

Bay Area Skeptics Information Sheet  
Vol. 9, No. 3  
Editor: Kent Harker

CROCODILE ABDUCTEE: CHASING UFOS DOWN UNDER  
by Robert Sheaffer

[Robert Sheaffer, former chair and co-founder of BAS, has traveled worldwide in searching the solution to UFO reports. Years of travel and careful study of the more prominent UFO stories led to his book, "UFO Verdict". Robert is an internationally recognized expert who now spends less time investigating and more time explaining. He has appeared on every major radio and TV station in the Bay Area when those media want to hear the skeptical side. His travels as a guest lecturer are not, however, limited to the Bay Area, as we see in this article.]

As winter's chill settles in upon us, you can warm yourself with thoughts of sunny Australia, which is now basking in summer heat. Last year, as the warmth of summer was moving in to California, I spent two chilly weeks "down under," on a five-city UFO lecture tour courtesy of The Australian Skeptics. In each city, I was greeted at the airport by one or more skeptics, who drove me where I needed to go, and I stayed in private homes the whole time. That's the secret of the no-frills travel that CSICOP arranges: rock-bottom airfares, and no hotels. We at BAS hosted the Indian skeptic Premanand in a similar manner when he spoke in the Bay Area.

After a nine-hour flight from Honolulu, and an hour stopover in Cairns, two more hours in the air brought us to Brisbane, Queensland, my first destination. It's pronounced BRIZZ-bin, no matter what you call that little town near San Bruno. (Australians will twitter when Yanks can't pronounce the names of their cities! And Cairns is pronounced almost identically like the name of that other exotic foreign city, Cannes. Or is it "Quinze"?)

The Queensland branch of the Australian Skeptics in Brisbane is small but energetic. There I enjoyed the gracious hospitality of skeptic John Lapworth. There was no public event or lecture scheduled in Brisbane, so we met at the home of the president of that chapter. I spoke to an audience of about fifteen skeptics, who were most interested to hear what I had to say. Queensland has the reputation of being a conservative religious area, like the American South, so creationism is a big concern. There is an ongoing battle to keep religion out of the public schools. Communications between the Queenslanders and the American critics of creationism didn't seem as good as they should be.

The next stop was Sydney, the largest Australian city, and the national center of the Australian Skeptics, and home of its president Barry Williams. Unfortunately, a work slowdown by Air Traffic Controllers had air travel tied in knots both in and out of Sydney. Barry had made arrangements for me to be on the top-rated morning radio talk show there, but the controllers made me about two hours late.

After the tranquil, down-home atmosphere of Brisbane, when I finally arrived in Sydney, Barry grabbed me (and my luggage) and we dashed off to his car, racing through the traffic to the very center of downtown Sydney. Pulling up to the door of the radio studio, he directed me to jump out, go up in the elevator (excuse me, "lift"), and announce my arrival, while he drove off to hunt for parking.

The station was expecting me, and I soon was ushered into the studio. The two hosts were flippant -- I felt like I was in a Monty Python skit -- but the brief interview went well, and we plugged my forthcoming public talk in Sydney. There were other radio and TV appearances arranged, including the local ABC (Australian Broadcasting Corp.) radio station, and the nationwide Today Show, which might be thought of as "Good Morning, Australia," or, perhaps, the "G'Day Show." A good crowd turned out for my talk, including a few very colorful eccentrics.

The following day we drove to Newcastle, the town that was recently hit so hard by an earthquake. Standing on the cliffs overlooking the ocean, I could not help but imagine I was seeing the Marin or Mendocino headlands, and I remarked to Barry how much the region looked like California. A wine-growing region, with California-like weather and California-like ocean cliffs, it didn't surprise me to learn that it has earthquakes as well.

Professor Colin Keay, an astronomer at the University of Newcastle, had previously scheduled a UFO lecture of his own that very evening, so when he learned I would be coming, we divided the time equally between us. Prof. Keay told the Newcastle Skeptics the results of some of his own UFO investigations, including some hoaxers' hot air balloons.

My flight to Canberra, the Australian capital, was so early on a Sunday morning that the Air Traffic Controllers in Sydney didn't even have enough traffic to congest, so I arrived on time. I was interviewed on ABC Radio station 2CN, at 666 on the A.M. dial. I imagine they use the line, "This is 2CN, the Number of the Beast, in Canberra." I also appeared on the local TV news.

My host in there was Professor Colin Groves, an anthropologist at the Australian National University, who arranged for me to speak on campus. My talk drew only about 25 people, but they were quite receptive. Prof. Groves also took me for a tour of the countryside, to see kangaroos, koalas, and emu, and to visit the Deep Space

Network station at Tidbinbilla, the prime site for receiving Voyager's images of Neptune.

To get from Canberra to Adelaide required changing planes at Sydney, allowing the Air Traffic Controllers to extract another pound of flesh. I finally arrived in Adelaide, a genteel and unhurried city, to find a frazzled skeptic, Allan Lang, wondering where I could possibly be, and how he could get me to the radio interview for which I was already late. Well, he got me there as best he possibly could, and the hostess simply juggled things around to get me on the air.

Two hours later I did another interview, both times plugging my talk. This was followed up by a splendid, even elegant, dinner with about fifteen skeptics, in a private dining room at a fine restaurant. Those Adelaide skeptics certainly have class! I stayed in the large home of Ron Evans, another unfailingly polite and gracious host. My talk in Adelaide was once again on University premises, and drew a good crowd.

Flying from Adelaide to Melbourne (pronounced MEL-burn), I was at last out of reach of the Sydney Air Traffic Controllers. However, their counterparts in Melbourne were up to the same tricks, so I arrived late once again. My host in that city was Steve Roberts, a computer programmer and avid amateur astronomer. We hurried around that very cosmopolitan city to two radio studios and two newspaper offices, and I rode briefly on the famous trams.

I gave two different talks in Melbourne. One was on UFOs, hosted by the director of the large public planetarium there. My talk had been selected as the "best pick of the day" by a major newspaper, so it was well-attended. A second talk had been arranged by the Victoria Humanists on the subject of my other book, "Resentment Against Achievement." Upon departure, I was pleased to find that only domestic flights were being gummed up, so (with assistance from the International Date Line) I arrived in San Francisco just four hours later than my departure from Melbourne!

Australian skeptics, I found, encounter most of the same irrational beliefs we see here: creationism, UFO encounters, crystal energy (I learned that the price of "healing" crystals in Sydney had been rising sharply), psychic readings, and the like. There are some differences, too: here in the U.S. we do not yet properly appreciate "aroma therapy" (curing ills by sniffing "natural oils"), and the Aussies have not yet read enough wild books from the likes of Whitley Strieber and Budd Hopkins to know that UFOs are supposed to not merely fly around, but to stop and abduct people and undress them.

However, as books, magazines, movies, and TV programs cross the vast Pacific at an ever-increasing pace, their silliness and our silliness will no doubt creep ever closer together. What impressed me the most was how much the Australian Skeptics, spread out in the widely-scattered cities that are like little islands, have been

able to accomplish. They have published books, produced T-shirts and other merchandise for sale, arranged international lecture tours, regularly placed guests on network TV, sponsored an annual conference, and established an annual award for journalists: all this in a country whose population is far less than that of California! The example of the Australian Skeptics is telling us that, while Bay Area Skeptics can be proud of what we have done thus far, it is possible to do much more.

## DEGREES OF FOLLY: PART X by William Bennetta

Parts I through IX of this article ran in earlier issues of "BASIS", starting in February 1989. Here is a summary:  
By law, no unaccredited school in California can issue degrees unless the school has been assessed and formally approved by the superintendent of public instruction -- the chief of the State Department of Education.

In August 1988, the Department's Private Postsecondary Education Division (PPED) staged an assessment of the ICR Graduate School (ICRGS). The ICRGS is an arm of the Institute for Creation Research, a fundamentalist ministry that promotes the religious pseudoscience called "creation-science." The founder and president of the ICR is Henry Morris, a preacher and former engineer who poses as an expert in geology, biology, paleontology and various other fields in which he has no detectable credentials.

The Department's assessment of Morris's school was made by a five-man committee that had been chosen by, and was managed by, a PPED officer named Roy W. Steeves. The committee's report was bogus: It hid the real nature of the ICR, promoted the ICR's scientific pretensions, and said that the superintendent of public instruction, Bill Honig, should approve the ICR as a source of masters' degrees in science and in science education.

Two of the committee's members then sent separate reports to Honig, telling the truth about the ICR. But Roy Steeves, in memoranda to the PPED's director, Joseph P. Barankin, endorsed the ICR and urged that it should be approved. Honig, in statements given to the press in December 1988, refused the approval; but in January 1989 the Department drew back from that decision and began to negotiate with the ICR. The ICR was represented by Wendell R. Bird, a lawyer from Atlanta. On 3 March, Bird and Joseph Barankin agreed that the ICR would revise its curriculum, purging "ICRGS's interpretations" from courses counting toward degrees. To learn whether the ICR had made the revisions, the Department would send a new committee; one member would be chosen by the ICR.

The new committee examined the ICR in August 1989. It was managed not by Steeves but by Jeanne Bird, who had joined the PPED in the spring of 1989 and had become an assistant director a few months later. The committee comprised Christopher J. Wills, a geneticist

from the Department of Biology, University of California at San Diego; Richard E. Dickerson, chief of the Molecular Biology Institute, University of California at Los Angeles; Everett C. Olson, a paleontologist from UCLA's Department of Biology; Lawrence S. Lerner, a physicist from the Department of Physics-Astronomy, California State University at Long Beach; and Leroy E. Eimers, from the Department of Science and Mathematics, Cedarville College. Eimers was the member who had been chosen by the ICR, in accordance with the agreement reached in March. Cedarville College is a Bible school in Cedarville, Ohio.

After the committee's visit, Henry Morris and the other ICR men feared that the committee would declare the ICRGS to be defective and unworthy of approval, and that Honig would follow the committee's judgment. On 31 August, in an effort to win sympathy from the press and the public, the ICR men held a "news conference" to denounce Honig and to distribute a fiercely misleading account of their transactions with his Department.

The committee has now submitted its report. I shall describe the report here, and I shall present excerpts on pages 4 through 7.

-- W.B., 12 February

#### ADMIRABLY DONE

The report of the committee that examined the ICR in August 1989 is dated on 12 January 1990 and has 48 single-spaced pages. It is divided into six major sections; the longest (called "Findings") spans some 40 pages and has many subsections.

As a whole, the report is admirably done. As a whole, it is candid, precise, readable and rich in examples showing the bases for the committee's signal conclusions: The ICR, despite its name, is not a scientific-research institution and does not offer proper graduate education or training in science.

In only two significant instances does the report hide or distort important facts, depriving the reader of information that is necessary to an understanding of the ICR case and of the report itself.

The first instance of obfuscation is the entire section titled "Background." It starts on page 1 of the report, has only four paragraphs, and is worthless. It mentions an anonymous "visiting team" that reviewed the ICR in August 1988, and then it says:

The visiting team initially had been split 3-2 in favor of approval. However, on December 5, 1988, one of the visiting team members officially notified the [Department] that he wished to change his vote from approve to disapprove. . . . [Later,] legal counsel for the ICR contacted the [Department] and requested that the Superintendent reach an agreement with ICR regarding corrective measures that were to be instituted by ICR in

response to the visiting team's report. . . . As a part of the negotiations for reaching agreement, the Superintendent determined that . . . there would be a need to bring together another appropriate group for an on-site review.

But how did that vote-changing come about? Did the member in question have any REASON for changing his vote? And why did the superintendent need to convene "ANOTHER appropriate group" for a new review, instead of sending the original "visiting team" again? If the original team's report was the basis for the ICR's "corrective measures," would not that team be the best group for judging whether proper corrections had been carried out? And just who WERE the members of that team anyway? I infer that the writer of the "Background" text was guided not by a desire to inform but by a need to write some sentences while hiding the mess that had been made in 1988 by Roy Steeves, Joseph Barankin and their "visiting team."

The other defective passage is the report's very last paragraph. In stilted, legalistic prose, it tells that one member of the committee, Leroy Eimers, did not agree with many of the conclusions drawn in the report. (I have quoted the whole paragraph in the last of the excerpts that accompany this article.) On its face, it is extraneous and silly: It fails to suggest that Eimers had any evidence to support his position, or that he tried to challenge even ONE of the specific, detailed findings that the report sets forth.

Still, a less-than-alert reader may be tempted to take it seriously; and an alert reader surely will wonder why so rigorous a report ends with such vapid fluff. Both readers, if they are to appreciate what they are looking at, need to know that Eimers was the ICR's man. The report omits this fact, however, and I see no legitimate excuse for the omission.

## NOT EVEN TRYING

At about the same time when the committee was finishing its report, the ICR men mailed the January issue of "Impact", one of the ICR's monthly bulletins about creationism. That issue included the ICR's "1989 Annual Report," which had only four paragraphs and said nothing about any scientific work or any scientific publication by any of the ICR's employees.

The text began: "This past year (except for the attacks on our Graduate School) has been by far the best year of the past decade." It then told that "amazingly successful Back-to-Genesis conferences" had been held in several states, that the ICR men had participated in debates and had lectured "to audiences totaling about 300,000 people, not including radio and television audiences," and that the ICR's weekly radio program, "Science, Scripture and Salvation", was being broadcast by "over 350 outlets in over 40 states and around the world."

Recent publications were listed in the annual report's last paragraph:

Important books published in late 1988 or during 1989 included "Noah's Ark and the Lost World" (by John D. Morris), an enlarged edition of "Science, Scripture, and the Young Earth" (by Henry M. Morris and John D. Morris), "The Genesis Solution" (by Ken Ham), and finally, "The Long War Against God" (by Dr. Henry Morris). Dr. [Steven] Austin's "Mount St. Helens" video also was released.

I have not seen that video. A flyer that the ICR distributed in August 1989 said only that Austin's product provided "explosive evidence for catastrophism" and a "SPECTACULAR collection of pictures." The ICR's current mail-order catalog lists the video but provides no description. The catalog also offers an audiotape called "Mount St. Helens -- Explosive Evidence for Creation". It is part of a series of tapes labeled "Back to Genesis."

#### CURIOUS TIMING

On 17 January the ICR issued a "news release" headlined "ICR Under Continued Attack by Bill Honig." It said that the ICR had not yet seen the visiting committee's report but had learned of "the panel's findings" from the news media. Then it gave another misleading account of the ICR case and of the ICR itself, including this: "ICR's graduate programs are strictly scientific with courses taught by scientists who have doctorate degrees. . . ."

That false claim, viewed in the light of the committee's report, was ludicrous. The report had shown how "scientific" the ICR's programs were, and it had demolished the pretension that the ICR's teachers were "scientists." Reading the release, I wondered whether the ICR men really had not seen the report when the release was printed. When had the Department sent a copy of the report to them?

On 9 February I talked with William Rukeyser, a Department spokesman. He told me that Jeanne Bird had sent the report to the ICR, evidently by first-class mail, on 12 January.

[Excerpts from the report follow.]

#### ITEMS FROM THE REPORT OF THE COMMITTEE THAT EXAMINED THE ICR IN AUGUST 1989

In all that follows, the use of italic or boldface type reflects the use of underscoring or boldface (respectively) in the text of the report. I have not added any emphasis during editing, though I have made some interpolations that, I think, will clarify certain passages. Each of my interpolations is enclosed in square brackets.

-- W.B.

[Note for the electronic edition: Italics and boldface have been rendered here as capital letters.]

=> [On page 2, under "Background," the report tells the new committee's "charge," which has been adapted (with some minor typographic alterations) from a passage in the letter that Wendell Bird sent to Joseph Barankin on 10 January 1989. Here is the "charge":]

The Institute for Creation Research Graduate School's science degree courses that count toward a [sic] M.S. degree will be consistent with, and comparable to, similar science courses of California-approved graduate schools. Specifically, ICR will have a "curriculum consistent in quality with curricula offered by appropriate established accredited institutions which are recognized by the U.S. Department of Education," and its courses will be "consistent in quality with curricula offered by appropriate established accredited institutions," and will be "comparable to the courses required of graduates of other recognized schools accredited by an appropriate accrediting commission recognized by the U.S. Department of Education." [All the quotation marks had appeared in Wendell Bird's letter.]

=> [On page 3, the report names the accredited schools that the ICR (in a revised application for reapproval, submitted in July 1989) listed as "comparables" -- that is, as schools that offered programs and degrees like the ICR's programs and degrees. For "astro/geophysics," the "comparable" was Abilene Christian University, in Texas; for biology and for geology, it was Loma Linda University, a Seventh-Day Adventist school in Loma Linda, California; and for science education, it was Biola University, a fundamentalist school in La Mirada, California. The report then offers this curious paragraph:]

ICR later submitted other comparable institution[s] to be considered, without specifying degree areas. These included the University of California at San Diego, California State University at Long Beach (CSULB), San Diego State University, San Jose State University, University of Colorado, Colorado State University, University of Texas at El Paso, University of Toronto, and University of Wisconsin.

=> [On page 9, in the committee's comments about an ICR course called Human Anatomy and Comparative Mammalian Anatomy Lab:]

The text used in this course is "Gray's Anatomy". . . . In the syllabus, four out of twelve days of actual lectures were devoted to vestigial organs in man, [which are] of only minor anatomical importance. One day was devoted to comparative anatomy of muscles, and one apparently to a survey of the evolution of the kidney. No mention was made in the syllabus of comparative skeletal anatomy.

The highly descriptive exam that was provided showed a commendable degree of rigor, but dealt entirely with human anatomy. Despite the

title of the course, comparative anatomy was not mentioned in the exam; neither were vestigial organs. . . . This course shows a remarkable degree of discordance between what is claimed to be presented, and what is actually presented.

=> [On page 10, in the committee's remarks about the ICR's course Medical Microbiology:]

The overview in the syllabus says, "Because this is not a lab course, cultivation, identification, and disease-prevention techniques are not practiced." In contrast, at Abilene Christian University, Biology 553, Microbiology, is accompanied by Microbiology Laboratory (3 hours per week), and the lecture course description carries the warning, "Not credited without the laboratory." Hence Abilene Christian University would give no credit for the course as taught at the ICR.

=> [On pages 14 and 15, in remarks about the ICR's course Theoretical Physics II -- Thermodynamics:]

A serious question is raised by what appears to be [a term-paper topic:]

In recent years there has been a surge of interest among the non-creationists in the combination of quantum-mechanical uncertainty and the role of the observer, irreversibility, non-equilibrium processes, and mathematical chaos as a possible way to overcome the difficulty to evolution posed by the Second Law. Has the intellectual difficulty been solved? Can ordered complexity such as that which is characteristic of the biosphere arise spontaneously by chaos?

This is undeniably a leading question, telegraphing the desired "No" answer. In popular lectures, creationists often assure audiences that the Second Law of Thermodynamics categorically excludes the evolutionary process -- at least at the biological level, and perhaps the cosmological and geological levels as well.

This assertion is based on a misinterpretation of the Second Law that is so elementary that few undergraduate physical science majors would be misled. If such a conflict actually existed between the Second Law and the processes of evolution, the conflict would have been noted by the scientific community at large more than a century ago, and would have assumed a central place in scientific debate.

When this Second Law issue was raised at the ICR site visit, the faculty member most concerned responded that he considered interpretation of the Second Law to be a philosophical rather than a scientific matter. But this simply is not so. Whatever its philosophical overtones, the Second Law is as much a physical law as any other, and must be interpreted properly in a physical context. To teach otherwise is a breach of scientific integrity. .

. . The issue really is one of comparability: Is the curriculum aimed at teaching the basic science of physics as it is taught in comparable institutions? The answer is "No." What would be only a deplorable rhetorical device in popular lectures becomes a serious issue of scientific professionalism in the classroom.

=> [On page 19, in remarks about the ICR's "science-education" course called Curriculum Design in Science:] In spite of its stated objectives, this course does not appear to take into consideration current trends in science curriculum design and implementation. This may reflect the background of the instructor, an educational psychologist who has no specific preparation in science education, and who has never taught science.

=> [On pages 21 and 22:] The Institute for Creation Research, by its very name, implies that it is the site of original scientific research. Yet not one of the resident faculty members can be said to have an active, ongoing research program. In fact, those faculty who did have research programs prior to arrival at ICR seem to have dropped out of research entirely. . . .

GERALD AARDSMA (Astro/Geophysics) published five peer-reviewed scientific papers and one internal report in the period 1979-87, all prior to his arrival at ICR in 1988.

STEVEN AUSTIN (Geology) has only a single peer-reviewed scientific paper, published in the American Association of Petroleum Geologists Bulletin in 1978, and one book, published [for] ICR. . . He became a full-time resident faculty member of the ICR in 1979.

RICHARD BLISS (Science Education) lists six articles in journals or newsletters, but none of these are more recent than 1975. He joined the ICR in 1976.

KENNETH CUMMING (Biology) has a respectable list of 18 publications in fisheries research, but the most recent is [from] 1977. He came to Christian Heritage College in 1979, and to the Institute for Creation Research in 1982. [My readers will recall that Christian Heritage is a Bible school in El Cajon, and that the ICR had been a division of that school until 1980.]

ROBERT FRANKS (Biology) lists no scientific publications.

DUANE GISH (Not currently teaching) had a respectable scientific publication record in biochemistry prior to 1976, being first author on 12 papers and a subsidiary author on an equal number. But his active research seems to have come to a halt a decade and a half ago. He was first author on a paper for the last time in 1971, and subsidiary author for the last time in 1976. He came to the ICR in 1971.

HENRY MORRIS (Not currently teaching) has a considerable

publication record in civil and hydraulic engineering, but his last peer-reviewed scientific paper appeared in 1971. He founded the Institute for Creation Research in 1970.

JOHN MORRIS (Geology) has had three papers and one patent, the most recent paper being in 1983. He joined the ICR in 1984.

ANDREW PETERSON (Science Education) lists no scientific publications.

LARRY VARDIMAN (Astro/Geophysics) lists seven peer-reviewed scientific papers and 2 reports between 1971 and 1983. He came to Christian Heritage College in 1982 and to ICR in 1987, and has published nothing since then.

The pattern is clear. Although some of the younger faculty profess their intention to maintain research activity, no member of the resident faculty of the Institute for Creation Research has continued an active and published research program since arrival at the ICR. The Institute for Creation Research can therefore not be considered to be a scientific research institution.

=> [On pages 28 and 29:] The Biology laboratory contains a small amount of equipment of the sort found in a very modestly equipped high school. There is no equipment of any sort for carrying out experiments in biochemistry or molecular biology. . . .

The laboratories for geology are directed toward rock analysis and serving as an adjunct to field studies. They are somewhat less satisfactory than those in comparison schools such as [California State University at Long Beach], but in view of the restricted coverage of topics in coursework, they serve their purpose fairly well. . . . [Despite the use of plurals here, the report tells elsewhere that the ICR has only a single, one-room lab for geology.]

Experimental work in the Astro/Geophysics laboratory seems to be aimed entirely at radiocarbon dating, a very minute fraction of the field of physics. Professor Aardsma currently is involved in the building and refinement of a radiocarbon dating apparatus. . . . However, the [acquiring and assembling of equipment] is slow and irregular, and no firm projection can be made for an "up-and-running" date. . . .

[Aardsma intends] to carry out several projects, one of which is to detect significant radiocarbon in an uncontaminated, freshly mined sample of coal, thereby demonstrating that the sample is much younger than the age assigned by mainstream geologists. This goal illustrates the weakness of much of the "research" carried out at ICR: the object of the research is to defend a prior viewpoint rather than to determine the best interpretation of the experimental facts.

The Science Education laboratory appeared to be the only one of the

four laboratories that is suited to its function. It is well-equipped with displays, demonstrations, small animals, and small equipment of a sort suitable for high-school or elementary-school teacher training. The site visit team was told that classes from the local schools regularly come to the room for special lectures on weekends.

=> [On page 30:] [The committee talked with a student in the ICR's biology program] about his plans following completion of the M.S. The student speculated that he might remain with ICR as their librarian for a while, and after that, he would see. When he was asked whether he might consider continuing on elsewhere for a Ph.D., he commented, "Who would take me, with THIS degree?"

=> [On page 34:] The M.S. theses produced since the ICR graduate program commenced in 1981 are the measurable "product" of this program, and the best witness to its quality. . . . As far as [the committee] could determine, none of the [17 graduates who have written theses] is presently engaged in mainstream, peer-reviewed scientific research, and fewer than half are involved in scientific education or teaching. In the absence of evidence about subsequent achievements of ICR graduates, the four M.S. programs must stand or fall on the quality of the Masters theses produced.

=> [On page 35:] In general, the quality of the theses was low, as compared with M.S. theses from the comparison institutions. They tended to be little more than extended term papers, based on library research rather than true independent research. While a library research M.S. thesis is permitted by the rules of the ICR, the issue of quality of that research remains. [Nearly all theses] were works of advocacy rather than investigation. They set out, not to find out something, but to prove something -- one or another of the creationist tenets. . . .

As far as the [committee] could determine, not one of the seventeen M.S. theses has ever been published in a peer-reviewed scientific journal, or has led to an article that was published there. Examination of the theses shows why this should be so. The standards of scholarship, and even of understanding of the subject matter, are very low.

=> [On page 36, in the committee's comments on a thesis called "A Survey of Heavy Metal Pollution in the Tijuana River . . .":] This thesis is a thorough investigation of consequences of pollution of various kinds in the Tijuana Valley, and includes an interesting approach to sewage treatment. . . . The graduate student worked at the Santee Sewage Treatment Facility prior to coming to ICR, and continued to work there during and after his M.S. program. The experiments seem all to have been carried out at that Facility in the course of the student's regular job. The thesis is essentially a job-related industrial report in bioengineering, and a good one. Its status as representing an original piece of work in biology is less clear. With revision, this thesis might be acceptable at

comparable institutions.

=> [On page 37, in comments on the thesis "A Critique of Molecular Homology":] [The author says] that similarities between molecules in different species could be explained by convergence in similar environments, rather than by common ancestry. [When] the thesis was written, no such examples were known and there were plenty of counter-examples. Since then, one possible example of molecular convergence has been found, but the two molecules . . . most certainly had a common ancestor.

The author also makes other blunders of scholarship in citing the scientific literature. The most egregious is a case in which he quotes a prominent English paleontologist, Dr. Colin Patterson, as admitting that evidence for common ancestry in evolution has been "precisely falsified." A standard literature citation number appears in the text of the thesis. But when one turns to the bibliography of references, one finds that the citation is not to a paper by Patterson, but to a June 1982 issue of "Impact," the four-page essay insert that accompanies every issue of the monthly ICR newsletter "Acts & Facts".

The supposed Patterson "confession" has been thoroughly discredited, not least by Patterson himself. But it keeps cropping up in the creationist literature, and it is discouraging to see the writer of this thesis accept it so uncritically. This thesis, with its many errors of fact and interpretation, would not be acceptable at any university or college of which the committee is aware.

=> [On pages 38 and 39, in comments on the thesis "A Determination of the Time of the Flood from the Geologic Ages of River Deltas":]

The terms "uniformity" and "uniformitarianism" [quotation marks added], which have quite different meanings to a geologist, are used interchangeably in the rhetoric of this work. On page 7 the author argues that the age of a river system can be found by dividing the volume of the delta by the annual deposition rate. While the author professes to know better than to take the deposition rate as a constant, he asserts that, after all, uniformitarians surely won't object to setting the annual flow of a river equal to a constant. He distorts the meaning of the term "uniformitarian" [quotation marks added], apparently for the purpose of reaching the conclusion that he desires, and mocking an opposing view.

This is followed on pages 9-10 by a nonsensical interpretation of uniformitarian arguments. However, the author still is confronted by the need to represent the volume of the Mississippi Delta (the delta on which he concentrates most attention) as far smaller than it is known to be. To this end, he denies the validity of the principle of isostasy, so as to be able to neglect the depression of the crust under the weight of deltaic deposition. He dismisses the principle of isostasy as a mere "model or suggestion," in spite of the fact that it is a simple application of Archimedes'

Principle, and has been amply documented all over the world. Having done all this violence and more to scientific principles, he then obtains an age of exactly 4563 years for the Mississippi River. . . . This thesis is the antithesis of true scientific investigation.

=> [On page 41, the committee tells of a thesis called "A Classical Field Theory for the Propagation of Light", which originated from the antipathy shown by Thomas G. Barnes -- a "creation-scientist" who is no longer at the ICR -- toward 20th-century physics. As for its content:]

While there are some references in the thesis to standard scientific literature, the key references are to such "mystifications" of science as that by (nonscientist) Gary Zukav ("The Dancing Wu Li Masters"), and to unpublished works by other students of the same thesis supervisor. These latter works are cited as proving things which, if true, would have excited widespread interest [within] the physics community. . . .

[The student] demonstrates gross ignorance of special relativity, a theory that he proposes to invalidate or supersede. He treats the famous "twin paradox" (p. 7) as though it were a real, unresolvable paradox rather than an exercise for lower-division undergraduate physics students. . . . Having thus demonstrated his inability to do so, he then invents an ether for the propagation of light, and carries out some impressive looking but totally worthless calculations. The thesis is without scientific value.

=> [On page 42, the committee looks at "Theories of Origins: Do They Persist Despite Contrary Evidence?", which the ICR had accepted as thesis in "science education":]

A thoroughly discredited limitation on the age of the Earth is cited, based on the heat liberated through the decay of the Earth's magnetic field. The Second Law of Thermodynamics is misquoted and misused (p. 105). On the subsequent page is the nonsensical comment, ". . . it is inappropriate to classify [the phenomenon of crystallization] as increasing order and thus being contrary to the Second Law." This is followed by [more nonsense] concerning a "lowest energy state."

Of course, crystallization does increase the order of the system that consists of the molecules taking part in the crystallization, and decreases the entropy of [that] system at the expense of the entropy of the surroundings. Thus crystallization does not violate the Second Law. The comments on the energy of the system betray a misunderstanding of the roles of energy and entropy in thermodynamic processes.

=> [On page 43, the committee dispatches another thesis in "science education" -- one that deals with the creationists' "two-model" doctrine and has a subliterature, 25-word title. The document is invalidated, the committee observes, by a fundamental error in applying a common statistical manipulation called the Student

T-test:]

[T]he T-test is applicable only to two statistically independent sets of data. The author applies it to two sets of results involving use of the same items in jumbled order. Clearly the T-test is inapplicable in this setting and the conclusions of the thesis are invalid. The "analysis" at the end of the thesis is not an analysis but an assertion. It sets forth the common creationist view that creation and evolution both have opponents, and concludes that one is as good as the other, so both should therefore be taught in the schools.

=> [On page 46:] It was noted earlier that the Institute for Creation Research is not, in fact, an institution for scientific research. Based upon the foregoing, it now must be acknowledged that, by the standards of comparable institutions, the ICR also is not an institution for proper graduate scientific education and training.

=> [The final section of the report, "Conclusions and Recommendation," begins on page 46 and has four paragraphs. Here they are, in full:]

The [committee] focused specifically on an assessment of ICR's science degree courses and curricula in order to determine whether the State Department of Education can assure students that the four M.S. degrees offered by ICR do not deviate substantially from similar science degrees offered at comparable accredited institutions.

The conclusion of the [committee], based on the findings specified in this report, is that students of the ICR cannot be provided with that assurance. Specifically, the ICR curriculum is not "consistent in quality with curricula offered by appropriate established accredited institutions," and its courses are not "comparable to the courses required of graduates of other recognized accredited schools." The issue is one of quality control, and of maintaining uniform and recognized standards for the M.S. degree in science and science education throughout the state and nation. The ICR programs do not meet these standards. The recommendation to the Superintendent is therefore to deny reapproval.

It should be noted in closing that the [committee] did not feel it necessary to address any issues of scientific integrity (not "academic freedom" as ICR has argued) that might be posed by the creationist orientation of the ICR; it became clear that the [committee] would be fully occupied with issues of academic quality. The questions raised by creationism, however, are far from trivial. They involve the issue of scientific integrity because of the fact that the unamendable bylaws of the ICR require each faculty member annually to reaffirm his adherence to a particular set of beliefs (the tenets of "scientific creationism") as a condition for continued employment.

Inasmuch as these beliefs or tenets directly overlap the areas of presumed free scientific investigation [by] the faculty, the issues of scientific integrity and unfettered intellectual enquiry would have arisen of necessity, had the low quality of the graduate programs not made those superfluous. To be specific, unless these questions of scientific integrity are adequately addressed, no remediation of the problems addressed in this report will render this program acceptable under [California's education code].

Although all members of the committee were in agreement that there were problems and deficiencies in the ICR programs, one member, Dr. Eimers, did not agree with the estimation of the severity of those problems as they are communicated in this report, nor did he concur with many of the conclusions drawn. Also, he felt that consideration should be given to the positive attitude of the ICR in seeking to implement the suggestions of the previous committee, including the "minority reports."

It was the conclusion of this member that at least [the ICR's programs in geology, in science education, and in "astro/geophysics," with the last renamed and called simply "physics"] were of sufficient quality to meet the minimum standards of comparability and that the problems discovered were not severe enough to constitute sufficient grounds for denial of reapproval by the Superintendent.

The report's last page shows the signatures of the members of the committee. In each case, a signature block tells the university or college, and the department, with which the member is affiliated. This is strikingly different from the signature page of the bogus report that was produced in 1988. That earlier report gave no hint of who its signatories were, or where they might be found.

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## CANCER AND THE POWER OF POSITIVE THINKING

Wallace I. Sampson, M.D., clinical professor of medicine at Stanford University, a founder of Bay Area Skeptics and a long-time student of the fads and fancies of American health care notions, will explore the latest popular ideas about preventing and curing cancer. These notions will be compared with research done by - scientists: they are very different, Dr. Sampson assures us. While researchers study "psychoneuroimmunology", oat brand is advertised on the tube.

Though Mary Baker Eddy, the founder of Christian Science, was not the first to posit non-medical healing methods, she had a profound affect on modern ideas of "mind healing." This American notion survives despite scientific research showing that the brain is merely another organ that works with the rest of the body. Confidence schemers have long exploited this American belief to bring false hope to the ailing. Dr. Sampson, by showing how this quasi-medical belief system operates in our society, will add to the significant contributions he has made over the years in health care education.

Bring your questions.

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