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CONCRETE PYRAMIDS

by Lynn Hammond

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What is it about human nature that we seem to bend in the mystical direction when we confront some puzzling phenomenon?

This behavior has always interested me, so I bought Joseph Campbell's "The Power of Myth". The reading is a bit daunting, to say the least (if I were not so afraid of being thought a mental midget I would say the print has some chloroform in it), and the typeface is too small. Why, even the pictures are hard.

Campbell draws the conclusion that we NEED myth: it plays a vital role in developing consciousness. Prescientific cultures took their mythology very seriously. However, they made a very important distinction in the way they approached myth that we moderns do not appreciate: they didn't worry if myth had any relation to truth. That sounds paradoxical to us; perhaps a better sense of ancient mythology would be how we use imagination.

There was no need to try to make any real sense out of their mythology, so it was free to float and evolve in any direction at any time. Harmonization with reality and internal consistency are definitely modern -- and mostly western -- notions. The number of their gods and goddesses multiplied rapidly, but if a particular god became useless there was no psychological angst involved in simply discarding the bugger as easily as a worn shoe.

How early societies might have dealt with mythology was delightfully exhibited in a PBS documentary about some East African tribes. These tribes had been under British colonial rule, so the game of cricket was one of the vestiges that had somehow stuck. But not without some radical modifications. Originally, when the tribal teams met to compete, violent fights (even death) were usually the result. The chiefs realized that they could not play the game with British rules. They adapted the play to correspond with tribal ethos: virtually every aspect of the game was ritualized.

The occasion of a game quickly became rich with the ritual display of the competitors and the event took on epic proportions. A grand drama would be played out on the field in which larger-than-life

heroes would meet to do cosmic battle. Skill in play was not the point: the home team must win, with ready excuses for the visiting team (the gods did not favor them, etc.). Thus myth became part of the game.

I think that this human need for mythology, if there is such a thing, may help explain why so many of us lean to bizarre explanations. Prosaic solutions just don't have the tantalizing flair of mystery that fulfills the "myth" spot in our core.

THE GREAT PYRAMIDS

Consider now how this applies to the construction of the Great Pyramids. Egyptology itself is the embodiment of mystery. The sophistication of that society is suffused with the richness of a culture advanced beyond its historical setting.

Modern researchers have carefully put the pieces of the puzzle together to learn how the pyramids were made. Quarry sites have been uncovered. Cut marks in the quarries show how the slabs were hewn (they drilled holes in a slab, drove in wooden pegs and then soaked the pegs, which, when they expanded, split the rock). Tons of rock chips exist at the quarry sites -- the "tailings" of the stone work. There are many paintings and bas-relief depictions of giant sleds bearing the construction blocks, pulled by legions of workers. Researchers have uncovered pyramids abandoned at the beginning stages of construction. In those abandoned projects are the "scaffolding" as it were, left with the remains: earthen ramps built to the monument. Just as we remove the scaffolds and construction cranes when a building is completed, they removed the ramps.

But this is so mundane! Atlantians, ancient astronauts, psychic energies from the ethereal plane are all vastly more tantalizing to imagine how the 60-ton monoliths were somehow hoisted. (Never mind that the whopping majority of the pyramid's mass is from stones under a ton, not to diminish the engineering feat and sheer effort.)

Science just pulls the rug from under our sense of fancy sometimes.

SUSPICIOUS MYSTERY

Well, this whole thing about the pyramids came to my consciousness in an article forwarded to me from BAS member Leilane Allen. In it, a French researcher, Joseph Davidovits, claims to have solved the pyramid riddle -- despite the fact that it is no longer a riddle - - "once and for all." He wrote a book about it from which the article was excerpted. He claims that the stones are a high quality concrete, cast in situ. There you have it.

What the book apparently lacks in evidence for this rather fantastic hypothesis is perhaps revealed in the author's motive: "It has been one of my goals," he says on page 108 of his book,

"not only to offer materials for monument repair, but also to show Egypt how to make unsurpassed building materials with local natural resources for more urgent needs."

Davidovits, you see, holds a patent on a polymer cement, which he calls a "revolutionary construction material." He intimates that his discovery is either the original formula or an upgraded derivation, revealingly calling the stuff "Pyrament." He wants the Egyptian government to buy it to repair and maintain the pyramids. He suggests that it would be a "revolutionary way" for modern Egyptians to overcome their housing problems.

Surely his own financial interest in his "discovery" could not explain his shrug of all the modern evidence we have. Mythology begins to look refreshing over the crass commercialism of this shameless misuse of science.

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EDITOR'S INTRODUCTION

In what began as an introduction to the following article, I soon realized that it was too long and too italic, hence this intro.

When mainstream scientists speak of "creationists" it is generally regarded that reference is to that narrow group of Christian fundamentalists exemplified by the faculty at the Institute for Creation Research (ICR) in Santee, California. The people at ICR refer to themselves as "scientific creationists", claiming that their conclusions are the result of scientific research. At the same time, ICR, and two other similar organizations in the US, require their faculty to subscribe to an oath of Biblical inerrancy in matters of science and history.

According to the scientific creationists, Genesis, not the universe, is the source of knowledge. Whatever one observes must conform to a literal reading (specifically their literal reading) of Genesis, according to the sworn oath. The universe was created ex nihilo roughly 6,000 years ago in six twenty-four hour days, and nothing -- NOTHING -- has, or could be, created since then. When God rested on the seventh day it was not because He was tired, but because He was finished, and His creation was "good." Nothing could improve upon what God had wrought.

ICR has gone so far as to assert that if those professing

Christianity do not accept a literal Genesis as "foundational" they cannot be "true" Christians. (See, for example, Ken Ham's "The Lie: Evolution", Creation-Life Publishers, 1987. Creation-Life Publishers is ICR's press.) Thus the creationists have set a dichotomy to sunder the sheep and the goats: Creation vs. Evolution. They have cast this struggle between Good and Evil. They believe that this clash is part of an apocalyptic battle that must be won at any cost. This is how serious they are, and it should give us pause to consider the length to which they will go to see their views advanced in society. For them, it is a cause celebre, and nothing will deter their aspirations and determination. Their small numbers belie their effectiveness.

This creationist dichotomy is as ludicrous as it is false. The axe they use to cleave has surgical as well as bludgeon aspects, depending on where and how they wield it. To an uninformed public, the slice is made to appear clean and easy: If one has the sense to know that a 747 cannot assemble itself in a junkyard how much less sense does it make to presume that a human could assemble itself from some random molecules in the universe? To a scientist, the creationist tool is a dull, heavy meat axe. The butchery of logic is only one of a long inventory of casualties. The creationist false dichotomy parcels mainstream Christianity into the same cauldron as the hated "secular humanists," though ICR tries to moderate its rabid stance in the presence of other Christians. (In private, the "Romanists" are just a step up from secular humanists.)

It is perhaps somewhere in here -- in the gap between the creationist's dichotomy -- that the so-called theistic evolutionists may find themselves. I do not like to be pigeonholed, so I do not want to make matters worse by cutting a large piece of cloth in which to wrap all the rest of Christianity. On one end of this spectrum are the creationists, and perhaps on the other end is someone like Teilhard de Chardin, the French Jesuit paleontologist who taught that biological evolution gave rise to consciousness in man and that a "spiritual" evolutionary process has been underway since.

It is important that evolutionists not create their own version of the false dichotomy. There is room for a lot of diversity within the modern theory(s) of evolution. Most scientists are able to separate their religious sentiments from their work in the laboratory and reconcile their faith as a wholly different aspect of their lives. They are thus able to let the evidence lead them wherever it will.

A favorite trick of the creationists is to mix the origin of life with the origin of the species. The speculative nature of the former can then be used to dilute and taint the sound theory of the latter. Origins research is still an infant science; there are, at present, no credible theories. We are still at the hypothesis stage -- not much advanced from the time of Darwin when he said that there is a greater gulf between inanimate life and the simplest

living thing than between the simplest living thing and Homo sapiens. Darwin assumed the existence of life for evolution to work, and we are hardly further along today. However life began, evolution of that life is a fact. Only HOW evolution occurred is theory.

"BASIS" does not, for the most part, deal with the philosophic questions that might be raised by scientific theories, and matters of faith are outside the purview of skeptical inquiry. The editorial view on the creationist question is motivated by the perceived threat of what the creationists want to do in our schools. The minds of our youth are the concern of us all, theist, atheist and everyone in between.

The following article is by Walter Hearn, a leader in a group of Christians opposed to ICR's view of the universe. It is a response to some statements made by Bill Bennetta in a recent "BASIS" article. BAS believes that controversy and spirited confrontation in the best Socratic tradition is desirable and healthy. We do not pretend to have all the answers -- in spite of our telephone mnemonic -- so we welcome reproof, correction and confrontation whenever one thinks we have fallen off the path.

Bill Bennetta will certainly have the opportunity to respond to Mr. Hearn's rebuttal in next month's issue of "BASIS". If others of our readers would like to join the fray we welcome your thoughts.

BENNETTA V. ASA: MISGUIDED ZEAL?

by Walter R. Hearn

In a book review in "BASIS" ("Creationists issue a phony schoolbook," Apr. 1990, pp. 5-7), William Bennetta took a gratuitous swipe at an entirely different publication, a 48-page booklet for teachers published by the American Scientific Affiliation (ASA). He labeled ASA's "Teaching Science in a Climate of Controversy" "creationist pseudoscience" and "classic creationist quackery." Mr. Bennetta has trained himself to pursue creationists with prosecutorial zeal, but this time his trained zeal is barking at another kettle of fish. I know, because I'm a long-time ASA member and one of the authors of that ASA booklet.

Skeptics in the Bay Area have been treated to many pages of Bill Bennetta's pungent prose. I may be the only one, however, who has seen a demonstration of his ability to read minds. In 1986 he quickly discerned and exposed evil purposes lurking behind ASA's attempt to moderate the so-called creation/evolution controversy. Now he does not hesitate to state that the ASA booklet's authors are "trying to put 'creation science' into public schools by offering bogus publications to science teachers." He KNOWS what an author intends. He is so convinced by the "aura" or whatever it is he sees about ASA members that he is absolutely sure we are "scientific-creationists." Well, he is wrong. We are not.

Bennetta is of course right to call the leaders of the Institute for Creation Research (ICR) creationists. For one thing, that is the label they give themselves. As far as I know, ICR's Henry Morris invented the term "scientific creationism," now legally defined by "McLean v. Arkansas Board of Education", "Aguillard v. Edwards", and "Edwards v. Aguillard". Creationism is "religion masquerading as science."

In his relentless pursuit of Morris and company, Bennetta has had to spend so much time reading their literature that he now sounds like a fundamentalist himself. He is his own authority. If he calls you a creationist, you must BE a creationist: it is the authoritative Word of Bennetta. To deny his classification is to defy the Will of Bennetta -- proving that you are not only wicked but clever enough to try to conceal your wickedness. (Sorry, Bill, but that's what it feels like to be caricatured.)

The "BASIS" review is not the first time that Bennetta has deprecated "Teaching Science" in print, but this time I think he chose the wrong audience. Skeptics' opinions are notoriously hard to mold. Why take some authority's word for it if we can examine the evidence for ourselves? That's what I had in mind on April 7 when I wrote a Letter to the Editor of "BASIS" protesting Bennetta's calumny. I offered to provide a copy of the ASA booklet to any "BASIS" reader interested in checking out the accuracy of Bennetta's charges. Editor Kent Harker telephoned to say that the May and June issues were already full. On the other hand, he would have room in the July issue for a full response.

If you're reading this, be proud of the openness of "BASIS" to dissenting views. Not every publication, even in the name of science or education, is so free from censorship. For example, consider the "California Science Teachers Journal". In "BASIS", Bennetta cited his own "CSTJ" article, "A Question of Integrity," an expanded version of his initial blast at the "Teaching Science" booklet in "Creation/Evolution Newsletter". That newsletter of the National Center for Science Education (now "NCSE Reports" -- may its scribe increase) printed my full reply to Bennetta, along with a number of both positive and negative responses to the ASA booklet ("C/E Newsletter", Jan./Feb. 1987; Mar./Apr./May/June 1987).

In contrast, the "California Science Teachers Journal" refused to print a response. Evidently if Bennetta said it, they believed it, and that settled it.

The manuscript rebutting Bennetta's "CSTJ" article, received by that journal on 25 Aug. 1987, was rejected on 4 Sept. 1987 on grounds that "all reviewers have judged this article to be seriously contradicting a position statement of the National Science Teachers Association." I was more impressed by the rapid and unanimous decision by "all reviewers" than by the reason given for rejection. Why? Because "The Science Teacher", published by the National Science Teachers Association (NSTA) itself, treated my

response quite differently.

"The Science Teacher" had devoted eight full pages of its May 1987 issue to a clutch of negative reviews of the ASA booklet solicited and edited by William Bennetta. I responded to Bennetta's claims echoing through those reviews in a manuscript that took "TST"'s referees more than a few days to evaluate. At the suggestion of at least one referee, I was invited to shorten my response and resubmit it as a Letter to the Editor, which "TST" printed in its Feb. 1988 issue. (Editor Juliana Texley had panned the ASA booklet in a Feb. 1987 editorial, but then in Sept. 1987 printed my letter responding to her own editorial comments. I call that integrity.)

ASA published "Teaching Science" in 1986 and mailed it to about half of the 40,000-plus high-school biology teachers on the NSTA list. (Bennetta got that part right in his "BASIS" remarks.) With additional foundation funding in 1987, we reprinted the booklet and mailed it to the other half of the same list. In that reprinting we could make only a few changes, but in a second reprinting in 1989, which brought the total number in print to over 100,000, we took into account all substantive criticisms of the earlier versions, whether from friendly or hostile reviewers. (The 1989 version of "Teaching Science in a Climate of Controversy" is available postpaid for \$6 from ASA, P.O. Box 668, Ipswich, MA 01938.)

See for yourself

"BASIS" readers interested in the teaching of science in public schools can evaluate the ASA booklet on its own merits and compare it with Mr. Bennetta's caricature. I have a small stack of author's copies at my home. As long as they last, for \$2 P&H (check made to Walter Hearn or to ASA), I will send by First Class mail to any "BASIS" reader a free copy of the current (1989) version of "Teaching Science". My address is 762 Arlington Ave., Berkeley, CA 94707.

I suggest that the booklet be read for its content, with no preconceived notions about whether one is "for it" or "against it." But just in case a toxic mischaracterization has already poisoned the well of independent judgment, I will also enclose copies of the following, as antidote:

- 1) The manuscript, "Teaching Science in a Climate of Trust" (my response to Bennetta's full attack), which was rejected by "California Science Teachers Journal";
- 2) Three published responses to specific criticisms by Bennetta et al.: my letter in "The Science Teacher" (Feb. 1988) and two communications in the Sept. 1988 "Perspectives on Science and Christian Faith", ASA's own journal (one by "Teaching Science" coauthor John Wiester, the other by parasitologist Wilbur Bullock), along with Bullock's editorial from that issue;
- 3) A positive review of "Teaching Science" by retired chemistry

professor Alan H. Crosby (not an ASA member, so far as I know), to show that the ASA booklet is gradually educating conservative Christians, letting them know that there is a broad and legitimate middle ground between the ideologies of "militant creationists" and "militant evolutionists" (the reviewer's terms); and

4) An ASA brochure, so you can see that the organization openly describes itself as "a fellowship of Christians in the sciences committed to understanding the relationship of science to the Christian faith," and see how it answers the question, "What is the ASA position on controversial issues like evolution?"

OF PANDERS AND SLANDERS

Bennetta's excuse for tearing into the ASA authors (David Price, John Wiester, Walter Hearn) in "BASIS" was the fact that we were listed in the book he was denouncing, "Of Pandas and People", among 35 "critical reviewers of portions or all of the manuscript." When "Pandas" first appeared I wrote to the sponsoring organization Foundation for Thought & Ethics, Richardson, Texas), to point out where I thought "Pandas" had gone wrong.

Since I disagreed with some of their book's basic premises, I asked that my name be dropped from the list in any further printings. I now suggest that instead of dropping my name, they should add William Bennetta's name to the list, since he and I have both become "critical reviewers" of "Pandas". That should keep others from jumping to the same erroneous conclusion that a "reviewer" necessarily liked the book.

About "Pandas" I need say only that the three ASA authors think it is seriously flawed. We have met with two of the book's sponsors to explain why so think. Although we are in sympathy with their opposition to "evolutionary naturalism" as a philosophical position, we think that their approach does not distinguish carefully enough between that philosophy of "evolutionISM" and evolution as science. Despite Bennetta's efforts to read a "two-model" approach into our ASA booklet, "Teaching Science" fully supports the teaching of evolution as science and warns against both theistic AND atheistic scientisms. More about these important distinctions later.

About half of Bennetta's review of "Pandas" concerned the qualifications of its authors and editor. I agree with him that it was a mistake not to identify them because I, too, would like to know what they have accomplished. Editor Charles Thaxton is the only one I know well enough to argue with, and I've done quite a bit of that in the over 25 years that I've known him.

Bennetta doubts that they could contribute anything useful to science education because, even if they've earned doctorates in pertinent fields, they haven't contributed much to "the formal scientific literature." Maybe what they've been doing is "scientific consulting" -- Bennetta's own profession.

Ironically, I hit a snag a few years ago when I tried to check out Bill Bennetta's qualifications. I called U.C. Berkeley's Life Sciences Library and asked a reference librarian to look up Dr. William J. Bennetta in the latest edition of "American Men & Women of Science". She couldn't find him so she asked me to check the spelling of his name. Still no luck. She wanted to know what position he held. The conversation went something like this: "That's what I'm trying to find out," I said. "He seems to have some connection with the California Academy of Sciences. He may be the director of it, for all I know."

"Well, his name's not here. He could be a scientist, but still not be listed. Only the very top scientists are listed in ["American Men & Women".]"

"Oh, I wouldn't say that, exactly. I'm in it, myself, or used to be. His field seems to be biology. Evolutionary biology. I got his name from something he published in "Creation/ Evolution Newsletter"."

"Oh, well, then! That explains it. He may not even be a scientist. People who write in creationist publications like that aren't REAL scientists."

"Er, uh, have you ever seen a copy of "Creation/Evolution Newsletter"? I don't think you could call it a creationist publication."

"Well, they're really sneaky. Sometimes you can't tell just by reading that stuff."

Since then I've had some correspondence with William Bennetta and seen him described in an Academy publication as "a scientific consultant, a professional editor, and a research associate of the California Academy of Sciences." In the Academy's Annual Report for 1987-88 two papers of his in science education journals were listed as "Staff Publications," but a person in the Education Office could not find his name on the Academy staff. It turns out that he is listed as a Fellow of the Academy. No doubt he's a jolly good Fellow. He makes an occasional statement, however, which somebody can deny.

A CASE OF MISTAKEN IDENTITY

One thing that seems to irk Bennetta about the American Scientific Affiliation is its name. In "BASIS" he called ASA "a religious organization with a misleading name." Sometimes he writes it with "[sic]" after "Scientific." I'm sorry that the American Scientific Affiliation's name makes him sic, but it has served its purpose for almost 50 years. I like "Affiliation," distinct from the more common Association or Society. I'm not so keen on "American" because we have so many members overseas, many applying their technical skills in developing countries. Since glasnost, we have

our first member in the Soviet Union, a Moscow physicist. He is a Christian, as are all ASA members.

Most ASA members are active in research or science teaching. There are several categories. "Members" must have at least one degree in science; "Associates" are interested in science but (like Members of the American Association for the Advancement of Science) need not have scientific training; a new category of "Friends" was set up for scientists supportive of ASA who for one reason or another do not wish to sign ASA's Statement of Faith; "Fellows" must have a doctorate or, for a few, the equivalent in years of experience (no doubt like Fellows of the California Academy). ASA also has "Student" members.

In 1973, primarily for tax reasons, Canadian ASA members formed their own related organization, calling it the Canadian Scientific and Christian Affiliation. At the time, some members thought it would be good to add the "and Christian" phrase to the ASA's name, but it wasn't done. I doubt that ASA's name misleads anyone.

Compare it with that of the Federation of American Scientists (which I take to be essentially a labor union) or the Union of Concerned Scientists (which I take to be not a union but a political organization). Those organizations of scientists have a distinct purpose; ASA is an organization of scientists with a distinct purpose. That purpose is has NEVER been "to put 'creation science' into public schools." It is "to investigate any area relating Christian faith and science" and "to make known the results of such investigations for comment and criticism by the Christian community and by the scientific community."

Even the American Chemical Society has an agenda. When "chemicals" started getting a bad name, some ACS members wanted to change the name of the society. It isn't a society of CHEMICALS, they said, it's a CHEMISTRY society. No, said others, it's a society of CHEMISTS. In the end, the ACS kept its old name. In the same way, our affiliation of like-minded scientists has kept the term "Scientific."

Bennetta's real problem with ASA seems to be that its members sign a statement of religious faith. Maybe he can't see any difference between taking the Bible SERIOUSLY in matters of faith (ASA's position) and taking it LITERALLY in scientific matters (ICR's position). He is evidently convinced that no real scientist could give assent to a statement of belief in God as creator, in Christ as savior, or in the Bible as God's Word and hence "the only unerring guide of faith and conduct." He is wrong about that -- unless HE gets to define who is a real scientist.

ICR's Henry Morris has frequently defined real believers in the Bible: those who see creation the same way he does, as having occurred suddenly, only a few thousand years ago. In my opinion Bennetta and Morris are both wrong and both are annoyed by ASA for the same reason: its existence challenges their definitions.

(Morris was once an ASA member but evidently grew uncomfortable around so many Christians who disagreed with him and dropped out.)

In 1989 ASA changed the wording of its Statement of Faith. It now says that God has endowed the universe with "contingent order and intelligibility, the basis of scientific investigation, and contains a new statement explicitly committing members to stewardship of science and technology "for the good of humanity and the whole world." ASA's agenda goes beyond science, but so does that of every scientific organization that says anything about "the good of humanity" or any "good" at all. Values in science and the values OF science are philosophical issues that extend beyond science.

CONTROVERSY OVER EVOLUTION

The controversy over the teaching of evolution in public schools touches on values that definitely go beyond science. Few writers have stated the problem more clearly or succinctly than philosopher-historian Robert Root-Bernstein (in "Evolutionists Confront Creationists", ed. by F. Awbrey & W. Thwaites, 1984, p. 20):

The evolutionist-creationist controversy is not a scientific one. It is a religious, political, and educational controversy stemming from three basic problems: 1) the confusion between science and religion; 2) the attempt by creationists to subject science to ideological control; and 3) the total failure of our educational system to teach the public the basic information needed to evaluate and recognize these problems.

In short, the controversy is not caused by scientific disagreements. It is caused by ignorance: ignorance of what science is, what religion is, and how they differ; ignorance of the sociopolitical dangers of ideological control of science; ignorance of the purpose of modern education. I assert, therefore, that scientists are wasting their time debating scientific issues with the creationists. Creationism is not the enemy. Ignorance is. Debates are no solution. Education is. And on this score, evolutionists clearly have as much to learn as do creationists -- particularly in the fields of history, philosophy, theology, and politics where the educational battle must be fought.

Concern about Root-Bernstein's point no. 2 is what drives "Bennetta's Vendetta" against creationists in general and against the Institute for Creation Research in particular. The harmful effects of ideological control of science, whether by the church in past centuries or by totalitarian regimes officially hostile to the church in our own, are evident. Those who do battle against creationists must at times wonder how a handful of such scientifically marginalized leaders can command such a following.

Root-Bernstein attributes their following to "the total failure of our educational system" to teach the public the facts of public life.

I agree that better education is badly needed, but as a product of public education myself, I hesitate to make such a sweeping denunciation. Somehow, even before Sputnik launched the Biological Sciences Curriculum Study, I learned enough about biological evolution to take it seriously and learned how to distinguish science from religion. I'm not sure that the best approach to re-educating science teachers is to call the system in which they work a "total failure." In "Teaching Science" we tried to take a more positive and helpful approach.

Members of ASA, who have been busy educating ourselves all these years about "history, philosophy, theology, and politics" in addition to science, have an alternative analysis of the controversy to offer. Why is such a large part of the public that does NOT buy into young-earth creationist doctrine unwilling to write off the creationist cause? Is it really because all of them are ignorant, especially of science, and "the purpose of modern education, and politically naive? I doubt it.

Rather, I think many ordinary citizens perceive the scientific establishment to be ALREADY at risk of control by an essentially a NON-theistic or even ANTI-theistic ideology. That is why ASA takes pains to support evolutionary science while opposing evolutionISM (evolutionary naturalism). That is why ASA's "Teaching Science in a Climate of Controversy" urges teachers to distinguish evidence from inference and (while treating students' religious questions with respect) stick to teaching science with neither theistic nor atheistic embellishments.

In my experience, working scientists are seldom as ideological as non-scientists perceive them to be, but the public perception is continually fed by pronouncements from scientific ideologues like biologist William Provine of Cornell University. Here's a paragraph from a "sermon" of his in "The Scientist" (5 Sept. 1988, p. 10):

The implications of modern science, however, are clearly inconsistent with most religious traditions. No purposive principles exist in nature. Organic evolution has occurred by various combinations of random genetic drift, natural selection, Mendelian heredity, and many other purposeless mechanisms. Humans are complex organic machines that die completely with no survival of soul or psyche. Humans and other animals make choices frequently, but these are determined by the interaction of heredity and environment and are not the result of free will. No inherent moral or ethical laws exist, nor are there absolute guiding principles for human society. The universe cares nothing for us and we have no ultimate meaning in life.

With friends like Professor Provine, science also needs friends like ASA to provide balance. ASA members demonstrate that at least some scientists who take evolution seriously are theists. We are not mere deists who attribute some distant primeval act of creation to a deity or divine force -- a position Provine considers "effectively indistinguishable from atheism." We are THEISTS who practice our religious faith and worship God as our creator, on whose purposeful activity we consider the world to be always contingent. We do not claim warrant for that theistic stance from science, but our presence in the scientific community helps to deny claims of exclusive scientific warrant to naturalism or materialism the philosophical positions that William Provine would certainly consider "indistinguishable from atheism."

The idea that evolution is being taught with ideological bias in many classrooms is hardly far-fetched. Nor is it naive to suspect that proponents of a scientific ideology other than creationism want to control science or education. If "control" seems too strong a word in our open democratic system, consider the last paragraph of Bennetta's review in the April "BASIS". There he proudly reports talking an NSTA official into refusing to accept advertisements in their publications for a book he (Bennetta) has declared "bogus from cover to cover."

What has happened to respect for the ability of science teachers to judge for themselves? And what if our "bogus detector" is not an unerring guide? With Bennetta or some other self-appointed censor controlling what appears in print, how can an error be corrected?

(Hooray for editor Robert Romer of the "American Journal of Physics", who is dead set against ideological control -- even his own. In a letter to "Science" (13 Apr. 1990, pp. 44-45) he declared his policy "not to refuse advertisements, not even for books that I know should never have been written and ought never to be read.")

Someone (we can only guess who) tried to exercise a blatant brand of censorship after ASA rented an exhibit booth at the NSTA national convention in Washington, D.C., in March 1987. In "Teaching Science in a Climate of Controversy" we had criticized as overstatements two sentences about human evolution in "Science and Creationism", a 1984 booklet distributed to teachers by the National Academy of Sciences. Some stalwart guardian of scientific truth called NAS, saying that ASA had attacked their booklet, and persuaded NAS to put pressure on NSTA to take away ASA's exhibit privileges. The ploy didn't work, but it came close enough to show ASA what ideological control feels like.

Indeed, some published responses to the ASA booklet seemed emotional and out of proportion from the beginning. The nine scientists Bennetta assembled to critique the booklet in "The Science Teacher" (May 1987) offered little correction for any scientific or pedagogical errors we might have made, but accused us of all sorts of moral offenses, including:

undermining public understanding of science; attempting to cripple science education; rejecting evolutionary biology; trying to appear respectable to lay people; using innuendo and selective omission; making a mockery of claims of objectivity; telling lies for the purpose of proselyting; producing an insidious but masterful piece of propaganda; being treacherous, nefarious, and dishonest; attempting to impose particular religious beliefs on others; lacking intellectual curiosity; concealing religious motives; misquoting or misrepresenting the views of professional biologists; obfuscating, distorting, and waffling with regard to human origins; promoting an incredibly naive approach; failing to follow the norms of science or the traditions of fair and decent argument; using lamentable rhetorical tricks; and inappropriately offering a synthesis of science and religion.

Doesn't that make you want to get hold of a copy of "Teaching Science in a Climate of Controversy"? Can it really be that vicious? Although Bennetta edited the reviews, the monotonous tone of those phrases may arise more from his selection of like-minded critics than from his editing of what they wrote.

With the notable exception of anthropologist Vincent Sarich, though, the scientists devoted more space to moralizing than to substantive critique. That is why I ended my Letter to the Editor (Feb. 1988) this way:

What About The Major Conclusions?

Primarily the ASA booklet discusses the drawing of appropriate inferences from scientific evidence. Focusing on four unsolved problems in science, it uses each to make a basic point about how to evaluate evidence. It also suggests an "answer" for each "Open Question":

"Did the universe have a beginning?" The booklet says that present evidence points to a positive answer, but the question is still open. It warns that the question easily moves beyond the limits of science per se.

2. "Did life on earth arise by chance?" The booklet says that chance means different things to different people, but the fact is that in spite of all the experimental and theoretical work done to date, "Scientists do not know how life arose."

3. "Where did the first animals come from?" The booklet concludes that the origins and earliest evolution of the invertebrate phyla remain essentially undocumented in the fossil record. It neither proposes an explanation nor accuses researchers of covering up our ignorance. But why

should high school textbooks neglect such a pivotal point or (in the words of Gould et al.) "crux" in life's recorded history?

4. "Do we share common ancestry with apes?" The fourth question should have been worded more narrowly, to focus on what we know (and do not know) about the point (or points) where the hominid line diverged. But even the broader conclusion, that it is too soon "to say with certainty that we share a common ancestry with apes," was meant to demonstrate that many problems are yet to be solved. As the scientific establishment begins to face tighter budgetary restrictions, paleoanthropology should not be shut down "because we already know the answer."

Those are the four major conclusions of the ASA booklet. We say to our critics; stop the name-calling and pigeonholing. Skip the naturalistic or supernaturalistic speculations. Just tell us (and the teachers): on the basis of presently available evidence, are those conclusions wrong?

In the current version of "Teaching Science" we changed the fourth question to "What is known of the earliest hominid?"; rewrote part of that section and the whole section on the first animals; and made the bibliography more useful. We kept the focus on unsolved scientific problems but added a WARNING label to identify the booklet as a supplement, not a textbook containing a complete presentation of evidence for evolution.

We saw no reason to change our major conclusions, but we're willing to be educated. See for yourself.

ANNUAL BAS PICNIC

This year the BAS picnic is going to be the best one on record, pure and simple. If you attended last year there is no doubt that you will have this event on your agenda. Ben and Carol Baumgartner did the ENTIRE shebang on their own time and money last year.

We can only thank them for such generosity, but we can't allow them to do the whole thing again. All this notwithstanding, they said that they would like to prepare the food for us -- something we would all heartily endorse -- but we ask participants to pay for their own food. At any fast-food service you'll easily spend five bucks for some processed swill, but for the same five you will have a variety of food you couldn't match at twice the price. Please lend a hand if you live in the Mountain View area, or if you can help the day of the picnic please call, too: 415-968-1535.

We need two things from you: (1) your check for \$5 per person to Ben Baumgartner (2467 Betlo Ave., Mountain View 94043), (2) Your

first and second choice of meat. The meat choices will be chicken (teriyaki or BBQ), BBQ beef patties, or Polish sausage. The logistics for supplying beverage is just too much, so bring your own drinks. Hors d'oeuvres, salad and dessert will be provided. There will be entertainment for the whole family, so bring the kids; a child's (10 and under) plate will be \$3 each. Place: Palo Alto (exact location to follow). Date Aug. 18. Time: 10 a.m. (eat between 12 and 2). We look forward to seeing you there. Make your reservations early so you won't be disappointed. Come meet fellow skeptics and mingle with a truly interesting bunch of people.

CALENDAR

June meeting . . .

KIDS AND PSYCHOLOGY: A SKEPTICAL VIEW

by: Jeffrey Masson, Ph.D.

Tuesday, July 24th, 7:30 pm

El Cerrito Library

The El Cerrito Public Library is at 6510 Stockton Ave. From Route 80, take the Central Ave. exit (the third exit north of University Ave.). Go east about three blocks and turn left on San Pablo Ave., continue three blocks and turn right on Stockton. The library is on the right in the third block.

Watch for coming events in the BAS CALENDAR, or call 415-LA TRUTH for up-to-the-minute details on events. If you have ideas about topics or speakers leave a message on the hotline.

WARNING: We **STRONGLY URGE** that you call the hotline shortly before attending any Calendar activity to see if there have been any changes.

A CRITICAL EXAMINATION OF CHILDREN ON THE COUCH

by Jeffrey Masson

Author of "The Assault on Truth: Freud's Suppression of the Seduction Theory", "Against Therapy: Emotional Tyranny and the Myth of Psychological Healing" and numerous other books and articles questioning psychiatric history and practices, Dr. Masson now tackles the analysis of children. Masson, who counts Sanskrit among the half dozen or so Asian and European languages he understands, is presently looking into how children's mental hospitals are operated in California.

Dr. Masson (Ph.D. in psychology), a trained psychoanalyst, offers insight into basic questions about the treatment of children much as he did with the treatment of women in his earlier work, ("A Dark Science: Women, Sexuality and Psychiatry in the 19th Century"). His talk will cover the use of psychiatry as a means to label, evaluate and manipulate children in and out of institutions.

As traditional Freudian psychoanalysis is under increasing fire,
come and see light cast at the another aspect of the Dark Science.

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Opinions expressed in "BASIS" are those of the authors and do not

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