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SHROUD STILL SHROUDED IN MYSTERY

by Steve Orr

[The Shroud of Turin has stirred imagination and controversy among millions since analyses have been conducted during the past five or six years. After all the time and effort, major questions remain. Believers find "proof" of what they want, and skeptics remain skeptical.

Some of the best skeptical review has been done by Joe Nickell in his book "The Inquest of the Shroud", and articles in the "Skeptical Inquirer". The best skeptical evidence points to a 12th - 14th century religious art work using daubed-on dyes, a process that wouldn't leave brush strokes. (Protagonists think a brush is the only way to transfer coloring material.) Bits of blood, Middle-Eastern pollen grains, etc., could very easily have been added to the cloth without concluding Jesus' body was wrapped in and resurrected through it.

Before the advent of high-energy accelerators, dating methods required destruction of the entire sample -- obviously unacceptable for this important relic. Although a date of 35 CE would do nothing to prove that the shroud is what the church claims it to be, it would lend a small measure of credibility by increasing the plausibility. (In fact, testing on almost any feature of the cloth can scarcely make a positive case of any kind; something unexplained is only unexplained, not necessarily supernatural.) On the other hand, any later date than 35 CE would instantly vaporize the religious claims. The church has everything to lose and almost nothing to gain from testing except perhaps relief from the charge of conspiracy to conceal a hoax.

The following article is printed with permission from "The Democrat".]

A university of Rochester physicist who has waited nearly a decade for the chance to help date the Shroud of Turin, believed by some to be the burial cloth of Jesus, now has been told he never will get the chance.

In a reversal of an agreement reached a year ago, the Cardinal of Turin has said that only three laboratories, not seven, will be given a small piece of the shroud to test.

Prof. Harry E. Gove's Nuclear Structure Research Laboratory at the UR is one of the four research institutions that has been dropped from participation.

"I'm disappointed. I've put a lot of effort into it," said Gove, who helped pioneer the sophisticated dating method that would be used to establish the age of the shroud.

Noting that the Roman Catholic Church leaders have changed their minds before on the subject, Gove said he is not giving up hope.

"I don't think the last word has been said yet," said Gove reached at a scientific conference in Nashville, Tenn.

For on thing, the three laboratories that were told they could test the shroud have informed church officials that all seven should be included to enhance the scientific validity of the testing.

"I think they (church leaders) are either going to say they're not going to date the shroud right now, or they're going to reconvene the seven laboratories and talk about what kind of compromise they're prepared to make," Gove said.

Scientists have attempted for years to prove or disprove the authenticity of the Shroud of Turin, which is one of the most prized relics of the Roman Catholic Church.

The shroud, a 14-by-3+ foot piece of linen, bears the image of a bearded man who appears to have been whipped, stabbed in the side and crowned with thorns.

The history of the shroud can be traced back to a 14th-century crusader, who apparently brought the relic to Europe from the Middle East.

The shroud is owned by the Vatican but kept in Turin, Italy, under the care of Cardinal Anastasio Ballestrero.

Some devotees say the image was created by a miraculous burst of energy that accompanied Jesus' resurrection.

The cloth has been subjected to a number of scientific tests in recent years that have showed the image is not imprinted or painted, and which have found traces of blood on the linen.

Those tests did not involve destruction of any part of the shroud. The carbon-14 dating that would be done by Gove and other institutions would involve removal of a piece about the size of two large postage stamps.

The destruction of even a small part of the shroud was a stumbling block for years, though church officials finally agreed to the examination about a year ago. Pope John Paul reportedly approved the study.

But Gove and scientists at the six other research laboratories in the U.S. and Europe received a letter last month from Cardinal Ballestrero saying that only three labs would be allowed to proceed.

Gove and other scientists say they do not know why the decision was changed.

"They spoke about conservation (of the shroud's material) but that does not seem to be a reasonable or plausible reason for reducing the number of labs. The amount of cloth to be taken was minuscule," said Garman Harbottle of the Brookhaven National Laboratory in Brookhaven, another of the laboratories that has been excluded from the testing.

Both Gove and Harbottle said that using three labs -- and not seven -- to test the shroud would be scientifically risky.

"Once in a while, you'll get a really bad number. If that happens with six or seven labs, you can handle it," Harbottle said. But if only three labs are used and one of the finding is wildly erroneous, he suggested, "it will be a can of worms. No result you get after that will ever be convincing."

Speculated Gove: "It's almost as if they (church officials) want it to be done in a way that's questionable."

The testing method that would be used by six of the seven laboratories was one developed at the UR by Gove and other researchers about 10 years ago.

It is an updated version of carbon-14 dating, with which scientists can date once-living objects by measuring the remaining amount of carbon-14, a radioactive isotope that decays at a known rate.

Gove's approach employs a nuclear accelerator and is advantageous because only a very small amount of material is needed.

PARAPSYCHOLOGIST DEFROCKED

The "Sunday Times" in the U.K. airs a bitter dispute between one Dr. Carl Sargent of Cambridge university, a scientist who claims to have proved the existence of telepathic powers and Dr. Susan Blackmore, a researcher at Bristol university's brain and perception laboratory.

For a science (parapsychology) plagued by tricksters and charlatans, but in which Sargent's careful laboratory-based approach had seemed to establish a core of factual evidence, the accusations are an acute embarrassment, if not a disaster.

Blackmore, who spoke at the 1985 CSICOP conference, had read about some of Sargent's work in parapsychological journals and tried unsuccessfully to replicate his astounding results in telepathy and then decided to watch him at work. (Ms. Blackmore worked as a parapsychologist and finally left the field, disillusioned after ten years of negative results.)

Sargent's subjects would lie on a mattress, alone in a windowless room with only a red light, their eyes covered and headphones transmitting "white noise." (All this to try to reduce interfering stimuli.) They were instructed to describe images that came into their consciousness, presumably from senders in an adjacent room. The descriptions were then judged for accuracy against a picture the sender was trying to transmit.

After carefully watching the procedure for several days, Blackmore "saw Sargent handle the envelopes in a way that could have allowed him to know which picture had been chosen." She also said she saw Sargent in what appeared to be an attempt to steer the judge towards choosing a particular picture.

Sargent was outraged at Blackmore's charges, and counter-charged that she "made up her hypotheses on the basis of no more than 'trivial and random' errors, and he stands by his findings."

In what must be characterized as admirable scientific protocol, the Parapsychological Association voted to censure Sargent "for refusing requests to release data from the experiments for checking." There are laudable efforts to maintain a scientific atmosphere in many of the parapsychological laboratories.

BOOK REVIEW

Our own resident UFO expert and former BAS Chairman Robert Sheaffer (who incidentally also writes the "Psychic Vibrations" column for the "Skeptical Inquirer") is coming out with another book this spring. It is a book written from a Libertarian perspective, titled "Resentment Against Achievement", to be published by Prometheus Books. While much of the book deals with political, economic, and religious matters, and hence lies outside the scope of "BASIS", skeptics will be interested in Sheaffer's analysis of the foundation of pseudoscience, which he attributes primarily to widespread resentment against science: envy of the influence, prestige and money of those who have successfully pursued science and technology.

In a chapter titled "Resentment Against Science, Technology, and Medicine," he notes that in the past two centuries the influence and power of the scientific elite has grown dramatically, often at the expense of the liberal arts, and has reduced the demand for and the status of unskilled labor. This has resulted in widespread envy and discontent with things associated with science among some

members of these groups.

The attraction of the pseudosciences, says Sheaffer, is that they allow those who harbor strong resentments against science to imagine that simple-minded explanations are superior to carefully-reasoned ones, derived by disciplined investigation, and hence that those ignorant of science are in fact more knowledgeable than scientists -- who themselves are blind to the "facts" about psychic powers, ancient astronauts, UFOs, etc. The advantage of the pseudosciences is to allow the untrained or even the illiterate to imagine themselves superior to all the scientists who have ever lived.

"Pseudoscience is the manifestation of the belief that ignorant answers are better than carefully-reasoned ones, that the haphazard belief systems of the common people are more correct than those of the scientific and technical elite. The pseudosciences delight the resentful by portraying sages as simpletons and simpletons as sages." Those who are interested in theories that seek to explain the surprising durability of pseudoscientific thinking will want to read "Resentment Against Achievement", which will be available in a few months.

EDITOR'S CORNER

by Kent Harker

Whatever is certain is not science. What is science is forever uncertain. So said Einstein at the turn of this century.

The scientific successes of this century have caused us to regard the person in a white lab coat as something of a demigod, and phrases like "scientifically proven," have become the standard of proof. The expectation is that science and technology can produce everything to make us well, happy and comfortable. There is disappointment and resentment on learning that a doctor might not know everything, or that doctors disagree among themselves.

Truth, with a capital "T", is an end-of-the-rainbow quest from a scientific standpoint. There are four principle barriers between science and "Truth": ignorance, error, anomaly, and counter-example. Leaving ignorance aside, as the solution to that problem is obvious, the job of science could well be how we are able to sort data into one of the other categories. If the newest information does not seem to go along with a particular theory, how do we deal with it? Depending upon how we categorize, we will throw out the information, ignore it, or change a theory.

No matter how powerful the theory, there is always the possibility of that little counter-example lurking out there which will cut the legs from under and overturn the whole thing. For those who need certainty, this comes as a surprise at least, because the man on the street has come to think that what is "scientifically proven"

is fact of the same caliber that 2 and 2 make four. The very nature of science is that it is tentative to a greater or lesser degree.

The so-called scientific creationists attempt to exploit the public misunderstanding of this. The creationists sift the scientific literature (this is the way they do research) to find statements in which a scientist issues a carefully-guarded statement about his or her latest work--words like "it seems that..," or "it may be that..," or "we feel that.."--all used to indicate proper scientific caution (and a little skepticism). Creationists pounce upon such phrases and say it is evidence that scientists only have a kind of religious faith in their theories. No different (they say) than the faith of a creationist in his theories.

The other half of this dichotomy is presented when a scientist extols the power of a theory (evolution, for example), corroborated by a mountain of supporting evidence. Now our antagonist sneers that scientists and their theories are dogmatic, and that after all, it is "only a theory." It is easy to understand why many scientists are unwilling to get into a three-ring circus debate with creationists when polemics and tactical maneuvers are more important than real scientific issues.

I am always impressed by some of the PBS nature series programs. Impressed with the dedication and tireless work of real scientists. Real science is getting dirt under ones fingernails. Real science is spending cold nights in a small tent in Nepal or sweltering noons in the Serengeti with the barest of necessities.

A recent article in the "New York Times" described the work of Bonnie Cole, a doctoral candidate at NYU who just spent 18 months in Uganda eviscerating mice. Her purpose was to test the hypothesis that specialized species die out when their environment changes. This sounds obviously true, but there was no body of evidence to support it, so off she went to Uganda. This is the stuff of which scientific research is made.

Creationists prefer the comfort of the library, browsing through books, newspapers and journals for some juicy citation to show "the other side" is really either weak and uncertain (scientists disagree with one another), or iron-fisted dogmatists.

The constant companion of real science is uncertainty. The ability and willingness to trash years of work with the discovery of new, controverting evidence is the hallmark of science. The decision of when and how to overturn a theory comes back to anomaly, error, or the counter-example. The degree of uncertainty allowed in a given theory is a measure of our confidence in the quality of the evidence and the reliability of the assumptions.

A good example of this problem is illustrated in the theory of radiometric dating. This method is based upon the known time required for the decay of half the radioactive atoms in a sample (the parent material) to a different atom or isotope (the daughter

material). This time, called the half-life, can be determined to a very high degree of accuracy under laboratory conditions.

To make a radiometric age determination of a sample, the ratio of parent-daughter material is measured: very small amounts of daughter material imply a recent date and conversely. Problems arise in that a sample may have had extraneous parent and/or daughter material introduced at any time during the past, which will obviously affect the dating. A primary assumption of this dating method is that the rates of decay have been constant -- it is very difficult to imagine what kind of physics could make them non-constant.

This process of dating is difficult, requiring a great deal of time and some formidable technology. When widely differing dates occur from a single sample (and they sometimes do), study is begun in an effort to determine the extent of intrusion. Dates are then cross checked with as many other methods possible to put a window on the final date. From beginning to end, the work can take as much as a year. In some cases, a large error factor is allowed because of the uncertainties of intrusion and initial conditions.

When a wide error factor is allowed, it indicates the difficulty of sorting out error, anomaly, and counter-example. What does it mean when a moon rock sample is dated at 120 million years old when all the rest check out in the 4+ billion-year range? Is it an anomaly, have we made errors in our measurements, or is it indicative of the real age of our satellite? Since a 120MY date would be a minority category, it would be treated as an anomaly. But the sample would sit on a shelf with a glowing appeal all its own for some bright geologist somewhere, hoping to make a name with a major discovery. That rock is in the back of his or her mind.

A theory about how and why the rock has that age might prove to be powerful enough to challenge the reigning paradigm. Our genius might be able to prove that it is a counter-example, and a single counter-example is sufficient to fell the most noble theory.

Creationists spend their time looking at the uncertainties of science and then showing their congregations (and anyone else who will listen) that scientists disagree, and that there are errors, and anomalies. All this really demonstrates is that scientists are doing science, and that science is alive and well. But they concentrate on the uncertainty, packaged with some errors (the Piltdown hoax, for example) and a lot of anomalies, and then translated the whole thing into a picture of a crumbling superstructure shot through with counter-examples and a conspiratorial community trying to maintain its empire.

The creationist recognizes only one category: counter-example. Of course, this is a simple misunderstanding of science, but it may be due in part to their own position. They claim absolute truth. There is no such thing as anomaly or error in absolutes. The faintest breath of error is anathema to absolutes.

Cosmologists say that the universe might have existed for as much as 20 billion years. Creationists pounce upon the "might," and "as much as," and propose that their 6,000-year-old proposition is just as plausible. We may never have the means of refining the estimates (yes, estimates) of the age of the universe to better than 18 BY plus or minus 3 BY -- a 17% error factor. This magnitude of error has to say to any reasoning person that we are less than certain. There is no attempt to hide this fact of uncertainty. It is openly discussed. But what kind of convoluted logic is involved when one can say that since there is as much as a 17% uncertainty, a 99.999996% uncertainty is thinkable?

The proposition of a six-thousand-year-old universe, using the uncertainty scientists have about the current estimates, is like saying that since we cannot telescopically measure a mountain ridge on Pluto any more accurately than 35.5 miles long give or take six miles, we are justified in saying it is only one inch long.

There will always be error in the human endeavor of science. There will always be anomalies -- unexplained quirks that will require more time and technology to clarify. When a counter-example surfaces, we must be ready, willing and able to change. Change and uncertainty are the nature of science. Rigidity and certainty are the stock in trade of pseudoscience.

PARADOXICAL WHIRLIGIG
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Around and around
Religions do go,
From the days of yore
To the times we know.

Self-contradiction
In a whirligig dance,
Transports the willing
To a specious trance.

False dichotomy
Predicates the spin;
When logic's ignored...
Fallacy sets in!

We skeptics can't bear
Paradigms absurd --
Arguments proposed
From paradoxed "Word".

Would the whirling soon
By inquiry, slow,
Misguidance foregone...

Truth sought, now to know.

NOVEMBER MEETING

by Keith Henson

In the announcement of the November BAS meeting, it was mentioned that animal language was "addressed" at the last CSICOP meeting in Pasadena but no researchers in the field saw fit to present their side to the skeptics. Can't say I blame them. All aspects of the subject have become heavily loaded with emotional controversy.

Our speaker, Ms. Mitzi Phillips, has been working for several years as an assistant to Penny Patterson. Ms. Patterson and her work with Koko have become famous, especially after the "National Geographic" story that featured Koko and her pet kitten. At the November meeting in Campbell, Ms. Phillips described her work in some detail, complete with slides of Koko and Michael, the male gorilla at the Gorilla Foundation location in Woodside, to a sometimes hostile audience of Bay Area Skeptics.

Is this "language"? Ms. Phillips made no claims to such that I noticed. She simply described Koko's ability to communicate with Ms. Patterson and herself, and let the audience apply their own words to what she described. Ms. Phillips made no secret about her attachment to these charming (and most likely doomed in the wild) animals. Many in the audience seemed to feel that there was serious self-delusion involved in her report. The question-and-answer period included comments that Ms. Patterson had not published in reviewed journals, (there are often good reasons) and arguments about semantics.

Subjects that involve changing our world view, or those close to humans' closely-guarded "superiority" seem especially prone to controversy in the form of overstatement and reaction. Much of the initial enthusiasm, and some of the latter criticism was over a single chimp in a distantly related experiment.

Work in artificial intelligence is plagued by similar-sounding arguments and changing definitions. At one time, playing chess was considered an intelligent activity. Now that computers can play at near-master levels, it is considered a mechanical activity. If the trend keeps up, the effect of long-range computer development may be to eliminate the concept of human intelligence entirely! One solution to the ape-language problem would be to simply define whatever they can do as outside of "language". But language is, by its very nature, subjective. Communication involves not only a shorthand exchange of symbols but a shared information base between the two parties. If they are talking in a symbol system we don't know, or we are getting second-hand reports, it is hard to say how much is actual communication, and how much is just the subjective report of one side.

Are the people at the Gorilla Foundation fooling themselves? Or can some gorillas develop a significant ability to communicate with us? More interesting, is there a consciousness out there, somewhat similar to ours, in these magnificent animals? I frankly find the reports of jokes Koko plays on her keepers, her attempts to lie, and her whimsical nature to be more convincing than all the double-blind, item-naming tests that were described. But truth does not depend on my opinion, publication or non-publication in a reviewed journal, or even the opinion of a patron saint of the skeptics.

Is it a good idea for the skeptics to get involved in this subject? After both my experience of rank derision while trying to present the concept of a meme, and this talk, I don't think so. I don't think skeptics distinguish very well between new topics that need thoughtful consideration before they settle down, and topics that just need to be put down.

SURE-FIRE PREDICTIONS

by Yves Barbero

Each year, Psychics make end-of-the-year predictions affecting everything from royalty to volcanoes. And, each year, Bay Area Skeptics takes the previous year's predictions and dissects them for validity. Thus far, it seems, psychics have a low batting average. They should be sent back to the Farm Team on page 57 of your favorite supermarket tabloid.

This year, in an effort to be helpful, I am offering ten predictions that can't fail -- barring a nuclear war, of course....

In the field of politics:

1. President Reagan will not get a crew-cut next year.
2. The Soviet Union will promise to get out of Afghanistan at least three times.
3. Gary Hart's campaign will continue to state that he didn't return to the Democratic contender ranks to get Federal matching funds.

About Royalty:

4. Princess Di will make the cover of the "National Enquirer" twenty or more times.
5. British Royalty will not be abolished.

National Concerns:

6. The Budweiser people will continue to insist that the party animal, Spuds McKenzie, has not been recruited to get young people

to drink.

7. 432 scholars, intellectuals, captains-of-industry and high-level civil servants will be asked if they are "fun people" before being allowed on the radio by talk show hosts.

Sports:

8. A team from either the National League or the American League will win the World Series and at least one football team will win the Superbowl.

The Media:

9. Four hundred and six new diet books will appear on the market. Three hundred and eighty-two cook books will also appear. Seventeen new brands of cigarettes, all low in tar, will appear on the world market.

10. A public relations professional will decry the fact that his candidate can't get his real message across on television and make us all yearn for the good old days of yellow journalism.

And finally, I know it's eleven, but spokespersons for Bay Area Skeptics will insist, at least 765 times, that because a psychic is sincere, does not mean he or she is right.

RAMPARTS

("Ramparts" is a regular feature of "BASIS", and your participation is urged. Clip, snip and tear bits of irrationality from your local scene and send them to the Editor. If you want to add some comment with the submission, please do so.)

The "Buffalo News" reports that Shirley MacLaine's metaphysics class was singularly unenlightening in a literal sense.

The metaphysical Ms. had just started a class of 1,000, teaching them how to connect with their higher selves "when a 12-inch water-line burst near the hotel and flooded a power station." The power went out in the hall and candles were rushed into the room. Shirley instructed her disciples to sit cross-legged on the floor and meditate to "spiritually repair the broken water main."

"Imagine the water slowing down", she told them. "Now picture the workmen finding the broken pipe and securing them together."

The scheduled seven-hour seminar concluded several hours later -- still in the dark.

Shirley can't seem to keep herself out of the news on all psychic

fronts. The "Minneapolis Star and Tribune" shed light on some definitely in-body experiences of an out-of-body channeler for Ms. MacLaine.

Charles Silva pleaded guilty to two counts of criminal sexual conduct for deceiving two female patients into "believing they were receiving therapy when he attempted to have sex with them."

Silva is facing deportation to Peru as a result of the charges. He claims that he was MacLaine's guide and confidante on her Peruvian trip, which led to her book "Out on a Limb".

The razor-tongued advocate sounds the depth of his knowledge of logic as he plies his craft prosecuting his case.

So why isn't there a carry-over to normal, work-a-day routine? Attorney Peter Gersten, a criminal lawyer in New York, is reported in the "Reporter Dispatch" to have conducted a UFO conference in White Plains, NY, and he recounted that "12 unrelated earthlings in the Hudson Valley have reported being kidnapped by aliens."

"Twelve is too large a number for the hostage reports to have been coincidental fantasies." (He thinks that is the only other possibility.) He added, "...the chances of that happening are astronomical unless there's actually something there. If a dozen people said they were taken hostage by a motorcycle gang, their claim would generate a massive investigation."

Well, Peter, this means that there is still hope that sanity reigns in our police departments when they can distinguish between the importance of investigating a Hell's Angels hostage take and a Space-Men hostage take.

BAS advisor Earl Hautala was inspired by the November "BASIS" blurb in "Ramparts" about psychics for our pets when he saw an article in "The Wall Street Journal". Sales must be down, because they ran a four-column article about psychics in the help-you-understand-your-pet business. Anything you want to know about what your pet is thinking or would like to tell you can be ferreted out by an especially sensitive psychic. Some of them are even specialized. Go one place for your cockateil and another for your iguana. A dog psychic, Lydia Hibby, told the owner of a white spaniel named Didi that "Didi wanted to know what happened to the big black dog I had six years ago. We thought Didi was stupid, but evidently she lies around and thinks a lot.

A cat named Lulu told her owner to "stop trying to sneak out of the house and pretend that she doesn't notice".

As to how the animals manage to send their notions to us, psychic Alice Lydecker says she "mentally asks questions, and receives images from the pet". Of course, you can pay for a seminar and

tapes and learn how to psyche your pets by yourself.

Well, this stuff is big business, so maybe the "Journal" is just keeping up on the entrepreneurial spirit in the world of psi.

Channeling is the big thing -- business is booming, reports the "Journal". (Our own sturdy psychic, Sylvia Brown, keeps abreast of the best trends by cashing in on the channeling mania; she trance-channels an "Aztec-Inca".) The most lucrative way to get on the band wagon is through numbers. Seminars. If you want to have some New Age experience you've got to do it in a seminar. Maybe this is just good ol' red-blooded American capitalism.

What it all says is that people don't want honesty or truth. We want feelings.

NEW BOARD MEMBERS

With the New Year there are some new faces on the BAS Board of Directors.

Former "BASIS" co-editors Diane Moser and Ray Spangenburg have been under contract to write a couple of books since their resignation as editors, but they have remained on the board to have a voice in the affairs of BAS. Regrettably, time constraints have grown tighter, and they have asked to be replaced. We will miss their moderating influence and wish them well in their work.

Michael McCarthy has also requested release from Board membership. He worked closely with Steiner and Sheaffer in founding BAS. Sincere thanks to these three people who have given their time and talents. They have all assured us they will stay close and give support and advice.

Well, the next order of business is to fill the vacancies.

We have come to regard the services of the "bane of the faith-healers", Don Henvick, as a given. Don has spent large sums of his own money, not to mention time, traveling throughout the country to track the likes of Popoff and Grant. His work has been a major contribution to the decline of W.V. Grant and the virtual fall of Peter Popoff. We feel fortunate to have his influence on a formal basis, as he has accepted a position on the board.

Norman Sperling has been closely following the activities of BAS for the past four years. He was editor of "Sky and Telescope", and is completing his M.S. in science history at UCB. Norm has one of those minds that absorb detail to such an extent that you had better have your facts absolutely correct or you will find them in your lap! If some detail is in a book he has read, it is in some neuron above his shoulders. The guy must have cortical material in his legs.

"BASIS" and the rest of the Board of Directors welcome Don and Norm, and we want the readers out there to know that this board is dedicated to the goals of BAS.

AUSTRALIAN CATHOLICS DENOUNCE CREATIONISM by William Bennetta

The Catholic Education Office in Sydney, Australia, has issued a paper that denounces creation science as nonsense and tells plainly that the proponents of creation science rely on fraud and deceit.

The Office is responsible for religious instruction in some 340 Catholic schools in the archdiocese of Sydney. It began vigorously to combat creationism in the autumn of 1986, when it published a paper -- called "The Two Books of God" -- that rejected biblical literalism, rejected creationism, made clear that creationism contradicted the teaching of the Catholic Church, and declared that no teacher should consider presenting creationism as if it were scientific.

The Office's new paper is called "The Bumbling, Stumbling, Crumbling Theory of Creation Science", and it carries an introductory note that says, in part:

"This paper considers creation science as science. It clearly demonstrates that creation science is a pseudo-science and utter nonsense. In addition, this paper shows beyond any doubt that creation science uses fraud and deceit to achieve its ends.

"Creation science is also shown to be the evangelizing area of a narrow, US-derived fundamentalism.

"Brilliant marketing techniques have been responsible for the significant success of creationism.

"Creation science has no place in Australian schools. This is demonstrated conclusively for any reader with an open mind."

The paper was issued officially on 1 December 1987, and a front-page story about it appeared in the "Sydney Morning Herald" of that date. The headline was: "Creationism Utter Nonsense, Catholics Told." Here is an excerpt from the story:

"The booklet, published by the Catholic Education Office (CEO), says the Biblical account of the world's origins is not meant to be taken at face value.

"It encourages children to ask how Noah managed to carry in his 133-metre-long Ark pairs of dinosaurs weighing up to 70 tonnes each -- `among them the most ferocious meat-eating predators' -- not to mention hundreds of thousands of pairs of insects.

"It also ridicules attempts by some creationists to reconcile the apparent age of the universe with their belief that God created the world 6,000 years ago.

"It singles out the creationist view that the speed of light has slowed down since the day of creation, a view needed to explain why the light from distant stars appears to have taken millions of years to reach us.

"Using creationist calculations, it argues that light must have traveled 200,000 million times faster at the time of creation than today.

"If that were true, the energy from lighting a match would be 4×10 to the 21st power times greater, since the energy depends on the speed of light squared.

"Fires lit by the first human beings 6,000 years ago would thus have triggered the equivalent of small nuclear detonations."

It also attacks creationist claims that Aborigines have not been in Australia for 40,000 years, as archaeological evidence suggests, and that their Dreamtime stories are memories of the main events recorded in the Bible.

"Surely it must be close to blasphemy to dismiss the aspirations, hopes and religious history of a proud people as 'racial memories of Creation and the Tower of Babel'."

Readers may order a copy of "The Bumbling, Stumbling, Crumbling Theory of Creation Science" by writing to Barry Price, Catholic Education Office, Archdiocese of Sydney, 42 Consul Road, Brookvale 2100, Australia.

This article is important if for no other reason than it shows the absurdity of the creationist dichotomy that origins thinking is only between themselves and atheistic evolutionists.

THE GANZFELD EXPERIMENTS

Peter Bishop, President of the Humanist Community of San Jose, will be the featured speaker at the March BAS meeting.

The so-called "Ganzfeld" (German for "total field") experiments are characterized by a technique for the study of perception that creates a homogeneous visual field by placing halves of ping-pong balls over a subject's eyes, and then shining a bright light on the balls. The subject is placed in a comfortable position and white noise is played into earphones. All this is done in an effort to place the subject's mind in "neutral" so the test will involve only the variables directed by the experimenter. Experiments conducted

with this method are alleged to have produced the most startling evidence confirming psi.

Bishop will share his considerable analyses and critique these experiments, showing that major design flaws exist. Bishop will review the critical work of CSICOP fellow Dr. Ray Hyman and add his own analyses.

Join BAS for this educational presentation. The Ganzfeld experiments are hailed as some of the best proof of psi, so it is important that informed skeptics be up to snuff on this work.

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