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The big lie

by John Blanton

This is not about claims of the paranormal or even about extraordinary claims requiring extraordinary proof. It is about people believing what they want to believe in the face of contrary evidence. It is about people putting aside good judgement and critical thinking and allowing their personal preferences to dictate what is true and what is not. As such, it is rightly a topic for discussion by the skeptics.

The siege and fiery end of the Branch Davidian compound near Waco seven years ago has been a point of controversy ever since. Apologists for the Davidians have maintained the members were innocent victims of an overzealous government. Some have gone so far as to claim the final assault by the government was a calculated move to murder those inside.

One making such a claim was attorney Linda Thompson, who shortly after the fire distributed a video titled *Waco: The Big Lie*. Scenes and narration in the video attempt to convince the viewer that government tanks using flame throwers torched the building, causing those inside to burn to death.

Professor Ray Eve at the University of Texas at Arlington was called in as a consultant by the attorney for Cathy Schroeder, who was one of the surviving Davidians prosecuted by the government. During the course of his work on the case, Dr. Eve obtained a copy of the video, and he gave it to former NTS President Joe Voelkerling for examination.

Joe, who has since died, operated a business investigating aviation accidents and preparing presentations of evidence for court cases. Those who continue to delude themselves will continually find unexpected surprises during cross-examination, and as a result Joe developed a keen sense for putting aside personal preferences and seeing only what the evidence showed.

I viewed the tape, as well, and Joe described to me what was going on. He pointed out the places where severe editing of the tape had placed events out of chronological order to best support the story Linda Thompson wanted to tell. He also pointed out places where large flashes of light were described as flames from the tank (really an armored engineering vehicle). Closer examination showed these flashes were associated with pieces of siding or wall board from the building flashing in the sun.

Others were not so critical in viewing Linda Thompson's video. Apparently Timothy McVeigh watched the video a number of times and convinced himself that the government had murdered the Davidians. This is thought to be part of his motivation for killing 168 people two years later.

More recently writer Mike McNulty has produced a documentary *Waco: The Rules of Engagement*. While the story line of *Rules of Engagement* is decidedly anti-government, it goes beyond offering sympathy for the Davidians. A press release states it "is a shocking film which says that the FBI machine-gunned Branch Davidians at Waco, Texas and committed numerous other rights violations there." The press release was related to the announcement in 1998 that the film had been nominated for an Academy Award. Siskel and Ebert gave it "two thumbs up," and it "was named one of the year's best films in *The Los Angeles Times*, the *Minneapolis Star Tribune*, the *San Francisco*

Chronicle, L.A. Weekly and the St. Paul Pioneer Press."

McNulty's conclusions regarding the machine-gunning of innocents seem to hang on his interpretation of FLIR (Forward-Looking Infra-Red) video captured by a reconnaissance aircraft flying overhead at the end of the siege. Flashes of light in the vicinity of the building are perceived as muzzle flashes from automatic and other small arms fire by government agents. In fact, a consultant shown analyzing the FLIR imagery is not circumspect in his statements. He uses phrases similar to "Here we see gunfire toward the kitchen area" and "This is a two-second burst from an automatic weapon."

McNulty is no Linda Thompson. When two NTS members participated in the taping of a [McCuiston](#) TV program about the siege recently he was there and repeated the shooting allegations in language less strong than he used in the video. He even had praise for the agents who took part in the initial raid, including Robert White, who was wounded that day and was on the *McCuiston* show with him.

The NTS has subsequently obtained a copy of the *Rules of Engagement* video, and at the April 2000 meeting we showed the portions illustrating the purported gunfire. I have some previous experience with FLIR technology and gave my interpretation of what we were seeing. Here is a little background.

FLIR is a remarkable technology. It enables seeing in the dark for all practical purposes. Infra-red film is sensitive to what is called "near infra-red." This is electromagnetic energy with wavelengths just longer than red in the visible spectrum. What IR film sees is very hot objects or reflected solar IR. In contrast, FLIR sees objects that are barely warm. This electromagnetic energy is low energy and is called "far infra-red."

In a laboratory demonstration once I switched off the lights and viewed the imagery on a video monitor (which is what you have to do, since the FLIR just produces digitized images). There was no practical difference between lights on and lights off. Everything in the room showed up to some extent, since everything was about room temperature. People produce remarkable IR images. Certain areas of the face and other exposed skin show up lighter because they are warmer. Clothing is darker because it is closer to room temperature. Cold objects are very dark. Place your hand on a surface and remove it. The outline of your hand shows due to the residual warmth.

Outside, the imagery mostly shows the effects of solar warming and residual warmth. Objects that absorb IR readily also readily emit it. The black lettering on the Wal Mart truck driving by showed up clearly in the imagery. A construction worker's cigarette was a bright beacon.

I did not retain any of the imagery from my FLIR project, but I do have a shot from a Texas Instruments Web page (see Figure 1). The picture shows a highway and railroad bridge north of Dallas. The shot was made in the daytime, when the sun was warming exposed surfaces. Steel structures are hot and show very bright in the image. Bridge piers are shaded and show up dark. I have reversed white and black in this image, because the FLIR operators produced the original in reverse mode, showing hot as dark. The black rectangles were injected into the imagery by a target tracking system to show the operator the tracking points. They show up black here, but they were white in the original.



**Figure 1. FLIR image from a missile seeker
From the Texas Instruments (now Raytheon) Web site**

Other imagery I have dealt with showed automobiles, tanks, and other vehicles, and here is the important point. You can tell by looking at the tires of a car or truck or the treads of a tank whether the vehicle has been moving. The tires and treads are warm and show up brighter.

In the *Rules of Engagement* video the tank treads show up brighter. The FLIR was sensitive enough to show the extra warmth. In the siege video no shooters show up. "Gunfire" erupts from a patch of ground, supposedly directed at the Davidian's building, and we don't see anybody doing the shooting. The FLIR that is sensitive enough to show warm tank treads does not show a warm (98F) person lying on the ground. More so, there is a two-second burst of automatic weapon fire, and we don't see a stream of hot bullets. A gun barrel that should be too hot to touch does not even register.

Surviving Davidians are now suing the US government for the wrongful deaths of their friends, and they had planned to use the FLIR imagery from the aircraft as evidence. In its defense, the government conducted tests at Fort Hood using similar FLIR equipment plus real gunfire and real shooters.

The results of these tests are now beginning to come in, and it does not look good for the Davidians. The new video shows shooters where there are shooters, and it shows flashes like those in the earlier video where there are no shooters. Science may provide the answer to what has been wild speculation up to now.

In the meantime, Mike McNulty has produced another video, *Waco: A New Revelation*. We have not seen it yet, but you can get additional information from a Web site devoted to it at www.anewrevelation.com.

It seems everybody has an opinion one way or the other in this matter, and here is mine: Rather than submit to a raid by the AFT and to the

surrender of their weapons and rather than face arrest on felony weapons charges, the Davidians chose to shoot it out with the feds. For 51 days they held off the inevitable, knowing the government forces would not attack because of the presence of the children. Finally, when the government did force the issue (in a rather stupid and clumsy manner), the Davidians torched their own compound and killed themselves (with some exceptions) and all of the children. Sometimes the truth is as simple as that.

Voodoo Science: The Road from Foolishness to Fraud

by Robert L. Park

ISBN: 0-19-513516-6 \$25.00 Hardcover, 256 pp. Oxford University Press
Tentative date for publication: May 2000.

Reviewer — Dr. Eugene F. Mallove, Editor-in-Chief

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This review is of a pre-publication galley proof sent to Infinite Energy with a press release on Oxford University Press letterhead mocking cold fusion.

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— Part Two —

If Park doesn't get his information about cold fusion from technical papers, the normal approach in science, from where does he get it? Apparently he is briefed by fact-resistant critic Dr. Douglas Morrison of CERN, who has attended the international cold fusion conferences where he asks mostly obtuse questions, proving that he, like Park, has not read the cold fusion literature. Morrison has "kept an eye on cold fusion for the rest of us," as Park puts it. The result of all this is to have Morrison, the prime purveyor of the "pathological science" theory of cold fusion, passing misinformation to Park, who then jazzes it up with snide remarks suited to the Washington beltway crowd. Morrison is the only skeptic to actually publish a paper that attempts to come to grips with quantitative issues of cold fusion calorimetry and electrochemistry. Every paragraph in his paper included an elementary mistake. A few examples: he subtracted the same factor twice. He claimed that Fleischmann and Pons used "a complicated non-linear regression analysis" method — which they did not use. He recommended another method instead — the one, in fact, they did use. He confused power (watts) with energy (joules). He claimed that hydrogen escaping from a 0.0044 mole palladium hydride might produce 144 watts of power and 1.1 million joules of energy, whereas the textbooks say the maximum power from this would be 0.005 watts, and a simple calculation shows that the most energy it could produce is 650 joules. This is the "expert" Park relies upon for news of cold fusion!

And Park well knows the propaganda value of turning a serious subject into a joke. In his account of the early days of cold fusion he observes, "Cold Fusion was becoming a joke. In Washington that is usually fatal."

After assaulting the main body of cold fusion research, Park singles out for attack Dr. Randell Mills of BlackLight Power Inc. (see Infinite Energy coverage, Issue No. 17 pp. 21-35 and Issue No. 29, pp. 40-41). He says that Mills did not offer "any experimental evidence" for his claims of excess energy caused by catalytic hydrino formation. Park does not discuss the multiple channels of experimental and astrophysical data that Mills has cited to defend his theory. He covers up the serious, positive results that the NASA Lewis Research Center published in its official report on the Mills replication. But Park, at his core, argues mainly from theory: "But those who bet on hydrinos are betting against the most firmly established and successful laws of physics." Mr. Certain asks rhetorically, "What are the odds that Randall [sic] Mills is right? To within a very high degree of accuracy, the odds are zero."

Though I expected Park to bash scientific anomalies, I was unprepared to discover the depths of his ignorance about spaceflight and its future. Commenting on his early 1990s testimony before Congress in support of unmanned space missions, he recalls, "I wanted to explain why the era of human space exploration had ended twenty-five-years earlier and was unlikely ever to come back." No future for human presence in space? Is Park for real? He ends his myopic refrain with inept poetry bearing an absurd message, "America's astronauts have been left stranded in low-earth orbit, like passengers waiting beside an abandoned stretch of track for a train that will never come, bypassed by the advance of science."

Amateur astronaut Park offers an amazing blooper, "If there was gold in low earth orbit, it would not pay to get it." Astonishing! He

apparently does not understand such elementary concepts as the small propulsion energy cost of de-orbiting with rockets and aero-braking, when he makes this and other claims. In the emerging era of commercial space transportation, this Park faux pas will be remembered as a late twentieth century howler, on par with statements by astronomer Simon Newcomb earlier in the century that heavier than air flight was likely to remain impossible.

In Park's crusade against manned spaceflight, he even goes after astronaut hero John Glenn: "Both Ham [a chimpanzee aboard an early U.S. space flight] and Glenn would end up in Washington: Glenn in the U.S. Senate, Ham in the national zoo. Ham died a short time later without ever returning to space." He attacks "messianic engineer," Robert Zubrin, who has put forth concrete, well-researched proposals for cost-saving space missions, in his book *The Case for Mars*. Park says that Zubrin started "his own cult — the Mars Society." Park mocks the aspirations that led people like Dr. Robert Goddard and so many others this century to work toward the manned exploration of space: "Zubrin had learned his lessons well. The focus is on the dream. His followers feel their feet crunching into the sands of Mars, while the most daunting technical challenges are swept aside with simplistic solutions."

On the book jacket Park singles out "magnet therapy" and cold fusion as the epitome of "foolish and fraudulent scientific claims." In the only "experiment" that he actually decides to personally conduct to test any of his opinions, he launches a misguided effort to disprove the alleged therapeutic effectiveness of magnets in contact with the human body. He bought some athletic magnets from a local store, then stuck one on a steel file cabinet. He then inserted sheets of paper under the magnet, finding that at ten sheets the magnet fell off. He exults, "Credit cards and pregnant women are safe! The field of these magnets would hardly extend through the skin, much less penetrate muscles." Park had merely found the point at which static friction (caused by the magnetic force) is insufficient to hold the magnet against the force of gravity. On this basis he concludes that magnetic field would not penetrate into skin! This is completely wrong, as sophomore physics students at MIT, and presumably at the University of Maryland, would know. Park gets an F-grade on that one. "Not that it would make any difference if it did penetrate," he says. Park always has some a priori theoretical insight about why something "can't be." This PR agent for the American Physical Society needs a refresher course in Science 101.

Given Park's incompetent assessment of cold fusion and his failures in elementary scientific methodology, we cannot expect a useful appraisal of other controversial areas, such as whether or not there are loopholes in or extensions to classical thermodynamics, whether low-level electromagnetic fields can affect biological systems, the "memory of water" question, or the scientific foundations of alternative medicine. Regardless of their individual merits, Park gives these questions the same brush-off he applies to cold fusion. It is not that one might never find areas of agreement with Park. For example, some of the charlatan-like antics of Dennis Lee of Better World Technologies, which Park chronicles, are appalling and have nothing to do with the serious scientific investigation of anomalous energy phenomena. And Park states that "there is now overwhelming scientific evidence that we ourselves can affect Earth's climate." Some scientists would agree with that; I don't happen to. I side with those atmospheric scientists who believe that computer models do not yet come close to an adequate representation of all the factors that affect climate.

On the other side, Park is rather forgiving about such things as government spending for tokamak hot fusion, which is widely regarded as a financially wasteful research boondoggle even by those who have nothing to do with cold fusion. He says absolutely nothing about the ill-fated Superconducting Supercollider (SSC), which was begun and then cancelled, before it could waste even more taxpayer money. We do not hear of the scandalous recent cost overrun at the ICF weapons simulation laser fusion device, which was led by a physicist who was not even honest about his academic credentials. To Park, this waste is apparently "all in the family" — the kind of money that the white collar welfare, government-funded physics community can be forgiven for wasting.

It is tempting to speculate that Park may be suffering from a psychological problem known as projection, or possibly cognitive dissonance. At some level, this confused man with all his years of schooling must realize that he is out of his element in evaluating the cold fusion evidence. He doesn't really know whether the evidence is good or not. Obviously he has not studied it except superficially, yet he has gone far out on a limb in attacking it — he can't bring himself to turn back. Among other problems, admitting he had been very wrong would call into question his many other judgments, from manned space travel to magnet therapy. He expected that cold fusion would have gone away years ago, but it hasn't. So he creates the myth that the cold fusion field consists of "followers who see what they expect to see." In truth, it is Park who is seeing what he wants to see — lack of evidence where there is evidence! The following grand assessment by Park of "voodoo" others pertains most properly to him: "While it never pays to underestimate the human capacity for self-deception, they must at some point begin to realize that things are not behaving as they had supposed." It will be cosmic justice for this profoundly foolish, mean-spirited flack for the physics establishment when in the light of scientific advance the bigotry and lies he has turned against others expose him for what he is.

Editor's note — Part One of this review appeared in the April issue of The North Texas Skeptic.

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Web news

by **John Blanton**

[The Web is probably the least reliable source of information. But it's free.]

Wisconsin a new home for Bigfoot?

From the Milwaukee Journal Sentinel at <http://www.jsonline.com/news/metro/apr00/foot05040400a.asp>

James Hughes was minding his own business, delivering the Black River Shopper last week when he says he saw something he'll never forget — an 8-foot-tall, two-legged, shaggy creature carrying a goat. Sasquatch? Bigfoot? Yeti? Abominable Snowman? Or just a really tall hairy guy carrying breakfast? Hughes isn't sure, and authorities are scratching their heads over the reported sighting.

Hughes described the critter as weighing over 300 pounds. Unfortunately, there were no tracks as evidence. Stand by, Chicago. He's heading your way.

X-ion™ to the rescue

Just when you thought it was safe to turn on the lights again...

This is from the X-ion™ Web site at <http://www.x-ion.org/>

All life on earth has adapted to survive in weak natural low-frequency electromagnetic fields (EMFs). Natural low energy EMFs come from two main sources: the sun and thunderstorm activity. In our last century, manmade fields with much higher intensities have altered the natural EMFs in ways we still do not fully understand.

Radio Frequency (RF) and 60-Hz are classified as non-ionizing radiation because their frequencies are allegedly too low to create enough photon energy to ionize atoms. RF energy is known to cause injuries by heating body tissue. Mounting evidence now suggests, however, low level RF can cause body heating and can thereby lead to blindness, sterility and other serious health problems. But now there is mounting evidence that even at energy levels too low to cause body-heating EMF has observable biological effects, some of which may be harmful.(1)

(1) WR Adey, Tissue Interactions with Non-ionizing electromagnetic Fields, Physiology Review, 1981

X-ion™ is "available at Comp USA stores nation wide (218 stores) on April 08, 2000. More store locations to be announced," according to information on their Web site.

X-ion™ produces a continuous flow of negatively charged ions that scientists determined to be important for us to keep healthy. X-ion™ uses a natural element as the principle catalyst, a specific, pure and special grade of a semi-precious crystalline gem that can only be found in sufficient quantities in a few places around the world. Reacting to temperature and pressure changes, X-ion™ produces a continuous flow of healthy negatively charged ions from humidity in the air to help clean your air of harmful positively charged ions and pollutants.

The negatively charged ions clean the air by neutralizing the potentially harmful positively charged ions. Scientific studies show that negatively charged ions are also related to general feelings of good health and well-being, much like those you sense around natural sources of negatively charged ions, like lakes, waterfalls, forests and oceans.

The diagram in Figure 1 shows how ordinary appliances work to produce the imbalance of negatively charged ions in the air. High voltages from your appliances ionize molecules in the air—strip off one or more of the outer electrons. That leaves a positively charged ion, which is not good according to people who know about this stuff.

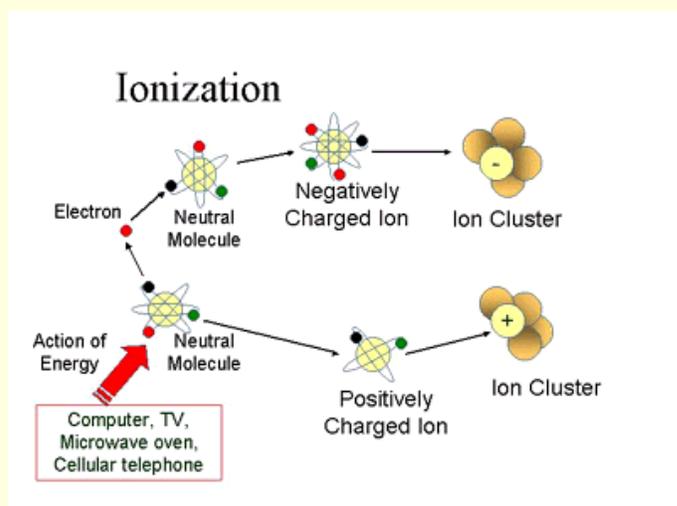


Figure 1. How ions form in the air (from the X-ion™ Web site)

According to the X-ion™ Web site:

There are numerous benefits to negative charged ions, such as an improvement in productivity, task performance, relief for asthma, wound healing, plus improvement of reaction time and endurance. Numerous scientists from many countries provide the following evidence:

1. Surrey University conducted research at the Norwich Union Insurance Groups Headquarters. Negative ion generators were fitted in the computer and data preparation section. RESULTS – Incidence of headaches in computer room were reduced by 78 percent. Task performance improved 28 percent.
2. Russian Scientists studied groups of athletes under laboratory conditions for one month. One group trained with negative ions and the other trained under normal conditions.

Figure 2 is the table of the results obtained by the Russians. We can expect to see more of this fantastic product at this summer's Olympic games in Sydney. It will be interesting to see whether X-ion™ will beat out BiOxygen™ this year.

<u>The negative ion group</u>	<u>The unaided control group</u>
* Reaction time shortened by 22 milliseconds	* Reaction time shortened by 11 milliseconds
* Balance increased 370% - 393%	* Balance increased by 53% - 132%
* Increased their endurance 240%	* Increased their endurance 7% - 24%

Figure 2. Results of the Russian athletic tests (from the X-ion™ Web site)

Hard-hit farmers try homoeopathy to cure sick herds.

<http://www.independent.co.uk/news/UK/Science/2000-04/farmers260400.shtml>

By Cahal Milmo

26 April 2000

British farmers, battered and bruised by years of food scares and plunging prices, have opened a new front in their battle to regain public confidence by embracing the holistic philosophy of homoeopathy.

See, we're not the only ones loony. Apparently alternative medicine is on the rise in England as well as here. The desire to get back to basics seems to be the root of this movement, which also shows a growth in organic farming.

More than 5,000 farmers are now using homeopathic (which they misspell as "homoeopathic") veterinary to attack a variety of animal ills.

This laborious process, involving the dilution of a sample to many thousandths of its original strength, results in a "nosode" or solution being used to treat the animal.

Barbara Jones, a vet in Oswestry, Shropshire, who has practised homoeopathy for 14 years, admits the science is largely unproven. "A nosode is so dilute that it is mathematically unlikely that even a molecule of the original substance remains in the nosode. What happens cannot yet be explained in scientific terms."

The British Association of Homoeopathic Veterinary Surgeons, formed in 1981, has more than 150 members and reports taking 500 calls a month from those looking for treatment for their animals.

However, Chris Walton, a senior dairy specialist vet in Gloucestershire, said: "Most vets are not too thrilled with it. We cannot deal in something that has no proven therapeutic value."

England, get ready to import food again.

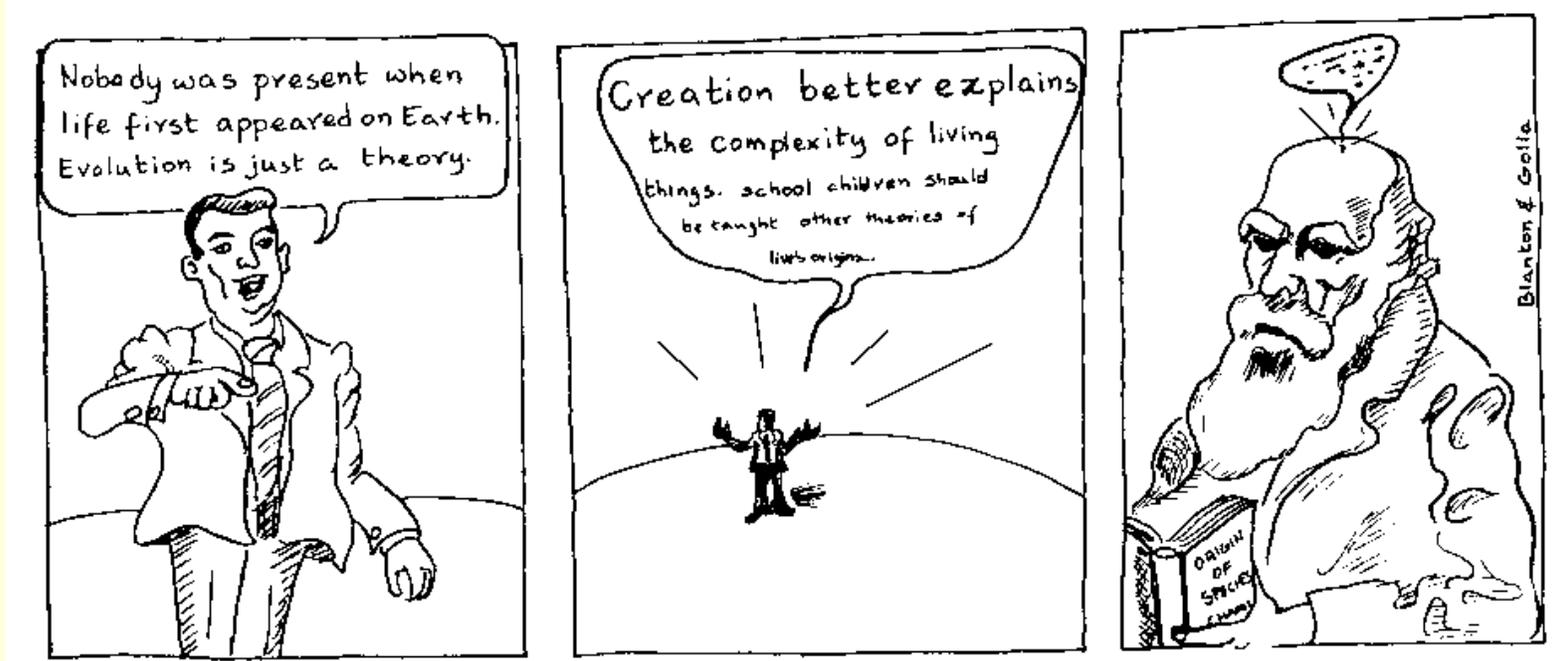
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Notices

- **We announce with regret the death of Catherine Crook de Camp. Like her husband, L. Sprague de Camp, she was an author in her own right and a true skeptic.**
- The North Texas Skeptics now has its own domain name on the Internet. Look for us at <http://www.ntskeptics.org>

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Skeptical Ink



By Prasad Golla and John Blanton
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