

National Capital Area SKEPTICAL EYE



Vol. 11, No. 3
1999

• encourages critical and scientific thinking • serves as an information resource on extraordinary claims • provides extraordinary evidence that skeptics are cool

The Millennium Madness Weekend Retreat, held May 8-9 at the Fredericksburg, Va. Sheraton, was billed as "a fun-filled weekend discussing the next century and how we are handling the end of the current one. Everyone seems to want a piece of the action—from religious cults forecasting apocalyptic events, to technophiles fearful of the Y2K bug, to entrepreneurs wanting to make a few bucks as the century winds down. How much of this is hype, how much of this is real, and how should rational individuals react to the growing hysteria?"

For those skeptics among you saying, yeah, NCAS is cashing in too, you will be pleased to know that NCAS has never yet made a profit on its workshop weekends!

Other people would wake up on a beautiful May Saturday and think "I'm going to the beach!" or maybe "Great day to work in the garden!" But I'm not other people. Never have been. Instead I am rolling along in my expensive rental car at an indisputably legal speed. I am far from home. I have a sign this is true. A literal sign. The sign that says I'm approaching Fredericksburg, Virginia.

When I find the right exit, I will take it and wind my way to a nondescript hotel. I will find the right room, take a seat, and stay there for the whole day. I will sit there and take notes and learn stuff. And dammit, I'll like it.

Haven't I been here before? Well, yes, technically. I did something like this last year to get to my first NCAS conference. The fact that I'm dragging my carcass down yet again is a testimony to how good this group is at mounting these things. And I'm happy to report that the 1999 conference was as valuable as that first conference.

Millennium Madness Weekend Recap

by Sheila Gibson

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A lot has changed since last year. I'm now the Chairchick of the Massachusetts branch of NESS [New England Skeptics Society], and Paul Jaffe, the young man who wielded an infamously well-placed pitcher of ice water on his own head, is now the NCAS president. But being a leader has shown me how much I still have to learn. This NCAS conference is a lot more than an intellectual frolic for me. This is a training ground.

The conference theme was "Millennial Madness." That didn't surprise me. What did surprise me (and never fails to surprise me), was the cool binder packed with good stuff that each attendee got. It seems like a simple thing—yeah, so what, it's a binder, right? But it's still the handiest thing I've seen any group give out at any skeptical conference I've attended, ever. It's got a wealth of relevant articles that amplify the themes covered by the speakers and in the exercises, plus it has practical information such as a list of local attractions and restaurants, with addresses, descriptions, and phone numbers. There's even blank lined paper and a pen. If you're

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Letters

NCAS Wins Mystic Site of the Web Award of Excellence

by Gary Stone, NCAS VP

On July 9, 1999, the National Capital Area Skeptics received the following e-mail message from the "Mystic Site of the Web" Awards Committee :

Congratulations!

The "National Capital Area Skeptics" web site has been Awarded the "Mystic Site of the Web Award of Excellence" under the Category of "Unusual Links."

The Mystic Site of the Web Award exists exclusively for the benefit of the Mystical and Occult Communities on the Internet. Its sole purpose is to provide a means of recognition for a Web Site's Achievement and service to the community.

Your Award Winning Web Site has proven to be among the very finest of a Mystical or Occult nature on the Internet and has demonstrated both Excellence in Design and provides a critical resource to Mystics and Occultists Worldwide.

The Mystic Site of the Web Award of Excellence is given without preference to any specific Mystical or Occult Tradition (Eastern or Western) as the primary concern is what a web site has offered and the way in which it is presented.

Please examine your site's review on our "Awards" page and if you would like to enhance it further please bring it to our attention. Our "front door" URL is located at: <http://www.AvatarSearch.com/index.html> .

Again, Congratulations on being among the very finest of Mystical sites on the Internet!

*** So, let's take this opportunity to honor all those in NCAS who have done so much to make our Web site such a valuable promotion of our cause world-wide, but especially Marv Zelkowitz for his sustained work to keep it fresh and relevant.

Use the FRAME on left side of their home page to scroll down and choose "Mystic Site of the Web Awards" (in orange print), then choose the category UNUSUAL LINKS, one of their few general categories (at least they didn't put us in "Just for Fun", and they didn't pigeonhole us in their "UFO" category, either). Again, it looks like some reasonable thought has gone into choosing our site and how to represent it in their URL search engine.

QUOTE:

Title: National Capital Area Skeptics

URL: <http://www.ncas.org/>

Summary:

The National Capital Area Skeptics is an independent nonprofit educational and scientific organization that promotes critical thinking and scientific understanding, with a focus on paranormal and fringe-science claims. NCAS is based in the Washington, Maryland, and Virginia community, where it serves as an advocate for science and reason, actively promoting the scientific method, rational inquiry, and education. NCAS is at the front lines in the battle against gullibility and fraud.

4. Category: Unusual Links

Our CONDON page got its own COOL LINK listing in the UFO category, so people will find NCAS and and also our CONDON page specifically. 

National Capital Area Skeptical Eye (ISSN 1063-2077) is published by the National Capital Area Skeptics, 8006 Valley Street, Silver Spring, MD 20910.

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recycled paper

Dear *Skeptical Eye* readers,

NCAS often receives attention from the media for different reasons. In the past, we've been featured in print publications including *The Washington Post*, *The Baltimore Sun*, *The Washington City Paper* and *People Magazine*. We've also gained attention through broadcast programs including NPR's *Weekend Edition*, and CBS's *48 Hours*, among others. Recently, coverage of our presentation of **Professor Dave Theison's** program on the UFO phenomenon was featured in the summer issue of *Quirks*, a Montgomery county newspaper. Let us know if you see NCAS featured elsewhere in the media.

Sometimes the media is drawn to our projects, programs or activities, but other times we are approached as a resource on skeptical perspectives on paranormal or fringe-science issues, such as alternative medicine, reincarnation and others. While we are generally able to provide resources or references, there is an untapped body of knowledge and expertise in **you**, our membership, that can help us address specialized issues. Are you in a profession that requires you to be familiar with a topic (*i.e.*, a doctor who has knowledge of alternative medicine issues), or perhaps someone who has done a lot of reading or research on a paranormal or fringe-science topic due to your own interest? Let us know by calling **(301-587-3827)** or **emailing** (ncas@ncas.org) so that we may better serve media and other inquiries. Also, don't feel as if you necessarily need to be knowledgeable in a paranormal subject—we often could use a resource for questions about legal, computer, investigative and miscellaneous issues.

In this issue of the *Skeptical Eye*, you'll find a survey about your background by NCAS member **Stephanie Hall**. I strongly urge you to complete and return it. Not only will this give you the opportunity to participate in real, live research, but it also benefits NCAS by letting us know more about our members and their interests. This guides us in selecting future programs, such as the recent extremely well-attended **Rob Boston** talk. Please take a moment to fill out the survey and return it in the postage-paid envelope.

This has been a fantastic year for conferences, including CSICOP's "Science meets

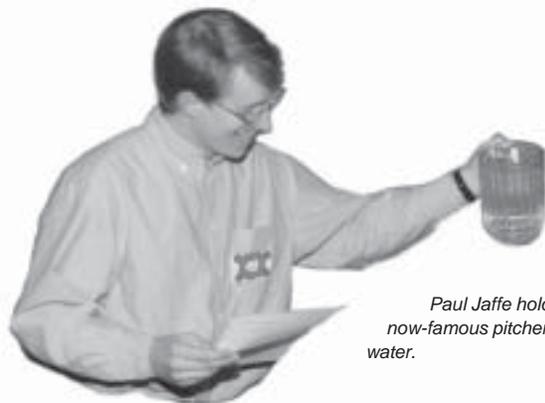
Alternative Medicine" in Philadelphia, the Skeptic Society's "Reinventing Evolution" in Pasadena and of course NCAS's own "Millenium Madness" conference in Fredericksburg, covered in this issue by Skepchik Extraordinaire **Sheila Gibson**. In the unfortunate case that you didn't make it to any of these, there's still one conference in 1999 that's not to be missed. On Saturday, October 16, NCAS will present "**Ghostbusting 101: Spirits, Spooks & Skeptics**," so be sure to mark your calendar.

Recently, Membership Committee Coordinator **Rita Malone** and I met with NCAS members to learn more about what you think NCAS should be doing and to solicit feedback and suggestions for projects. Our session was very informative and led in part to the effort described above to find out more about what members can bring to the organization. If you would like to participate in an upcoming focus group, please email me at the address below or call NCAS at 301-587-3827.

Hot on the heels of the web publication of the landmark *Scientific Study of Unidentified Flying Objects*, (a.k.a., *The Condon Report*), NCAS presents the Department of Energy's report on cold fusion. Spearheaded once again by **Jim Giglio**, this report is available online at www.ncas.org/erab/.

Finally, if you would like to receive the *Shadow of a Doubt* newsletter via email or participate in the ncas-share online forum, please send an email to ncas@ncas.org indicating your interest.

Yours truly,
Paul Jaffe (pjaffe@mindless.com)
 President, National Capital Area Skeptics



Paul Jaffe holds his now-famous pitcher of water.

Alternative medicine led the votes for trends on the rise. Also chosen by some as gaining in prominence were “UFOs and alien abductions” and “PBS using new age flakes to raise money.”

still thinking, “So what?” you are a spoiled little skeptic who’s in for a rude awakening at the next conference you attend away from NCAS. I’m definitely going to steal this idea for when it’s my turn to plan NESS conferences.

The weekend began on a high note by making hamburger of a sacred cow of skepticism—the notion that nonsensical beliefs in general are on the rise. NCAS cofounder Chip Denman led us through a set of eye-opening “homework” exercises that exposed the deceptively slippery business of measuring and quantifying nonsense. It served as a subversive, deserved swipe at certain organizations that shall remain nameless that send hysterical (double meaning intended) Chicken Little letters, trying to scare you or guilt you into donating.

Chip asked the attendees to identify which cultural trends they felt were going up, going down, and staying the same (status quo), note their choices on Post-its, and stick them to the wall. These Post-its are usually revealing and always fun. Alternative medicine led the votes for trends on the rise. Also chosen by some as gaining in prominence were “UFOs and alien abductions” and “PBS using new age flakes to raise money.” Someone else felt it worthy to note a rise in the number of organized skeptical groups. The attendees felt astrology and “statements to the effect that society is degenerate” were holding steady. Psychic hotlines and recovered memories were nominated as declining.

This was a terrifically instructive and clever way to get things rolling.

The “homework” letter served as a happy reminder and got us in the mood for thinking about the conference. Sharing our answers and doing the exercises got our brains engaged and primed for more. It even got us out of our seats. A much, much better strategy than parking us before a podium for three hours straight. I’m gonna steal this too.

Other highlights included Eugene Ossa recounting what really happened in the year 1000, poking holes in the popular theory that the advancing calendar provoked a mass panic. Marvin Zelkowitz examined just how bad the Y2K bug was likely to be, surveying the myths and facts surrounding the problem. He also introduced us to a gallery of Y2K ex-

perts, separating the cranks from the credible. Some attendees also opted for a wholesome, pleasant, after-dinner Saturday night ghost hunt in heavily haunted Fredericksburg, teeming with the specters of horribly slain Civil War soldiers. While we noticed a constant parade of corsaged, prom-going teenagers, who commandeered nearly every restaurant in the restored downtown, we did not see any ghosts.

NCAS President Paul Jaffe poked lighthearted fun at the flood of products cashing in on the millennium—some tasteful, some less so. But is the hype translating into 21st century profits? Not quite. Paul showed a photo of a whole display of super-slick millennial wear tagged at 50 percent off. Sociologist Barry Markovsky reminded us how suggestible we humans are with the tale of a simple but telling experiment he conducted involving volunteers, a pyramid, and a bunch of very carefully screened bananas. The experiment suggested that an individual was much more likely to tailor his or her own answers based on the input of friends and authority figures—despite the individual’s ardent claims that they had not been influenced by anyone in their decisions.

John Knapp held the group spellbound with his story of living as a cult member from the ages of 18 to 45. He was a devotee of transcendental meditation for most of his adult life, leaving the group in 1995. He estimates he gave more than \$300,000 to the group during those years, some of which he obtained through loans he knew he was unable to repay. Once he recruited new cult members; now he counsels cult leavers and runs the *TRANCENET.ORG* web site.

Knapp was articulate, calm, and thoughtful, answering our tough, personal questions about the psychology of cults with candor and humor. He explained that, as a recruiter, he targeted intelligent, creative “seeker” types and noted that most people join cults during a time of major psychological or emotional need, such as leaving home for college. Wow.

A good mix of speakers, contrasting yet complimentary. Practical, academic stuff mixed with emotional, human stuff and leavened with a sense of humor. I’ve got to figure out a way to steal that formula.

But the standout event of the weekend was the “Rocky Road to Skepticism” discus-

sion, led by Rita Malone. Rita admitted she had not always been a skeptic, and shared some of her adventures on the road to becoming a critical thinker. She broke us into groups and invited us to share war stories—what was the funniest thing that happened to you? What was the weirdest thing you believed in? How much money did you spend? What was truly surprising was the fact that very few of us in the room had real credulity creds—or at least very few were fessing up to them. No one really had a story of having been a hardcore astrology fan or a tarot card reader or a firm believer in faith healing. It seemed that most people came to skepticism largely a result of questioning the religious beliefs our parents taught us.

At our table, Paul Jaffe recounted my favorite story. As a boy, he questioned his parents about the existence of God. Dissatisfied with their answers, young Paul settled on a scientific way of testing the matter. He decided to “piss God off” to see what would happen. He wrote “God” on a piece of paper with a crayon. Then he used the rest of the crayons to vigorously scribble out the word. When he was satisfied that it was completely unreadable, Paul tore the paper into tiny bits and awaited divine wrath. None came. But then again, maybe God was laughing as hard as we were at that table, and couldn’t aim the bolt of lightning.

All those other people can keep their gardens and their beaches. Y’all better do this again next year. I haven’t stolen enough ideas from you yet. ☺

Sheila Gibson is the Chairchick of the Massachusetts branch of the New England Skeptics Society (NESS), a member of NCAS, and a staff writer for the New England Journal of Skepticism. For more info about NESS, write to P.O. Box 185526, Hamden, CT 06518-5526 or visit the web site at www.TheNESS.com. You’ll know Sheila by her stylish, wrist-length gloves.

Skeptics Background Questionnaire

by Stephanie A. Hall

Have you ever wondered who becomes a skeptic and why? In this issue of *Skeptical Eye* you will find a questionnaire. This is part of my ethnographic research into local groups in organized skepticism. Most of my time doing research will consist of participant/observation and interviews with members, but, in starting out, it helps to get an overview by using a questionnaire. I am not one to place all my faith in statistical survey information, but general information about a group may be most easily gathered in this way. Sometimes getting a general background can help a researcher ask the right questions in interviews and gather more detailed information.

The results of this survey will be shared with the NCAS membership. I hope that it may prove useful for membership drives and other organizational planning. In my survey, I will be focusing on local groups, since skeptic groups are independent and may vary a good deal. I plan to survey at least three different groups (more if possible). The results will allow me to compare variations in memberships of different groups and to plan for participant/

observation research in NCAS and other groups. I will be giving a preliminary talk on my research this fall at the American Folklore Society Annual Meeting in Memphis, TN. I hope that the research will eventually lead to a published paper in a folklore journal. This research is being conducted independently of any organization or institution.

NCAS is the first local group I have tried to survey, so feedback from NCAS members may help me to develop a questionnaire that asks the right questions.

One person should answer each questionnaire for themselves. If additional questionnaires are needed for household with more than one member of NCAS, the questionnaire maybe copied and multiple copies mailed in the envelope provided, or email me at shall@capaccess.org for additional copies of the questionnaire and envelopes. If you have questions, please contact me at the same address.

I hope you will take the time to fill out this questionnaire and return it in the stamped envelope provided by September 30. I appreciate your participation in this study. ☺

Stephanie A. Hall, Ph.D., is a graduate of the Department of Folklore and Folklife at the University of Pennsylvania. She is a Librarian at the American Folklife Center, Library of Congress.

Millennium Marketing & Money Making

by Paul Jaffe

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With the perpetuation of fears that the coming of the year 2000 will mean the apocalypse, or at least good deal of societal collapse and anarchy, there are plenty of people who ask themselves, "How am I going to make it through this?"

The "biggest event in history" has spawned countless schemes, scams, opportunities, and cottage industries. It seems everyone wants to make a buck by exploiting some aspect of the turning of the year 2000.

The ways people are trying to make money from this monumental event are many and varied. They address people's different fears, hopes, and gullibilities. They also address the desire to have a good time, the feeling that people really want to do something special and different to celebrate—if you miss this one, it'll be fifty generations before the next one.

Just mentioning the year 2000 or the Y2K problem is usually enough to pique people's interest. For the media, it means endless special issues, millennium superlatives and commemorations. For people in technical fields, such as computer programmers, it means catering to people's technological fears and a sterling business opportunity. Who knows how many COBOL programmers have come out of retirement to make some serious bucks. The situation isn't without irony, though, as author David Ewing Duncan noted when he said, "Trust the computer industry to shorten 'Year 2000' to Y2K. It was this kind of thinking that caused the problem in the first place." Another place large sums of money have the potential to change hands is in the barrage of Y2K related lawsuits, when programmers and engineers don't quite deliver.

With the perpetuation of fears that the coming of the year 2000 will mean the apocalypse, or at least good deal of societal collapse and anarchy, there are plenty of people who ask themselves, "How am I going to make it through this? My computer will break, the power will go out, the authorities will be useless, and my neighbor will burn my house down in an insane starvation-induced rampage." What about all the nukes that Russia

will inadvertently launch because they didn't quite get their missile computers fixed in time, despite the help they got from those beneficent Americans? To a person who asks these questions, the survivalist supply houses will answer, "We've got everything you need!"

A great place to start is *The Y2K Personal Survival Guide*, a book by Michael S. Hyatt. If you feel you aren't quite paranoid enough about what horrors and mayhem the millennium may bring, this book will help bring things into focus for you. This book is typical of the many books available specifically about Y2K survival, not to mention all the other Y2K books! Mr. Hyatt probably was spurred to write this book after he saw his other book, *The Millennium Bug*, make the *New York Times* bestseller list—a testament to the fact that there is, indeed, a large market for these kinds of books.

The survivalist marketing approach is one way of taking existing products and putting a new spin on them to enhance their salability, as opposed to marketing products explicitly for Y2K. Booksellers can play it safer if they increase their stocks of *The Encyclopedia of Country Living* (a highly touted survival book) and *The Complete Book of Survival* and count on the markets created by militias and the generally paranoid still being there if January 1, 2000 passes without incident. To put into perspective just how far out some of this stuff can get, *The Complete Book of Survival* includes a section entitled "Invasion of the Aliens." A little closer to home, Tech America, a partner company of Radio Shack, has advertised a multi-volt solar power source and other similar products with the notice "Prepare for Y2K!"

Depending on your fear level, you may be in the market for a new safe or a nice, remote plot of land out in the boondocks. Here are some things a typical survivalist-inclined person might put on their Y2K shopping list: ➡

millennium marketing continued from previous page

Model 1175 Security File Safe	\$ 84.96
The Complete Book of Survival	\$ 25.00
Solar Powered CB Radio Base Station	\$ 805.73
1 Year Long-term Storage Supply of Food for 4	\$3,350.00
Katadyn Ceramic Water filter	\$ 279.00
Kerosene Space Heater	\$ 300.00
Honda 2,500 watt gasoline powered generator	\$ 529.00
Coleman Cook Stove	\$ 50.00
First Aid Kit	\$ 30.00
Remington 870 Express Shotgun	\$ 220.00
	\$5,673.69

Less than \$6,000 dollars—not a bad price for survival. These items practically market themselves!

With the collapse of all the financial institutions, you'll need to either have things worth bartering or a nice stock of silver or gold. The Home Shopping Network markets the "Y2K 5 pound silver survival kit" for "only" 2 payments of \$399.98. It is 5 pounds of silver coins that were created specifically for this purpose. This means they have no numismatic value other than their silver content. At \$5/ounce that's \$80/pound, or about \$400 in silver for about \$800. Assuming a 10% "value" for the coins, you are still talking less than \$500 worth of silver for \$800.

Is there any evidence that anyone is actually buying all this stuff?

According to an article in a recent *U.S. News and World Report*, "Cheaper Than Dirt" a camping-supply business used to sell 300 cases of MREs (also known as Meals-Ready-to-Eat, the type of non-perishable food the army uses) per month, but now they typically sell 700 cases PER DAY. Another company that sells stoves and generators is backordered through next February. A company that sells water filters used to sell fewer than 200 per month; it's now got a backorder of 9,000.

The rush on survivalist supplies is not without its ironic and humorous anecdotes.

Amish supply companies are fielding thousands of orders worldwide from frenzied customers. A woman wanting to buy a wood stove seemed to forget her house didn't have a chimney. Another industrious fellow announced his plans to grind his own flour during the power outage—with an electric mill.

From the celebratory merchandising angle, there are department stores with entire sections devoted solely to Y2K merchandise. Waterford Crystal has its "Millenium Collection" for your New Year's Eve toast—five different varieties of crystal. The "Mark of the Millennium" section of your typical department store has a complete selection of countdown clocks, purses, sweatshirts, handbags, jewelry, throw pillows, blankets, and more.

Clearly not everything millenium-related sells well—the "Mark of the Millenium" products were already 50% off by April of this year. Perhaps "Millenniumopoly" isn't the classic it was meant to be. There are things that are generally junk even when they aren't Y2K related, such as snow globes, mugs, water bottles, scarves, mouse pads, yo-yos, silk boxer shorts, and baseball caps.

There are legions of millennium commemoratives. Even that most respected and venerable institution, *National Geographic*, has succumbed to millennial commemorative fever. They sell a "Year 2000" map of the world that shows the globe as it is today and also as it was known to map makers in the year 1000.

The countdown clock industry is also booming. Not since NASA's first space launch has there been such a fuss about countdowns. Not only are there hundreds of millennium countdown clocks, there are also now clocks that countdown for any conceivable event you can imagine: weddings, birthdays, you name it. One particularly tacky product combines a hat and a countdown clock into one egregious affront to good taste.

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continued on page 8

It seems Americans don't have the monopoly on hype. At a recent travel show in Los Angeles, various countries battled it out to see whose parties and celebrations would be the best and the biggest.

It goes without saying that Y2K is big news on the internet. Everybody and his brother has a site that deals with it in some way or another. In addition to all the survivalist web sites, there are plenty of sites that take a much broader perspective, in that they sell more than just survivalist supplies!

Some have a decidedly humorous bent, such as www.bugoff2000.com, which sells all manners of mock insect control products and large plastic bugs in a parody of the Y2K bug ruckus.

For people who like long odds, there's the World Lotto 2000 at www.worldlotto2000.com. According to their web site, they'll give away up to \$1.6 billion with a projected Super Grand Prize of 500 million U.S. dollars.

Speaking of scams, plenty of con artists have come up with other ways to separate good people from their money. One approach is narrated in this account:

"I got a call from a man this weekend telling me he represented my bank and that they were having difficulty meeting requirements to be computer ready for Y2K. He said all bank customers would need to transfer their accounts to a bond account specially designed to protect our money until the bank could fully comply with Y2K requirements. He then said to verify that he was talking to the proper account person I needed to confirm information about myself, my account numbers and then give verbal authorization to transfer funds to this specially designed account. I don't trust folks who do this kind of thing so I asked him

which of the banks I use did he represent. He was not able to do that and hung up at that point."

So instead of blowing a wad of cash on a diesel generator,

maybe you'd like to find something with a

higher fun factor? How about a nice cruise or getaway weekend?

The Claremont Resort & Spa in Berkeley, California, offers a delightful 4-day, 3-night package that includes a casino

night, lavish breakfast buffets, fitness classes (including restorative yoga), and complimentary tennis and parking. All for the bargain basement price of \$2,999 per couple! Act now—this package is limited to 279 couples. The New Year's Eve gourmet extravaganza dinner is only an additional \$400. And you thought NCAS weekends were a bargain.

If resorts aren't your style, there are still plenty of choices. There are dozens of millennium cruises replete with fireworks and good food—plus all the usual relaxing cruise amenities.

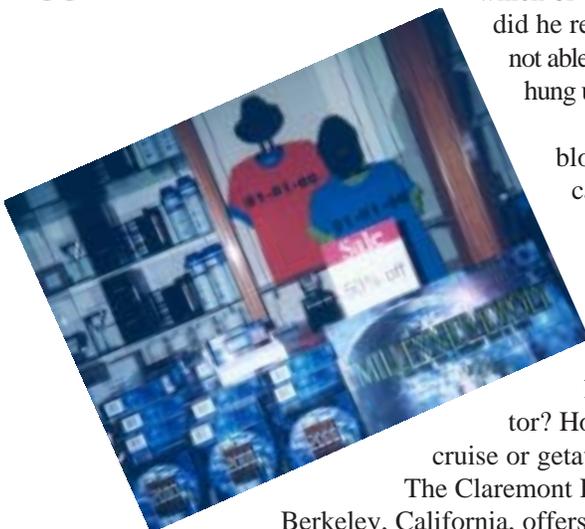
Instead of riding a big boat to nowhere, you can also visit nearly any large city—most of them have proclaimed themselves as "the place to be." Las Vegas will have a New Year's Eve Barbara Streisand Concert, for which she will allegedly be paid \$10 million. Tickets are \$250 to \$3,000.

It seems Americans don't have the monopoly on hype. At a recent travel show in Los Angeles, various countries battled it out to see whose parties and celebrations would be the best and the biggest. Israel claims to be the "official destination of the millennium" and encourages you to "Come to the Land Where Time Began." Egypt, having seen more than a few millennia go by itself, describes itself as "There for Thousands of Years." Britain simply touts "Now is the time" and promotes the Giant Millennium Dome in London and the new Millennium gardens in Cardiff.

Others claim they are already booked up. Hotels in Times Square claim to have been booked up since last year, and Catalina Island's largest resort claims full occupancy as well, among many others.

For something really exciting, maybe you'd like to ride the supersonic Concorde so as to catch the start of the Millennium twice—once in Paris, and then again in New York. It's part of an 11-day tour featuring the company of Apollo astronaut Tom Stafford. The price: a mere \$40,000 per person. There's another Concorde tour that includes 18 days of world travel and a New Year's in Hong Kong for \$75,000 per person.

If you've got a lot of money burning a hole in your pocket, there are plenty of ways to spend it on millennium related things. Just make sure to save some cash for the "real" turn of the Millennium in 2001! ☺



Rocky Road to Skepticism

by Stephanie A. Hall

What do Skeptics believe before they join Skeptic groups? At the NCAS Millennium Madness retreat in May, Rita Malone led a workshop titled “My Adventures on the Rocky Road to Skepticism.” She told her own story of growing up with a religious background, and then, at a crisis point in her life, finding that she no longer accepted the beliefs of her church. But what to do then? She told of many “rocks in the road” on her journey before she found the thinking process known as Skepticism. She remembered some of her pre-skeptic explorations as alternately funny, touching, and/or embarrassing, but treasures them all for broadening her understanding of culturally-influenced belief systems. She said she felt many Skeptics travel similar “rocky paths,” but may not be aware of the backgrounds of other Skeptics and may feel they are alone in having once had very different beliefs than they do now. The participants broke into four groups and discussed the road they took to Skepticism. The video camera was turned off so that people could talk freely, and so I will not use names in the following discussion.

As an ethnographer interested in organized Skepticism, I was particularly interested in this workshop. I am intrigued by why people choose to become Skeptics, and what life experiences Skeptics may have in common. My group talked primarily about their religious backgrounds, but also told tales of Ouija boards and curiosity about the occult. We talked about our own experiences, and then each group reported their discussions to the others.

In my group, one other participant besides me had a liberal religious background, and his choice to become a Skeptic was not at odds with his family’s beliefs. Most others came from religious homes and, at some point in their lives, found they did not share their families’ beliefs. Like Rita, some had a difficult time finding others with similar beliefs once their original beliefs had changed. One man related that he continues to go to Temple to participate in the community even though he no longer believes. For others, the break with their religious background was more absolute and more painful. Another man remembered, as a young boy, being confronted by his minister in Sunday school and told that, if he didn’t

believe as others did, he would have to leave. So he left. A woman in another group said she had realized from the time she was a toddler that her beliefs were different from the beliefs of her Catholic family. She told of defiantly refusing to go through the ritual of First Communion. A woman in my own group told about her sudden realization shortly after she was married that she no longer believed. She felt lost; she didn’t know what she believed. Her husband told her that it was OK, that it was all right not to know the answers, and she realized that no one had ever told her that before.

I was moved by the life stories people told. I was impressed by the courage people had in dealing with their own changing beliefs. Raised Unitarian, I have often taken my own belief background for granted because, as my own beliefs change and grow, there has never been any conflict with my religious community. The stories I heard from the Skeptics made me feel very lucky to have had a background that allowed me to grow and acknowledged that “it is all right not to know the answers.”

Is it common for Skeptics to come from religious backgrounds? Do many of them share the experience of having to redefine their beliefs? This workshop provided me with some interesting questions to ask in my research. But it does seem that experiences with the loss of belief may be one common motivator for Skeptic’s quest to find the answers. 

Stephanie A. Hall, Ph.D., is a graduate of the Department of Folklore and Folklife at the University of Pennsylvania. She is a Librarian at the American Folklife Center, Library of Congress. Elsewhere in this issue is her article about an ethnographic survey she is making of skeptical organizations.

Religious Cults & the Coming Millennium

Keynote Address of John Knapp at the Millennium Madness Weekend Retreat

by Helen E. Hester-Ossa

“Most of the people who entered came at a time of need. There is never a person who isn’t in need at some point in their life.”

John Knapp was in a cult from the age of 18 to 41, and in that time he gave them the equivalent of more than \$300,000 in today’s money. What cult? The Maharishi Mahesh Yogi’s Transcendental Meditation program. What got him out? Love and marriage.

According to Knapp, if we are considering beliefs, millennial groups fall into several broad categories. The most colorful are the apocalyptic Christian groups that predict fire and destruction, followed by Christ ruling for a thousand years.

Other groups feel that Christ will only appear after the apocalypse. On the outer fringes are more sinister groups: abortion clinic bombers; concerned Christians planning to bomb Jerusalem to bring on the second coming of Christ; Timothy McVeigh, the Oklahoma City bomber; Christian groups expecting a race war; a cult that launched a gas attack on the Tokyo subway. The Maharishi Mahesh Yogi predicts the end of the world and World War III from the bombing in Kosovo. Alien and UFO cults have their eye on the millennium. Heaven’s Gate followers are regrouping and are planning some sort of cosmic event in 2000. American talk radio is abuzz with Y2K catastrophes.

Doomsday Cults

In America, doomsday cults can number in the thousands, but they are secret in nature, so it’s hard to count. It’s also nearly impossible to judge if there is more activity now because there have always been suicide cults, Masada being one of them.

Cultic Relationships

Knapp stated that he is almost always asked a group of questions:

Why do people come to join cults?

Typically, they are introduced by a friend, someone who is reading a book, or someone who has had their life changed. Knapp said, “If it sounds too good to be true, it is.” He likened the immersion into a cult to the old story about the turtle soup: if you put a turtle into

boiling water, he’ll jump out of the pot. The experienced chef puts the turtle in cold water, then warms the water slowly. “You and he will enjoy a rich broth at Mr. Turtle’s expense.”

The cult is expert at manipulating susceptible people, Knapp stated. “Most of the people who entered came at a time of need. There is never a person who isn’t in need at some point in their life.” It begins with a low protein diet, 24-hour shifts without sleep. “They get you to donate all your worldly goods and, then, if you experience failure, to fly for example, it’s a personal fault. You’re discouraged from seeing family—all ties with the outside world are severed. Your personality is broken down by this.” You start out taking a class, maybe even for free. Then you work up to more and more (and more expensive) classes, as you move up in the group. Knapp became a recruiter, and did it for decades. “The criteria for recruiting someone for TM was their ability to pay.” One more course, a carrot dangled at each step.

To obtain money for the group, Knapp sometimes took out loans he had no intention or means to repay.

“This goes on 24 hours a day, week after week, year after year—and the first thing that goes,” says Knapp, “is analytic thinking. The response is that of a battered wife or a POW.”

Life After A Cult

When asked how he managed to leave, Knapp stated “I fell in love with someone who wasn’t in the cult. Getting married brought me closer to my family. There was no physical abuse in the cult, but there were psychological chains.”

When asked how much money the Maharishi is worth, Knapp said about \$3 billion—the Bill Gates of self-help.

How do you protect children?

Knapp’s answer to that was short: “Totally insulate them from the world—or educate them.”

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The Millennium or Y2K Bug

by Marvin V. Zelkowitz,
University of Maryland

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By now just about everyone realizes that next January 1, on 01/01/00 (pronounced “oh-one-oh-one-uh-oh”), all computers will fail, your electric tooth brush will stop working, and civilization as we know it will cease to exist. How much of this is real, how much is hype, and what is fantasy? In this article we will try to answer those questions.

What and why the Y2K bug?

The problem began long ago in the early days of computing, beginning around 1960. Computers were expensive and storage for data was minimal. When I did my graduate research at Cornell University in the late 1960s, the main computer had total disk storage of about 233 million characters for some 3000 users. That is about 75,000 characters per user, or about 3,000 lines of text. Compare that to today. The computer used to write this article contains about 10 billion characters of disk storage for a single user. The popular software package, Microsoft Office, takes about 260 million characters of storage just to install. It wouldn't even fit into the total disk storage available in 1969.

Space was therefore at a premium. Space for dates was something that could be saved. Given a date, like 1969, it was “obvious” that we could store it as “69” and just append the “19” when needed. This then became standard programming practice.

Any time you have a program that states:
“Enter the date as MM/DD/YY:”

the program is interpreting this as:

CurrentYear := 1900+YY

Thus for a YY of 69, you get a CurrentYear of 1969 and for a YY of 99 you get a CurrentYear of 1999.

What now happens? Age is the difference between two different years. If you were born in 1945, then in 1999 you get Age = CurrentYear-BirthYear = 1999-1945 = 54. But come next year, the numbers work out to be:

CurrentYear = 1900+00 = 1900

Age = 1900-1945 = -45

Thus you are *minus* 45 years old instead of plus 55. Hence the Y2K bug (K for 1000 in computerese).

What happens now? It depends upon the program. The program may merrily continue to use -45 as an age and get incorrect results, it may print an error message saying the data is incorrect since the programmer may have realized that a negative number as an age makes no sense, or the program may simply halt and say “Fix me!” If this is a critical program for a company, halting execution may be disastrous, and the company may end up filing “chapter 11” and going bankrupt. This is the real fear of “Y2K”—companies large and small will cease to operate and society will grind to a halt.

Why is this problem still with us? We certainly knew that the year 2000 was going to occur. And we even knew when—right after 1999. How did we get into this predicament? There are three reasons:

1. *Programs were used longer than expected.* Rather than throwing out old programs, they have been continually modified and updated for current use.
2. *Source programs have been lost.* The original program that had the Y2K error is lost and the company has been using the executable version of it for years.
3. *Programmer invincibility.* Programmers believe they are immune to mistakes, and unlike other engineering disciplines, reviews, inspections, and evaluation of one's work is rare. Thus errors, such as the Y2K problem, are quite prevalent.

In response to this problem, companies are spending billions of dollars fixing old programs. There are about 36,000,000 programs in the U.S. and 100 million worldwide that have to be tested. Dates are being changed from 2 digits to 4 digits. (Although, is this just creating the Y10K problem?)

The question is, will these fixes be done in time? What will happen next January? It is estimated that it will cost about \$1 trillion to

The problem began long ago in the early days of computing, beginning around 1960. Computers were expensive and storage for data was minimal.

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In general, large companies, telephone companies, banks, financial institutions, and the federal government are well underway in fixing most Y2K problems. Major disruptions in large cities should be minimal. Most home appliances should work fine.

fix this problem. But this estimate is from consultants who would like the business to work on this problem. The best answer is *we just don't know!* What we do know is that there is no question that the problem is real; some systems will fail on January 1, 2000. But is it a minor annoyance or the end of civilization, as we know it?

What are government and industry doing?

In general, large companies, telephone companies, banks, financial institutions and the federal government are well underway in fixing most Y2K problems. Major disruptions in large cities should be minimal. Most home appliances should work fine.

You can test your home appliance, such as a VCR, by setting the clock to 11:55pm on December 31. Turn off the appliance and wait 5 minutes. When you turn it on you should get Saturday, January 1. If not you can contact the manufacturer, who hopefully has a fix for it. If not, you can reset the date to 1972, which is the same as 2000, a leap year that begins on a Saturday.

The potential problem is the ripple effect of our interdependent economy. If one small but critical supplier has problems, it can affect others. The GM strike of 2 years ago idled 200,000. For several weeks the effects were felt by only a few, but if the strike were not settled, millions more would have soon been put out of work. The failure of the Galaxy IV satellite put about 99% of all pagers out of commission for a day or two. These are just examples of what may happen.

What are specific industries doing?

The following are some examples:

Federal Government: According to the Office of Management and Budget, as of March 18, 1999, 79% of 6,399 Federal critical systems were Y2K compliant, up from 27% a year earlier, and 61% in November, 1998. They are not sure if the remaining 21% will be fixed in time. All agencies are working to develop contingency plans in the event of internal or external failures. Federal agencies will spend \$6.8 billion for these fixes, up from the \$6.4 billion estimate in November 1998. Five of the 24 largest federal agencies are now 100% Y2K compliant.

While that sounds good, a February 22 report from the Congressional Subcommittee on Government Management, Information and Technology stated: "... Our concerns about these agencies are plentiful. For example, last December the Department of Defense reported that 81% of its mission-critical systems were Year 2000 compliant. But in the department's quarterly report this month, officials stated that only 72% were compliant. Either the department has a serious internal communications problem, or it has taken a very big step backward in its Year 2000 efforts. Either way, the situation is alarming. Today, DOD's biggest battle is fixing its own computer systems. ..." In addition, only 10% of the Department of Defense's computer systems were considered "critical."

One consultant reported, only half in jest, that the Y2K bug was a great boon to the government. Although some \$7 billion is being spent to fix the problem, 90% of the systems are non-critical and can be scrapped, at an even greater saving of money.

Embedded Computing Systems (ECS). A major problem is industries that use embedded computing systems ("computer chips") in their products. A single oil-drilling platform may contain 10,000 such chips. There are about 7,800 power plants and 116,000 electrical relay stations in the country that have to be checked. From 1% to 5% of these may involve faulty date calculations. There are thousands of elevators and escalators that may be affected. Often they require periodic maintenance, and if date calculations are off, they may simply halt and wait for maintenance.

Airlines. Airlines are already taking reservations for flights after next January 1. The FAA is confident that U.S. commercial jetliners will be flight-ready. It is less certain of other elements of air travel, ranging from escalators to complex operations such as air traffic control and runway lighting.

About 33.5 million airline passengers traveled during the 1998 holiday season, pushing the airlines to near capacity. More are expected during 1999, because of end-of-century reveling. Even if every computer system in every U.S. airport and airline worked smoothly, the volume alone would cause delays and snags. Any problems associated with



the Y2K bug are bound to worsen that situation significantly. In addition, *any problems* next January will be blamed on Y2K, whether true or not.

Medical devices. A British government survey reportedly estimates that Y2K problems could be a factor in the deaths of up to 1,500 people in that country. The FDA is finding that many computerized medical device manufacturers aren't willing to say if their products are compliant out of fear of litigation. Problems with medical devices are similar to the ECS problem described before.

There are hundreds if not thousands of couples trying to conceive a "Y2K" baby (April 9 was the optimal date to conceive.) in order to have the first baby of the year 2000. Hospitals will be full of pregnant women the very day, hour, and minute that all the alarmists predict that all the medical equipment will start malfunctioning.

The previous describes the *optimistic* view of the problem. Capers Jones, a leading computer consultant says that among 200 clients in Fortune 500 companies, only 35% are actively dealing with Y2K; 65% are not. With an 85% chance of a problem, only about 10% of companies will escape with no serious Y2K problems. In payroll applications, current research indicates that 30% will not be fixed in time. In accounting and financial applications, it can cause major errors in invoices and billing, which could disrupt cash flows for 20 to 60 days. In banking applications, perhaps 20% of U.S. applications will not be fixed in time. Five percent of mid-sized companies may fail.

What are likely consequences of Y2K?

For one thing, much of Y2K has become a media event. Journalists, ignorant of the underlying technology, seem to be hyping the dangers. It's a chance to be part of a major story without being shot at, such as Viet Nam in 1970, Iraq in 1991, or Kosovo in 1999.

The U.S. economy has already been affected. Perhaps 1% (about \$70 billion) is being spent fixing Y2K bugs, buying new computers and software, or just stocking up on months of dried food, bottled water, wood stoves, gas generators, and tons of toilet paper, to avoid problems come January. There will be a corresponding drop next year as compa-

nies and individuals live off these accumulated stores before needing to purchase new supplies or equipment.

Litigation. Lawyers are gleefully looking at liability laws to institute suits over denial of service. The cost of liability suits is estimated as larger than fixing the Y2K bug in the first place. Some states are looking at laws to limit possible liability consequences of Y2K problems, but our free market economy depends upon the Uniform Commercial Code. Such limited liability would change this in a fundamental way. "...Society can't lightly countermand tort law that underpins the world of business—but neither should an economy built on Silicon Age semiconductor power be ripped apart in Y2K litigation" [Jack Robertson]. According to the Year 2000 Law network, computer companies "are especially vulnerable to breach of warranty suits arising from Year-2000 system failures because they often warrant the performance of the components they do not control as well as the systems they recommend."

Corporate officers and executives must act in the best interests of the shareholders. Failure to take prompt and effective action to minimize the risks from known dangers might also be regarded as a violation of the principle. The possible consequence might be lawsuits against executives who should have taken action to contain the year 2000 problem but failed to act prudently and responsibly.

The counter position is that the costs of achieving compliance are so high that it is possible that the damages might be cheaper than compliance. If you were a corporate officer, what would you do?

Scams. In general, any old scam can be dressed up with a Y2K coating. Some have received a call from "their" bank asking for account information so money can be put into a "safe" Y2K account. The cable shopping channel has been selling silver Y2K coins at an exchange rate of no better than \$.50 on the dollar. Common crooks are watching banks for people withdrawing large sums of money.

TEOTWAWKI

The extreme position is known as "the end of the world as we know it." Some fully expect society to just crumble. Some even welcome it.

For one thing, much of Y2K has become a media event. Journalists, ignorant of the underlying technology, seem to be hyping the dangers. It's a chance to be part of a major story without being shot at, such as Viet Nam in 1970, Iraq in 1991, or Kosovo in 1999.

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Cults. Many religious cults view the year 2000 as fulfilling biblical prophecies in Revelations and elsewhere in the Bible. The "Heavens gate" mass suicide was just one example of thousands. Most are harmless and will quietly go out of existence if the world does not end next January 1. But Y2K has become a rallying cry for some Christian fundamentalists. They look forward to the collapse of government as a way to institute a strict fundamentalist theocracy.

But they are not opposed the making some bucks along the way. For example, Jerry Falwell sells a \$28 videotape "A Christian's Guide to the Millennium Bug."

Gary North is a leading prophet of doom. (<http://www.garynorth.com>) "The Y2K crisis is systemic. It cannot possibly be fixed. ... I honestly think the Federal government will go under. ... Call me a dreamer. Call me an optimist. ... In my view, Y2K is our deliverance." He looks forward to the collapse of society. "[Y2K] will call into question science, technology, the free market and the welfare state."

In this model, God is delivering retribution for our sins. In the past when men misbehaved, God first brought on the Flood and only saved Noah. Later Lot was saved as Sodom and Gomorrah were destroyed by fire and brimstone. Today we live in a technological age, so it is only fair that our downfall will be caused by technology.

Whenever something unusual happens, conspiracy theories surface. "The whole Y2K piece is really a deliberate process. It is an orchestrated effort by unnamed nefarious forces to create one-world government. [Note that they are always unnamed and nefarious.] Its ridiculous to understand that in the process of having created this incredible, mammoth computer network, global alignment, Internet systems, informational systems, that we could not have also prepared for 2000 and beyond." [Harold Calvin Ray].

The above conclusion IS reasonable. Anyone not understanding computer technology could ask how we could land on the moon and Mars, build such complex computer networks, and still get caught by this trivial computer problem.

For those fearing the worst, a self-survival guide is offered by some (e.g., www.y2kchaos.com). For \$1,100 they will sell

you 136,000 pages on microfiche of the world's most important 1,000 books, and for \$20 a video on surviving the year 2000. To survive, you need about 400 pounds of dehydrated food per person per year.

A more complete shopping list would be:

1. Land—\$10,000 in rural community away from city
2. Water—\$5,000 to dig well and pump
3. Food—\$3,000-\$6,000 for year's supply for family of 4
4. Housing—\$40,000 for decent mobile home. Look for foreclosures
5. Heat—Rumford fireplace best. Heating stoves \$500-\$1,500 (Too late! All production through early 2000 already sold out.)
6. Septic tank—\$300 for perk test of land
7. Fencing—electric fencing to hold in animals \$.25/foot
8. Animals—\$1,000-\$3,000 for cow and goats and feed
9. Barn—\$15,000 for a decent barn
10. Electricity—Not essential to survival

This sums to about \$80,000, which is the minimum needed to survive without undue skimping. Of course, if civilization doesn't collapse, they will say "We've been praying and our prayers have been answered." As has happened ever since the Messiah did not show up as foretold in the Old Testament books of Isaiah and Daniel, history will be rewritten and the faithful will wait for the apocalyptic event at some future time.

What is likely to happen? The 1999 economy gains about .5% to 1% due to Y2K readiness expenditures. The 2000 economy is likely to be hurt by up to .5% due to Y2K glitches. It is starting to look like a major non-event. But this is only my personal opinion that will only become apparent next year.

In February 1998 there was a Middle East Y2K conference. When an official from the Bank of Lebanon was asked the consequences of Y2K, he replied, "What's the big deal? We've been living with a lot worse than this for over 20 years." We need to keep things in perspective.

Some Y2K Web sites:

Current news about Y2K:

<http://www.cnet.com/Content/Reports/Special/Y2000/>



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Marv Zelkowitz has been on the NCAS Board for 6 years and has managed the Internet email list and the NCAS World Wide Web server for several years. He also produces the monthly Shadow of a Doubt. He is on the faculty in the Department of Computer Science at the University of Maryland and holds a part-time faculty appointment at the National Institute of Standards and Technology.

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<http://www.everything2000.com/>

Corporate compliance database: <http://www.y2kbase.com/>

Federal government:

<http://whitehouse.gov/Initiatives/Millennium/index.shtml>

<http://www.itpolicy.gsa.gov/mks/yr2000/y2khome.htm>

Washington DC: <http://www.wdcy2k.org/>

Maryland: <http://www.usmh.usmd.edu/y2k/md-state.html>

Virginia: <http://www.cdci.state.va.us/>

Legal issues: <http://www.lawpublish.com/y2k-hot.html>

Some humor about all this: <http://www.yale.edu/year2000/funny.html> 

On my way to work one morning, I stopped my car at a newly created intersection in the middle of a highway construction project. Ahead, in the road, near the right shoulder, a man in an orange safety vest started walking toward me, into the intersection, looking intently at his two fists extended slightly in front of him at waist level. Just as the light turned green, he bent over and sprayed blue paint on the road and quickly stepped out of the lane ahead of me. As I drove past I could not believe my eyes. He was holding two metal rods—dowsing rods! On a major highway construction job site! Because of traffic and needing to get to work on time, I just drove on, flabbergasted.

Earlier, I'd seen a telephone number one could call for information about the road work, so first chance I got, I called it, only to reach an answering machine of the Federal Highway Administration. The next morning I called early, about 7:30, and reached the FHA project engineer. I told him the location of the job site, that I was a nearby resident, described what I'd observed, and politely expressed my concern that such unreliable, pseudo-scientific practices were being used on a federal job site to perform safety procedures, such as the location of utility lines. In awkward response, he gratuitously offered that, pseudo-science or not, dowsing really does work. I told him calmly, "No, it does not work. In repeated scientific double-blind tests, dowsing has never proved more successful than chance. And,

there is a \$1.1 million prize for anyone who can get better than chance results in double-blind dowsing tests." I was referring to the James Randi Educational Foundation prize. He said, anyway, his people would not have been involved. The choice to use dowsing rods or not would be up to whatever agency or company marked the utilities. His people just called the "Miss Utility" service, and he politely suggested I do likewise. So as not to let him completely off the hook, I asked if the FHA endorsed the use of dowsing rods on its job sites. He said no, it did not, but he knew that unspecified "others" do use dowsing rods. I already knew that the job site also involved the Maryland State Highway Administration, Prince George's County, and numerous other government agencies and private contractors. I decided to start with Miss Utility.

Miss Utility answered in a friendly, female voice (what else?). I told her the location of the job site, that I was a nearby resident, described what I'd observed and politely expressed my concerns. I asked if there was a log of who had called asking for utility markings at that job site. She said they do not log who calls; they just refer callers to the WSSC, the gas company, etc., to arrange for the markings. So there was no telling which of those many organizations on the job site had requested the marking. She said blue paint is usually used to mark water lines, so she gave

The Write Stuff

Think Skeptical, Act Local: Strange Encounter of the Flabbergasting Kind

by Gary Stone

In the spirit of encouraging skeptical activism, from time to time we will use this column to acknowledge NCAS members who have let us know about skeptical correspondence they have sent (letters to newspaper editors, television producers, etc.) or other actions they have taken proactively or in response to various articles, programs, events, etc. of concern to skeptics.



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me a telephone number she said was for the Washington Suburban Sanitary Commission (WSSC) water/sewer line marking department.

When I called what she had said was the WSSC, I reached, instead, a private company that does water line location for the WSSC. A man answered gruffly.

I told him the location of the job site, that I was a nearby resident . . .

“Is that all you are?” he interrupted. I quickly elaborated, “I am a nearby resident who would be significantly affected by the consequences of any possible accident resulting from improper marking of utilities on that job site.” I then resumed describing what I’d observed and politely expressed my concerns. He put me on hold briefly and returned to say that he’d checked and he did not believe any of his company’s people were on that job site marking WSSC lines on that date. Blue paint or not, maybe it wasn’t WSSC lines being marked, he proffered. So as not to let him completely off the hook, I asked if his company endorsed the use of dowsing rods on its job sites. He said definitely not, they use electronic equipment, which I took in good faith to mean that they use good engineering practice, there being no reason to believe otherwise.

I then called the main WSSC switchboard number and asked to speak to a WSSC official, not a contractor, involved in water line marking “policy.” A congenial gentleman answered. I told him the location of the job site, that I was a nearby resident, described what I’d observed, and politely expressed my concerns. He told me he was not aware of any WSSC lines at that location, but that he appreciated my call and that he would look into it and would discuss it with his utility marking contractor (the company I’d just spoken with). I did not ask him for a formal response.

Maybe I should have. Maybe I was disarmed by his unanticipated civility. But, so as not to let him completely off the hook, I asked if the WSSC endorsed the use of dowsing rods by its own people, contractors, or others marking the location of WSSC lines. He said no. Then he said, you know, sometimes the gas company uses blue paint in an orange circle to mark their lines. . . . The trail that earlier had seemed so well marked was now beginning to fade into the underbrush.

At each call, I’d kept detailed notes of dates, times, whom I spoke with, and what was said. As they say in the science laboratory, if it wasn’t logged, it didn’t happen. Now, if there’s a utility line accident on that job site, I’ll be ready to ask just how it was that they marked those lines.

So, I decided I’d done enough. I’d contacted four different organizations potentially involved, and given at least one person in each of them a reason to reconsider their ambivalence about dowsing. I suspect they told a few others in their offices about the strange call they’d gotten, broadening the circle of awareness, if not understanding. And I even surprised myself when, during a discussion with coworkers in my own office, I was emboldened to relate this dowsing story, as a fitting example of whatever it was we were discussing at the moment. They took it quite graciously.

Now, I leave it to the reader to extrapolate the various ways I might have pursued this further: with the other organizations on the job site, in writing; contacting my U.S. House Representative, requesting formal responses, etc. But, hey, I have a life! And besides, I did write this article to document the incident, and for your amusement. ☺

Gary Stone is a charter member of the NCAS Board, and its current vice president. He created and moderates the NCAS Forum on CAPACCESS FreeNet and participates in various volunteer opportunities for NCAS members. Most recently he’s helped arrange the NCAS monthly public speaker program, with an emphasis on topics related to critical thinking.

I’m truly impressed with Gary’s tenacity and stubborn civility. A sincere “Bravo!” for the effort. But I’m only a little surprised at the genesis event. I have in my files at work a photo that ran in the Post a couple of years ago of a WSSC worker dowsing for water pipes following a water main break, I believe in Langley Park. And a student of mine reported seeing University of Maryland workers using the classic bent rods on campus.

Chip Denman

Sir Isaac Newton's Magical Tradition

by Richard Dengrove

The economist John Maynard Keynes (1883-1946) claimed Sir Isaac Newton (1642-1727) was the last of the magicians. It is true—some magic evolved into Newtonian science. In the Middle Ages, all magic was thought to be accomplished through demons—visible, invisible, or disguised (as God, the angels or natural phenomena). They owed their allegiance to the Devil.

Around the 13th Century, writers like William of Auvergne (1180-1249) distinguished between black or spiritual magic, and natural magic. The former occurred through demons, the latter through Aristotle's occult virtues—hidden (i.e. occult) causes—not Aristotle's four visible elements of air, fire, earth, and water.

Orthodox thinkers, like Saint Thomas Aquinas (1225-74), doubted you could tell the difference in many cases, especially where, as in incantations and words, it appeared to involve some intelligent being. They were right to be suspicious. Many natural magicians—Marsilio Ficino (1433-1499) more subtly and Agrippa von Nettesheim (1486-1535) very blatantly—sought to justify their magic arts (e.g., claiming their magic used astral spirits not demons). As the 16th Century progressed, natural magicians stressed magic less and empiricism more. Giambattista della Porta (1538-1615) spoke of practical suggestions and magic tricks as well as wonders—the illusions of dioramas and making good iron as well as curative foot prints.

Later still, other savants approximated modern science more closely, using repeatable observation and experiments as proof. Johannes Kepler (1571-1630) gave such proof—the soul of the Sun moved the planets by a hidden force. Jean Baptiste van Helmont (1579-1644) gave such proof—air helped create a hidden life force in the heart. During the 17th Century, savants, as in ancient times, believed particles hidden by their smallness ran the universe (i.e., atoms).

By then the hidden force need not be hidden for all time.

It is true Newton was far more adept at science than they. However, he believed, like them, in occult virtues: gravity, light particles, and atoms attracted and repelled through hidden forces. He suspected it was God's direct

manifestation. The people of his time believed these attractions and repulsions were occult virtues. Gravity as an attracting force, vs. a binding material or an object's status, had been considered an occult virtue by tradition. The philosopher Gottfried Wilhelm Leibniz (1646-1716) accused Newton of explaining with occult virtues, and he did not deny it. Further evidence is found in Newton's claim, like other natural magicians', to be rediscovering the wisdom of legendary ancients, such as Hermes Trismegistus, Pythagoras and Moschus the Phoenician (i.e., Moses).

By the 1730s, the debate about visible causes vs. occult virtues had become a thing of the past, and Newton's natural magic was regarded as foolishness in an otherwise great man.

Selected Bibliography

Eamon, William, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture*. Princeton, NJ: Princeton, 1994. (Background)

Easlea, Brian. *Witch-hunting, Magic & the New Philosophy: An Introduction to Debates of the Scientific Revolution. 1450-1750*. Hemel Hempstead, Hertfordshire: The Harvester Press, 1980. (A very good and very bad book that gives intellectual background.)

Fauvel, John; Flood, Raymond;

Shortland, Michael; and Wilson, Robin, Editors. *Let Newton Be!: a New Perspective on his Life and Works*. Oxford University Press, 1988. (My prime source.)^a 



Refuting *Darwin's Black Box*

by Garold R. Stone <stonegr@erols.com>

Darwin's *Black Box—The Biochemical Challenge to Evolution*, by Michael Behe, Free Press 1996, (available at <http://www.amazon.com/exec/obidos/ASIN/0684827549/qid=919530814/sr=1-1/002-9381138-4812631>) was recently released in paperback (1998), and the author is currently speaking to Christian groups on college campuses, most recently University of Maryland at College Park.

It is a superficially compelling and fatally flawed anti-evolution argument for "Intelligent Design" due to "Irreducible Complexity" at the bio-molecular level.

The reader reviews of the book on amazon.com were surprisingly well written (both pro and con). They led me to these two excellent critical reviews, which refute each of Behe's arguments one by one:

A Biochemist's Response to 'The Biochemical Challenge to Evolution,' October 6, 1998, David W. Ussery, Associate Research Professor, Center for Biological Sequence Analysis, Institute of Biotechnology, The Technical University of Denmark <http://www.cbs.dtu.dk/dave/Behe.html>
Behe's Empty Box, January 20, 1999, John Catalano <http://www.spacelab.net/~catalj/box/behe.htm> 

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“Ghostbusting 101”

Just in time for Hallowe'en, the National Capital Area Skeptics presents a full-day program that examines investigations of the spirit realm, from the 19th century to present day. The sessions offer diverse viewpoints on attempts to apply science and technology in the assessment of age-old traditions and beliefs.

Who should attend?

All who are interested in the application of critical thinking and science, especially regarding paranormal claims. The workshop is open to all, and is appropriate for ages 15 and up.

Sessions include:

“If the spirits are willing...” Chip Denman will give a brief history of seances and mediums and those who investigated them during the heyday of the Spiritualist movement. He is a statistician at the University of Maryland where he teaches “Science & Pseudoscience” for the University Honors Program, and past-president of NCAS.

“Ghosts and electromagnetic anomalies” Joe Holbert conducts “ghost tours” in Leesburg, Virginia, and investigates the possibility that ghosts are associated with very low-level electromagnetic fields. He will describe his personal research.

“Modern mediums and psychic readings” Spiritualism lives on today in such mediums as James Van Praagh, best-selling author of *Talking to Heaven*, and thousands of lesser known “psychic readers.”

Kari Coleman will discuss her personal experiences and methods used in giving read-

ings. She is an actress whose skeptical writings have been published by the James Randi Educational Foundation.

“High tech communications with the hereafter: Ghost photos, ghost detectors, electronic-voice phenomena, and phone calls from the dead.” Dr. Michael Epstein will present an overview of technological efforts to record evidence of spirits. He is a chemist at NIST, a former vice president of NCAS, a recent recipient of an award for excellence in education that promotes skeptical thinking.

Additional discussion will cover “spirit photographs,” modern seances, the Ujia Board effect, and more.

Workshop

9am - 5pm, Saturday, October 16, 1999
Best Western Leesburg Dulles
726 East Market Street
Leesburg, Virginia 20176
for hotel info: (703) 777- 9400
for workshop info: (301) 587-3827
ncas@ncas.org
www.ncas.org

Registration

\$25 if postmarked by September 25, 1999
\$30 after September 25, 1999

Registration fee includes snacks at morning and afternoon breaks plus handouts.

Lunch is not included. Several restaurants are nearby.

Send to:

**Ghostbusting 101
NCAS
PO Box 8428
Silver Spring, Maryland 20910**

In July of 1909, students from Bristol University went to Brockley Manor to photograph a ghost.

For 20 years, Sir Arthur Conan Doyle, creator of the scientific detective, Sherlock Holmes, contended the photo was real.

In 1929, he was proven wrong.

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