread, and even that it contributed to the K/T extinction, but I believe there is plenty of evidence that other factors contributed, as well. I am not a paleontologist (I'm

a neurobiologist), but reading *Science* and *Nature* I have learned that several taxa were in decline even before the K/T boundary. I may be wrong, but perhaps some paleontologists can check this for you. I think it would be prudent to not make claims in our articles that are not "rock solid," if only to protect us from attacks of creationists. Perhaps this author is partial to this theory since he wrote a book on the subject. On a similar note, and in the same issue, the article "Ancient dinosaurs from Alaska's North Slope," by W.A. Clemens claims that "... birds . . . are properly recognized as a subgroup of the dinosaurs." I think this belief is fairly widespread and fairly well supported by evidence, but there are many paleontologists who are skeptical and believe that the birds may have branched off from the reptiles before dinosaurs did. Anyway, I think we should make sure we don't make any claims that aren't well supported.

Dr. James A. Murray  
U.C.-San Diego  
La Jolla, CA

*Ed: We should be careful but not reluctant about presenting controversial ideas, but articles have to reflect their authors' own viewpoints. Replies such as these help balance the debate.*

**Biblical Literalism in the New South**

I recently joined NCSE, and your Winter 1993/Spring 1994 *Reports* was my first issue. I found it very useful and

professional and look forward to future issues.

On page 12, you mentioned that you did not see any newspaper articles on the Catholic Church's recent criticism of biblical literalism. Here in Atlanta, it was front page news, and I have enclosed a copy of the article. In Atlanta and throughout most of the "Bible Belt" (except New Orleans), Roman Catholics are a small minority (less than 5%) and are not even considered "Christians" by extreme fundamentalists. Therefore, you can see why the *Atlanta Constitution* would consider the story to be newsworthy. A recent article from the *Atlanta Constitution* attests to the strength of biblical literalism in the South. It describes a poll taken by the *Constitution* showing that 66% of Southerners believe the bible is "scientifically, historically and literally true." The comparable figure outside the South is 52%. These data suggest the creation/evolution debate will rage particularly strong in this part of the country. I wish your excellent publication were "required reading" for all science teachers. I know it will be for this one.

Roy A. Billingshurst  
Stone Mountain, GA

**Anti-inflammatory**

I was very disappointed to see the version of my article "Duane Gish and Intervarsity, at Rutgers" that was published in *Reports* 13:4/14:1. I submitted an early draft and a later draft and was surprised to see that

# LETTERS

the early draft was the one to get published (with much editing). The early draft contained many unnecessary inflammatory terms. The later draft removed or replaced these unfortunate terms such as "drivel" and "idiocy." This not only reduced the polemical tone but also sharpened the focus on the substantive issues that the article raises. Although I am puzzled as to why NCSE chose to publish the version they did, I recognize that the ultimate respon-

sibility rests with me. I wish to apologize for the needless vitriol in my article. I recognize that such a tactic is counterproductive. Creationists read Reports and needlessly inflammatory remarks merely serve to obscure the content of an article and give the impression of *ad hominem* attacks. I hope that both I and NCSE will exercise better judgment in the future.

Richard Trott  
New Brunswick, NJ

*St. Augustine (A.D. 354-430) made the statement on p. 17*

*Augustine, The Literal Meaning of Genesis (De Genesi ad litteram libri duodecim)* (translated by J. H. Taylor, Ancient Christian Writers, Newman Press, 1982, volume 41) Book 1, Chapter 19, "On interpreting the mind of the sacred writer, Christians should not talk nonsense to unbelievers."

Augustine rejected an anthropomorphic concept of God as creator. "To suppose that God with bodily hands formed man from the dust is very childish. . . . God neither formed man with bodily hands nor did He breathe upon him with throat and lips."

## Thank You!

The following people donated \$100 or more to NCSE in 1993 (i.e., last year!); several contributed \$1000 or more. Our thanks to everyone who contributed—we have done our best to put your contributions, large and small, to the most effective use

possible. Our apologies if we missed your name, but remember that this is for 1993 and does not reflect contributions to our spring/summer request.

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