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Creation vs. Evolution 1990's Style

Lisa Thureau, Esq.

The National Committee for Public Education and Religious Liberty (PEARL) provides legal support in battles on behalf of science in the public schools, challenging efforts to impose creationism and undermine the teaching of evolution in the public schools. As a member of PEARL, NCSE has referred to PEARL in the last year two teachers who have found their schools' science programs ambushed by school administrators and local school boards intent on attacking science education—by any means available. PEARL's legal and tactical responses in these cases differed because the teachers' situations differed, however together they offer a glimpse of common strategies used across the nation to undermine teaching evolution.

In Nevada, PEARL is actively working with Nevada State Education Association (NSEA) staff and attorneys to protect Jeremy Hampton, a science teacher who was reprimanded for suggesting that a student apply the scientific method to her creationist analysis of evolution—a paper she elected to

write after being permitted to opt out of a unit on evolution. Hampton has been questioned by school board members, the local superintendent, school administrators, and parents. On behalf of PEARL, Mike McIlwraith, Esq., of Willkie, Farr & Gallagher, prepared letters, legal memoranda, and pre- and post-hearing briefs to support the teacher in his arbitration hearing and support NSEA's challenge of the letters of reprimand placed in the teacher's file. The arbitrator agreed that the teacher was unfairly reprimanded and ordered the documents removed from the teacher's personnel file.

The school board has now embarked on a series of seemingly retaliatory actions against the teacher, including a written request that he not teach evolution in his paleontology class because it "is a sensitive issue for parents." In a letter published in the September/October issue of *The Sciences*, Hampton wrote, "More important even than the rejection of the principle of evolution in science education is the chilling suppression of critical thinking and intellectual freedom by people who attack science educators on the

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Election Spells Changes at Local Level

Molleen Matsumura

The nation's political climate may have been changed by this year's election, according to a recent press release from Americans United for Separation of Church and State. A significant part of this change was the defeat of "Christian Coalition" candidates in key Senate and House races. Other statewide initiatives that spelled trouble for public education—a "Parental Rights" initiative in Colorado and voucher initiatives in Washington—also went down to defeat. While these results are good news for citizens concerned about the state of public education, national and state-wide initiatives are only the tip of the proverbial iceberg.

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It's exciting these days in Madison. For reasons that only people who live north of 40° north latitude could understand, the first flurries and the continuing migration of geese overhead have us looking forward to the coming winter. It is a part of an annual cycle that gets a short shrift when people think of it *only* in terms of snow and ice, and cold and dark. But there is a palpable anticipation all around us—inside the office as well as outside.

First of all, we have reached an anniversary of sorts here in Madison. This issue of *NCSE Reports* is the fourth that we have produced since the office that was generously donated to us by the Madison Area Technical College began operation in November, 1995. Looking back, we see the tremendous contribution that our readers make to the contents of each issue. We get more letters than we could ever print, but they are full of great ideas, wonderful insights, and a lot of very much appreciated encouragement—not to mention the deserved constructive criticism. We would like to take this opportunity to thank you all for your help and forbearance, but also for the great resource that you are.

We also want to remind you that the news and information features that we print each issue are a way for *you* to communicate with other NCSE members around the country and around the world. Many of the news items and strategies for confronting antievolutionism come to us from our readers and their friends. Let us know what is happening in your community and what needs to be done. Let us know what *you* are doing and what your needs and wishes are as you strive to support science education. And tell someone else about us.

Second, we are wrapping up an important chapter in the publications of the

NCSE. After this issue, there will be one final issue of *NCSE Reports*—volume 16, number 4 for Winter, 1996. Beginning in 1997, we will combine the news, resources, and features of *Reports* with the essays and original articles of *Creation/Evolution* into a new publication, *Reports of the National Center for Science Education*. *RNCSE* will begin with volume 17 and be published 6 times a year. We have prepared a guide for anyone interested in submitting articles or features to the new publication on page 23, and we hope to be able to accommodate more contributions in the new format.

The political season also makes us a little high. It is always a “challenge” keeping track (and trying to stay ahead) of new strategies, terminologies, and organizations that work to weaken science education around the country. Colorado continues to be a hotbed of activity, and suburban Washington, DC is sprouting creationist activity anew. The seeds that are sown by creationist groups and organizations are perennials with deep roots, and they are planted in such a way as to intertwine with the roots of other, desirable institutions that our citizens hold dear. So the election-year rhetoric may be just a little louder or more brazen, but editorial board member Brian Alters reports a tolerance for creationist views even among graduate students in science education based on our cultural and political tendencies toward “fairness” and “hearing all sides” of an argument. There is work to be done at all levels, and every contribution that our readers and their allies make to promoting good science education is another brick in the foundation that our students will need in that “bridge to the 21st Century.”

—Anj Petto and Laura McMahon

A Weekend with Dr. Walter Brown

Zol Heyman
NCSE Member
Arden Hills, MN

I attended a weekend seminar at Northwestern College in St. Paul, Minnesota on September 14-15, 1996 featuring Dr. Walter Brown. The first day was an all-day lecture given by Dr. Brown to about 600 people. He kept to the usual stuff, straight from his book *In The Beginning*. With continuous misrepresentation of evolutionary theory and science in the morning session, he led the willing audience to the already accepted obvious conclusion. In the afternoon, he presented his hydroplate theory of the global flood. It's quite a theory, in light of Brown's claim that this one event was responsible for all of the current geology, the fossil record, comets, the frozen mammoths, the ice years (ages), and probably the Mars meteorite. A question and answer session followed. The day ended with a very dull multimedia presentation called "How Big is God?"

The second day consisted of a 2.5-hour discussion between Brown and Dr. John Sailhamer, a biblical scholar and professor at Northwestern College who wrote a new book entitled *Genesis Unbound*. It was billed as a debate between an old-earth and a young-earth creationist, but Sailhamer, although professing a creationist belief that *Genesis* was a literal historical account, was neutral to the role of science in that account. His premise was that in *Genesis* 1:1, "In the beginning" was the time that God created everything and that the 6-day creation story

was God's preparation of the Garden of Eden for man. This would allow for an indefinite amount of time for the universe to be created, even billions of years, although it would not *require* a large amount of time; more importantly, this view does not require a single scientific explanation, either. The premise separating scientific truth from biblical truth was obvious to everyone but Brown and most of the

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 scientific truth
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 to everyone
 but Brown . . .

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audience. Sailhamer was clearly taken aback by some venomous attacks from questioners, as he gave very reasoned, patient, and cordial responses. I'd hate to see what they would have done to an evolutionist like me.

There were some very enlightening moments during the discussion. First, Brown did not understand that although his Bible was a "good" translation, you had to study the original Hebrew text to make reasonable biblical theories. Sailhamer finally had to hold up his Hebrew copy to make his point. He was incredulous at Brown's literal belief of heaven and earth in

Genesis 1:1 to be space and our planet, although he complimented him on his faithfulness to the translation. Sailhamer's second point was that Brown didn't understand that genealogies in the Bible do not represent true chronologies, because there are several gaps and therefore the "begats" could not be counted on as a measure of the age of the earth. In addition, during this exchange, Sailhamer induced Brown to admit he believed the chronology in the Bible meant the earth was no more than 7,000 years old, something Brown seemed very uneasy to commit to.

But then Sailhamer outdid himself. While admitting he believed in a global flood, the fact that the Tigris and Euphrates Rivers seemed unchanged and easily recognizable after such a catastrophe was problematic in the study of scripture. As an honest scholar, he just admitted it didn't fit the theory, but didn't appear significantly bothered by it, implying that it didn't totally invalidate the Bible, but was just waiting for a better theory. In this regard, he acted more like a scientist than Brown, who defended his own theory with an unclear and uncertain explanation of how these rivers could have been almost any rivers, just renamed. Sailhamer would have none of it, as he restated the Bible's clear explanation that these were the same rivers. Brown acted very subdued for the rest of the discussion. Sailhamer clearly won the day, although I am not sure that the majority of the audience was convinced. ■

University of New Mexico History Faculty Support Teaching Evolution

We reported on two events in New Mexico in our last two issues of NCSE Reports. In "Evolution in an Election Year" (Reports 16, no. 2 [1996]:18), Molleen Matsu-mura reported on a vote by the New Mexico Board of Education to alter proposed science education standards to include "multiple theories of biological origin." In response the University of New Mexico History Department drafted a resolution objecting to the board's action, and Tim Moy made this copy available to NCSE. The text of the resolution is printed here with permission.

RESOLUTION

The faculty of the History Department at the University of New Mexico objects to the new Content Standards in Science for New Mexico's public schools (K-12), adopted by the State Board of Education (SBE) in August 1996. Our objection centers on

- the standards' deletion of all specific references to biological evolution; and
- the standards' encouragement to teach alternative theories through "critical scientific analysis of theories of biological origin based on direct observations, investigations, or historical data that accounts for the present form and function of objects, organisms, and natural systems."

We urge the SBE to reconsider the Content Standards in Science, to restore the specific references to biological evolution, and to refrain

from encouraging teachers to include non-scientific theories of biological origin in science classes.

DISCUSSION

While the standards adopted by the State Board of Education in August 1996 do not explicitly encourage the inclusion of "scientific creationism" in New Mexico's public school science classes, this is clearly the intent of the last-minute revisions to the standards. Board member Roger X. Lenard, one of the architects of the new standards

ards, has stated that they are designed to affect "schools that are focusing on one view, one theory, and one set of facts ... because those systems aren't helping students develop critical analytical skills. So if science classes discuss only the theory of evolution, there may be trouble." (*Albuquerque Journal*, 31 August 1996, pp. A1-A2).

Superintendent Morgan also stated that many people believe that there is a "modicum, if not more, of scientific evidence to support creationism" (*Ibid.*).

There are many good reasons not to allow, much less encourage, the teaching of non-scientific theories like creationism in public school science classes. The technical and practical arguments against the practice have been articulated very well by scientists and scientific organizations around the state since the SBE adopted the new standards.

However, rather than repeat the many scientific objections to the standards, we, as a faculty in the humanities, would like to offer a different argument against them. We oppose these standards for reasons that are based not on the technical issues involved, but on our belief in the value of liberal arts education and its ability to illuminate diverse and distinct ways of studying and understanding the world. Our argument is two-fold.

First, to include creationist ideas within a science curriculum is a serious and detrimental distortion of the historical definition of science in the western world. As it has

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To insist that religious creation stories be considered scientific (and included in science classes) would reinforce the dangerous myth that science is the only way of knowing.

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and a self-described anti-evolutionist, has written that the standards provide "a rigorous, principled environment where various theories about the age of the earth and the universe and biological origins will be studied" (*Albuquerque Journal*, 21 September 1996, p. A9). State schools superintendent Alan Morgan, a supporter of the new stand-

evolved since Greek antiquity, and especially since the scientific revolution of the 17th Century, science has come to refer to a method of articulating certain kinds of explanations about natural phenomena. Historically, scientific explanations have exhibited several characteristics. They tend to be mechanical in nature. They often tend to include descriptions that can be articulated using mathematics. And, they have always been devoid of supernatural agents. In this regard, all forms of creationism, with their implicit reliance on a supernatural creator, are non-scientific by definition, regardless of any appropriation of scientific or science-like language. Calling one form of creationism "scientific" does not make it so, because it still entails the action of a supernatural deity or deities.

It is important to realize that our desire to protect the integrity of science as a distinct intellectual discipline is not an attempt to elevate science above all other intellectual endeavors; quite the contrary. Science is one way of knowing the world; it is not the only way of knowing, and it is certainly not the only way of knowing everything. Indeed, in the grand scheme of human thought and action, the domain of science is modest—the realm of natural phenomena. Science, as it has developed histori-

cally, will not and can never tell us anything about the nature of beauty, or the attributes of justice, or the qualities of goodness. There are many ideas and many truths (like the belief that all people are created equal, or that they have the right to life, liberty, and the pursuit of happiness) upon which science must remain mute. Supernatural creation stories may, in fact, be true; but science, as only one way of knowing, will never tell us this. Science is simply not equipped to speak on supernatural issues, and it would be a mistake to try to force it to do so.

The second part of our argument addresses why it would be a mistake to try to change the definition of science to include supernatural entities. To insist that religious creation stories be considered scientific (and included in science classes) would reinforce the dangerous myth that science is the only way of knowing. Other ways of knowing the world—through art, or literature, or philosophy, or religion—are valuable and meaningful in their own right; treating them all merely as science would diminish their status as important and alternative methods of understanding by forcing them to surrender to the criteria of one particular intellectual discipline. It is precisely because we should not subsume all other ways of knowing

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We urge the [New Mexico State Board of Education] to reconsider the Content Standards in Science, to restore the specific references to biological evolution, and to refrain from encouraging teachers to include non-scientific theories of biological origin in science classes.

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under science that we should keep religious or literary stories distinct from it.

In short, we should actively keep non-scientific or religious creation stories out of the public school science curriculum in order to maintain the intellectual integrity of science as well as the intellectual integrity of all other disciplines. Such ideas can and should be examined critically, with value and honor, in humanities or social science classes that focus on the disciplines of history, philosophy, comparative religion, or literature.

On these grounds, in addition to the many others being voiced by the scientific community, we urge the State Board of Education to reconsider and revise the new Content Standards for Science. ■

Corrections

In "Life on Mars" (*NCSE Reports* 16 [1996], no. 2:3), we incorrectly reported the mass of the Mars meteorite as 19 kg. The caption to the photograph should have reported the mass at 4.32 kg.

Jim Foley wrote to tell us of a change of internet address for detailed rebuttals against the claims made in NBC's program, "The Mysterious Origins of Man," that we reported in "Movers, Shakers, and Squeaky Wheels" (*NCSE Reports* 16 [1996], no. 2:7). Browser should now be pointed to <http://earth.ics.uci.edu:8080/faqs/mom/html>

Does Arizona Charter School Teach Creationism?

Molleen Matsumura
Network Project Coordinator

"There is no law that says you cannot teach creationism as an idea. Don't we believe in academic freedom around here?" commented Earl Taylor, Jr., headmaster of Heritage Academy, a charter school in Mesa, Arizona. Taylor's comments were reported by the *Arizona Republic* in a story that claimed that Heritage Academy was teaching "creation science" "on an equal footing with evolution" (Sept. 30, 1996, p. A1). According to the same report, Taylor also asserted that, since the Academy is an alternative school with charter status, parents who didn't want their children taught creationism could enroll them elsewhere in the school district.

On October 4, the Arizona Board for Charter Schools announced that it would review the possible violations of state law at the Heritage Academy. On October 9, Headmaster Taylor was quoted as saying that although creationism had been taught at Heritage Academy for two years when it was a private school, the practice was discontinued when the school received a charter from the state of Arizona (*Arizona Republic*, October 4, 1996, p. B1). However, the same report pointed out that the school library includes a text, *Science: Matter and Motion*, which says, "It is very important to understand that the theory of evolution is not science; it is simply an idea that certain scientists thought up after they rejected God's Word." On October

10, the Washington-based civil liberties organization People For the American Way sent the Charter Board a recording of the radio talk-show "Jay Sekulow Live" during which a caller identified herself as a parent at Heritage Academy. The caller announced that she had given

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"There is no law that says you cannot teach creationism as an idea. Don't we believe in academic freedom around here?"

— Earl Taylor, Jr.
Headmaster
Heritage Academy
Mesa, Arizona

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creationist videotapes to the school and that the school "loved them" and had "already taught them to all the classes."

While these conflicting reports must be sorted out, one fact is clear—if the Heritage Academy is teaching "creation science," the school is not violating *one* law, but *three*. The First Amendment, the Arizona Constitution's provision that "[n]o public money or property shall be appropriated for or applied to any religious worship, exercise, or instruction," and the requirement in Arizona's charter school legislation that each such school must be "nonsectarian in its programs . . .

and all other operations." (Some other states have adopted special legislation under which schools may apply to operate under public school "charters" that exempt them from some of the usual legal requirements in order to encourage educational experimentation.)

Unfortunately, even if the school is not teaching "creation science," it is doubtful that it is teaching *good* science. The only science textbook in use in classrooms is an earth science text, and while the school's official curriculum doesn't mention creationism, it doesn't mention evolution either. Headmaster Taylor now says, "We're not teaching anything on the start of man. It's not in the curriculum," (*Arizona Republic*, October 9, 1996, p. B1). The Heritage Academy controversy is a reminder that while experimental charter school programs hold out hopes for educational reform, they also call for vigilance on the part of citizens concerned about good science education. Joining other national organizations in urging Arizona's State Board for Charter Schools to investigate thoroughly any allegations concerning the Heritage Academy, NCSE Executive Director Eugenie C. Scott wrote, "Freeing educators to innovate educational approaches and structures certainly must not free them from their responsibility to impart the knowledge and skills students will need to be scientifically literate citizens." In addition, charter school legislation meant to free educators from "red tape" does not free them from their obligation to maintain religious neutrality in the schools. ■

Roman Catholic Church Accepts Biological Evolution—AGAIN!

Andrew J. Petto
NCSE Editor

The biggest surprise in the announcement in support of evolution by Pope John Paul II to the Pontifical Academy of Sciences on October 22 is that anyone would be surprised at all. Even though Pat Buchanan had told an interviewer in *GQ* that his religious faith dictated his political views (including his rejection of evolution in science education; see *NCSE Reports* 15 [1995], no. 4:3), the Church has been on record since Pope Pius XII wrote in *Humani generis* in 1950 that there is “no opposition between evolution and doctrine of the faith about man and his vocation” (www.cin.org/jp2.evolu.html). In this year’s address to the Academy, John Paul II both reaffirmed Pius’s tentative acceptance of evolution and told his audience that in the 46 years since *Humani generis* research into all the sciences that bear on evolutionary theory have advanced considerably to solidify the central position of the theory of evolution in the life sciences.

Today, almost half a century after the publication of the Encyclical [*Humani generis*], new knowledge has led to the recognition of more than one hypothesis in the theory of evolution. It is indeed remarkable that this theory has been progressively accepted by researchers, following a series of discoveries in various fields of knowledge. The

convergence, neither sought nor fabricated, of the results of work that was conducted independently is in itself a significant argument in favor of this theory.

Perhaps the best news for evolutionary sciences is the statement that the Pope made about the nature of theory.

A theory is a metascientific elaboration, distinct from the results of observation but consistent with them. By means of it a series of independent data and facts can be related and interpreted in a unified explanation. A theory’s validity depends on whether or not it can be verified. [I]t is constantly tested against the facts; wherever it can no longer explain the latter, it shows its limitations and unsuitability. It must then be rethought.

It is clear from this statement that the Pope, speaking for the Church, understands “theory” more as scientists do and is not endorsing the “only-a-theory” vernacular usage that is the subject of various disclaimers and anti-evolutionary activists. Furthermore, he charged the Academy to understand science on its *own* terms and to reconcile scientific knowledge with theology in the Church. First, he recalled the re-establishment of the Academy.

I would like to recall the intentions of my predecessor Pius XI; who wished to sur-

round himself with a select group of scholars, relying on them to inform the Holy See in complete freedom about developments in scientific research. . . . He asked those whom he called the Church’s *Senatus scientificus* to serve the truth.

Then he charged them with a new task for the 21st Century.

I am pleased with the first theme you have chosen, that of the origins of life and evolution. . . . In the domain of inanimate and animate nature, the evolution of science and its applications gives rise to new questions. The better the Church’s knowledge is of their essential aspects, the more she will understand their impact.

Later, in reference specifically to the condemnation of Galileo, the Pope cautioned the Academy on the proper interpretation of “the inspired word.” He said, “It is necessary to determine the proper sense of Scripture, while avoiding any unwarranted interpretations that make it say what it does not intend to say. In order to delineate the field of their own study, the exegete and the theologian must keep informed about the results achieved by the natural sciences.”

The main question for the Church, the Pope told the Academy, is how to interpret the spiritual nature of humans. Although the Church recognizes and accepts a physical continuity be-

tween humans and the rest of nature, it maintains that the spiritual soul is "immediately created by God." While some may consider this "ontological discontinuity," as the Pope described it, a problem, his statement re-iterated that the "transition into the spiritual" is not a phenomenon that can be observed or measured via the scientific method and that the understanding of such matters "falls within the competence" of philosophers and theologians.

None of these statements breaks any new ground in Roman Catholicism—either with respect to theology or natural science. The theological pronouncement on human spirituality and intellect draw

heavily on the dualism of the physical and spiritual that Thomas Aquinas developed from the writings of the Apostle Paul and, ultimately from Aristotle. The pronouncement on the sciences re-affirms the direction set by Pius XI when he re-established the Pontifical Academy of Sciences 60 years ago and the specific support given to evolutionary theory by Pius XII in 1950.

Still, this pronouncement moves the Church closer than ever to a specific endorsement of the biological continuity between humans and the rest of nature that we know as the theory of evolution, while recognizing the complexity and the competing ideas for the how of evolution. Unlike relig-

iously based anti-evolutionists, the Church is telling its scholars and theologians that they must understand the way that scientists think evolution works in order to understand better the spiritual nature of humans—not as a way to refute and deny evolution. And Galileo is probably smiling to himself somewhere as he mutters under his breath, "And yet, it moves!"

[Thanks to Michael McNulty of Marquette University for discussions on the development of the concept of the spiritual nature through the history of the Church and its roots in the works of Aristotle and Thomas Aquinas.] ■

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ground that they contradict the literal teachings of the Bible."

In Georgia, PEARL is intervening on behalf of a public school science teacher and department chair, Hal Banke, to challenge the Clayton County School Board's policy requiring science teachers to affix a disclaimer to all science books mentioning evolution. The disclaimer states that evolution is "only a theory" and urges students to be suspicious of it. The goal of the disclaimer, according to school board officials, is to make children feel "more comfortable" in their science classes. School administrators told Banke that their decision had been predicated on their understanding that while the law prohibited teaching creationism, the law did not require teaching evolution.

PEARL wrote to the school board to drop the disclaimer effort and further reminded the school board of the U.S. Supreme Court decision in *Edwards v. Aguillard* which prohibited teaching creationism as a "companion theory" to evolution because

creationism represented an endorsement of a religious view antithetical to the scientific study of evolution. The school board responded by saying that it had merely expressed an opinion and had in no way moved to modify the curriculum.

The teachers in the district are not protected by a union and effectively are hamstrung in their opposition to the policy. PEARL attempted to circumvent this problem by asking the school to clarify the policy's constitutionality to avoid teachers' incurring personal liability for implementing a constitutionally defective policy. To date, no response has been offered. The proponents of the disclaimer on the school board were unseated on election day last November. PEARL is currently attempting to have the new Board vote to rescind the policy.

Several themes emerge in how the creation/evolution dispute plays out in the 1990's. First, the current push for creationism is rarely generated by a mass of parents, but

tends instead to be the "brainchild" of a couple of fervent believers in positions of power. Second, there is no longer a unanimous response on the part of school personnel. In Georgia, the superintendent disagreed with the board of education, the principal disagreed with the superintendent, and Banke was supported partially by both administrators. The proponent of the plan, the chair of the local board of education, must have been unsure of her sway over other Board members, because she did not show PEARL's letters to any other board member.

Third, opponents of evolution education have become savvy. Their effort to circumvent the law reflects both the erosion of public support for their beliefs as well as an increased legal sophistication in the ability to craft religiously motivated policies that, superficially, seem to slalom correctly between the requirements and prohibitions of the law. This makes legal chal-

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Washington School Board Rejects School Book for "TOO MUCH" EVOLUTION

Molleen Matsumura

On August 21, 1996 the Kelso, Washington School Board voted 3-2 not to adopt a high school biology textbook, Holt's *Modern Biology*, because it "focussed [*sic*] too exclusively on evolution" (Longview Daily News, August 22, 1996, p. B2). The book had been recommended by the high school biology teacher, the district's Human Growth and Development Advisory Committee, and the Curriculum Coordinating Council. The board's decision aroused considerable controversy in the community, especially because a new text was needed to replace the eleven-year-old books being used by students in the advanced biology course. A second vote on September 11 re-affirmed

the original decision. Instead, the students will use the 1991 edition of Heath's *Biology*, which had been approved in 1992, but never purchased by the school district. Though parents present at the meeting objected to use of a textbook that is already dated, board member Laura Furhman explained that, "[I]t does state that [evolution] is, in fact, a theory" (Longview Daily News, September 12, 1996, p. B1).

The Kelso dispute repeated some common themes of similar controversies in other school districts. One was the contrast in the kinds of concerns expressed by supporters and opponents of teaching evolution. While one local parent defended the teaching of evolution because "it is a 'fundamental building block' for understanding biol-

ogy," another opposed it because, "When you're told you come from slime, you have no hope" (Longview Daily News, Sept. 12, 1996, p. B1). Other comments drew on the misleading but popular insistence that evolution must be taught as "theory" in the colloquial usage that equates "theory" to a hunch, or guess.

Because the board's compromise consisted in adopting a book that may already be dated, and because citizens' emotions ran high, local observers think there will be more battles in the not-too-distant future. If there are, NCSE will keep members informed.

With thanks to NCSE member Lyle Hubbard for sending news clips and his own report of the school board meeting. ■

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enges problematic because creationists use neutral terms to hinder the teaching of evolution—a tack judges view as comporting with the letter of the law—even as it completely tramples the spirit of the law as set forth by the Supreme Court (see "Evolving Euphemisms" *NCSE Reports* 16 [1996], no. 2:5, 18).

Fourth, in PEARL's experience, creationism is a much hotter issue in suburban areas. In urban areas, the most contentious church-state issues are about school financing (e.g. vouchers). In suburban areas, the general public is pleased with the quality of the public schools so "reform" efforts focus, instead, on increasing the religious content of public schools, with creationism being one of the

curricular areas over which members of the Religious Right are trying to gain control.

Fifth, "opting out" of science class to avoid students' discomfort has subverted the debate by focusing on what students should be exposed to instead of ensuring that public schools can teach what they are mandated to teach. Sixth, proponents of creationism cry "censorship" when they cannot get their point of view across. Attorneys must argue the legally accepted but generally repudiated point that religious speech differs from other speech, and that government, in the form of public schools, cannot support religious views by actively promoting them in science classes.

PEARL continues to monitor these and other cases. If you are experiencing similar difficulties, call PEARL. We offer legal assistance and counsel through a network of *pro bono* attorneys at the best law firms in the country. We also offer a sympathetic ear and suggestions for life as a whistleblower for the Constitution and scientific inquiry.

[Lisa Thureau is Executive Director of the National Committee for Public Education and Religious Liberty, 65 E. 56th Street, NEW YORK NY 10022. Phone (212)750-6461. PEARL represents a coalition of organizations protecting separation of church and state in public schools.] ■

Updates and Short Takes

Molleen Matsumura

EADS, CO: On October 7, 63 elementary school students left class to attend an assembly on "scientific creation" at the church across the street. The assembly was conducted by Colorado's "Alpha Omega Institute," founded by graduates of the well-known Institute for Creation Research. Even though the church had scheduled weekend assemblies, it held another during class-time with the idea that parents might request permission for students to be excused from class. While the school superintendent had denied permission for the assembly to be held in school buildings, she did allow high school students to distribute flyers and permission slips at both the high school and elementary school, during class time. Apparently, teachers helped with distribution, raising the question of First Amendment violations and prompting a letter of concern from the American Civil Liberties Union. NCSE also wrote to the school's superintendent, explaining the experience was of low educational value.

JEFFERSON COUNTY, CO: On September 5, 1996, the Board of Education met to consider the action their superintendent had taken in withdrawing a videotape on human

reproduction that included a reference to evolution. The superintendent had responded to a student's objection to the coverage of evolution in the tape, a biology textbook, and district curriculum generally (See, *NCSE Reports* 16 [1996], no. 2:21). The board voted 3-1 to reverse the superintendent's decision. While one proposal presented to them had been that the tape, Nova's "The Miracle of Life," be accompanied by a special teaching guide, the board's support for the tape was unqualified. NCSE member Thomas Henry reports that the board secretary, David DiGiacomo, expressed the concern that if the board set the wrong precedent, teachers and texts would be overwhelmed with disclaimers and special "teacher's guides." The board also decided to revise procedures for responding to curriculum challenges, so that no materials could be withdrawn without review by the board.

The controversy received national television coverage including an interview with NCSE Executive Director Eugenie C. Scott on the CBS program "Sunday Morning." According to information aired on that program, Danny Phillips, the student whose complaint initiated the controversy, is considering legal action.

BOONE COUNTY, KY: A proposed creationist museum has been the

center of controversy in this rural area just across the state line from Cincinnati, Ohio. Evangelist and former Institute for Creation Research employee Ken Ham and his "Answers in Genesis" ministry have applied for a zoning variance in order to build a museum and nature center on private land near the entrance of Big Bone Lick State Park. The park is a historic site where President Thomas Jefferson conducted excavations and is one of the world's premier fossil sites. Zoning commission staff had approved of the "concept" of the plan, but cited various land use problems. Some local opposition is based on concerns about whether the use would generate traffic and environmental problems. Other residents, and scientists at the University of Kentucky, oppose the museum because it is unlikely to be a "proper" museum as called for in the county's land-use plan. At this writing, the Zoning Commission has approved the proposal, but opponents hope to convince the County's "Fiscal Court" (equivalent of a county board of supervisors) to deny the variance.

[Ed. Just as this issue was going to press, we received word that the Boone County Zoning Commission had denied this request for a variance. Look for details in our next issue.] ■

ELECTION continued from p. 1

Creation/evolution conflicts, for example, usually take place at the local level. School board elections are less publicized even within local media markets, and it is more difficult to find out what changes have occurred. NCSE has heard good news from some communities. One member expects that a new school board majority in Hemet, California will be more re-

sponsive to parental concerns about inappropriate inclusion of creationism in the schools (see *NCSE Reports* 15 [1995], no. 2:21; *NCSE Reports* 15 [1995], no. 3:20). Another NCSE member reports that new Board members in Clayton County, GA are likely to consider removing the evolution disclaimer that was pasted in biology texts at the beginning of the 1996-97

school year (see *NCSE Reports* 16 [1996], no. 2:19).

However, in other localities slight shifts in school board composition will mean new challenges to evolution education. Now that the dust has settled, it's a good time to take stock of what is happening in your community—and to share the news with NCSE. ■



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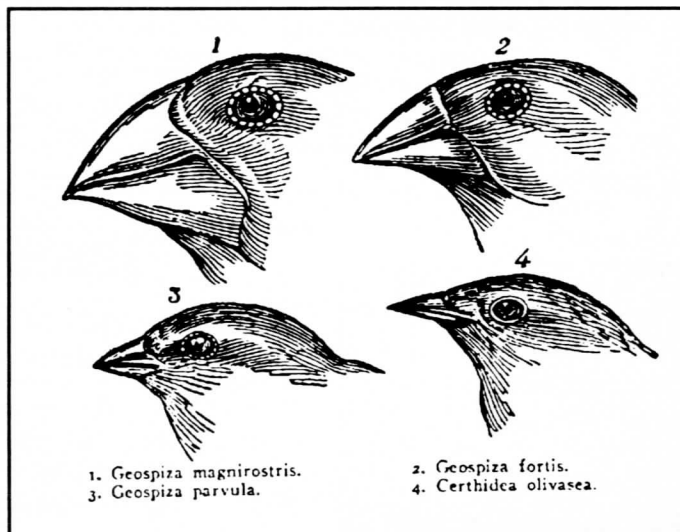
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• RESOURCES •

Books

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Bowler, <i>The Non-Darwinian Revolution</i>	14.95	11.95
Dalrymple, <i>The Age of the Earth</i>	24.95	19.95
Dawkins, <i>The Blind Watchmaker</i>	10.95	9.50
Dawkins, <i>River Out of Eden</i>	10.00	8.00
Deford, <i>A Reparation: Universal Gravitation a Universal Fake</i>	6.00	4.80
Dennett, <i>Darwin's Dangerous Idea</i>	16.00	13.00
Diamond, <i>The Third Chimpanzee</i>	13.00	10.40
Ecker, <i>Evolutionary Tales</i>	14.95	12.00
Eldredge, <i>The Miner's Canary</i>	*20.00	16.00
Eve and Harrold, <i>The Creationist Movement in Modern America</i>	13.95	11.15
Godfrey, <i>Scientists Confront Creationism</i>	11.95	9.50
Goldsmith, <i>The Biological Roots of Human Nature</i>	16.95	13.50
Gould, ed. <i>The Book of Life</i>	40.00	32.00
Gould, <i>Bully for Brontosaurus</i>	13.95	11.25
Gould, <i>Dinosaur in a Haystack</i>	*25.00	20.00
Gould, <i>Eight Little Piggies</i>	10.95	8.75
Gould, <i>Ever Since Darwin</i>	10.95	8.75
Gould, <i>Flamingo's Smile</i>	11.95	9.55
Gould, <i>Full House</i>	*25.00	20.00
Gould, <i>Hen's Teeth and Horse's Toes</i>	10.95	9.50
Gould, <i>The Panda's Thumb</i>	11.95	9.75
Gould, <i>Wonderful Life</i>	11.95	9.75
Gross & Levitt, <i>Higher Superstition</i>	25.95	23.95
Harrold & Eve, <i>Cult Archaeology and Creationism</i>	13.95	11.25
Holton, <i>Nonscience and Anti-science</i>	14.95	11.95
Howells, <i>Getting Here</i>	19.95	15.95
Jones et al. <i>The Cambridge Encyclopedia of Human Evolution</i>	34.95	28.00
Kauffman, <i>The Origins of Order</i>	33.75	27.00
Larson, <i>Trial and Error</i>	10.95	8.95
Lewin, <i>The Thread of Life</i>	19.95	15.95
Matson & Troll, <i>Planet Ocean</i>	19.95	15.95
Matsumura, ed., <i>Voices for Evolution</i>	10.00	8.00
Maynard Smith, <i>Did Darwin Get it Right?</i>	18.95	16.25
Mayr, <i>One Long Argument: Charles Darwin and the Genesis of Evolutionary Thought</i>	14.00	11.25
McGowan, <i>Dinosaurs, Spitfires and Sea Dragons</i>	14.95	12.00
McGowan, <i>In the Beginning. . . A Scientist Shows Why the Creationists Are Wrong</i>	19.95	16.00

LIST MEMBERS

McIver, <i>Anti-Evolution, An Annotated Bibliography</i>	15.95	12.75
McKown, <i>The Mythmaker's Magic</i>	25.95	20.75
Miller & Van Loon, <i>Darwin for Beginners</i>	9.00	7.00
Moore, <i>The Darwin Legend</i>	11.95	9.50
Moore, <i>Science as a Way of Knowing: The Foundations of Modern Biology</i>	32.50	26.00
Newell, <i>Creation and Evolution: Myth or Reality?</i>	12.95	10.35
NEW Nitecki & Nitecki, <i>Evolutionary Ethics</i>	19.95	16.00
Raup, <i>Extinction: Bad Genes or Bad Luck?</i>	10.95	8.75
Robinson & Tiger, eds. <i>Man and Beast Revisited</i>	17.95	14.50
Ruse, <i>But Is It Science? The Philosophical Question in the Creation/Evolution Controversy</i>	22.95	18.50
Sagan & Druyan, <i>Shadows of Forgotten Ancestors</i>	*23.00	18.50
Stanley, <i>Children of the Ice Age</i>	25.00	20.00
Shreeve, <i>The Neanderthal Enigma</i>	*25.00	20.00
Strahler, <i>Science and Earth History, the Evolution/Creation Controversy</i>	*51.95	41.50
Strahler, <i>Understanding Science</i>	*27.95	22.25
Tattersall, <i>The Fossil Trail</i>	*25.00	20.00
Tattersall, <i>The Human Odyssey</i>	*27.50	22.00
Thomson, <i>H.M.S. Beagle: The Story of Darwin's Ship</i>	*25.00	20.00
NEW Toumey, <i>Conjuring Science</i>	17.95	14.00
Toumey, <i>God's Own Scientists</i>	16.00	13.00
Webb, <i>The Evolution Controversy in America</i>	*34.95	28.00
Weiner, <i>The Beak of the Finch: The Story of Evolution in Our Times</i>	13.00	10.50
Whitfield, <i>From So Simple a Beginning: The Book of Evolution</i>	19.95	15.95
Wilson, <i>The Diversity of Life</i>	14.95	11.95
Zimmerman, <i>Science, Nonscience, and Nonsense</i>	25.95	20.75

Kids' Books

Barker, <i>Maybe Yes, Maybe No</i>	12.95	10.25
Jackson, <i>The Tree of Life</i>	*14.95	11.95
Prehistoric Zoobooks (10-vol. hardback set; requires \$5.50 shipping charge)		55.00
Stein, <i>The Evolution Book</i>	12.95	10.35
Stein, <i>The Science Book</i>	9.95	7.95
Troll & Matsen, <i>Raptors, Fossils, Fins, and Fangs</i>	14.95	11.95

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13

• RESOURCES •

Listing items here or offering to distribute them does not imply NCSE endorsement; annotations are by the editor or various contributors.

These listings often include items available from NCSE, but the list changes with each issue. Consult back issues for other resources—they are still in our files and often available for distribution even if we can't keep listing them!

Collins, L.G. and D.F. Fasold. "Bogus Noah's Ark from Turkey Exposed as a Common Geological Structure." *Journal of Geoscience Education* 44 (1996):439-444.

The authors describe a geological feature in Western Turkey that had dimensions and a shape reminiscent of Noah's Ark. They describe the ways in which this entirely natural geological feature developed its current configuration. The geological context shows deposits and preserved animal remains that are much *more* recent than the supposed date of the Noachian Flood.

Doolittle, R.F. and D.F. Feng. "Reconstructing the Evolution of Vertebrate Blood Coagulation from a Consideration of the Amino Acid Sequences of Clotting Proteins." *Cold Spring Harbor Symposia on Quantitative Biology* 52 (1987):869-874.

Despite the claims of Michael Behe and Periannan Senapathy that there is no convincing model for the evolution of complex blood proteins, this article represents only a small portion of the work of R.F. Doolittle and colleagues through three decades of research into these questions.

Erwin, D.E. "The Mother of All Extinctions." *Scientific American* 1275, no. 1 (1995): 72-78.

This is a good popular explanation of the extinctions that occurred at the end of the Permian.

Raloff, J. "When Science and Beliefs Collide." *Science News*. 149 (1996): 360-361.

This article shows that fundamentalist Christians are not the only people that have "creationist"-like beliefs; for example in a survey of Wiccan-pagans, Raloff found that 60 percent of these people rejected the claim that the earth is over 4 billion years old.

Riggs, N.R., T.M. Lehman, G.E. Gehrels, and W.R. Dickinson. "Detrital Zircon Link Between Headwaters and Terminus of the Upper Triassic Chinle-Dockrum Paleoriver System." *Science* 273 (5 July 1996):97-100 See also: Wuethrich, B. "Long Ago, A River Ran Through It." *Science* 273 (5 July 1996): 31.

This contribution shows how professionals carry out "flood" geology. This article uses the patterns of the distribution of various minerals from the headwaters to the flood plains of an ancient river bed. This discovery occurred because Riggs and colleagues noticed one of those geological "anomalies"—old zircon crystals embedded in much younger sandstone. Unlike the sandstone, the zircon crystals resist breakdown and trapped uranium inside them, so they can be dated accurately. By finding the source of the crystals deposited in the ancient river bed, Riggs and colleagues were able both to reconstruct the course of the river and to develop new hypotheses about the topography of the region during the Triassic.

Sauer, J.A. "The River Runs Dry: Creation Story Preserves Historical Memory." *Biblical Archeology Review*. 22, no. 4 (July/August, 1996):52-57, 64.

Sauer describes himself as formerly skeptical of the idea that the flood stories in many of the religious texts of the Middle East were real historical events. In his view

these events probably represented idealized versions of history—an amalgam of people and events not specific to one historical time frame. As with the Riggs article above, the clue to this archeological discovery comes from out-of-place pebbles of granite and basalt distributed throughout the Arabian Peninsula. Studies throughout the region point to a significant wet period in the Middle East from about 7,500 to about 3,500 B.C.E. Along with the general evidence of an exceptionally wet climate are data suggesting some extensive regional (but definitely *not* worldwide) flooding, Sauer concludes that the accounts of serious floods can be corroborated from the archeological and geological record of the region. Though the dates obtained from the scientific evidence overlap the historical period in which Noah's Flood would have been expected to occur based on biblical chronology, Sauer is clear to add that he is only claiming that there *was* flooding (and later famine) during the time that the Bible was being composed and that the Flood recorded there was a real historical event. He is *not* claiming the Bible as a source of historical or scientific data, but rather that it contains clues to the climate, geology, and ecology of the region during the periods that it was written.

Thomas, R.A. and R.A. Astini. "The Argentine Precordillera: A Traveler from the Ouachita Embayment of North American Laurentia." *Science* 273 (9 August 1996):752-757.

This study of the "migration" of a geological feature from a region near what is now Louisiana and parts of Texas and Mississippi to its final resting place in Argentina shows how geologists can determine large-scale movements of pieces of the earth's crust and how they can be used to measure geological time. Furthermore, the re-

mains of animal species show that they "rafted" on this piece of crust from their ancestral home near eastern Oklahoma and were isolated from contact with other species until the fragment was close enough to South America for marine animals from around that continent to pay a visit. Once again, this article demonstrates how the "anomalies" and out-of-place plants, animals, and even deep granite can be used to reconstruct the history of life on earth.

van Vark, G.N., A. Bilsborough, and W. Schaafsma. "Affinity, Hominid Evolution and Creationism. New Computer Methods Weaken the Creationists' Position." *Human Evolution* 5, no. 5 (1990): 471-484.

This paper explores the creationist claim that all the ancestral hominids are not human at all, but merely unusual apes. The authors treat this claim as a viable hypothesis and use multivariate statistical analyses to determine whether the physical features of these fossil specimens could be lumped into a modern-human:ape dichotomy or whether there were intermediate

features in the older human fossils. In essence, the authors expected that older human fossils should be *more* ape-like than modern ones if both modern humans and modern apes had evolved from a common ancestor. The alternative hypothesis was that human fossils should appear *more* like modern apes as they are closer to the present—the creationist position that these are just ape species and are not related to modern humans. The explora-

tions of these data led this team to reject the creationist hypothesis and to determine that these fossil humans are indeed the intermediates between the common human-ape ancestor and modern humans.

[Citations and commentary contributed by Lorence Collins, Paul V. Heinrich, Randy Wadkins, Andrew Petto]

NEW BOOKS

Conjuring Science

Christopher Toumey

The author of *God's Own Scientists* turns to the role of science in American culture, analyzing episodes of science in American life such as the cold fusion controversy, antievolutionism, mad scientists, and the fluoridation controversy.

Evolutionary Ethics

Matthew H. Nitecki and Doris V. Nitecki

Evolution and ethics, past and present: historical, and modern. A balanced presentation of a variety of views, including the pros and cons of sociobiology.

Organic Stuff in Outer Space

John Cole
Contributing Editor

At a June meeting of astronomers in Madison, WI, Lewis Snyder of the University of Illinois reported on the detection of organic matter in the interstellar near-void. Specifically, his team has found radio-telescopic evidence of acetic acid. Acetic acid, if combined with ammonia—already identified in outer space—would form a simple amino acid. Amino acids, of course, are the building blocks of life as known on Earth.

If this recent discovery holds up to testing, it offers tantalizing possibilities of the existence of the basic building blocks of earth-style life elsewhere in the Universe. It does not in itself have much impact on evolutionary theory, which is largely separate from life origin questions. Chemical "evolution" of complex molecules such as ammonia is already well-established beyond the earth. This new evidence may shed some light on earthly life-origins and the possibilities and probabilities of primitive life's evolving more than once in more than one place . . . more than one planetary system.

This discovery lends weight to the possibility that life on Earth *could* have been seeded or triggered by chemicals carried here via meteorite or asteroid, or entering Earth's atmosphere in some other way. However, "panspermia," the idea that life *itself* was "seeded" on Earth from elsewhere, is a distinctly different concept requiring not just molecular building blocks, but pre-existing life forms to be infused into Earth's ecosystem from a source in outer space. Snyder's outer-space vinegar does not an organism make! ■

Textbook Evolution Disclaimer in Fairfax County, VA

Molleen Matsumura
Network Project Coordinator

Since November, 1995, when the Alabama State Board of Education voted to require that an evolution disclaimer to be pasted in biology textbooks (*NCSE Reports* 15[4]:10), disclaimer variants have been proposed in school districts around the country. Even where the Alabama wording isn't used, the idea itself may be used. This recently happened in Fairfax County, VA, an affluent suburb of Washington, DC, which made headlines last year because one-third of local school board candidates espoused "scientific creationism" (*NCSE Reports* 15[3]:7).

On October 31, 1996, the *Washington Post* reported that Carter S. Thomas, a member of the Fairfax County School Board, was working with Geoffrey Jones, the principal of the Thomas Jefferson High School for Science and Technology, to draft a disclaimer for insertion in the well-known "BSCS Blue" textbook, *Biological Science: A Molecular Approach*. (BSCS—Biological Sciences Curriculum Study—is known for its leadership in returning coverage of evolution to biology textbooks.)

Thomas and Jones were responding to a single complaint about the book, which has been used in county high schools for several years. The parents of fourteen-year-old Christopher Carr complained that, "We don't send our children to public schools to have their faith ridiculed." The *Post* story and local newspaper coverage (*Fairfax Journal*, Oct. 31, 1996 p. A1, and November 4, 1996, p. A1), report that the offen-

sive words were, "Many other examples of pseudoscience exist: astrology, 'miracle cures' for diseases such as cancer and arthritis, and some dieting programs and health practices." The local paper also quoted the sentence, "Yet Darwin also recognized that the question of a deity is a personal religious decision and that deities cannot be investigated by scientific methods and, therefore, are outside the realm of what qualifies as science."

Quoted out of context, the single sentence that sparked controversy appears to be an obvious "hot-button." However, the textbook had carefully qualified the sentence, beginning by referring specifically not to creationism, but to "creation science," and explaining that courts have found the teaching of creationism in science classrooms unconstitutional. The textbook also explains, "These characteristics do not exclude creationism from a place in the school curriculum. Rather, they strongly suggest that creationism should be taught as a religious belief and not as a scientific theory" (Biological Sciences Curriculum Study, *Biological Science: A Molecular Approach*, 7th ed. Lexington, MA: D. C. Heath and Company, 1996, pp.15-16, *emphasis added*).

The superintendent said that he, too, was offended by the reference to pseudoscience, but withdrew his initial approval of the disclaimer, explaining that "[disclaimers are] a bad idea" because textbooks represent the authors' opinions, not the district's, and so it was not necessary for the district to disclaim any statements or topics in the book. While some parents in the community felt they would want to be warned of "sensitive" topics in textbooks, others disapproved of

Thomas's "unilateral" action and many, including a member of a committee responsible for reviewing curriculum challenges at another high school in the district, were concerned that a disclaimer would be a bad precedent, inspiring a rash of demands for similar disclaimers by a variety of groups.

Such disclaimers appear to run counter to U. S. Supreme Court decisions in this area. The Court has ruled that school districts' policies must not be determined by religious objections to curricula. In the *Edwards v Aguillard* decision overturning a Louisiana "balanced treatment" law, the Court ruled that "there can be no legitimate state interest in protecting particular religions from scientific views 'distasteful to them.'" Citing *Epperson v Arkansas*, the Court wrote further that "the First Amendment does not permit the State to require that teaching and learning must be tailored to the principles or prohibitions of any religious sect or dogma."

The plan to write a disclaimer has been set aside and the parents will be advised of the usual procedure for challenging curriculum, which starts with a committee at the local school. At this writing, it is not known whether they will follow the challenge procedure; Thomas says he will ask the School Board to review the text.

There may be further developments if the School Board acts on Thomas's request to review the text. NCSE members who are Fairfax County residents and wish to express their concerns or learn more about the curriculum challenge process may contact NCSE. ■

SCIENCE AND ITS CRITICS

A Meeting to Promote Dialogue Between the "Two Cultures"

February 28–March 1, 1997 ▼ University of Kansas, Lawrence

The "science wars" between scientists, their defenders and their critics have recently generated much heat but little light. This meeting is intended to explore some of the issues surrounding science and its critics in a non-confrontational, interdisciplinary atmosphere. We would like to construct a program of short talks and longer panel discussions. We are seeking balanced representation from a wide variety of disciplines and speakers who are willing to use language that is widely accessible.

Possible topics for exploration:

The Scientific Method: How is it really practiced? Does it yield "the truth"?

Science and Religion: Are they ever incompatible?

Science and Postmodernism: If it is postmodern, can it be science?

Science and Politics: Is science mainly a tool for white males to retain power?

Science and Education: Are we a nation of scientific illiterates? Does it matter?

Your Topic: Are there other related topics we should explore?

Our keynote speaker will be **Professor Alan D. Sokal**, New York University, who sparked a major battle in the "science wars" last summer with his publication of "Toward a Transformative Hermeneutics of Quantum Gravity" in the cultural studies journal *Social Text*.

For registration information visit our Web site:

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To help cover our costs it is necessary to charge a registration fee of \$25 for faculty and \$10 for students. ■

Sound Familiar?

Eugenie C. Scott
NCSE Executive Director

A commentary on debating pseudoscience claims appeared recently in the National Council Against Health Fraud's *NCAHF Newsletter*, May/June, 1996 (p. 3). It sounded like good advice for those thinking of debating creationists. I quote:

William Jarvis has taught public health dentistry at the LLU School of Dentistry for more than two decades and is well able to speak publicly on the matter [of fluoridation]. Nevertheless, he has declined to participate in such events because he believes that the debate setting is inappropriate for addressing the safety or efficacy of fluoridation. These are scientific questions that can be

settled only by evidence. Antis can spread more misinformation in 5 minutes than can be convincingly refuted in 5 hours—if ever. The only way a fair debate could be held would be in the presence of a referee who was so well-informed on the issues that he/she could immediately rule when one side or the other was misrepresenting the facts. Otherwise, factual data are quickly dismissed and mere opinion prevails. When asked to participate in such events, Jarvis challenges the media to be socially responsible in matters involving public health science. He points out that the debate setting is appropriate for the airing of social issues that are based on opinion, but not science. Debating scientific

questions merely confuses the public and causes people to become more fearful of technology. A study of public attitudes on controversial issues (fluoridation and nuclear power) found that the mere quantity of coverage caused the public to become more conservative (citing Mazur, "Media coverage and public opinion on scientific controversies," *Journal of Communication* 1981:106-115.) . . . Because of the inordinate amount of effort involved, they often settle for following formulas such as "presenting both sides and letting the public decide." The problem is that the public doesn't have the skill or insight, and the result is more confusion, doubt, and conservatism. ■

Public Libraries New Target of Creationist Attacks

Molleen Matsumura
Network Project Director

Oconee County, Georgia, one of many communities where public school curriculum was under pressure from "scientific creationism" this year (*NCSE Reports* 15 [1995], no. 4:8-9), was also a staging ground for a new creationist strategy directed at public libraries. When the Athens Regional Library did not accept a gift subscription to *Creation Ex Nihilo*, a publication of the Answers in Genesis ministry, the donor, Dr. Ron Houser, announced that he was considering a law suit. (Dr. Houser had also opposed evolution in the public school curriculum while serving on a citizens' review committee.) The Florida law firm of Gibbs & Craze wrote to members of the library's volunteer board "you may be both corporately and individually liable" (*Oconee Enterprise*, March 14, 1996, p. A4) and sent the library director a letter requesting the address of the library's legal counsel.

The March newsletter of Answers in Genesis characterizes the library's decision as "censorship," though the library's selection committee had invited Dr. Houser to suggest alternate materials. The accusation of censorship becomes even more doubtful in the light of comments made by the library's assistant director, Julie Walker, during a phone conversation with NCSE.

Ms Walker explained that donations undergo the same review procedure as materials being considered for purchase, and the same criteria apply for selection. The American Library Association

advised library staff that they were on solid legal ground if they followed their usual policy while reaching a decision. The bottom line is that libraries are not obligated to accept donations. The library board had considered possible censorship issues carefully, and they explained to the public at their meeting that by rejecting *Creation Ex Nihilo*, they were not censoring religious materials generally, or creationist materials in particular. There are books on these topics on the library shelves. However, the magazine had been offered to a small branch library with limited shelf space that had to be devoted to general interest periodicals. Aside from considering the distinction between religious materials that are "informational" and "proselytizing," in this instance they also determined that the magazine was too specialized.

By way of example, Ms Walker explained that while the library carries *Sports Illustrated*, it doesn't carry specialized publications about individual sports, such as waterskiing. In any case, *Creation Ex Nihilo* would be available to any who wanted to see it, just not in print form. The Athens Branch Library gives patrons free access to the World Wide Web, so they can read *Creation Ex Nihilo* on the library's computer terminal (NCSE members who have WWW access and are curious about this magazine can find links to selected articles at <http://christiananswers.net/aig/cmbrowse.html>. At this writing, the site carries contents of the June, 1996 issue, which includes an article asking, "Did Adam have a belly-button?").

The library had other reasons to refuse the donation of *Creation*

Ex Nihilo. When the board examined a 1990 issue, they found that the magazine's subject matter is less varied than it seems at first glance. In each article, after the first few paragraphs, the focus veers from the apparently scientific subject of the article to the author's personal statement of religious belief. Furthermore, the board found that the magazine is not indexed in usual reference sources and that they could not judge authors' scientific credentials and guarantee scientific accuracy as they do with other journals, because the "letters" after authors' names didn't correspond with familiar academic degrees, nor were the granting institutions mentioned.

Houser had responded to the library's refusal by submitting a petition with 170 signatures. A local reporter found that nearly 40 signers lived outside the county and that none that he interviewed "had been prewarned about a possible lawsuit" (*Oconee Enterprise*, March 14, 1996, p. A4).

Threats of petition campaigns and lawsuits hamper public libraries in fulfilling their mission to bring a broad variety of information to their users. One source they can use in facing such problems is the American Library Association's *Manual of Intellectual Freedom* which can be ordered by calling toll-free 1(800)545-2433. If this kind of attack is made on your local library, please notify NCSE, so that we can learn how often this problem occurs and offer assistance when possible.

[Thanks to Skip Evans and Bill Yarbrough for providing information used in this story.] ■

Fourth International Conference on Creationism, 1998

John Cole
Contributing Editor

It's not too early to plan for the Summer 1998 creation conference in Pittsburgh, PA—in fact, it's almost too late. The call for papers appeared in the *Bible-Science News* 34(2) and three copies of 500-word abstracts for proposed papers are due 30 December 1996.

The announced theme is "Developing and Systematizing the Creation Model of Origins." There will be five "areas," each with its own "liaison" and "area editors." The broad topics are to be "Foundations of Science," "Life Sciences" (including cell and molecular biology, organismal biology, biogeography, systematics, genetics, and ecology), "Social Sciences and Humanities" (with philosophy of history, linguistics, archaeology, psychology, economics, political science, and education), and "Earth and Planetary Sciences" (including geochemistry, geophysics, physical geology, sedimentary geology, and paleontology). "Editors" include Wayne Frair, D. and S. Rodabaugh, J. M. Reynolds, Paul Nelson, Ken Cumming, Don DeYoung, Russ Humphreys, Larry Vardiman, Paul Ackerman, J. Eidsmoe, Steve Austin, and Kurt Wise. The five liaisons are Lionel Dahmer, Ralph McKelvey, Robert Walsh, Robert Harsh, and Stephen Rodabaugh (who also chairs the Technical Review Committee).

The only explicit guidelines for submissions is the instruction that "Papers dealing with the age of the earth/universe must be either from a young-earth perspective or offer a positive/constructive criticism of that perspective. Papers from an old earth/old universe perspective will not be considered." Reconciling

their sweeping program with this restriction should be an interesting task for the organizers.

[Ed. Learn more about the expertise and the positions of many of

the "editors" and "liaisons" by reading Brian Alters's article on the *Institute on Scientific Creationism* published in *Creation/Evolution* 15 (Winter, 1995), no. 2:1-15.] ■

News from Colorado

Thomas and Susan Henry
NCSE Members in Lakewood, CO

RESULTS: Much to our surprise and that of the most recent poll (about a week before the election), Constitutional Amendment 17, "The Parental Rights Amendment," went down in flames in November's general election (57% against to 43% for). This caused one of the leaders of the Anti-17 movement to remark, "Now, maybe Virginia will finally understand that Colorado is tired of being the test-tube for Constitutional Amendments funded by the Christian Coalition and Us the People!" Up to the week before the election, polls taken by the local TV news channels were showing a narrow win for Amendment 17, but a last-ditch effort exposed the fact that approximately 97 percent of the roughly \$500,000 spent in Colorado on the Pro-17 ads were coming from the two Virginia-based, right-wing Christian organizations and may have tipped the balance.

RELATED FALLOUT: One of the principal actions in the "parental rights" strategy for modifying "objectionable" curriculum is to demand that students be excused from having to attend classes in which certain subjects are taught (see *NCSE Reports* 16 [1996], no. 1:20). A sixth-grade science teacher in Denver said that he had stepped in a minefield with his class when he announced that he would be showing a very recent (August 1996) film on the Galapagos Islands. After class, five of his students in the "highly gifted and talented program" came up and said that they would not be able to watch the film because evolution "was against their religious beliefs." He alerted his principal, and she will support him in sending a letter out to the parents advising them of his intent to show the film. The letter will reiterate that it is their choice to believe or not believe in organic evolution; however, since an understanding of organic evolution is a requisite of both the state and city science education standards, since most of these kids likely will be going to college, since the vast majority of science programs in colleges and universities require an understanding of the principles of organic evolution, and since it is the lynchpin of modern biology and paleobiology, he believes that it is incumbent on him as a teacher to make sure that the students are introduced to organic evolution as part of the school curriculum.

• TRACKING •

Ancient Population Grows at Vilas Park Zoo

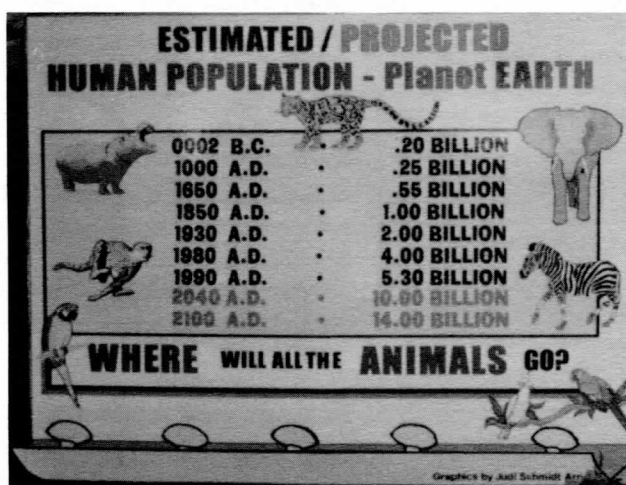
Andrew J. Petto
NCSE Editor

The Henry Vilas Park Zoo in Madison, WI was featured twice in 1994 when a plaque depicting the growth of the human population began with a total of 2 humans in 15,000 B.C. and named them "Adam and Eve." Vilas Park is a publicly funded facility operated by Dane County and in 1994 the Freedom from Religion Foundation filed a complaint against this religiously oriented material in the zoo's Discovery Center (NCSE Reports 14[1994], no. 3:5 "Wisconsin Zoo Promotes Adam and Eve"). NCSE members in south-central Wisconsin rallied and conveyed both their objections to the religious nature of the material and to the gross inaccuracies of the information presented, and county officials stepped in to remove the plaque (NCSE Reports 14[1994], no. 4:3, "Adam and Eve Expelled from Vilas Park").

A short time after the plaque's removal, the county administra-

tor's staff contacted local NCSE members to request assistance in preparing a new, scientifically accurate plaque. The process was a "typical" scientific enterprise with lots of disagreements over details and estimates and methodology, but we all agreed that the world population (for humans) in 15,000 B.C. was much greater than 2! In the end, we developed a consensus view that could be delivered to zoo officials.

After a brief exchange of letters and explanations, zoo officials began the process of designing the new display. The revised plaque made its appearance in the zoo's Discovery Center in the fall of 1996. As soon as we saw it, we sent a letter to the zoo director (who had also heard all our complaints and suggestions) and congratulated him on his efforts and the generally pleasing outcome of this situation. ■



New display at Vilas Park Zoo, Madison, WI, on the growth of the human population, prepared with the help of NCSE members.

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. LETTERS .

■ In the Winter 1995 *NCSE Reports*, I thought particularly cogent the comment on John Cole's article ("NBC's Mysterious Extinction of Facts," p. 1) that each of us should focus on areas of expertise when refuting creationist claims. This got me thinking about creative ways to show kids both how science works and why creationist claims are insupportable. One way to attack the Flood myth and teach inference at the same time would be to take a field trip to both modern and ancient river (or beach) deposits. Look at the modern site first and have the students explore how river processes produce riverine sedimentary successions. Then, go to an ancient site and allow the students to discover the similarities. You could back this up in the classroom with a slide- or video-based presentation on the scale of geological time and the notion of infrequent major events (floods, hurricanes) modifying the short-time deposits like those they saw at the modern site to pro-

duce the time-averaged successions that we find in the rock record.

Teachers could contact a sedimentologist or a stratigrapher at the nearest university or geological survey about suitable field sites. I will also recommend our textbook, which is written for the scientifically-literate nonspecialist: *Principles of Sedimentary Deposits*, by G.M. Friedman, J.E. Sanders, and D.C. Kopaska-Merkel. New York: MacMillan, 1992.

David C. Kopaska-Merkel
Geological Survey of
Alabama, Tuscaloosa

■ As a Kentuckian, I am no more pleased about the "Big Bang Glue-on" fiasco than any other science-minded person (*NCSE Reports* 16 [1996], no. 2:1). However, when our supporters refer to religious anti-Big Bangers as "damned fools," it shows perhaps an overbearing grudge and a lack of insight. As an ex-young earth, anti-evolutionary literalist creationist, I do not consider most lay persons who are anti-evolution-

ists to be foolish or stupid. The same can be said of opponents of the Big Bang. Call them ignorant and very delusional, but not total fools. They honestly and sincerely believe their views. Their religious and origin views are very important and personal to them.

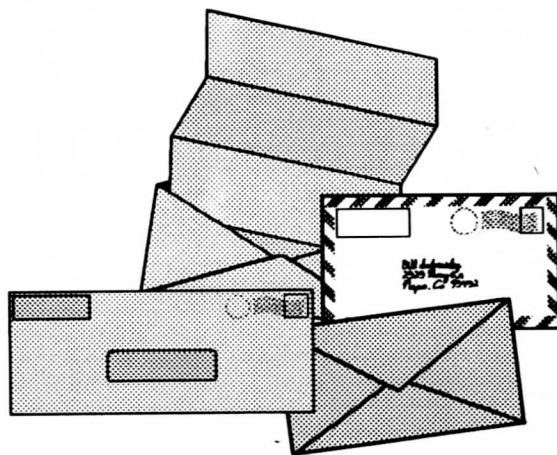
My experience makes me believe that all the science education in the world will not make a huge difference until more of the religious organizations that support science start making their cases more actively. It seems that both scientists and evolutionary creationists take literalists too lightly until the problem is right in their face. Efforts like the NCSE (partly supported by people of faith), the Pope's recent support of evolution, and the wonderful presentation of the plaintiffs in the 1982 Arkansas Creation Science Trial in Little Rock (most of whom were religious people) need to be more than just tip of the iceberg.

Finally, there is too much of a tendency to simplify this

issue as creationist vs. evolutionist. Unfortunately, the Christian young-earthers seem to have largely captured the term "creationist" for themselves. Among Christians alone, there are both evolutionary and anti-evolutionary creationists (young-earth literalists and several types of old-earthers like Day-Agers). Let's not forget Buddhist, Muslim, Navajo Indian, and other creationists and the large variety in each group (evolutionary and otherwise). The NCSE should take the lead by replacing the broad term "creationist" with "anti-evolutionist" or even by referring to the type of anti-evolutionists (for example, young-earth literalists).

George M. Gumbert III
Bowling Green, KY

[*Ed. It is the practice in all our publications to use the generic term "anti-evolutionist" to refer to those that oppose evolution for any reason, whether religious or not. "Creationist" refers to those who oppose evolution on religious grounds, particularly on the basis of the first book of Genesis in the Bible, because this is the source of most of the religious anti-evolutionary activity in North America; and even a number of supposed non-religious anti-evolutionists show strong connection to this version of creation. However, we have recognized in several publications over the past few years that challenges to evolution come in many forms, religious and non-religious, Christian and non-Christian, so we advise our readers to be aware of the various forms in which anti-evolutionism can express itself.*]



NEW OBSERVATIONS ON CREATION 6000 YEARS ON: "Most of them certain, the rest probable, all harmless, strange and rarely heard of before"

A symposium of the University of New England organized by the
Department of Archaeology and Palaeoanthropology
23 October 1996—The 6000th Anniversary of Creation

In 1642, Dr. John Lightfoot, then Vice-Chancellor of the University of Cambridge, improved on the calculation of Archbishop Ussher that the Bible recorded the Creation as happening in 4004 BC with the estimate that it occurred at 9 am (6 pm Eastern Australian time) on 23 October. Lightfoot's claim was published in a book: *A Few and New Observations on the Book of Genesis, the most of them certain, the rest probable, all harmless, strange and rarely heard of before*. In this whimsical spirit, the following people will each have their day, in the Di Watson Lecture Theatre, Department of Archaeology and Palaeoanthropology.

PROGRAM

3.30 pm Introduction

3.45 pm Day 1

Gerry Woolsey,
Associate Professor
Department of Physics

"Let there be light"

4.00 pm Day 2

Peter Flood,
Associate Professor
Department of Geology
and Geophysics

"Let there be a firmament in the midst of the waters ... let the dry land appear"

4.15 pm Day 3

Dr. Margaret Brock,
Department of Botany

"Let the earth bring forth grass, the kind that yields seed according to its kind, and the tree that yields fruit, whose seed is in itself according to its kind."

4.30 pm Day 4

Dr. Matthew Fewell,
Department of Physics

"Let there be lights in the firmament of the heavens to divide the day from the night ... He made the stars also."

4.45 pm Day 5

Professor Peter Jarman,
Department of Ecosystem
Management

"Let the waters abound with sea creatures and every living thing that moves. ... and every winged bird according to its kind. ... Let the earth bring forth the living creature according to its kind: cattle and creeping thing and beast of the earth each according to its kind."

5.00 pm Day 6

Dr. Peter Brown,
Department of Archaeology
and Palaeoanthropology

"Let us make man in our own image, according to our likeness."

5.15 pm Day 7

Mr. Ken Kippen,
Department of Archaeology
and Palaeoanthropology

"... and he rested"

5.30 pm Day 8

Iain Davidson,
Associate Professor
Department of Archaeology
and Palaeoanthropology
William Noble,
Associate Professor
Department of Psychology

"In the beginning
was the word."

5.45 pm Conclusion

Professor Graham Maddox,
Dean of Arts

6 pm The Big Bang

(Champagne will be served)
Please stay to celebrate with apples, figs and jelly snakes.
Dress optional

[Ed. Proceedings of the conference are available at the University of New England Department of Archaeology and Palaeoanthropology web site—<http://www.une.edu.au/~Arch/ArchHome.html>] ■

Authors' Guidelines

NCSE Reports will cease publication with Volume 16, number 4 when NCSE begins publishing *Reports of the National Center for Science Education* which will combine the news and commentary of *NCSE Reports* with the longer essays, book reviews, and scholarly articles that have made up *Creation/Evolution*. We will continue to print news and updates, letters, and features that our members and readers send us from around the continent, and we look forward to serving you better with our new format (see "NCSE Board Announces New Publication Format" *NCSE Reports* 16, no. 1 [1996]:10-11).

The editors also welcome submissions of longer manuscripts to this new publication from anyone concerned with the issues of evolution as a foundation of the biological sciences and "science as a way of knowing." Articles should be written for a general audience, and authors should provide definitions or descriptions for technical terms and concepts whose meanings might not be evident to the nonspecialist. All submissions are submitted to reviewers for comments on the technical content and the suitability for a general audience. The author's formal academic background or profession are not used as criteria for publication. Query letters are encouraged.

STYLE AND FORMAT

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Names of the author(s) should appear only on the cover page, if blind review is desired. All submissions will be sent to referees for evaluation. Manuscripts submitted on computer diskette will greatly expedite the editing and publication process. Acceptable diskette formats include (standard or high density 3 1/2") WordPerfect 5.1, MS-Word, or ASCII formats in DOS/Windows versions and MS-Word 6.0, Claris Works 5.0, or plain text for the Macintosh. Manuscripts and other notes submitted by electronic mail should be in plain text format. Please contact the editorial office for information about other word processing and diskette formats that might be acceptable.

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Waters IC, Rivers HI, and others. Swept away in a flood of enthusiasm [editorial]. *Reports of the National Center for Science Education* 1995; 1015(1):2.

Zubrow, E. *Archaeoastronomy*. Orlando, FL: Academic Press, 1985.

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