



## CS TV: Crime Science on Television

by Walter F. Rowe, Ph.D.  
Professor, Department of Forensic Sciences  
The George Washington University

In the last few years television programs about forensic science have become very popular. On cable TV channels there are documentary series such as *Forensic Files*, *The New Detectives*, and *Secrets of Forensic Science*. The major networks have dramas such as NBC's *Law & Order* and *Crossing Jordan* and CBS's *CSI* and *CSI: Miami*. *CSI*, (Crime Scene Investigation) now in its third season, is one of the most popular programs on television. Currently, it wins its time slot in the Nielsen ratings.

The series is set in Las Vegas and follows the activities of a team of crime scene investigators as they investigate suspicious deaths. Gil Grissom (played by William Petersen) is the supervisor of the night shift at the Field Service Office. Grissom has a Ph.D. in biology from UCLA; he specializes in forensic entomology (the use of insects in forensic science). His team includes second-in-command Catherine Willows (B.S. in medical technology from the University of Nevada—Las Vegas), Sara Sidel (B.S. in physics from Harvard), Warrick Brown (B.S. in chemistry from the University of Nevada—Las Vegas) and Nick Stokes (B.S. in criminal justice from Rice University). I have highlighted the college degrees provided for the *CSI* team members as part of their back stories because *CSI* is one of the few TV programs to emphasize the educations of its characters.

*CSI* has many positive features. The program focuses on the use of physical evidence to solve crimes; the witnesses interviewed by police often hamper the investigations more than they help them. Eyewitnesses are often shown to be mistaken or lying. The problematic nature of eyewitness testimony has been evident to thoughtful investigators for many years. It is valuable to have the lay public frequently reminded of its many deficiencies.

On TV and in popular culture in general, educated people are sometimes portrayed as effete snobs who can barely function in the real world. The *CSI* characters have quirks and hang-ups (Willows has substance abuse problems in her past and Brown has a gambling problem), but they are generally presented as regular people who are highly competent at their jobs. Each week on *CSI* bright, well-educated good guys beat bad guys through science and the power of reasoning. Although the *CSI* investigators carry weapons they rarely use them: Their critical thinking skills are more important than their pistols. And for those who like to dwell on

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**Law & Order**  
**CSI:**  
**Crime Scene Investigation**  
**Forensic Files**  
**CSI: MIAMI**

# coming events

## Friday the 13th

Join us for a fun-filled evening on Friday, February 13th at Mayorga Coffee in Silver Spring, MD, from 7:00 - 9:00 p.m. Enjoy this year's superstitious day with fellow skeptics.

## Future Lectures

Lectures currently scheduled for 2004 are:

**February 21**—Univ. of Maryland "Critical Thinking" course students presenting papers/projects

**March 27-28**—Annual NCAS Weekend Workshop in Leesburg, VA. Details to follow soon.

~~**April 15**—Ian Rowland, amazing entertainment. Details to follow soon. Special venue.~~

**April 17**—Melissa Pollack of NSF

**May 15**—Sally Satel from American Enterprise Institute, on PTSD as a "real" mental disorder.

Lectures for the 2003-2004 year will be held at the B-CC Services Center in the Multipurpose Room. The Center is at 4805 Edgemoor Lane in downtown Bethesda, MD. Directions to the Center are at: <http://www.montgomerycountymd.gov/content/RSC/bcc/directions.asp>. (Map to B-CC Services Center)

Cancelled! For more information, go to: <http://www.ianrowland.com/NewsSchedule/News&Schedule.html>

**2003/2004 Board of Directors of the National Capital Area Skeptics at November 2003 meeting.** Left to right, bottom row: Paul Jaffe, Grace Denman, Sharlene Deskins, Chip Denman. Top row: Scott Snell, Tim Scanlon, Walter Rowe, Eugene Ossa, Marv Zerkowitz, Chris Wanjek, Jim Giglio



Helen E. Hester-Ossa

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recycled paper

**Dear Skeptical Eye reader:**

**H**i! As your new president, I guess I should introduce myself. I first heard about NCAS when Jamy Swiss and Chip Denman, two of NCAS's founders and current Board members, were on radio discussing skepticism around 1992. Shortly thereafter I saw Randi at the National Institute of Standards and Technology in Gaithersburg, and I was hooked. I joined and within a year or so I was on the NCAS Board, Secretary of the group, and since August 1994 I was editor of the monthly calendar, *Shadow of a Doubt*.

In my "day job" I am Professor of Computer Science at the University of Maryland where I am interested in software engineering and technology transfer—how to get new technology in use for producing better computer software. I was a member of NCAS for almost 10 years before realizing that my university research and interests in NCAS are really the same. At the University most of my research is in experimentation in validating claims of grand new technologies. Does the latest "buzzword" of my field—the Java language, object oriented programming, function points, XML, Windows XP—really improve computer technology or is it just hype? Replace these buzzwords with terms like homeopathy, alternative medicine, therapeutic touch, and you have a skeptical agenda. Perhaps it is obvious to others, but I only realized about 2 years ago that I have been a professional skeptic for the last 33 years.

After 7 or 8 years I finally wanted to give the *Shadow* to someone else—but no takers. It seemed like becoming president of the group was the only way to get out of that task, so here I am. Since the *Shadow* is published

anonymously, I want to publicly thank those responsible for its timely production: Chip Denman produces the front side with the monthly lecture notice, Eugene Ossa produces the flip side with the calendar information, and Scott Snell does the printing and mailing. Jim Giglio has been coordinating speakers for each monthly lecture. We all should thank them since the *Shadow* is the glue that keeps the organization operating. Incidentally, if you have recommendations for speakers, please send Jim your recommendations. (Remember that our budget for this is rather meager.) Information to the NCAS Board can best be conveyed using the email *ncas@ncas.org*.

NCAS is a volunteer organization. That means we need volunteers from among our members. This in turn requires members who can volunteer. As *Shadow* editor for many years, I saw a slow decay of our membership. Reversing this is my major goal as president. We need more volunteers to help the Board produce programs and publications for your interest—monthly meetings, annual workshops, Friday the 13<sup>th</sup> socials, this *Skeptical Eye*, *Shadow*, and other events of interest to you. Putting the 1968 *Condon Report* on UFOs on the web has made NCAS known internationally. We also need more members.

So, please try to volunteer, come to our events, and if you know of others with a similar outlook, encourage them to come to a few lectures and join the group.

See you at our next event!

**Marv**

See Marv's article, "Secret Origins of the Bible—a review" on page 12 of this issue.

# The UFO Evidence: Burdens of Proof

by Jim Giglio and Scott Snell

This is a revision of a piece that Jim and Scott wrote for the "ufoskeptic" web page a couple of years ago. The page is maintained by Bernard Haisch, a University of California physicist; it contains articles from both sides of the UFO issue, mostly "pro."

We start where any scientific debate over the UFO evidence ought to start, with the 1968 University of Colorado report to the Air Force, *Scientific Study of Unidentified Flying Objects*, also known as the *Condon Report*. That project examined the evidence that had accumulated since 1947; it was, and remains, the largest scientific study ever conducted in relation to the UFO issue. The principal conclusion was narrowly focused and stated with considerable precision:

*Careful consideration of the record as it is available to us leads us to conclude that further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby.*

Note that the report did NOT state that the hypothesis of extraterrestrial visitation had been conclusively disproved, only that the evidence accumulated up to that time in relation to the issue had contributed nothing to science and showed no sign of contributing anything in the future.

How well has that conclusion stood the test of time? Or to put it another way, has there been any change in the nature of the evidence that might alter that judgment from 1968? Most of that evidence consisted of reports from witnesses who saw things in the sky that they could not identify; is it any different today?

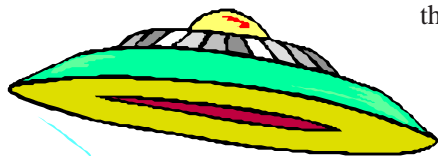
## Witness Reliability

Examine a witness statement (cited by another "ufoskeptic" contributor as typical and informative). The statement was

submitted to the National UFO Reporting Center in 1999 (who also seem to regard it as typical and informative, since they chose to publish it) and refers to an event that allegedly occurred in 1976 near Hydes, Maryland:

*it was dusk that day. we saw this round craft come out of the northeast over the horizon. it was slowly rotating counter clockwise. white lights only, were on the outer edges. it moved slowly, maybe 30 to 40 miles per hour. it came directly over us. we were on a horse farm, laying on the front lawn just after dinner. this craft was just below the sunlight that was left in the sky. we could not see any details. when it came over us, it stopped. then separated into four smaller craft. then at the blink of an eye, they shot over the horizon. each ship went directly north, south, east and west respectively. there was absolutely no sound from this craft. we learned the next day that there were sightings over peachbottom atomic plant that day. the same direction that our craft came from. to this day, we have never spoken about this to anyone, not even between ourselves. there were 6 of us. two music teachers, a medical lab tech, a texas instruments tech, police officer, [and] a kindergarten teacher.*

As scientific evidence, this statement has red flags hanging all over it. The writer, supposedly a professional, seems not to want to bother with the standard capitalization rules for English sentences. And the statement is only semi-coherent, with sentences describing various aspects of the incident tumbling over each other in a rush; with 23 years to think about the event, it ought to have been possible to organize the description into a coherent narrative. Another place in the report states that



no details of the object could be seen, yet it was 1,000 feet in diameter and traveling 30 or 40 miles per hour. How these size and speed determinations were made is unspecified, nor is there an explanation for an inability to resolve details when it WAS possible to determine size and speed.

Accepting the size and speed estimates leads to another problem. Hydes, Maryland, is located near a number of heavily-traveled highways and air transportation corridors. Nearby observers should have numbered in the thousands and generated numerous newspaper headlines; we are referred, instead, to some reports of sightings at a nuclear power plant located a considerable distance away.

This kind of report is alleged to be typical. That's quite correct; it IS typical, but worthless. Individuals and organizations adhering to the notion of ET visitation accumulate reports like this by the thousands to support their position, but there's a logical fallacy at work here, that large amounts of bad evidence somehow add up to good evidence. They don't. You can't make a silk purse out of a sow's ear, nor can you make one out of 10,000 sow's ears.

The Colorado investigators were right; despite their volume, reports such as this, which had contributed nothing to science as of 1968, have yet to contribute anything in the intervening 35 years. The fact that those on the "pro" side gives credence to such statements illustrates an aspect of the UFO issue that ought to trouble supporters of the notion that this issue is a serious scientific problem. We refer to an apparent unwillingness, on the part of far too many of these proponents, to apply even a modicum of critical thinking to such reports.

One of us (Scott) attended a UFO conference a few years ago. At this event, a physicist widely considered to be a technically adept investigator (who shall remain nameless) gave a presentation in which he described his analysis of photos showing peculiar lights over the night skyline of an Arizona city. He showed the audience how he had compared the lights of the city in two different photos that the photographer/witness claimed had been taken only a few moments apart; the city

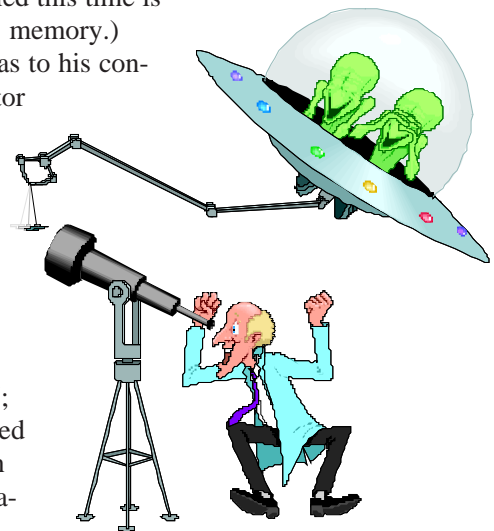
lights had changed markedly.

Test photos taken for comparison showed that one was taken sometime before 11 PM and the other taken sometime afterward, despite the witness's claim that both were taken in quick succession at about 8 PM. (At about 11 PM, skyline lighting changes significantly as businesses and homes turn off their lights for the night.) The investigator then asked the witness for the photographic negatives. He learned that the two photos were actually from different rolls of film, separated by several other frames, some showing only the skyline, some showing only the peculiar "UFO" lights (This aspect of the report is striking in its resemblance to the Colorado report's Case #7.)

At this point, a listener to the talk might have expected the investigator to conclude that this was not a reliable case to use. The witness's story did not match the photographic facts, and the contents of the interim photos suggested experiments in trick photography. The listener would have been wrong. The investigator touted this as "missing time discovered through photo analysis" (For the uninitiated, the "missing time" phenomenon is a standard component of alien abduction stories; it occurs when someone notices that the time on a clock or watch is considerably later than expected; the abduction event that supposedly occupied this time is somehow erased from memory.)

When questioned as to his conclusions, the investigator stressed that "...the witness is a very credible, respected member of her community. She would not have lied about it." Apparently this investigator had never read Colorado Case #7; that hoaxer was a retired military officer with an "irreproachable" reputa-

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tion. The investigator also apparently never heard of Occam's Razor, the principle that states that, other factors being equal, one chooses the simpler of two competing explanations for an observation.

When one is investigating a UFO incident in the expectation that it might provide evidence that our planet is being visited by ET's (a most extraordinary hypothesis), a high level of critical thinking should be strenuously applied. But in the two examples of "pro-UFO" evidence seen here, this does not appear to be happening. The UFO reporting center, by publishing it, supports the flawed statement quoted above, and the audience at the conference was generally accepting of this perfectly ludicrous photo analysis. Acceptance and support of this kind of thing by adherents of the "pro" viewpoint, as if it were serious science, leads the skeptic to wonder, "If this is the good, credible evidence, what does the bad, noncredible stuff look like?"

Actually the two kinds look very similar, because the UFO issue can no longer (post Colorado report) make a strong claim to being a scientific issue at all. It shows, instead, numerous signs of being a social phenomenon, driven by the print and electronic media; in fact there is strong evidence that this has been the case all along.

### Pop Culture Influence

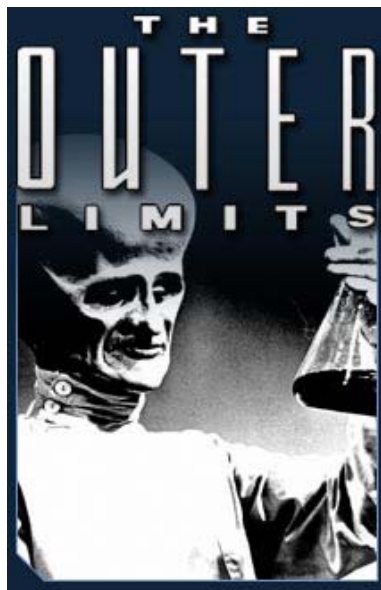
Go back to the beginning, to the 1947 Kenneth Arnold sighting. The phenomenon described by Arnold was a group of boomerang-shaped objects that moved like saucers skimming across a water surface. But the report was garbled in initial press reports, leading readers to believe that the alleged objects were saucer-shaped. Subsequent reports, amplified by film and television, spread the "saucer" or "disc" image of UFOs to people all over the world. And while many different shapes have been reported

for UFOs over the years, the majority of reports have been of saucers or discs, a clear indication that witnesses are seeing what they expect to see, and reporting what others accept as the norm.

There is also compelling evidence that the appearance of UFO occupants, as widely accepted among "contact" adherents, arose out of a particular episode of a television series. Barney Hill, who was allegedly abducted by beings from a UFO in the early 1960s (the initial case of this type), went into therapy and was hypnotized in the course of his treatment. Under hypnosis, Hill described the eyes of his abductors as "speaking." This peculiar phrase had been used by an extraterrestrial character in an episode of the ABC-TV series "The Outer Limits," which had aired only days before Hill's hypnosis session. The episode was "The Bellerophon Shield;" the alien portrayed was bald, essentially featureless in face and body, and had swept back eyes, just as Hill sketched under hypnosis. Although other early reports of UFO occupants varied significantly from Hill's (probably inspired by other stereotypical alien images), his description is the one that has saturated popular culture via the media.

In 1975, NBC-TV broadcast a dramatization of Hill's experience in a made for TV film called "The UFO Incident." Many millions of people watched this allegedly true story and learned what aliens are supposed to look like.

A couple of years later, Steven Spielberg's "Close Encounters of the Third Kind" became one of the most popular motion pictures ever made, depicting beings similar to those in Hill's description. Public perception of the "standard model" alien was further influenced by the cover of Whitley Strieber's 1987 best-selling book "Communion," an allegedly true ac-



"The Outer Limits" season 1 episode, "The Bellerophon Shield," airing on SciFi Channel. Photo from <http://www.scifi.com/outerlimits/episodes/classic/season1/20bellerophonshield.html>

*Errata: The image used for the Outer Limits episode is actually a generic one used by the Sci Fi Channel's website, a scene from an episode called "The Sixth Finger."*  
The authors wish to acknowledge Martin Kottmeyer, available at <http://www.csicop.org/q/book/6301967364> as the originator of the "Outer Limits" connection to the alien archetype.

count of alien contact, which sported the expected image. Had Barney Hill's hypnosis session taken place earlier, or had the ABC network scheduled the "Bello Shield" later, we would probably have a different "standard model" alien.

### Physical Principles

Let's go on to another kind of evidence, one that is piling up into a rather convincing accumulation. That's the evidence relating to the impossibility of reported UFO behavior under limitations imposed on us by a number of well-tested physical principles. The scientific consensus on these limitations has become more solid over time, making the notion that our planet is being visited by ET spacecraft less and less convincing. (We are assuming here that our hypothetical ETs are physical beings traveling in physical machines from place to place in the here and now universe that we see around us. Concepts of "light beings," "interdimensional portals," or "higher vibratory planes" we relegate to the realm of the pseudomystical.)

Crudely stated, the limitations that concern us are:

1. No object travels faster than light (the Einstein speed limit).
2. No object can be made to move without forcing some other object to move in the opposite direction (Newton's 3rd law of motion).
3. No object can move through the atmosphere at bullet-like speeds without creating a sonic boom (a direct consequence of the Doppler effect).
4. Gravity pulls; it can't be made to push.
5. Complex living beings do not survive instantaneous accelerations from a standing start to thousands of miles per hour, nor do they survive instantaneous sharp turns at those speeds (direct consequences of inertia).

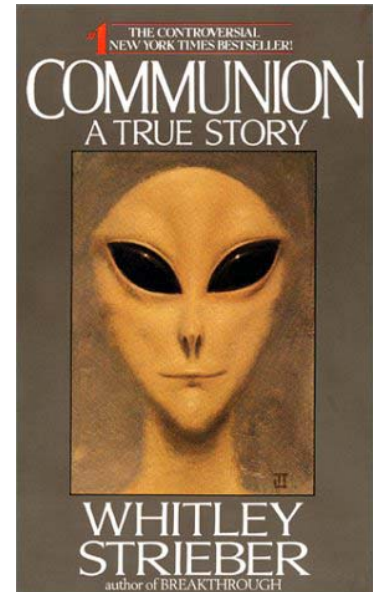
Referring to limitation #1, there can be little doubt that if ETs are visiting our planet, they would have to do so in vessels traveling faster than light; sublight "generation ships" would in all likelihood be totally impractical (more on that idea below). But the Einstein

speed limit says this can't be done, so we have to ask: How well-settled is the idea that nothing travels faster than light? Very well indeed, actually, and getting better established all the time. Back in 1947 when the UFO issue first came to prominence, relativity and Dr. Einstein's speed limit were only about 50 years old, and only a handful of experiments had been performed to test their validity. Since then, we've educated several new generations of physicists, many of whom have worked at "pushing the envelope" of relativity. Experiments and theoretical studies have proliferated over this time, but unfortunately no exception has been found to this fundamental limiting principle of physics. In fact, there's not even a realistic hint pointing to the possibility of an exception.

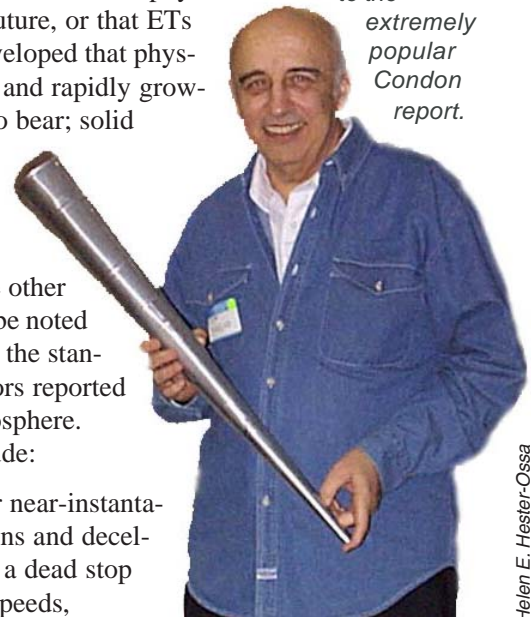
A counter to this argument is the claim that maybe we don't know all the physics there is to know. Of course we don't. But we do know a lot, and for almost a century now the evidence has been accumulating that the Einstein speed limit is both intractable and permanent. Anyone who holds that the limit might be bypassed by some "new physics" at some time in the future, or that ETs may already have developed that physics, has a very heavy and rapidly growing burden of proof to bear; solid and convincing evidence, not speculation, is required to support that burden.

Moving on to the other limitations, it should be noted that these all apply to the standard kinds of behaviors reported for UFOs in the atmosphere. These behaviors include:

- Instantaneous or near-instantaneous accelerations and decelerations between a dead stop and hypersonic speeds,



NCAS board member Jim Giglio headed the project to put the 1968 Congressional UFO symposium report on the NCAS web site. The symposium report was added as a companion to the extremely popular Condon report.



Helen E. Hester-Ossa

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- Instantaneous turns at those hypersonic speeds,
- Absence of the expected sonic booms from these maneuvers, and
- Absence of the expected visible indicators of a superpowerful propulsion system at work (smoke, noise, exhaust blast, etc.)

If we assume that some kind of “mothership” brought these craft here across the gulfs of space, and that this mothership complies with the Einstein speed limit (requiring decades or centuries to make the journey), this assumption avoids limitation #1. Unfortunately it won’t avoid the other four. To do that, we need such “Star Trek” notions as impulse drive, inertial damping, or antigravity. And these are contradicted by principles that are, if anything, even better established than the Einstein speed limit, being rooted in nearly 400 years of classical physics.

### Pros and Cons

What we have, then, is a situation where the “pro” evidence consists almost entirely of statements from witnesses who have observed unusual phenomena in the sky and cannot identify what they saw, and whose perceptions and interpretations have been contaminated by images from popular culture, while the “con” evidence (at least the strongest such evidence) is a body of physical laws supported by massive amounts of experimental data.

Concerning the “pro” evidence, we know from numerous investigations of those witness accounts that a substantial majority of them (or practically all, depending on your source of information) are explainable as a mix of mundane phenomena observed under odd circumstances, plus a number of hoaxes. As noted above, the Colorado report is enlightening on these points. Taking the case studies as a whole, it is difficult to escape the conclusion that a witness observing something unusual, even a “trained observer,” has a near-zero ability to interpret that observation correctly and de-

scribe it accurately. It is also difficult to escape the conclusion that reliable individuals, reputable pillars of the community, pull off UFO hoaxes with surprising frequency.

Concerning the “con” evidence, it needs to be emphasized that the various physical principles in question are approximately 100 to 400 years old, supported by enormous numbers of repeatable experiments and instrumented observations, all subjected to intense scrutiny by generations of scientific professionals who would like nothing better than to demolish an important pillar of the scientific edifice. And these ideas are not just textbook material. Our real world technology abounds with applications of these ideas, all developed by engineers and inventors who must cope on a daily basis with the inconvenient limitations imposed on them by the physical world and its laws. Aeronautical engineers would be delighted if they could make gravity push rather than pull; inconveniences such as wings and fuel-guzzling engines on airplanes could be dispensed with. The designers of communications equipment and computers would be equally delighted to learn that Dr. Einstein’s speed limit could be violated; the possibilities would be dazzling. But alas, none of this is happening, and as the evidence accumulates, it appears more likely than ever that it cannot happen, on this planet or any other.

### Burden of Proof

In closing, a final point: The arguments made here are not conclusive. We cannot say with certainty that our planet is not being visited. We can, however, note that those who support the idea of ET visitation have always had a heavy burden of proof, a burden that has only grown heavier as time passes. We skeptics, who find this idea implausible, have a lighter burden, and it gets lighter with time. ☒

### Notes

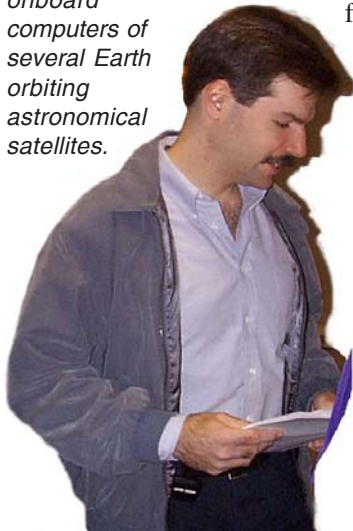
The “ufoskeptic” web page is located at <http://www.ufoskeptic.org/>

The Colorado report was placed on-line by NCAS in January 1999: <http://www.ncas.org/condon/>

The National UFO Reporting Center is on the web at <http://www.nuforc.org/index.html>

*Scott Snell is a charter member of NCAS and serves on its board of directors. He received his Bachelor of Science degree in physics from the University of Maryland. He is employed as a flight software engineer by Computer Sciences Corporation at NASA's Goddard Space Flight Center, tending the onboard computers of several Earth orbiting astronomical satellites.*

Helen E. Hester-Ossa





# More Precursors of the Flying Saucers: the *Good* Aliens

by Richard Dengrove

Thanks to science fiction, we think of extraterrestrials as being scientific or pseudoscientific. But, for most of the past 500 years, their existence had to be proven by rhetoric, a process used by the Ancients. And extraterrestrials were hallowed by God; such was religion's power.

When people first reasoned that there was a good God, they inferred that the universe had to be good and populated with appropriately intelligent beings, *i.e.*, many extraterrestrials. This was the presumed origin of most of the 18<sup>th</sup> century extraterrestrials discussed in my previous essay, "The Flying Saucer's 18th Century Precursors" (*Skeptical Eye*, vol. 14, no 1, 2002).

To make the universe even better, many of these extraterrestrial beings were superior to us. The phrase most used was "the planets and stars had not been 'created in vain.'" I wonder if "we are not alone" means the universe is better because there are extraterrestrials.

The first person to advocate the concept of superior extraterrestrials was Nicholas of Cusa (1401-1464) in his book *Learned Ignorance*. All his extraterrestrials were superior to humans. While his Moon Men may have been "lunatics," per their astrological attributes, they were still less sinful, less driven by passions than Earthmen.

As late as 1854, the scientist Sir David Brewster felt attacking extraterrestrials, like William Whewell did, was attacking the idea of a good God.

We no longer prove theories by rhetoric; rather by experience *a la* science and practical men. So modern extraterrestrials have to be experienced to be believed. Perforce they had to be on Earth or seen from flying saucers.

The inspiration for the modern, good extraterrestrials seems to have been the film *The Day the Earth Stood Still* (1951) with Michael Rennie as the UFO alien Klaatu. Klaatu had an anti-atomic weapons message of good to give

world leaders. A modern personification of the good alien. I bet the scriptwriter had reified him from the abstractions of old books.

In 1952, the first UFO contactee was heard from, George Adamski, an especially low-rent guru, sometimes reduced to flipping burgers and other menial tasks. His UFO aliens also warned against atomic weapons, though less artfully. In addition, they wore long hair, associated in the '50s with Christ, *i.e.*, religion and good. Perhaps this made Adamski's aliens a better personification than Klaatu.



This type of UFO alien still has a following and has come to be called the Space Brother. It plays a role in movements such as Unarius; the Raelian Movement; the Brazilian Superior Rational; and numerous, more minuscule cults. For others, it has also become something of a joke.

However, the real importance of these good UFO aliens is not in their following, but that, at the turn of the last century, they paved the way for bad extraterrestrials and bad UFO aliens. 🐱

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*Richard Dengrove is the librarian for the Food and Nutrition Service, Department of Agriculture. He lives with his wife, Heidi, in Alexandria, Virginia. His ambition is to write a history of occult magic.*



Helen E. Hester-Ossa

# Lucky Day: NCAS Gathers on Friday the 13th

by Sharlene Deskins

On June 13th, 2003, the National Capital Area Skeptics held a happy hour at the Mayorga Coffee in Silver Spring. This was meant to be the first in an ongoing series of NCAS events to be held every “Friday the 13th.” It is a common superstition that whenever the 13th day of the months falls on a Friday, it is unlucky. Despite great advances in fields from medicine to science, there are

though by the continued interest of the crowd it seemed as if he were only there for a few minutes. One trick that the crowd found particularly impressive was when Morton had a member of the crowd write his initials on a card and then replace it in the deck. To the surprise and fascination of the onlookers,

still many superstitions that continue. NCAS, in an effort to dispel the notion that Friday the 13th is unlucky, is countering those superstitions by showing that “lucky” things happen on Friday the 13th, just as they do on any day of the year.

Indeed, Friday the 13th proved to be a lucky day for the crowd that came to

Mayorga Coffee to have coffee, a drink, and to watch the close-up magic of Brian “The Lies of Brian” Morton. Morton is a magician well known in the Washington-Baltimore area. For the past 5 years he has been performing his close-up magic at the Maryland Renaissance Festival. The NCAS crowd was impressed and entertained by the variety of magic tricks that Morton performed, as well as by his affable nature. Even the downpour during the happy hour did not dampen the spirits of the gathered crowd.

Morton moved throughout the crowd entertaining everyone who came.

Morton performed his card tricks for 2 hours, al-



Magician Brian “The Lies of Brian” Morton



photos by Helen E. Hester-Ossa

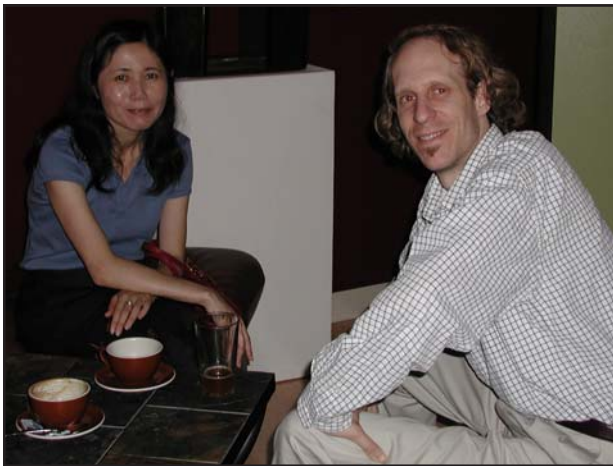
*Sharlene Deskins is employed by the United States Department of Agriculture. She has a degree in history from the University of Michigan and has lived in the metro D.C. area since 1989.*





his “blatant dishonesty in the service of wonder.” It was even more impressive that so many people came since sustained rain in the metro D.C. area put a damper on a number of events. Since the event went so well, NCAS President Chip Denman stated, “Given the success of this happy hour, we will definitely have to do this again.” ☺

*The next Friday the 13th gathering, “Superstitious Skeptics Social,” is planned for February 13, 2004, at the Mayorga in Silver Spring.*



Morton then pulled the same card with the initials out of his wallet.

The number of people who attended the happy hour was indeed quite auspicious for the future success of other Friday the 13th happy hours. Somewhere between 40 and 50 people attended and watched Morton perform



*The author discusses the weather with Stephen Goodson.*



# Secret Origins of the Bible

a review by Marvin Zelkowitz

Skeptical groups, such as NCAS, often avoid discussing religion because the existence of God is not considered a testable phenomenon. However, the artifacts of religion are physical objects, thus their properties and origins are certainly open to investigation and critical thinking. One of the most important objects in western religions is the Hebrew Bible (Old Testament). It has been thoroughly studied in trying to understand who wrote it, when they wrote it, and why they wrote it.

For more than 200 years most Bible scholars have believed that the Bible did not originate with Moses, but instead, was written more than 600 years later around the time of the destruction of the Jerusalem temple in 587 BCE. The “Five Books of Moses” is thought to be composed of at least four major sections—often called the J, E, P, and D documents—that were combined by a redactor around 500 BCE. (See, *Who Wrote the Bible?* by Richard Elliott Friedman, Harper & Row, 1987.) In *Secret Origins of the Bible*, Tim Callahan goes beyond the question of when these books were written. He discusses the ancient Mesopotamian, Greek, Sumerian, or Egyptian myths that are the bases for many of the stories in the Bible.

## Creation Stories

Here is one example of the many myths found in this book—creation of man. The book of *Genesis* opens with “In the beginning God created the heavens and the earth ...” and proceeds to discuss the 6 days of creation, ending on day 6 with “So God created man in his own image, in the image of God created he him; male and female created he them” (*Gen 1:27*). It is this passage that fundamentalists use to attempt to discredit evolution.

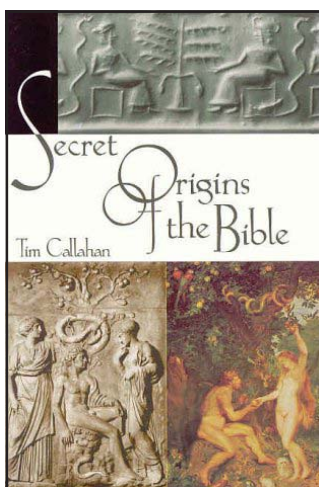
However, not everyone realizes there is a second creation story beginning with verse four in chapter two of *Genesis*: “These are the generations of the heavens and of the

earth when they were created, in the day that the Lord God made the earth and the heavens.” In this version, in the Garden of Eden, “God formed man of the dust of the ground” before every beast was created and before Eve was created out of his ribs.

Even the early rabbis of 2,000 years ago recognized this contradiction. How could God create the animals first and then create man and woman simultaneously in *Genesis 1*, yet create man first and then the beasts and Eve later, as stated in *Genesis 2*? They circumvented this problem with a *midrash*, a story to explain a missing or unclear statement in the Bible. According to this midrash, apparently the woman in *Genesis 1* was not Eve, but another woman, Lilith. Lilith would not let Adam be dominant over her, so she left him and consorted with demons, preying on unsuspecting men at night ever since. That left Adam alone in *Genesis 1*, so God had to create Eve to alleviate his loneliness in *Genesis 2*.

We are then faced with three creation stories—the 6 days of creation, Adam and Eve, and the midrash of Lilith. This is where Callahan’s book is valuable. He traces each of these stories to earlier legends circulating in the Semitic Near East:

For the 6 days of creation he discusses the Mesopotamian *Enuma elish* legend, which became the god Marduk of Babylon around 1400 BCE. Callahan gives a detailed account of why these are all the same story; the following is only one example of an analogy between them: →



Recommended reading:  
*Secret Origins of the Bible* by Tim Callahan (Millennium Press, 2002)

Bible origins continued from previous page

**Enuma elish**

Primeval chaos (Ti'amat)  
Light emanates from gods  
Marduk defeats Ti'amat

Marduk creates firmament  
Marduk creates land  
Marduk and Aruru create humans from clay  
Gods rest and celebrate

For the creation story in *Genesis 2*, the following analogy is offered:

**Other cultures**

Ptah creates man on a potter's wheel (Egyptian)  
Prometheus molds people out of clay and then breathes life into them (Greek)

For the Lilith legend, he claims Lilith was most likely the Sumerian death goddess, Lilitu.

Callahan then goes on to discuss "the fall" (Adam, Eve, and the serpent) as well as who Eve actually represents. He believes she represents the goddess Asherah, the consort of the Israelite God Yahweh. Judaism did not become truly monotheistic until the reigns of kings Hezekiah and Josiah during the seventh century BCE. (Kings Saul, David, and Solomon and the unification of the country occurred around 1000 BCE.) The *Bible* makes frequent references to Asherah and Yahweh as gods the Israelites worshipped during this period.

**Summary**

In summary, Callahan says that the various creation stories, as given in the Hebrew *Bible*, represent "a monotheistic distillation of myths in which finite gods and goddesses created a less than perfect world. ... [T]he creation and fall of Genesis is part of the greater family of mythic systems of the eastern Mediterranean and the Near East."

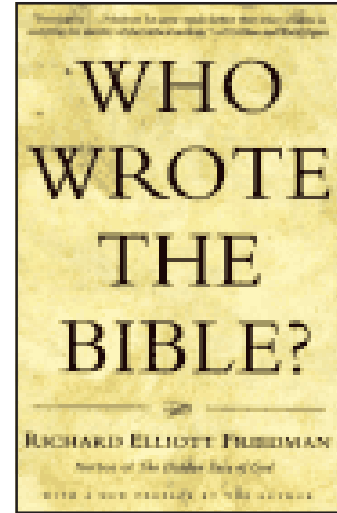
In succeeding chapters Callahan goes to great lengths investigating other *Bible* events—Noah and the flood; the patriarchs Abraham, Isaac, and Jacob; the 12 Israelite tribes; Moses and the exodus from Egypt; the walls of Jericho; the power of Sampson; and many others.

**Genesis 1**

Darkness over deep  
God creates light  
Combat myth omitted in *Genesis*, but alluded to elsewhere (*Leviathan*)  
God creates firmament  
God creates land  
God creates man  
God rests on seventh day

**Genesis 2**

God creates man out of clay  
God breathes into man's nostrils to give him life



Recommended reading:  
Who Wrote the Bible?  
by Richard Elliott  
Friedman, Harper &  
Row, 1987

The book is a valuable addition to any library if you are interested in tracing the evolution of old Near East legends. The book, however, is not a first book on the topic. The reader should probably read a book like the previously mentioned *Who Wrote the Bible?* by Friedman to understand the culture in which the *Bible* was written before reading this excellent book by Callahan. 📖

***The book is a valuable addition to any library if you are interested in tracing the evolution of old Near East legends.***



Helen E. Hester-Ossa

Marv Zelkowitz' is a Professor of Computer Science at the University of Maryland, where he's interested in software engineering and technology transfer—how to get new technology in use for producing better computer software, validating claims of grand new technologies. Marv has been a professional skeptic for the last 33 years.

gender equity issues, the women characters are as well-educated, intelligent, and capable as the men.

There are problems with *CSI*. Sometimes the forensic science in *CSI* is wrong. For example, I have been struck by the fact that whenever the *CSI* investigators look at a hair with a light microscope, the audience sees a false-color scanning electron micrograph. Light microscopes allow the microscopist to see inside transparent objects like hairs; scanning

electron microscopes only allow one to look at the surface of an object. Scanning electron microscopes are just not used for forensic hair examinations. I have also noted that dead bodies are not shown in states of advanced decomposition (e.g., bloated and active decay) even when the plot would require them to be.<sup>1</sup> On *CSI* luminol (used to detect blood traces) requires only one spraying for photography (rather than multiple spraying during a time exposure) and doesn't cause fresh blood stains to run, as happens in real life.

*CSI* also tends to exaggerate the capabilities of the crime laboratory. DNA test results don't really come back the same day. Weeks would be more typical. Automated fingerprint identification (AFIS) systems actually take hours to search data bases. The Las Vegas crime laboratory apparently has a budget that would be envied even by the FBI. The series also tends to ignore the fact that scientific test results can be wrong.

The *CSI* investigators do things no real crime scene technician would do. For example, they interview witnesses, interrogate suspects (frequently without Miranda warnings) and carry out laboratory testing. In most law enforcement agencies the crime scene

technicians document and collect evidence for the laboratory analysts to analyze. At The George Washington University, we educate our master's degree candidates to be investigators or laboratory examiners, but not both.

The biggest problems with *CSI* are dramatic: Story lines are often convoluted; they are occasionally extremely implausible; and the acting is only serviceable. The problems with the *CSI* series were on display in the fall 2002 season opener. In this episode two deaths were investigated. The 'greatest poker player in the world' died of a seizure during a high-stakes poker game in a Las Vegas casino. Gil Grissom headed this investigation. The other death investigation began when a dead man was found on an abandoned airstrip outside Las Vegas. Catherine Willows was responsible for this investigation. At autopsy the poker player was found to have brain swelling and a retained lead bullet from an old gunshot wound. The toxicology blood screen showed a high lead level plus the presence of the vasoconstrictor commonly found in eye drops. The forensic pathologist interpreted the brain swelling as lead encephalopathy. A chemical analysis of poker player's drink revealed traces of eye drops. The *CSI* investigators drew the following conclusions:

The screen writers missed one well-known symptom of lead poisoning: drooping wrists. They also ignored the dilution effect of a large drink.

- The poker player developed lead poisoning from eating special imported chocolate candies made from chocolate contaminated with lead from vehicle exhaust;
- a disgruntled waitress spiked his drink with eye drops to give him diarrhea; and
- the vasoconstrictor in the eye drops triggered the fatal seizure.

The second dead man turned out to be a famous street racer. He was shot in the head. The *CSI* investigators found out that the airstrip where his body was found was used by street racers whenever it rained in the city. When recovered, the street racer's car was found to have been refurbished and detailed; however, a bullet was recovered from the car's roof liner. Unfortunately, the bullet was

Unfortunatly, the bullet was



Helen E. Hester-Ossa

Walter F. Rowe, Ph.D., has been a Professor of Forensic Sciences at the George Washington University since 1990. He is a frequent contributor to and speaker at scientific and skeptical conferences.

<sup>1</sup> This may be changing. In a recent episode a body that was supposedly lying in an apartment is shown discolored and liquefying.

too damaged for ballistic comparisons, but it retained two different color particles of glass on its nose. Eventually, the *CSI* investigators developed a suspect, a young man who used an insurance settlement from his mother's recent death in a hit-and-run accident to buy a street racer. This young man then quickly challenged the deceased to a race. Significantly, the young man's father owned a semi-automatic pistol of the same type as the one that fired the fatal bullet, and the young man recently replaced the front passenger side window on his street racer. Catherine Willows conducted a reenactment of the murder. According to the *CSI* investigators' theory of the crime, the suspect believed that the deceased was responsible for his mother's death. The suspect challenged the deceased to a race during which the suspect fired his father's pistol into the deceased's head when their cars were side by side. The bullet picked up glass from the side windows in each car.

Again the screen writers nodded off. The fatal bullet we are shown is a lead alloy bullet; however, semiautomatic pistols normally fire full metal jacket bullets. The screenplay fails to explain how the bullet passed through the victim's head and crash helmet without picking up additional trace evidence. How was the bullet deflected into the roof liner? How does the bullet have enough energy after hitting two windows to inflict a perforating (through and through) gunshot wound of the head (and crash helmet)? How can a race car that suffers a rollover be in pristine condition just days later?

*CSI: Miami* is a spin-off of *CSI*. It drew more viewers for its premier episode than any new show since *ER* in 1994. *NYPD Blue* alumnus David Caruso plays lead investigator Horatio Caine and Kim Delaney (who also starred on *NYPD Blue*) played DNA expert Megan Donner. *CSI: Miami* treads closely in the footsteps of the original *CSI*—in more ways than one. In the premier episode a corporate jet carrying a couple of corporate officers crashes in the Everglades. The pilot has a through-and-through missile wound in his chest. The company chief executive officer (CEO) is found alive near the crashed plane; his body has no bruises or abrasions from a

seat belt (indicating that he was unrestrained at the time of the crash). The body of the company treasurer (a woman) is found five miles from the crash site. The woman's body also has no bruises or abrasions from seat belt; she does have an elevated blood alcohol concentration and her blood toxicology screen shows the active ingredient in Prozac. There are two small circular contusions on the back of one of her hands, the significance of which emerges later in the investigation. Analysis of the deceased woman's hair by gas chromatography-mass spectrometry reveals the active ingredient in Prozac, tetrahydrocannabinol (the active component in marijuana) and massive amounts of the painkiller Dilaudid (hydromorphone).

The surviving company CEO initially denies having any memory of the events leading up to the crash. Then he claims that the woman victim was drunk and during the plane's takeoff became irrational. She opened the aircraft's cabin door and, despite the CEO's attempts to save her, jumped or fell to her death.

Horatio Caine fumes the fuselage door and bulkhead with cyanoacrylate, developing fingerprints and palm prints of the woman victim and the head of the company. The CEO's fingerprints are also found on the cabin fire extinguisher (which was not in its bracket on the cabin bulkhead). The *CSI* investigators recover the aircraft's black boxes and decipher the sounds on the cockpit voice recorder. On the recording, the CEO and the woman victim can be heard arguing, and then the cabin door can be heard opening, followed by a loud noise from the left engine.

As their crash investigation proceeds, the *CSI* investigators discover that the company executives were *en route* to Washington, DC, for

**Law & Order**  
**CSI:**  
**Crime Scene Investigation**  
**Forensic Files**  
**CSI: MIAMI**

continued on next page

hearings before the SEC (Securities and Exchange Commission) over corporate malfeasance. The treasurer has FedExed a report of corporate wrongdoing to the SEC immediately before the flight. The *CSI* investigators develop the following scenario to explain the plane crash:

- The treasurer and the CEO quarreled immediately after takeoff;
- The CEO forced the treasurer out the cabin door, battering her hand with the cabin's fire extinguisher to force her to release her grip on the edge of the door;
- The woman fell from the plane, one of her shoes being sucked into the left engine, causing it to fail and bringing down the plane; and
- The missile wound in the pilot's chest was caused by a popped rivet.

The *CSI* reconstruction was never tested in court because the surviving CEO committed suicide, which was just as well because the reconstruction has serious problems. First of all, a rivet is too light and not properly streamlined to inflict a perforating wound in a man's chest. The bruises on the woman's hand match the fire extinguisher nozzle, but an assailant would normally use the tank as the weapon. To get a timeline for drug usage, the hair would have to be cut into segments (rather than dunked whole into a sample vial as we are shown). Dilaudid is a very unusual choice of a drug on which to overdose. An unrestrained passenger is unlikely to survive a plane crash. Although the *CSI* supervisors discuss the use of protective suits at the crash site, none are worn (OSHA regulations actually *require* the wearing of such suits). The *CSI* investigators interview and then interrogate the lone survivor. *CSI* investigator Megan Donner (the DNA analyst) runs the hair drug screen. Finally, the *CSI* investigators examine the 'black box,' not the National Transportation Safety Board.

### Cases Ripped From the Headlines . . .

*Law and Order* is one of the longest running and

most critically acclaimed police series on television. The focus of the show is on the police investigators and district attorneys; forensic science is frequently used and the medical examiner is a recurring character. The original *Law and Order* series has recently spun off two other series: *Law and Order: Special Victims Unit* and *Law and Order: Criminal Intent*. Over the many years that I have watched *Law and Order* and its progeny, I have encountered a lot of dubious forensic science. For example, police detectives frequently testify to results of scientific tests. However, they aren't experts and their testimony is hearsay. The forensic science gets downright goofy at times: Firearms examiners talk about "six point" matches; they also routinely match rifling marks made by Glock pistols (Glocks don't have conventional rifling and their markings on bullets are almost impossible to match); firearms examiners and document examiners qualify their results in bizarre ways ("It's only a 60% match") despite the fact that these are fields where no meaningful probability estimates can be made; and the DNA experts frequently also utter meaningless probability statements ("The DNA is only a 90 to 95% match").

Despite the problems with the forensic science in *Law and Order*, it remains one of my favorite television shows. The screenplays for all the *Law and Order* series are very well written. The acting ranges from good to excellent. Several Tony-award-winning stage actors have appeared in episodes as defendants or opposing attorneys. Many of the actors who have appeared on these shows now star in their TV own series. Just being on the series seems to bring out the best in the actors, such as model Angie Harmon (portraying an assistant district attorney) and rapper Ice-T (portraying a detective).

Only *Law and Order* has explored the underbelly of forensic science. In a recent episode a forensic scientist is prosecuted for deliberately overstating her conclusions to secure a conviction. The story line combines elements of the career of forensic chemist Joyce Gilchrist with the case of *United States v. Plaza*. In 2001 Gilchrist was the subject of FBI investigation. Because she had overstated

Helen E. Hester-Ossa





CS TV continued from previous page

the strengths of her conclusions in hair and fiber comparisons, the FBI recommended a review of all criminal cases where she linked hair or fibers with a suspect or victim and the evidence “was significant to the outcome of the trial.” Gilchrist was fired from the Oklahoma City crime laboratory and, in April 2002, Jeffrey Todd Pierce (who was convicted in part because of Gilchrist’s testimony against him in a rape case) brought a \$75 million federal law suit against Gilchrist and the Oklahoma County district attorney. Hundreds of Gilchrist’s cases are currently under review.

In *United States v. Plaza*, the defendant challenged the admissibility of the results of a fingerprint comparison. Judge Lewis Pollak ruled that, because of a lack of research on the criteria for matching fingerprints, fingerprint experts could not testify that a latent fingerprint found at the crime scene “matched” the defendant. Although Pollak subsequently reversed his own ruling, serious doubts about the science behind fingerprint comparisons have been raised.

### Even Real Forensic Scientists Get The Science Wrong

Should TV screenwriters be held to a higher standard of accuracy than forensic scientists? Unfortunately, even real forensic scientists crash and burn. The murder of Jeanine Nicarico and the O.J. Simpson case provide egregious examples of real scientists doing junk science:

In 1983 10-year-old Jeanine Nicarico stayed home sick from school. While her parents were at work she was abducted, sexually assaulted, and murdered. The murderer kicked in the front door, leaving a shoe impression in dust on it. Investigators concluded that the shoeprint was made by a Payless shoe. Rolando Cruz, Alejandro Hernandez, and Stephen Buckley quickly became suspects in the case. Buckley had a pair of Payless shoes whose tread pattern resembled that of the door shoeprint. Buckley’s shoes and a photo of the shoe impression were submitted to noted physical anthropologist Louise Robbins, who concluded that Buckley’s shoe could have made the impression. At the time of the case Robbins was a professor of anthropology

at the University of North Carolina at Greenville. She had studied human feet

and footprints for many years. She had even studied the famous Laetoli footprints. Robbins had also published articles and a book on the forensic examination of footprints. At trial Cruz and Hernandez were convicted, but conflicting expert testimony about whether Buckley’s shoes matched the door shoeprint led to a hung jury. Prior to the retrial of Buckley, Robbins was found to be terminally ill of cancer.

The prosecutors asked FBI Special Agent Examiner William Bodziak to reexamine the shoe impression evidence (clearly expecting that Bodziak would give the same testimony as Robbins). However, Bodziak determined that Buckley’s shoe could not have made the impression: The class characteristics of the shoe that made the impression were different from those of Buckley’s shoes. The shoeprint had the class characteristics of a Fayva brand shoe, not a Payless shoe. Charges against Buckley were dropped, but Cruz and Hernandez were condemned to death. Over a decade later Cruz and Hernandez were exonerated by postconviction DNA testing. The DNA testing ultimately implicated Brian Dugan, who had confessed to committing the crime in 1985. Dugan had purchased a pair of Fayva shoes and discarded them after the crime.

In the O.J Simpson case Dr. Henry Lee examined both crime scene photographs and the crime scene in Brentwood. His testimony was used by the defense to suggest that shoeprints were left by more than one assailant. Lee misidentified bloody textile impressions and trowel marks on the sidewalk as partial shoeprints. He also failed to realize that one of the shoeprints he spent so much time examining was actually in the concrete of the sidewalk. In giving testimony about shoe impressions, Dr. Lee was proffering expert testimony outside his scientific specialty: Lee was

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**Law & Order**  
**CSI:**  
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trained as a forensic serologist—not a shoeprint examiner. Lee’s testimony in the O.J. Simpson case seriously damaged his reputation among other forensic scientists. At the annual meeting of the American Academy of Forensic Sciences that was held immediately after the Simpson trial, a number of shoeprint examiners made a point of walking out of the opening session when Lee was introduced.

### How Does Forensic Science on TV Compare To That in Books?

TV screenwriters work on much tighter schedules than the authors of mystery novels and thrillers. Authors of books have more time for research, and one would expect them to do a better job of getting the forensic science right. Unfortunately, they actually generally do worse. Consider Exhibit A, Jeffery Deaver’s very popular book *The Bone Collector*. This is the first book in a series featuring paraplegic detective Lincoln Rhyme. A couple of years ago it was made into a movie starring Denzel Washington and Angelina Jolie. Marilyn Stasio’s rave review of *The Bone Collector* for *The New York Times Book Review* is typical of the praise heaped on this work: “The technology in Jeffery Deaver’s new thriller, *The Bone Collector*, is so dazzling it makes your eyes water. . . .” Much of the science in *The Bone Collector* certainly made my eyes water. Early in the book one of Rhyme’s numerous minions analyzes a critical fiber: “The fiber was sampled in the energy-dispersive X-ray unit and found to consist of  $A_2B_5(Si,Al)_8O_{22}(OH)_2$ .” Deaver masterfully packs a legion of errors into a single sentence. Energy-dispersive X-ray analysis systems don’t give formulas. Apparently the fiber contains argon (A) (an inert gas) as well as boron (B). Now silicate fibers are asbestos, glass, or mineral wool. These three types of fibers are easily identified microscopically, without X-

ray analysis. In mineralogy texts As and Bs are used to represent cations in shorthand versions of the chemical formulas of minerals: As are cations with large ionic radii (e.g.,  $Ca^{++}$  and  $Na^+$ ), while Bs are cations with smaller ionic radii (e.g.,  $Mg^{++}$ ). Evidently Deaver didn’t bother to actually read the text he cribbed.

Whenever Deaver switches to didactic mode, watch out: the BS is about to get out of hand!

“*I want a vacuum metal fingerprint unit too. And a GC-MS. A gas chromatograph broke down substances into their component elements, and mass photospectrometry used light to identify each one of them.*”

I do know that a GC-MS is a gas chromatograph-mass spectrometer and that gas chromatographs separate the molecules in mixtures, but I have not the foggiest notion of what mass photospectrometry is—and I have been forensic scientist for over 30 years (and a chemist even longer). I also routinely use a GC-MS in my research and teaching.

### Words of Wisdom from a Dead White Guy

How should forensic scientists and other viewers react to the errors in *CSI* and other forensic science TV shows? At forensic science meetings many of my colleagues ridicule *CSI* and its progeny. However, in my view, much of their criticism is misguided. In his *Poetics* Aristotle pondered the relationship of factual errors and logical inconsistencies to broader esthetic considerations. He remarked, “And further, correctness in politics is not the same thing as correctness in poetry, nor is correctness in any other art the same as in poetry, but in poetry itself error is of two kinds, that which involves the art itself and that which is incidental.” *CSI* and the other TV shows discussed are intended by their creators to entertain, not to instruct. They generally achieve this goal; their errors are incidental to this goal. In my view, the shows’ positive features outweigh the negatives. ☹

***CSI and the other TV shows discussed are intended by their creators to entertain, not to instruct. They generally achieve this goal . . .***

# about NCAS

## Bits and Pieces

- *The Shadow of a Doubt*, NCAS' monthly calendar, can be sent to you via email! Send an email request to [ncas@ncas.org](mailto:ncas@ncas.org) to be added to the eShadow list.
- NCAS has a low-volume electronic mailing list, *ncas-share*, where members can share news items and other things of interest. Send an email request to [ncas@ncas.org](mailto:ncas@ncas.org) to be added to the *ncas-share* mailing list.
- Visit the NCAS website to find the Condon UFO report online and many other resources at [www.ncas.org](http://www.ncas.org)
- Because NCAS is a 501c(3) nonprofit organization, all donations you make to NCAS are fully tax deductible!

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# In Memoriam: Doris Bloch



Helen E. Hester-Ossa

**N**CAS board member Doris Bloch, 75, a National Institutes of Health administrator who worked to increase research programs in the nursing profession, died Aug. 10, 2003, at Suburban Hospital. She had a heart ailment.

She was a member of the editorial board of *the American Journal of Public Health* and the board of the National Capital Area Skeptics. She belonged to the National League for Nursing and other professional organizations.

She will be missed. ☹️

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