

Bay Area Skeptics Information Sheet  
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Editor: Kent Harker

## WHAT IS REAL?

[The following was excerpted from a lecture professional magician David Alexander gave in a recent meeting at CSICOP headquarters. Alexander's impressive credentials are spread over a variety of interests including private investigation and publishing. He is working closely with the Committee for the Scientific Examination of Religion (CSER) investigating the activities of faith healers.]

How does one determine what is real from what is fake when the fake looks so real?

People generally do not realize, or care to admit, what poor observers we really are, and how vulnerable to manipulation we can be. Invariably, people describe what they think they saw, not what they really saw. Their recollection of what is seen may be controlled and shaped by the person who presented the effect. This is why eyewitness accounts of the supposed miracles of psychics are considered unreliable by any investigator familiar with the psychology of the presentation of magic.

In order to spot the fake, one must have certain kinds of knowledge. Being fooled by a magician or psychic is not a case of being stupid. It is a matter of not having specific kinds of knowledge.

The great French magician and father of modern magic, Jean Eugene Robert-Houdin, stated that a magician is an actor playing the part of a psychic.

A magician's success is in the skill he exhibits in influencing the spectator's mind. It is completely a matter of controlling the audience's thinking. Misdirection is the single-most-important tool in influencing what the spectators sense and perceive. The skilled magician is adept at attention control and physical and psychological disguise.

What is the difference between a magician performing and a psychic working? They both look the same; that is, they both look "real." Since many times both the magician and the psychic employ the same physical and psychological methods, how are they different?

They are different in the context and mind-set in which their performance takes place, and in their goals and results. The

psychic's ethic is completely different. He uses the same methods and psychology as the magician, but in a different context and to a different end.

In both cases, when the objective is realized -- that is, the acceptance of the performer's false premise -- careful examination almost invariably stops. This happens in a magic show when the audience gets caught up in the mystery and good humor. They stop examining and simply enjoy the show. With a psychic it usually happens at the beginning of the relationship with the client when the psychic validates his or her powers quite thoroughly. Once the client accepts the "reality" of the psychic's ability, little or no further questioning occurs. A leap of faith has taken place.

We must always remember that the psychic has one additional advantage at his disposal: the client's unflagging belief in the paranormal and faith in the particular psychic. Faith may move mountains, but it also moves a lot of money into the pockets of those who would exploit it.

I once went to a seance and asked for the spirit of my father, who had died when I was quite young.

When he "appeared," I asked his name. I received the answer, "You know, son." Well, I knew this was all a crock, yet there was a tremendous emotional pull at that moment. It was all very powerful, but came from within me, not from any spirit manifestation. In order to fully understand why people go to mediums and psychics again and again, we must understand the powerful emotional component that is within all of us.

Mark Twain is credited with the line, "A lie can be all the way across the country before the truth can get its boots on."

Much of the credit or blame for the widespread and uncritical belief in the paranormal can be laid at the feet of the media. The media are very poor at accurately reporting the paranormal, and rarely follow up when skeptics become involved.

Unfortunately, in examining paranormal claims, the media and modern society have gotten their methodology backwards. Claims are made by almost anyone, and skeptics are then challenged to disprove them. Actually, what a skeptic or any rationally inquiring individual must do is prove nothing, but dispassionately and carefully examine the evidence alleged as substantiating the claim. It is not the job of the rational investigator of paranormal or supernatural claims to disprove them. The person making the claim has the burden of proof.

Many times, when evidence is presented, it turns out to be nothing more than a personal story, told with conviction to be sure, but an anecdote nonetheless. We are finding more and more that belief in the paranormal is being sold like soap and religion by highly personable and charismatic individuals who have books, movies,

self-development classes or tapes, or some other product to sell a public which lacks the specific knowledge necessary to critically examine their claims.

Recently, the L. A. "Times" quoted David Griffin, Director of the Center for a Post-Modern World, as saying that he encourages people to abandon skepticism of any extra-ordinary phenomena. It is frightening to see a theologian at a major seminary accept aspects of the paranormal as valid without any critical judgment.

To encourage people NOT to be skeptical is very sad, when it is skeptical inquiry that is the basis for scientific investigation, creativity, and the expansion of human thought and understanding. If we give up the ability to be skeptical, to inquire, to question, we have given up a great part of what makes us human.

## FLOOD THEORISTS SINK

by Edgar Deacon

The recent defeat of fundamentalist Christian creationists (FCC) in the Supreme Court was a blow, but not a mortal one. The principal grounds upon which the appeal was overturned was the view that creationism promoted or endorsed a particular religion. That is not really how the argument should have been settled, but the FCC brought suit, realizing they could not make their case the way normal science does: by presenting evidence.

Australia has no equivalent constitutional provision for the prohibition of state-sanctioned preferential religious indoctrination. Thus, the eyes of the academic community have been focused upon the Land Down Under to see how they fare -- particularly since they have a very strong and active FCC faction. The following article first appeared in an Australian publication, "Future Age".

In Australia, the fundamentalists, have achieved some success, particularly in Queensland where the former Minister of Education encouraged the teaching of creationism in state high schools. In every state in Australia, fundamentalist private schools are subsidized by taxpayers.

The Aussie FCC use the same tack as here in the US: Attack evolutionary theory, and, by perpetrating a false dichotomy, declare that creationism is thus established.

A major tactic is to try to show that the methods developed to determine the ages of rock formations are unreliable. Many of their arguments are designed to be confusing and hard to refute convincingly for those not well acquainted with the particular branch of science involved. But creationists have been rash enough to attribute coal formations to Noah's flood, which, they claim on biblical grounds, to have occurred about 2500 BCE. This claim is

nonsensical; and it can be shown quite simply without appealing to complex scientific issues.

Before outlining the creationists' ideas on coal formation, it is necessary to give the geological account, which holds that coal seams are consolidated and modified plant material resulting from the growth over long periods in the distant past of vegetation in luxuriant swamp forests near sea level.

Later subsidence of the land covered the deposits with sediments such as mud and sand. This deposition, perhaps aided by subsequent uplift of the sea floor and changes in sea level, led eventually to another period of swamp conditions.

Many repetitions of this cycle of events sometimes occurred, resulting in the formation of various layers of vegetable matter separated by layers of sediment.

In the course of time, heat and pressure from the overlying deposits converted the layers of vegetable matter into seams of coal.

The creationist scenario is based on the fact that after the 1980 explosive eruption of densely forested Mt. St. Helens, a gigantic raft of broken logs and stumps floated on nearby Spirit Lake. These eventually sank to form a stratum which the creationists maintain would soon form coal, after being covered by further deposits of volcanic ash and sediments. The conversion, they say, would be speeded by heat and the catalytic action of clay mixed with the deposits.

In their 1985 article "Coal, Volcanism and Noah's Flood," published by the Creation Science Foundation, the authors conclude that "It is entirely feasible that all today's coal seams were formed by the volcanism, flooding, erosion, tectonism and hydrothermal activity during the global year-long Noah's Flood catastrophe and its aftermath."

Even if a world-wide flood was credible, one obvious objection to this story is that broken logs and stumps pack very loosely: even if coal could be so formed, it would inevitably contain much volcanic ash and mud. But many bituminous coals contain little more ash than that derived from the original vegetation -- some as little as two percent.

While some coal deposits give evidence of plant material having been carried by flooding into depressions to form thick coal seams, there are many other instances where bituminous coal seams of fairly even thickness extend over large areas.

There is reason to believe that they mark the site of the original swamps in which the parental vegetation lived and died, and that there has been no appreciable influx of plant material from surrounding areas -- a view supported by the fact that the clay

below such seams is riddled with innumerable rootlets of the plants that originally colonized the swamp.

A well-explored example of an extensive seam is the Pittsburgh seam of bituminous coal, which has an average thickness of ten feet under some 3,500 square miles around West Virginia. In the 1/2 mile below this seam there are a dozen others interleaved between strata of sandstone, limestone and shale (consolidated clay). There are no layers of volcanic origin.

The limestone formed by the deposition of the shells of small marine organisms along with some precipitated calcium carbonate, represent very long quiet periods quite inconsistent with creationist catastrophism.

The orderly sequence of strata, according to orthodox geological reckoning, belongs to the Upper Carboniferous period and was laid down over a 15-million-year period some 300 million years ago.

Some realistic idea of the vast extent of geological time can be gained if the catastrophic coal theory is rejected in favor of the swamp-forest origin. An estimate of the time represented by the thickness of a coal seam can be inferred from the amount of vegetation produced annually under favorable conditions by a complete plant cover in a moist tropical climate, which is of the order of 40 tons to the acre of dry plant material. Consolidated into a uniform layer, this material would have a thickness of less than one-quarter inch. However, much material is lost during decay as carbon dioxide and methane (marsh gas).

After the formation of peat there is further loss. It has been estimated that at least three feet of peat is needed to produce 1/2 inches of coal. So it should be fairly conservative to take each measure of thickness of a coal seam to be the product of one year's growth of the original swamp forest. Then the 10 feet thickness of the Pittsburgh seam corresponds to a lifetime of the swamp forest to the order of 3000 years -- a sizable fraction of the age of the FCC universe. And, in the half mile below this seam there are a dozen others, all representing just one interval in the latter half of the Carboniferous period.

Flood geology cannot account for the absence of fossils of animals and birds in the strata that sandwich such coal seams as the Pittsburgh one. According to Genesis, the world was well stocked with animals and birds at the onset of the flood, but the highest forms of life associated with the Carboniferous strata are primitive land reptiles, and marine fishes and sharks. Had higher forms of life existed their fossils could hardly have been missed, because of the great attention given to these commercially important strata.

But fossils of more advanced creatures are found associated with the coal seams of later geological periods. For example, in Cretaceous seams, were laid down around 160 million years after the

Pittsburgh seam. The fossils include dinosaurs and birds, but only small mammals.

Cretaceous seams are distinguished from the carboniferous by the associated vegetation: they include fossils of flowering plants and trees which are absent in Carboniferous seams because they had yet to evolve.

The assumption of a world-wide flood is the major absurdity of Flood geology. The FCC choose to ignore the remarkable parallels between the Genesis account and the earlier Babylonian legend, according to which the flood was also a punishment for sin, with only certain favored individuals being saved by building an ark.

Indeed, a remarkable flood does seem to have occurred during a prehistoric period of settlement beside the Euphrates. Excavations at Ur, the birthplace of Abraham, according to Genesis, conducted by Sir Leonard Wolley earlier this century, uncovered pottery and other objects, the period interrupted by a three-foot depth of clean water-laid clay. The clay layer is tangible evidence of a mighty flood, but there is no reason whatever to suppose it extended beyond the lowlands of Mesopotamia.

Memories of such a flood, embroidered with myth, undoubtedly would have persisted into the historic period.

[Edgar Deacon is a former principal research scientist with the CSIRO division of atmospheric research.]

## 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.]

From the "Arizona Republic", Tom Haydon mailed us the latest exploits of the bankrupt and irreverent Rev. Peter Popoff. Peter is trying to reorganize a new ministry in the Phoenix area begging \$100 donations. His latest pitch is to get money to print Bibles for distribution behind the Iron Curtain. (On that score, "Free Inquiry" magazine has proof that Popoff is running a scam here, too.)

The article goes on to inform us that "God soon would reveal to him the name of the Antichrist. Popoff said he also knows when the next world war will commence, and he claimed knowledge of an array of other prophecies."

"BASIS" wonders if his wife, Elizabeth, is still giving him all his information.

C. Baldo forwarded an item from the "Union Democrat" about the "vanishing pet" theory; i.e., when the menagerie splits you know it is earthquake time.

Well, some people at UC Davis did some real study, and found that there is "no connection between lost-pet ads and the chance an earthquake will occur." This contradicts geologist James Berkland's notion that animals have some sense of the impending temblors.

The Davis geologists found that the more likely reason your pets leave home is because they are lovesick, been stolen or killed, or just don't like you. Most significant is that fact that "pet owners often don't place ads until their dog or cat has been missing for several days."

The ever-busy Virgin Mary is adding new ventures to her agenda. Her personal interviews with channelers, apparitions in Yugoslavia, appearance on tortillas, images on water tanks, and crying in icons are never enough. The Holy Mother is gracing the exterior walls of a home in Bakersfield so report skeptics Mr. & Mrs. Randy Smith from an article in "The Bakersfield Californian".

The homeowner, Mr. Zamora, has done extensive testing to prove that the apparition is not the result of special light bulbs. He has replaced them all with K-Mart bulbs, and Mary is still there.

So as not to daunt the flow of pilgrims that nightly (Mary only appears at night when the lights are on the house) trample the neighborhood, Mr. Zamora has cemented his entire front yard.

BAS secretary Rick Moen routed a page from "Insight" outlining the exploits of a New Jersey psychic who couldn't let well enough alone. This woman told a lady that her dear departed husband had a curse that had caused him many years of illness, hard luck and operations. Perhaps death is not the curse of all curses. Anyhow, the lady paid the psychic a total of \$7,000 cash and another \$2,000 in expenses (such as ritual candles).

Finally, the miracle woman declared the curse removed, to the great wonder and happiness of the victim, not to mention the relief of the deceased. The trouble began when she apparently did not want to let go of this ready source of cash, so she informed her pigeon that her mother had a curse, too.

Attorney time. The mark is seeking repayment of all the monies collected by the psychic.

"Knowledge is choked by its own undergrowth." Anon.

## PANEL DISCUSSION

by Julie Stern

As a film crew from TV station WTTG in Washington looked on, a panel of experts discussed the latest controversy concerning UFOs -

- alleged abductions -- or, in one case, changed the subject. Close to 200 people attended NCSA's first general meeting, held on June 7 in Bethesda, and the Channel 5 new report that night gave the fledgling organization a welcome kickoff.

The event -- billed as a lively discussion of "UFO Abductions: Fact or Fantasy?" -- started with a review of the history of such claims by moderator James Sharp, director of the Albert Einstein Planetarium at the National Air & Space Museum. He started with the 1961 Barney and Betty Hill case and concluded with several claims made in the 1970s, shortly after a movie based upon the Hill incident was rerun on television.

Sharp then asked, "What have the aliens done for us lately?" He cited two recent bestsellers -- Whitley Streiber's "Communion" and Budd Hopkins's "Intruders" -- that claim that extraterrestrials have abducted and experimented on humans. "Are these historic claims of UFO abductions fact or fantasy?" asked Sharp of the afternoon's speakers, Philip Klass, a founding member of CSICOP who has been investigating famous UFO cases for more than 20 years and written several books on the subject, and Bruce Maccabee, a research physicist employed by the Navy and chair of the Fund for UFO Research, who has also been investigating UFO cases for nearly two decades and has published widely on the topic.

Klass began by reviewing Hopkins's claim that hundreds or even thousands of people are probably unknowing victims of UFO abductions. He asked members of the audience whether they have ever experienced some of the three key "Hopkins' criteria" for evidence of abduction: "Have you ever experienced missing time (discovered that it was either later or earlier than you thought)? Have you ever had a nightmare in which you dreamed you saw strange-looking creatures, or in which you dreamed strange things happened to you? And have you ever looked at the night sky and seen a light that you could not immediately identify?" asked Klass. Tongue in cheek, he announced that the many members of the audience who responded "yes" to all of these questions had probably been abducted by aliens, and that, based on this sample, the number of abductees is probably much higher than even Hopkins claims.

Klass went on to provide some insight into Hopkins' methods in investigating abduction claims, describing assumptions based on the hesitant statements and dreams of troubled people, the further assumption that a story must be true because it is similar to a story told by another person, and the failure to search for evidence that would verify these stories. Klass continued with a description of the "Kathy Davis" case, which Hopkins considers "one of the most important UFO abductions cases because of the physical evidence." Klass, however, failed to see any such evidence, and

presented down-to-earth explanations for many of the phenomena and experiences described by Davis.

Maccabee began by stating that he too is a skeptic. He has long been skeptical of UFO reports, he said, but he is also skeptical of explanations and is bothered by on-sided skepticism. He admitted that we have at hand no hard physical evidence, and that there certainly have been some hoaxes. But he dismissed the opinion that there are no unexplained reports of UFOs, saying that in fact there have been many unexplained sightings.

Maccabee then surprised many listeners by stating, "This discussion is concerned with abduction reports. However, I do not intend to use my time discussing such reports. Sorry about that. Instead, I want to provide a background for understanding." Saying that Klass's discussion of Hopkins' work had been brief and trivialized, he went on to state that listeners could not understand Klass's account and its importance without a background in the subject. "You cannot understand where the phenomenon of abduction reports fits into the UFO picture without understanding a general history of UFO reports," he continued. "I would like to emphasize the point that if there were no unexplained `plain-vanilla type sightings' I wouldn't be here today, because abductions themselves are not particularly interesting to me unless they're tied in to something else."

Maccabee spent the remainder of his time describing several UFO incidents, beginning with the 1947 Kenneth Arnold sighting and concluding with the November 1986 Japan Airlines sighting, which he argued have never been explained. He expressed the view that, while scientists have tried to explain these events, they have not been skeptical enough, and have accepted explanations that do not even match the descriptions of eye witnesses.

Klass, who looked surprised through much of the talk, began his response by apologizing to the audience for Maccabee's failure to address the agreed-upon topic. He countered Maccabee's argument that the JAL sighting is unexplainable with a brief description of his present convictions about what the 747 crew saw: the planet Jupiter and reflections of the full moon off clouds of ice crystals.

A lively question-and-answer session followed. When Maccabee's responses to several questions evolved into lengthy responses to some of Klass's comments, Klass interrupted to ask Maccabee if he was giving a second lecture, and both Klass and Sharp cautioned him to restrict himself to answering the questions asked. Klass, in turn, was chastised by a questioner for his "uncharitable behavior to other speakers and UFOlogists."

"Words are the most potent drugs used by mankind." Kipling

## QUACKERY'S APPEAL

["It beats The Truth" is a first-person account by Samuel Uretsky, D. Pharm., of his experiences with several AIDS patients whom he has come to know in his work at N.Y.U. Medical Center. His poignant account strikes at the sensitivity that we all must have for the desperate victims of quackery.]

AIDS patients don't merely LIKE to talk, says Uretsky, they HAVE to talk. AIDS patients collect facts and try to fit them together like pieces of a jigsaw puzzle in the hope that enough facts will make a truth. He tells of having saved one patient from financial exploitation by the promoters of RNA/DNA capsules, but wonders if the truth gave him as much as it took away by the sadness he exhibited. After helping another victim avoid being ripped-off by "catalyst-altered water" he says that the patient doesn't come around anymore.

Other cases of uncertain gratitude conclude with the lament that the money doesn't mean very much to the hapless AIDS patient. It also reveals that people who are willing to take time and give of themselves can provide some comfort to the condemned. Others tell us that abandonment is more painful than the prospects of death itself.

(From the "American Journal of Hospital Pharmacy")

## NONBELIEF vs. DISBELIEF

by Hans Sebald, Ph.D.

The editorial in the current issue of "The Zetetic Scholar", a cousin of the "Skeptical Inquirer") ruminated on the distinction between dis- and nonbelief. The distinction was drawn so stringently that any statement of disbelief -- denying the reality basis of a claim and its believability altogether -- called upon the disbeliever to prove the reality basis of his or her disbelief; that is, actually to prove that the disbelieved phenomenon does not exist. On the other hand, nonbelief presumably assumes a somewhat agnostic point of view, a noncommittal attitude, merely expecting that the claim made will first have to be proven a fact and reality.

Though I respect the opinion and the writings of Marcello Truzzi, the editor of "The Zetetic Scholar" -- after all, we both are skeptics and battle irrational and bigoted belief systems -- I differ from him on the way he distinguishes between the responsibility that ensues from the disbelieving stance.

Certain claims or assumptions made about the nature of life and the universe are absurd. The word absurd means that a statement or

assumption is "So clearly untrue or unreasonable as to be laughable or ridiculous" ("Webster's"). For example, an assertion that the center of the earth consists of one gigantic patriotic apple pie is simply unacceptable to me, even as an hypothesis -- regardless of whether or not I can PROVE its nonexistence. According to an overdrawn definition of disbelief I would have to prove my claim of nonexistence.

I think there are limits to which disbelievers may be held responsible to actually prove that certain claims have no basis. I do not consider a statement of disbelief as an article of faith that has to be defended when absurdity strikes.

In my view, I draw the line between disbelief and nonbelief according to the plausibility or absurdity of the claim. In spite of my inability to prove that the inner core of the earth is NOT made up of apple pie (so far spared discovery by pie-witching dowsers), I do not have to prove it, because the claim is absurd. Admittedly, this is a facetious example, but it makes the point.

And it is not more preposterous than the belief by certain fundamentalist Christians, who take the Bible to contain the literal story of the creation. While a god-inspired creation story (in terms comprehensible to the people of that era) is plausible, the literal 6-day creation is absurd knowing what we know now. One could argue that the fundamentalist absurdity is greater than the apple-pie worshiper's.

While apple-pie corers at least talk about a center that actually exists, fundamentalists talk about things that are verifiably incorrect. Both claims -- apple-pie core as well as 6-day creation -- are absurd, because whatever reliable and empirical information we have about the nature of life and the universe abrogates the believability of them. The Bible is more realistically understood in the historical context that created its ideas and metaphors.

On the other hand, if someone asserts that clairvoyance works quite well under certain conditions, I would be an interested nonbeliever asking for demonstration and verification.

My point is a simple one; let's not enshrine the sanctity of nonbelief in absurd temples. I think there is absolutely nothing narrow-minded or dogmatic about disbelieving when it comes to claims characterized by such ill logic and absurdity that a NON-believing stance would constitute a sham, a fake, and an absurdity in itself.

I am affirming, however, the virtue and advisability of nonbelief when we confront claims about observations and anomalies which deserve further clarification and explanation. The point is that a disbeliever should A PRIORI neither be judged as closed-minded nor held responsible to bring proof for the denial of the reality-basis of absurdities.

I see nothing wrong in a strong dose of disbelief for a wide range of absurdities which our cultural heritage has imposed on us.

(Dr. Sebald is Professor of Sociology at ASU, and first wrote this article for the "Phoenix Skeptics News".)

## SIN SIGNS

(Submitted by Dr. Leilani Allen)

**AQUARIUS:** You have an inventive mind and are inclined to be progressive. You lie a great deal. On the other hand, you are inclined to be careless and impractical, causing you to make the same mistake over and over again. People think you are stupid.

**PISCES:** You have a vivid imagination and often think you are being followed by the FBI or the CIA. You have minor influence over your associates and people resent you for flaunting your power. You lack confidence and are generally a coward. Pisces people do terrible things to small animals.

**ARIES:** You are the pioneer type and hold most people in contempt. You are quick-tempered, impatient and scornful of advice. In short, you are not very nice.

**TAURUS:** You are practical and persistent. You have a dogged determination and work like hell. Most people think you are stubborn and bull-headed. You are a communist.

**GEMINI:** You are a quick and intelligent thinker. Everyone likes you, because you are bisexual. However, you are inclined to expect too much for too little. This means, in short, you're cheap. Geminis are known for committing incest.

**CANCER:** You are sympathetic and understanding of other people's problems. They think you are a sucker. You are always putting things off. That's why you will never amount to anything. Most welfare recipients are Cancer people.

**LEO:** You consider yourself a born leader. Others think you are merely pushy. Most Leo people are bullies. You are vain and dislike criticism. Your arrogance is disgusting. Leo people are known thieves.

**VIRGO:** You are the logical type and hate disorder. This nit-picking is sickening to the few friends you have. You are cold and unemotional, and have been known to fall asleep making love. Virgos make good bus drivers.

**LIBRA:** You are the artistic type and have a difficult time with reality. If you are a man, you are more likely retarded. Chances for monetary gains are excellent. Most Libra women make good prostitutes. All Librans die of venereal disease.

SCORPIO: You are shrewd in business and cannot be trusted. You shall achieve the pinnacle of success because of your complete lack of ethics. Most Scorpions are murdered.

SAGITTARIUS: You are optimistic and enthusiastic. You have a reckless tendency to rely on luck since you lack talent. The majority of Sagittarians are drunks and/or dope fiends. People laugh at you a great deal.

CAPRICORN: You are conservative and afraid of taking risks. You don't do much of anything. There has never been a Capricorn of any importance. Capricorns should avoid standing still too long, as they tend to take root.

## EDITOR'S CORNER

by Kent Harker

The early part of May brought the startling and dismaying revelations that the President of the United States has at least made changes in his agenda to conform to a more propitious arrangement of the zodiac.

There is some good to come out of all this.

When Ms. Bea Fitzbrood of Minot, N. Dakota says her life has been changed by the omenologists it might make a lengthy page-three article in the papers. We sigh that the editors are not selective or critical of the folderol they purvey and we try to get a counter to the article with little or no success. But what has happened recently shows, I think, the real mentality of the news-watchers and writers.

The presidential astrological dalliance is serious business. The world-wide repercussions are not a matter of some amusing anecdote. The embarrassment evinced in nearly all quarters is enough to make us realize that, despite surveys which demonstrate that nearly two-thirds of the population accept astrological claims, astrology is still a closet craft held in low esteem.

The good, then, is that astrology has been held up to ridicule with this Reagan debacle. Headlines like "Reagan's Star Wars" stick a well-deserved needle in the side of astrology. The timing for the resurrection of the Nostradamian prediction of a great earthquake in the "New City" could not have been more ill-conceived if skeptics had engineered the whole thing to embarrass astrologers: the front-page headline in the San Jose "Mercury" rails, "A 16th-century quack has L.A. quaking." A later article in the same paper stabs at the nonsense by relating the antics of an Arizona radio station that sent four tubbies (300 pounds+) to L.A. to do jumping

jacks on the beach to help Nostradamus's prediction along.

Look at the reportage now. Critics are being asked to relate the problems and meaning of astrology. Locally, the notables of BAS have been called to the forefront to explain, not the notables of astrology. The astrologers as well as the White House are trying to downplay the episode!

BAS board member (soon-to-be-Dr.) Shawn Carlson, whose extensive work on astrology was published in the most prestigious scientific journal, "Nature", has been contacted by the media to offer his analyses of astrology claims. (Shawn's experiment took a flank attack: rather than attempt to show the non-existence of a mechanism that would explain how astrology could work, he simply showed that astrologers cannot do any better than chance at what they claim.)

Well, Shawn was the guest on KCBS (May 3) radio on a call-in program opposite Ms. Pat Brown, prominent Bay Area astrologer and member of the American Federation of Astrologers (and dealer in one of my pet peeves: "and EC CETERA").

Although the general public was surprised at the disclosures in Regan's book, Shawn pointed out that the First Family's astrology predilections are the worst-kept secret in the White House.

Brown says the whole thing is overblown, and that the Reagans really did not make important policy decisions based on the stars. She did say something about astrology in general that makes us wince: "When the planets are at right angles to each other, they 'block' the energies of each other." She explained that the block then blocks the efforts of those with that astrological arrangement in their charts.

The host added that astrology has been around for a long time, so there must be something to it, to which Shawn countered that longevity of ideas (prejudice against women, superstitious religions, for example) does not guarantee the truth value of their claim.

Brown then cried foul, and said that as an astrologer, "I wouldn't bother your field of astronomy, and I don't think you should bother us. You should leave us alone."

Wouldn't it be nice not to have to hear ones detractors?

She charged that Shawn's study was not valid because it used only a very small branch of the astrology community, but Carlson rejoined that they were among the most respected, and they all said the test was fair before the fact. Only after the results proved negative did they howl unfair.

Brown pulled out the usual "validations" routine: "I have conducted my own tests on 44 people I work with, and I have calculated

mathematically their aspects, and I am right all the time."

I asked myself if there are such things as non-mathematical calculations. She did say she had taught herself a great deal of mathematics.

Shawn wrapped up the program with his study: "The bottom line is one of consumer advocacy: do astrologers deliver what they promise? They do not, and test after test has demonstrated this. Many astrologers do harm. There are medical astrologers that give medical advice without a license and those that give psychological counseling without professional training."

(Note: Shawn was also appeared as a special guest on channel 4's "AM San Francisco" with the Hunters, a man/wife Christian healing team. Mr. Hunter performed a miraculous leg-growing routine for the cameras in which Jesus grew the leg a full inch to heal "pain in the ankle" of a volunteer.)

The newspapers have been scrambling for comment and information about astrology. Here, too, the scientific side has gotten the call. Astronomer Andy Fraknoi, director of the Astronomical Society of the Pacific, BAS board member, and popular guest on radio shows, has been contacted by all the big Bay Area newspapers.

In a feature article for the "San Jose Mercury", Andy asked the reader to ask him or herself some simple questions: What could possibly be the rationale for choosing the moment of birth as the instant when the stars begin their influence? Why not the moment of conception? It is apparent that the time of conception is very difficult (or potentially embarrassing) to determine. What is there in the layer of skin, water and tissue between the fetus and the outside world that protects it from the celestial sway? Andy quipped that if the aspects are not entirely favorable for your infant at the blessed moment, one could wrap the newborn in protective steak until the cosmos lumbers into a more auspicious pattern.

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