



# *Cincinnati Skeptic*

*Newsletter of The Association for Rational Thought*

Vol. 9 No. 2

October/November 1999

**Be very, very careful what you put into that head, because you will never, ever get it out.**

**-- Thomas, Cardinal Wolsey (1475–1530)**

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**The anti-regulation steam roller and "over the counter" medicine.**

by Joe Gastright

The "Health Food" store of my youth was a unique purveyor of carrot juice, sprouts, vegetable sandwiches and strange healthy substances in medicine like bottles that no one used or understood. You could get an unhealthy reputation if you were rumored to be a participant in this cult-like association of older, oddly dressed, but very seriously healthy persons. My limited peek at this phenomenon was located on Walnut street and I kept an eye on it until it closed about 15 years ago. This was about the time that "Vitamin Stores" opened in the new malls with the same stock but without the colorful ambience. Little did I know that this would lead to my local drug store selling "Cheat and Eat- the Fat Blocker." My path toward the pharmacy was blocked by an eight foot tall pyramid of Cheat tablets in bottles of sixty for only \$19.95. Two tablets taken thirty minutes before a meal would allow unlimited calorie intake and no penalty. This was in no way intended as a *diagnosis, cure, treatment or prevention of any disease and this statement had not been evaluated by the Food and Drug Administration (FDA).*

In 1937 the Massengill company had sold an elixir of Sulfanilamide in ethylene glycol, the main ingredient in antifreeze, which poisoned almost one hundred people. The *Federal Food, Drug, and Cosmetic Act (FFDCA)* was passed in 1938 to assure that a marketed drug was *safe and effective*. Without regulation and enforcement, problems continued and in 1962 the Kefauver-Harris Act was passed to require a manufacturer to prove the safety and efficacy of a product before it was marketed. It seems that Thalidomide had forced this previously illegal interference in profit making to occur. In this law a *drug* was defined as an article intended for use in the *diagnosis, cure, mitigation, treatment, or prevention of disease in man or animal...* articles other than  
(Cont. Pg 8)

***September Meeting***

*September Meeting*

**Unraveling the Shroud of Turin**

Professor Steven D. Schafersman, currently at the Department of Geology at Miami University, returned to A.R.T. for the first meeting of the year to present an illustrated talk on the Shroud of Turin. A founding member of CSICOP, the Committee for the Scientific Investigation of Claims of the Paranormal, Steve also has interests in creationism and catastrophism in addition to his professional work in geology and paleontology.

The Shroud of Turin is an ancient religious relic, thought by many to be the burial cloth of Jesus, whose life and teachings form the basis of the Christian religion. The shroud bears a faint image of a crucified man thought by some Christians to have been created at the moment Jesus is believed to have returned to life after execution by crucifixion. The relic holds great religious meaning for many Christians.

The shroud has been studied as well as venerated. According to Steve, most investigators belong to one of two groups: Christians dedicated to establishing the authenticity of the shroud or scientists interested in understanding the origins of the shroud from a naturalistic point of view. The

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The By-Laws require that officers for the following year be elected annually at the May meeting. They begin their duties on following July 1.

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**Skeptic's  
Archives...**

by William B. Jensen



Oskar Pfungst, *Clever Hans (The Horse of Mr. von Osten): A Contribution to Experimental Animal and Human Psychology.* (New York: Henry Holt Co. 1911) ii + 274 pp.

Reports of learned horses, pigs, and dogs capable of answering simple questions or doing elementary mathematical problems, either by tapping out the answers in a pre-established code, barking, or pointing to answer cards, have been known since the 5th century. Any good illustrated history of stage magic will contain reproductions of posters and woodcuts advertising such commercial acts, some dated as early as the 17th century. This book is a translation of one of the most thorough investigations ever made of such an animal by the German psychologists Carl Stumpf (1848-1936) and Oskar Pfungst.

The animal in question was a German horse known as "*Der Kluge Hans*" (Clever Hans). Animal trainers have long known it is possible to create striking acts by training the animals to respond to nonverbal cues based on the use of body movements (e.g., begin tapping when I raise my arm, stop tapping when I bend forward, etc.). However, the owner of Hans, a retired mathematics teacher named von Osten, claimed that he had taught the horse mathematics using a variation of the methods used for young children. To his credit, von Osten never exhibited the horse for money and actually requested that scientists help him to investigate the phenomenon. In 1904, a committee of 13 men, including a psychologist, a physiologist, a veterinarian, the director of the Berlin Zoo, and a circus manager, testified that they could detect no use of cues, whether intentional or unintentional, in the horse's performance.

Unsatisfied with the resulting report, the German psychologist Carl Stumpf assigned his student, Oskar Pfungst, the task of investigating the horse in greater detail. Pfungst soon discovered that the horse was unable to correctly answer questions put to it if the questioner did not already know the answer ahead of time, or if the horse could not see the questioner, or if the horse was too far from the questioner to see minute body movements. In short, the horse was responding to unconscious, but extremely subtle, body movements on the part of the questioner (in one case, the tilt of a broad rim hat worn by von Osten).

The horse would also respond to questioners other than von Osten and it appears that the owner was innocent of any conscious attempt to communicate the answers to the animal. Pfungst's study showed, in effect, that the techniques consciously applied by animal trainers could arise spontaneously without the trainer's knowledge and clearly brought home the necessity of using double-blind conditions in all psychological tests involving the transmission of information, whether from clever horses, signing chimpanzees and gorillas, or from people supposedly gifted with ESP.

Pfungst's book was reprinted by Holt in 1965 with a new introduction. This reprint is no longer available, though "Books in Print" lists at least two books with "Clever Hans" in the titles, in which more recent authors have summarized and updated Pfungst's pioneering work.



## From the Un-Easy Chair...

Both books reviewed this month deal with the extreme political fringe and their ideas. The two volumes differ considerably, but do not necessarily contradict each other. Dyer sees the drift to the racist right largely as a result of a deep economic depression among rural farm folk, who are seeking a scapegoat on which to blame their defeat. They see themselves as victims of the global economy; of increasing monopoly among farm product companies and banks; beset by a federal government which has ceased to support their way of life and is bent on punishing them with a plethora of rules. Thus, rural people want to isolate themselves against the forces of government as "freemen" with their own courts, as militias, as separate religious sects, and independent of the IRS. They tend to see the government in a conspiracy with the UN, with the forces of globalization, and with the money changers in the temple.

The authors of *Soldiers of God* perceive the radicals as a religious community which cannot be clearly separated from more general religious fundamentalism. The book examines the tenets of their faith, which run to conspiracy, racism, pseudo-history, and quack-science. These authors provide clear knowledge because they have come to know the radicals intimately, and to some extent even sympathize with them.

That two books on these themes are reviewed is no accident, but derives from your editor's conviction that hate groups and religious fanatics are dangerous. They are certainly infinitely more dangerous than a belief in poltergeists, astrology, or the Shroud of Turin or most other quack and pseudo-science. To see our government as a conspiracy and to reckon some people inferior can and does result in violence. The destruction of the Murrah Building in Oklahoma City was merely the most disastrous of such violence. The most recent attack was by true believer shooting up children in a Jewish day care center and murdering a Philippino man in Los Angeles.

—editor

A mathematician at Trinity  
Was computing the cube of infinity  
But the number of digits  
Soon gave him such fidgets  
He dropped it and took up divinity.

## A Puzzle for Thinkers



### A True Devotion to Numbers.

Godfrey Harold Hardy (1877-1947) and Srinivasa Ramanujan (1887-1920) were two very famous mathematicians.

Hardy used to visit Ramanujan, as he lay dying in hospital at Putney. It was on one of those visits that there happened the incident of the taxi-cab number. Hardy had gone out to Putney by taxi, as usual his chosen method of conveyance. He went into the room where Ramanujan was lying. Hardy, always inept about introducing a conversation, said, probably without a greeting, and certainly as his first remark: "The number of the taxi-cab was 1729. It seemed to me a rather dull number." To which Ramanujan replied: "No, Hardy! No, Hardy! It is a very interesting number. It is the smallest number expressible as the sum of two cubes in two different ways."

-- from Charles Percy Snow, *Varieties of Men* (1968)  
pp. 32-33

Which are the four cubes?

### Solution to puzzle from last issue:-

At marriage the man was 31.5 and the wife 34.5. If she was three years older than he, write:  $w = m + 3$ , after four-and-a-half years they were

$$\begin{array}{r} m + 4.5 = 12 \\ w + 4.5 = 13 \end{array}$$

that provides two equations with two unknowns, solve by substitution.

### Not the sharpest knife in the drawer.

A family in Leesburg, Virginia, were victims of a major burglary. Later they found a \$250 charge on their phone bill for calls to a psychic hotline around the time the crime was committed. Police contacted the phone psychics and found that one of their callers gave his name as Mike Silver. So they arrested Michael Anthony Silver, 34 for burglary and grand larceny. Silver admitted making the calls, but claimed it was from somewhere else. After all, he defended himself, if he was a burglar, the psychics would have known it. (AP)

### Echinacea, effective!

A study being presented today at the International Conference on Integrative Medicine in Seattle, claims that Echinacea, the world's top selling herbal supplement, which is taken by millions to ward off colds and flu, has a side effect: *it increases the incidence of colds and flu.* Previous studies had merely indicated that Echinacea was not effective.-- *What's New* by Robert L. Park, 30 April 1999

## Too Many Books.... Too Little Time....



### *Soldiers of God: White Supremacists and their Holy War for America*

by Howard L. Bushart, John R. Craig, and Myra Barnes  
(New York: Kensington Books, 1998)

*Soldiers of God* is about the extreme racist right, about White Israel, various Knights of the KKK, White Aryan Resistance, the Aryan Nations, and assorted neo-Nazi skinheads and other groups. The overwhelming majority of these, follow an interpretation of the Bible variously known as Christian Identity, Christian Israel, Seedline Christians, or Covenant Theology. Their theologians interpret the Old and New Testament to indicate the true Israel, the inheritors of the promises of YHWH are the white races of Europe, while the Jews are merely usurpers. What is more, the Jews control the US government, and have for a long time through a vast conspiracy involving the War and Emergency Powers Act of 1933, the Federal Reserve, the Freemasons, the Food and Drug Administration, Social Security, the United Nations, free trade, the National Council of Churches, etc. etc. Even the communists are or were merely a Jewish front for destroying white, western civilization to install a One World Order. Conspiracy theory in other words runs rampant. These ideas are every bit as weird as UFOlogy, only much more dangerous. But, as the authors emphasize throughout, this is a Christian fundamentalist view.

It is fairly easy to find support for conspiracy, separation of peoples, world wide evil, and the end of times in the Bible. Christian Identity also draws on an elaborate pseudo-history in which the ten lost tribes of Israel migrated into Europe. Cited as evidence are such ideas as Brith-ain as the land of the covenant, Isaac's sons as Saxons, the Danes as the tribe of Dan who migrated along the Danube, and the British coronation stone, the Stone of Scone as Jacob's Pillar from the Bible. In other words the worst of quack-history and pseudo-linguistics.

The racist right shares many ideas with other fundamentalist Christians. "It is important to note there is a strange area, a doctrinal no-man's-land, in which it is almost impossible to ascertain where the views of the traditional religious right leave off and the more virulent racial views of Christian Identity begin." (p. 130) Among fundamentalists

there is widespread agreement the nation has lost its way, that television and other media accept and promote a perverted life style of interracial marriage, racemixing, immigration, the "quota" system, unwed motherhood, progressive income tax, welfare life, tolerance for homosexuals, in short, a nation without morals or purpose.

The authors provide excellent insights into the minds and religious thinking of the racist fringe. They are able to do this because they show a great deal of empathy with the individuals they met and interviewed, and because, religious themselves, they sympathize with the confusion of their research subjects. The Christian Identity religions is widely represented on the internet and on shortwave radio and may be found at many websites, such as for instance <http://kingidentity.com/>. Interestingly, the authors conclude the "subject merits serious public dialogue" and needs to be "addressed from the mainstream pulpit" (p. 272).

I am concerned about a number of factual errors because they may point to further errors I am not aware of. The publication *The International Jew* was instigated but not written by Henry Ford and published in 1920-1921, not 1948 (p. 110). The infamous *The Protocols of the Learned Elders of Zion* is a late nineteenth century forgery, it does not date back to the Middle Ages (p. 109). Hitler's regime took advantage of the Reichstag's Fire, they did not set it (p. 119). And, Hitler never was or worked as a paper-hanger. (p. 273)

There is a very great similarity between the racist right's hostility to the American government, and the agitation against parliamentary democracy which brought Hitler to power in 1933. So could it happen here? Hitler's party started out as a political fringe group, which won elections when Germany was beset by three great disasters; a major lost war, a rampant inflation which wiped out all savings, and the depression which threw a quarter of the labor force out of work. If America were to pass through such major adversities, then yes, it might happen here and some extreme group proposing easy answers could be elected.

— Wolf Roder

## SCIENCE

★NEW 130974 5/5/2000: *Ice, the Ultimate Disaster*. By Richard W. Noone. Presents his hypotheses that on May 5, in the year 2000, with the Sun, Mercury, Venus, Mars, Jupiter, and Saturn aligned with the Earth and her moon, the ice build up at the South Pole will upset the Earth's axis, sending trillions of tons of ice and water sweeping over the surface of our planet. 223 illus. 390 pages. Crown. Paperbound Pub. at \$16.00

\$11.20

915424 BRADY'S INT  
By Carol A. Lillis. Bp  
of medical term-  
system of th  
as HM  
P>

“Why we reject some books out of hand....”

OR

“Is your editor prejudiced?”

*Harvest of Rage:**Why Oklahoma City is only the Beginning*

by Joel Dyer

(Boulder, CO: Westview Press, 1997)

Joel Dyer writes of the reasons why Americans flock to irrational hate groups, to Christian Identity, militias, neo-Nazis, Posse Comitatus, We the People, Freemen, Christian Patriots and the Klan. He sees this as predominantly a rural trend, a trend among farm people in the broad central region of the United States. The farmers have experienced a severe depression since the eighties, not in the farm industry but on the family farm. Farmers today need to have annual gross sales of about a million dollars and require several hundreds of thousands of dollars in equipment. Few family farmers have this kind of establishment. Over the past twenty years the result has been a decline in the number of farms as many farmers lost their farm, their home, and their equipment to foreclosure by banks or the government.

Losing the farm is not merely the loss of a business but the end of a way of life, which the farmer and his wife may have inherited from their homesteading ancestors. One result is a depopulation of the countryside. With it goes a decline of businesses, schools, churches, health services and other institutions in the small towns which serve the rural areas. The causes of this depression must be sought in a changing economy, global competition and markets, and expanding technology. The essential results have been falling prices for products and higher costs for all the things the farmer buys or invests in. Collectively the changes have encouraged the farmer to expand by buying or renting additional acreage and going into debt to enlarge his pool of equipment. For many the outcome has spelled failure.

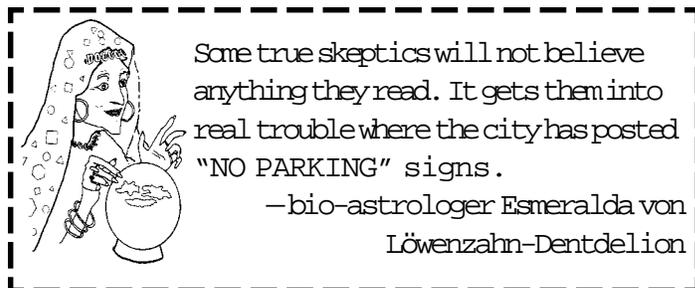
A man who loses his livelihood in this way is going to look for somebody to blame for his misfortune. This somebody may be the farmer himself; and Dyer cites startling numbers for the increase in suicide among rural people. Where in the past accidents were the most common cause of premature death among farmers, suicide became number one in the late eighties. Many other farmers, Dyer claims 68 percent, will blame their misfortune, bankruptcy and hard times, on bankers, judge, and attorneys, on the IRS, on government farm agencies and their laws, and on the Jews, the Illuminati, the communists, on the Antichrist and on Satan, who in various disguises have taken over the US government.

It is of great interest that Dyer sees two grains of truth in these phantasies, which represent the seeds of the influence on the crazies. Over the past twenty years the US government, which supported and subsidized the farmer during the depression and in other hard times has ended virtually all programs favoring family farms. The rural population has

simply shrunk to the level where their vote does not provide the necessary clout in Congress. In the same period the major banks and the food processing industries, have merged and consolidated to the point where most farmers have only one monopoly buyer or provider of loans to deal with. In the same economic climate the small and mid-size farmer can not compete with the major industrial producer. Industrial hog and cattle feed lot operators or chicken feeding operations such as Tyson will drive down prices. What is happening to the family farm, and has been happening for most of this century is exactly what has put the small mom and pop grocery or hardware store out of business. Only with the farm an entire rural way of life is dying.

Dyer concludes that economic restructuring and corporate consolidation has left about forty percent (p. 70) of our rural population poor, famless, jobless, and with little or no access to health care. Among them a large number are looking for an explanation of what happened to them, call it a scapegoat. There is a crop of hate growing among these disenfranchised and dispossessed. And, we shall surely reap what we have sown.

— Wolf Roder



Some true skeptics will not believe anything they read. It gets them into real trouble where the city has posted "NO PARKING" signs.

— bio-astrologer Esmeralda von Löwenzahn-Dentdelion

**Why we believe.**

Many kids in the 16-24 target age group do indeed bump along in steady-state befuddlement fed by infotainment, docudramas, pap curricula, functional semi-literacy and quasi-religious belief in the paranormal. Yet plenty of adults live in wilderness areas of the same state, as evidenced by the best-sellerdom of such claptrap as *The Celestine Prophecy*, or, closer to home, a conversation I overheard the other day in a discount drug store, where the presumably licensed pharmacist was pushing some homeopathic witch's brew on a gullible customer of morbid girth.

— Joe Morgenstern, "Demystifying the Spell of *Blair Witch!*" in *The Wall Street Journal* (4 August 1999) p. A20

## Shroud of Turin from page 1

former group call their endeavors "sindonology," the scientific study of the shroud. Sindonology is a well-developed pseudoscience, complete with organized groups of investigators and many published books and articles.

Steve's talk laid out evidence supporting the conclusion he has drawn from his research: sindonology is a pseudoscience driven by religious belief. The position of the sindonologists is that although it is not clear whether this image is of Jesus or someone else, the shroud originated in the Jerusalem area at the time of Jesus and could be his burial cloth.

The shroud is made of linen, probably of Egyptian origin, and measures 4.5 by 1.5 meters. It is woven in a complex pattern not seen in linen of the time of Jesus. On the linen is a dim image that can be artificially enhanced to show the image of a male, naked, flogged and crucified. The face of the image is a traditional depiction of the face of Jesus. Scourge marks are apparent in the enhanced image, as are hands crossed modestly over the groin. Blood drips in tidy rivulets from the scalp, side, wrists, and ankles. The image suggests that the cloth was placed lengthwise underneath the body starting at the feet, then folded over the head and down the front of the body. The linen cloth shows charring and water marks from a fire, patches, and other marks of age.



Doubts of the shroud's authenticity are not new. Only twenty years after its first recorded exhibition in the fourteenth century, a bishop from another diocese wrote Pope Clement a memorandum stating that the shroud was an artifact and that he had talked to the artist who had made it. Since the bishop was himself exhibiting a shroud also alleged to be that of Jesus, he may have been motivated as much by marketing concerns as a search for the truth. The exhibition of religious relics was extremely common in Europe at the time. Many churches displayed fragments of wood said to be from the cross upon which Jesus was executed, and fingernails and even foreskins alleged to be Jesus's. The competition for the visits and donations of pilgrims was fierce.

Of the many alleged shrouds of Jesus exhibited, the Shroud of Turin is by far the most famous and the most durable. No others have survived. It is also the most skillfully wrought. Although it has been thoroughly investigated by scientists, there are still debates about exactly how it was created.

The shroud was radiocarbon dated by three independent laboratories who placed its origin about 1324, with a range of dates from 1260 to 1390. Linen from ancient Egyptian tombs whose dates were known was used as a control. The dates found for the control samples fell into the range predicted for them.

Sindonologists do not accept the radiocarbon dating, believing that the samples were contaminated with more recent material. The problem with their argument is that in order for a sample that was actually Biblical in age to test as being only as old as the fourteenth century, the volume of the contaminating matter would have to be twice that of the linen fiber. The samples, however, were cleaned and decontaminated before they were tested. In addition the contamination would have to be assumed to have been equal across all the samples, which came from different parts of the shroud.

During the 1970's the Shroud of Turin Research Project (STURP) made a lengthy investigation into the authenticity of the shroud. All of the members of the team were Christians who were technicians, technical analysts, engineers, or physicists. The sole nonreligious member was Walter McCrone, a world class forensic microscopist of great integrity and professional skill.

Another investigator of the shroud was Max Frei, a Swiss forensic expert and amateur biologist, who claimed to have found pollen of many species of plants from the Jerusalem area on the shroud. He also claimed to have found pollen from areas in Turkey including Constantinople and Odessa. STURP workers had found very little pollen on the shroud. After Frei's death, Walter McCrone examined Frei's slides and concluded that Frei had deliberately contaminated the shroud with pollen from Jerusalem. In spite of having been thoroughly debunked, the Jerusalem pollen story will not go away. This summer a botanist from the University of Jerusalem gave a talk at the International Botanical Congress in St. Louis in which he claimed to have found imprints of flowers that grew in the Jerusalem area in the time of Jesus. Without mentioning Frei's name, he supported his findings with Frei's data. This talk was the only one given to the congress which received mention in the national media.

Spiking the shroud with pollen was not Frei's only venture into dishonest research. He also received payment for authenticating the "Hitler diaries," later conclusively shown to be fakes. Although believed during his lifetime to

be an honest and competent forensic worker, he has been found since to have lacked both honesty and competency. His work with the shroud pollen appears to have been aimed at supporting Ian Wilson's theory that the shroud had been displayed in certain areas of Palestine and Turkey. Color pictures of the surviving pollen slides and comments are available at <http://www.humanist.net/appro-sindone/schafersman.html>.

STURP researchers contend that the image on the shroud is a photographic negative, possibly created in a burst of radioactivity at the moment of Jesus's resurrection. Scientific investigators have shown that the image is not a photographic negative image but a positive image representing three dimensions through the density of pigment applied to the fabric. McCrone believes that the image is a painting that uses shading to create depth. Joe Nickell, an expert on the shroud at CSICOP, thinks the shroud image was probably made by daubing pigment on wet fabric placed over a bas-relief.

The figure on the shroud is very elongated in the manner of gothic art as practiced in the fourteenth century. But the fingers are excessively long even for fourteenth century art, and one forearm is clearly longer than the other, observations Steve was the first to make. The hands over the groin position, unknown in burials in ancient Jerusalem, was common in fourteenth century Europe. Steve thinks it is likely that the arms were elongated to allow the hands to cover the groin. Religionists studying the shroud think the distorted lengths are evidence that Jesus suffered from Marfan syndrome. Marfan syndrome is a hereditary disease that causes elongation of bones, flexibility of joints, and eye and heart problems. The figure's face is a traditional face of Jesus.

Whether the face is typical because it is an image of Jesus's face and therefore the source of many later depictions or because this was what fourteenth century artists thought of when they imagined Jesus is of course a bone of contention. The image of the face has also been subjected to unscientific efforts to prove that it is Jesus's face by superimposing it on other images of Jesus and counting "points of congruence." The methodological problems of such an undertaking boggle the mind, beginning with the fact that no good mug shot of Jesus to use as a starting point is known to exist.

In addition to the image, some sindonologists search all the stains and marks on the shroud looking for "hidden" images related to the Biblical tale of Jesus's death. Water stains have been interpreted to be a spear, a nail, a hammer, a sponge, and flowers that grow only in the Jerusalem area. Judging from Steve's excellent slides, this practice appears to be akin to looking for elephants in the clouds, requiring large quantities of imagination but no real elephants.

There are anomalies in the image that are not related to water stains, however. The image does not show all of the

head. The face and the back of the head are present, but not the top, which one would expect had an actual corpse somehow induced the image. The lack of the top of the head is consistent with the bas-relief notion. In addition the image of the feet is unusual. If the image had been made from the feet of a corpse, the bones in the feet would have had to have been broken in order to produce the image.

Enhanced images of the image on the shroud show artistically rendered rivulets of blood running down the forehead. There is no indication of blood clotted in matted hair as one might expect on the body of someone crowned with thorns and crucified.

The blood depicted on the shroud has raised other questions. Walter McCrone's thorough microscopic investigation of the pigment in the blood stains indicate that the image as a whole was painted or rubbed on in red ochre, with vermilion added to the blood stains to make them appear the color of fresh blood. Red ochre is made from hematite, while vermilion is made from mercuric sulfide. Red ochre refracts light in a way specific to mineral material and unlike the manner in which dried blood refracts light. The "blood" stains are also bright reddish color, consistent with vermilion and unlike the blackish dark color typical of dried blood.

In addition, McCrone used several forensic tests for the presence of human blood in the blood stains and found none. One of his tests, for example, placed fibers from the "blood" stained shroud and fibers stained with human blood under the microscope and soaked them with a reagent that forms gas then in contact with blood. Under the microscope he saw bubbles of gas forming on the fibers soaked in blood, but not a single bubble formed on the fibers from the stains on the shroud. One of Steve's slides showed this effect clearly.

But McCrone's fellow STURP members decided from their tests that the "blood" stains on the shroud are not only blood, but Type AB blood. Steve is not sure how they arrived at this conclusion, but he does know what convinced them that the stains are human blood: the stains test positive for iron and an organic protein. The source of the iron is obvious, since red ochre is made from hematite, the chief ore of iron. The source of the protein is not mysterious either, since artists of the fourteenth century used egg yolks as a carrier for pigments. The STURP researchers also claim to have extracted DNA from the shroud in a manner unknown to Steve. Since all living things consist in part of DNA, and many kinds of DNA are likely on the shroud, including flax, insect parts and pollen, merely locating DNA does not reveal much. Steve did not mention it, but one can easily imagine a sindonological scenario in which DNA alleged to be that of Jesus is located and provides evidence that he was a Mediterranean beetle with Marfan's syndrome and Type AB blood. For his efforts McCrone

was thrown out of STURP, thus eliminating the group's only skeptic.

The STURP researchers also claim that the image on the shroud is a photographic negative, possibly formed as a result of a radioactive reaction accompanying Jesus' legendary return to life. In a photographic negative, portions that are dark to the human eye in the original appear light, and vice versa. The shroud image is not a negative in that sense. Instead, the shroud appears to be closer to a negative produced when a rubbing is made. In a rubbing-induced negative, the highest elevations are darkest, and lower elevations are lightest. Distance of the object from the shroud determines how dark or light an area is. The portions of the shroud's image that appear to have been farther from the shroud are light (eye sockets), and the portions near the shroud are dark (nose, tip of chin). This is consistent with the notion that the image was created by rubbing pigment on fabric placed on a bas-relief. Images of the shroud showing this effect and an explanation of how the artist accomplished it is available at <http://www.humanist.net/appro-sindone/schafersman.html>.

The image as it is seen with the naked eye today is so faint that the viewer must stand back from the image to see it at all. A close up view reveals nothing. In Steve's opinion the original image was likely much more vivid, but has faded due to having been washed to "test" the image. It may even have been boiled in oil.

Steve's conclusion from his research is that there is solid evidence to believe that the shroud is a remarkable work of art created in the fourteenth century to satisfy the demand for religious relics and that the sindonologists are pseudoscientists bent on shaping the evidence to fit their prior belief that the shroud is the burial cloth of Jesus, or at the very least of someone who died about the same time he did.

An interesting aspect of the controversy over the shroud is the publication in professional journals of articles concluding that the shroud is authentic. Steve points out that these articles, written by engineers and technicians, although peer reviewed, appeared in minor journals which were reviewed by other technicians or other engineers, who found the work to be technically correct but who did not examine the scientific reasoning upon which the work was based. Engineers and technicians do not receive much training in scientific research methods and are generally more prone to pseudoscientific beliefs than those whose major training is in scientific methodology.

Steve's comprehensive, easy-to-use web site devoted to skeptical investigations of the shroud is at <http://humanist.net/skeptical/shroud.html>. The site includes links to credulous as well as skeptical web sites.

-- reported by Virginia Jergens.

### Anti-regulation from page 1....

food intended to affect the structure or any function of the body... or any *supplement* to any of them. Since 1962 drug developers were required to test both safety and efficacy, except for supplements. The nasty old FDA started reading the labels and requiring "drug claims" to be supported by evidence.

In 1994 as part of the promise to de-regulate everything but bedroom activities, Senator Orin Hatch, senator from the state with the biggest Health Food industry, and Robert Kerrey, personal user and believer in such products introduced and passed the *Dietary Supplement Health and Education Act (DSHEA)*. Any product (other than tobacco) intended to supplement the diet, that contains a vitamin, mineral, amino acid, herbal or botanical product, or other dietary substances is a Supplement immune to government oversight. So DSHEA defines a class of unregulated substances which according to the boilerplate - *do not* diagnose, cure, treat or prevent any disease (Drugs do that!)

A wide variety of statements that sound like diagnosis, prevention, treatment and so forth have been defined as acceptable for use on the label, because they were not evaluated by anyone but the advertising person who wrote it. So the *chitosan* (1g), *gymnæ silvestrae* (.2g), *garcinia cambogia* (.05g), and vitamin C in my fat blocker "support natural fat loss" and, "increase the bodies natural resistance to fat." No supporting evidence is possible or required to back up these idiotic claims. So when you listen to the next ad for "Top Gun" or some other herbal miracle, you now know the special interest groups and the legislation that made all possible. Until a supplement version of thalidomide or ethylene glycol hits the market, don't hold your breath for a political remedy. Accurate public information is apparently not special to anyone?



### Without Comment: Course at the University:

#### *Aromatherapy: an Introduction*

Become acquainted with aromatherapy - what it is and how you can apply it to your daily life to help reduce anxiety and stress, uplift your mood, and bring balance to your life. Find out about the use and care of essential oils.

Sandra Vogel, MA, is the founder of The Women's Health and Education Network. She is a certified Aromacologist who has presented to various organizations, health care providers and corporations.

--from: Autumn 1999 *Communi*versity Catalog, p. 25



**Hearye! Hearye!**

**Change of the Date  
for our October Meeting.**



Halloween Dress Optional!

Mark your Calendars for  
the Ghostly Date of October 30th.

We will meet at the  
same place and the same time  
on **Saturday , October 30th.**

Halloween Dress Optional!

Join us as we hear nationally reconized  
ghost guru and skeptical raconteur:



**Robert Baker**



**Join us!!!**

**There will NO meeting on Saturday October 9th!**

*Roder's Law*  
by Wolf Roder

Modesty being one of my hallmarks, I named this law after myself. It should probably be described as the "law of distribution of pseudoscience and religious taboos over the needs of the human body." It represents my observations about one kind of proliferation of weird and quack ideas. I have carried out no precise or any other counts of these ideas, so call it a conjecture or a hypothesis until it can be further researched.

Simply put, Roder's Law says the more immediate the body need and the threat of death or dire harm, the fewer the pseudoscientific ideas and prescriptions about that function. The human animal needs to satisfy five basic functions or needs. To breathe, to sleep, to drink, to eat, and to have sex. The listing of these functions is hierarchical in that dire harm or death occur more quickly in some rather than other functions. Deprivation of air will in most cases lead to serious brain damage in a few minutes, and to death after ten, except in unusual circumstances. Lack of sleep results in death within days, although the person is likely to pass out and so recover, unless kept awake by torture. How quickly lack of fluids leads to death depends on the ambient temperature, but is measured in weeks at most, while denial of food results in death only after many more weeks. Sexual activity differs from the other needs in that the individual can spend a lifetime without satisfying this urge. Only the community requires reproduction to survive, as the Shakers have so decisively demonstrated for us.

It is my contention or observation that the number of crazy ideas circulate about these needs in the same hierarchy. Thus, there is little pseudoscience about breath and breathing, although I have a reference to a book for mastering innovative breathing through mental-imagery drills<sup>1</sup>. Breathing seems to be a simple skill and almost everyone can do it. When it comes to sleep the mythology, the quack advice, the remedies for hypochondriac complaints proliferate. Nevertheless, if sufficiently tired most people do sleep for they must, no matter how inadequate they may regard their performance.

When it comes to drinking, an enormous variety of options exists, although the body only needs water. Fluids can be infused with stimulants such as coffee and tea, or with depressants such as alcohol. Enormous quantities of ink have been spilled jabbering about the quality of the various coffees, wines, and other drinkables. Yet, *Consumer Reports* has found that most people can not tell one brand of coffee from another, and about a third can't tell instant from brewed coffee. Immense effort is devoted to tasting, mixing, and grading wine by type and quality, and the price differentials show it. Yet, in a blind test most people can not tell two brands of the same type of wine apart, and many can't distinguish among similar types, e.g. among light white wines, or strong red wines.

On the other hand taboos exist on the various drinkable liquids, mostly perpetrated by religious persuasions.

Thus, many religions prohibit alcoholic drinks of any kind, while others use the material in their ceremonies and sacraments. The Mormon denomination prohibits coffee, while Islam considers it the wine of the prophet.

When it comes to food, the taboos of the permitted and forbidden seem endless, some foods are prohibited altogether<sup>2</sup> while others are not allowed at certain times of the day, week or year. Meat seems to excite the quacks and the believers especially energetically. Some believers shun only red meat, while others do not partake of any, true devotees add milk and eggs to this prohibition, and some will avoid fish as well. The meat of the pig is abhorred by many religions, and by some people even without a religious injunction. Americans will not touch horse meat, though it is eaten in France, which in other respects is regarded as a leader in cooking.

Health quacks enjoin some foods especially for clearing the mind of bad ideas or the body of toxins. The book stores are full of advice about which foods to eat or not to eat for health, intelligence, to make love, or to heal this or that infirmity of the age. There is an entire industry devoted to making, packaging, and selling food supplements, which in the overwhelming number of cases have not been tested. Some popular food supplements are known to do positive harm; or so thinks Roder and even this may be his superstition.

Some sixty years ago I learned in Ms. Lotto's kindergarden at VanAntwerp Public School in Schenectady that there are three food groups we need to eat daily for good nutrition. Thirty or so years later my daughter was taught the same information when she in her turn attended primary school. Finally, some five years ago the responsible authorities in the Federal Government totally revamped the three foods triangle of my childhood into a four category pyramid, with essentially no change in the scientifically recommended foods. It has of course made no dent in nutrition quackery. Whole libraries are devoted to it.

In a society where a young man can get himself tied to a fence and murdered for a particular sexual proclivity, I need hardly comment on taboos, quackery, and other weird ideas connected to sexual need. It almost seems as if every religion around the world has made irrational prescriptions about reproductive activity its special province. Most religions seem to be against sex in principle, but there are also places and times where ritual intercourse in general, or particular intercourse activities are enjoined. Take reproduction itself. Some women desperately wish to have children, while others as desperately do not want them. Either wish will meet with irrational objections and prohibitions, even in this age when technology has made a scientific fix more possible than ever before.

We humans seem to enjoy burdening ourselves with nonsense in preference to following rational understandings of reality.

1. *The Art of Breathing* by Nancy Zi

2. *Eat not this Flesh: Food Avoidances in the Old World* by Fredrick Simon (1961)

**The Association for Rational Thought** is an independent, nonprofit, scientific and educational organization. We share the philosophy of the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP), an international organization which investigates allegedly paranormal events, sponsors workshops and publishes *Skeptical Inquirer*, a journal of investigations of paranormal claims.

**A.R.T.** meets on the second Saturday of each month September through June, 10:00 AM at James Tavern in Blue Ash and publishes *Cincinnati Skeptic* each month. A.R.T. meetings are open to the public. A.R.T. also maintains a database of information on paranormal claims for local new media to consult and investigates local paranormal claims. A.R.T. was founded by Cincinnati area skeptics in 1991. Annual dues are \$15.00 and include a subscription to the *Cincinnati Skeptic*.

For more information call: President Roy Auerbach (513)731-2774 or Nurit Bowman, (513) 731-0642 or visit our website. **Address Changes and Corrections, Membership Questions:** Roy Auerbach (513) 731-2774 E-mail: raa@one.net

**Mailing Label Information:** "00/00/00 Member": You are a member in good standing; your membership will expire on the date on the label. "Lapsed": (*highlighted*) - your membership has expired. Please send your dues as soon as possible.

**Yes!** — I want to support the important work of **The Association for Rational Thought** and receive *Cincinnati Skeptic* and meeting notices. I have enclosed funds for:

New Member       Renewing Member       Contribution       Gift membership for/by:

Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone Work: \_\_\_\_\_ Home: \_\_\_\_\_ E-mail: \_\_\_\_\_

**We have kept dues low and will continue to do so in spite of rising costs. However, if you are able to, your additional contributions are very much appreciated. Please give generously, if possible. Thank you very much!**

**I would like to make a contribution in addition to my dues to further the important work of the Association:**

Contribution Amount: \$ \_\_\_\_\_ Dues: \$ \_\_\_\_\_ Total Enclosed: \_\_\_\_\_

Make your check payable to the **Association for Rational Thought** and mail to A.R.T., P.O. Box 12896, Cincinnati OH 45212. *Contributions are not at present tax deductible, but we are working on it.*

Request subjects for future meetings \_\_\_\_\_

Please do *not* include my name and address in mailing lists exchanged with other groups.



### *Skepticism and ART on the Electronic Media*

For the latest in skeptical news via e-mail, join SANE, the Skeptical Area Network Effort. You will find cheerful, rational messages from CSICOP, James "The Amazing" Randi, your fellow local skeptics and ART in your e-mail box every week. This is our means of staying in touch between issues of the *Cincinnati Skeptic*.

Be sure to check out our NEW & IMPROVED skeptical website at <http://www.cincinnati-skeptics.org> --- It contains: our BLURBS on various subjects; lots of nifty links to skeptical thinking around the world; the information for joining SANE; the basic definition of who we are, what we do, and our bylaws. In addition, you'll find such things as how to get to our meetings held at James Tavern; other ways to reach us; and how to send sample copies of the newsletter to potential members.

—David Wall, Web Site Manager

Web: <http://www.cincinnati-skeptics.org>

E-mail: [darkon@one.net](mailto:darkon@one.net)



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The Association for Rational Thought is an organization committed to encouraging rational, well-informed evaluation of fringe-science, pseudoscience, and paranormal claims. A.R.T. encourages the investigation of paranormal and pseudoscientific claims from a responsible, scientific viewpoint and the distribution of the results of such investigations to the public. You are cordially invited to become a member of A.R.T. Membership information is included elsewhere in this issue.

## Preview Of Coming Attractions....

**Place:** James Tavern at Cooper Road and Reed Hartman Highway. It is a great place to gather and then have the lunch/social portion of each meeting. This location is very accessible for folks wielding walkers, wheelchairs and the like. Coffee is available with a small donation during the meeting.

**Time:** 10:00 AM - 12:00 PM -- program -->12:00PM - 2:00 PM -- lunch

**Please mark your calendar and plan to attend!..See you there!**



### ***Please note DATE CHANGE FOR THE MEETING!!!!!!***

**Second Meeting of the 1999-2000 Season! Date and Day: 30 October, 1999 -- Saturday**

**Speaker & Topic:** Bob Baker will give a talk on ghosts at this meeting. His talk will be accompanied by appearances at local book stores. ***Are you ready a Ghostly talk?***

**Third Meeting of the 1999-2000 Season! Date and Day: 13 November, 1999 -- Saturday**

***Watch your mail For a postcard About the Speaker and Topic for the next meeting.***

***Join us....to find out what's real and what's not!***