

THE SKEPTICAL

INTELLIGENCER.

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The Newsletter of ASKE.

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CONTENTS

Televised Lunacy	1
Did Nasa Moon The World	3
Beyond Belief	11
Firewalking	12
Sunshine	14
Roswell	14
The Wild Pside	14
Planted Evidence	15
Psychical Research	16
Alternative Medicine	18
Stonehenge	19
New Books	20
The Skeptic Interview	24
Further Notices	24
Responses	24
Minutes	24
Odds & Ends	25
Web Watch	25
Uri Geller	26
End Notes	26

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THE SKEPTICAL INTELLIGENCER

JUNE 1997

FROM THE EDITOR

Wayne Spencer.

The *Skeptical Intelligencer* is the newsletter of the Association for Skeptical Enquiry (ASKE). The newsletter is intended to serve as a forum for members of ASKE to (i) express personal views about any matters within the purview of the association; (ii) keep each other informed of their activities; and (iii) draw attention to material of possible mutual interest. Contributions, whether short or long, serious or frivolous, are always welcome, as are comments, replies, critiques and suggestions. Except where unwelcome legal consequences may ensue, we hope to publish a large proportion of the material submitted for publication. Editorial intervention will generally be minimal.

This issue features a new format designed by Mark Gould. I should like to thank Mark for the time and effort he has put into the task of making the *Skeptical Intelligencer* presentable.

A REPORT ON SOME RESPONSES TO TELEVISED LUNACY

Michael Stanwick.

On Monday 24 February 1997 Channel 4 broadcast a programme purporting to give serious attention to claims that the Apollo Moon landings were faked. Unfortunately, I was not aware of the programmes' existence (I was watching *Dark Skies*, I think) until I caught the tail-end of Channel 4's *Right to Reply*, in which an informed viewer was exposing the seriously flawed content and production values of the Channel 4 Apollo programme.

Since this topic involved some science and because I am not one to pass up a chance to sink my teeth into some extraordinary claims, I phoned Mike Hutchinson - arch-doyen and source of information to the British skeptical community - to find out what he knew about this subject. Mike mentioned that a series of articles on the same topic had appeared in *Fortean Times* 97 (April 1997). On acquiring a copy of *Fortean Times* 97, I found that these dealt with various claims that had been espoused by David Percy in a photo-essay in *Fortean Times* 94 (January 1997). Mike also

mentioned that a huge response to the Channel 4 television programme had appeared on the Internet Newsgroup:

sci.astro.amateur,sci.astro,sci.misc,sci.physics,sci.sk.eptic,rec.org.mensa,alt.sci.planetary,sci.space.shuttle,sci.space,policy.

Because I had no access to the Internet at the time, Mike sent me a floppy disc with the unformatted Newsgroup pages on it. The correspondence consisted of claims (which exhibited a complete lack of knowledge of basic science, logic and the most rudimentary critical thinking skills) and responses (which on the whole were hilariously dismissive or very informative).

The *Fortean Times* article also mentioned that a fuller treatment of the arguments would be posted on its Web Page: www.forteantimes.com. With this in mind I phoned Benedict Adamson, who kindly searched the Web address and sent me a copy via the mail. At present it just repeats some of the *Fortean Times* material, although I have been assured by *Fortean Times* that this Web page will feature a complete treatment in due course.

Since I have obtained permission for the article in *Fortean Times* 97 to be reprinted in this issue of the *Skeptical Intelligencer*, I shall briefly report on the most pertinent Newsgroup correspondence. This correspondence centred mainly around three points that were extracted from the television programme by the first correspondent, who then asked for expert clarification from other Newsgroup readers. The majority of the replies did not involve the issue of faked photographs, which was, anyway, covered fairly well by the *Fortean Times* article.

Restricting myself to the most accurate responses to the initial enquiry, I have divided the Newsgroup material into four sections: the three claims; a further comment; and a plea for help (all from Michael Decker); plus the responses. Any comments of mine are in italics. As always, I am open to and would welcome corrections and constructive comments.

The three claims

"Most of the show was nonsense, but there were three specific claims made which, if true, meant that no-one went to the moon;

1. The 'Van Allen Belt' apparently

extends between 600 and 3000ish miles above the earth, protecting it from radiation. Any organic matter travelling outside this zone will be irradiated, resulting in rapid death. A lead shield six foot thick is required to protect humans from the intensity of the radiation in space. (The shuttle operates at between 2-300 miles above the Earth.)

2. The crew used a Hasselblad Camera using standard Kodak Ektachrome 160 ASA film. The film would have been fogged by X-rays. (NASA apparently claim that the aluminium paint of the camera case protected it.)
3. The temperature on the moon is apparently 180 centigrade in the sun, and -180 centigrade in the shade. The camera film could not survive either extreme, and certainly could not have been 'wound on' on the moon."

The further comment

"There was plenty of other evidence in the programme dealing with photographs and odd theories which seemed open to interpretation and debate, but it seems to me that even if one of the above claims is true, then there has been an extraordinary fabrication. If 1. is true, then man cannot travel outside the Earth's safe environment until effective radiation shields have been developed, and the entire manned programme to the Moon is a fake."

The plea

"Can anyone with expertise in any of the appropriate fields shed any light?" (From Michael Decker)

The replies

[Note: the Van Allen Belt does not protect the Earth from radiation. It actually consists of two zones or belts of radiation, in the form of trapped atomic particles, which are held fast within the magnetic field of the Earth's magnetosphere. The

inner belt, which lies 2400-5600 km above the Earth, contains mainly positively charged protons (H⁺) ejected from the Earth's atmosphere as a result of cosmic ray bombardment. The outer belt, which lies around 13000-19000 km above the Earth, contains charged particles from cosmic rays, again, mainly protons.]

To point 1

"The exposure limit per year for Earth-based radiation workers is ~ 5 rem/yr (or was, don't know latest regulations). This limit is there to reduce to a minimum such workers' chances of contracting any radiation-induced illnesses such as cancer or leukaemia or increasing risks of birth defects in their children, above normal background levels for the general population.

It is a very long way from an 'uncomfortable' non-fatal dose - such as those sustained by Hiroshima victims who became physically ill but survived and further still from a 'fatal' dose such as those sustained by the heroic workers trying to seal the reactor at Chernobyl. Such a small dose (5 rem/yr) would accumulate in a worker on the lunar surface (in a space suit) in about 1800 hrs. A similar limit (actually half this time, since the main problems are cosmic rays and solar energy particle events) might apply in a spacecraft with no shielding.

Now, 1800 hours is about 11 weeks. The Apollo missions lasted about a week or so each - none were as long as two weeks - if I remember correctly. So Apollo astronauts received doses of about 1 rem each during the entire trip.

Being in deep space (outside the Earth's magnetosphere, which provides the shielding for any object within it) continuously for a year with little shielding, might give rise to a total exposure of about 80 rem. This might turn the badge of a nuclear worker dark when developed, but it is unlikely that it would kill anybody - even after 30 years - although this might lead to greater chances of illness or birth defects than in the unexposed population. Mars ships would have to be designed with shielding and living quarters at the core of the ship *[as Wayne Spencer pointed out to me, this has recently been picked up by the National Research Council: see Nature 385:5. Incidentally, I seem to recall that the living quarters of such ships may be surrounded by a vast body of water which is quite able to stop highly energetic neutrons]*, with a small shielded shelter for solar radiation flares - for maximum shielding and full safety - or even a major event - fairly rare, maybe half a dozen per solar cycle.

Alternatively, develop nuclear powered ships to reduce the travel time." (From Mike Dworetzky, Dept. of Physics and Astronomy, University College, London).

"Note that most of the radiation around them is stopped by the walls of their spacecraft and only smaller doses of gamma rays mostly, from deep space sources do get through. *[For those interested, these have a range of very short wavelengths. Also, many more of their wavelengths of a given length would pass a given point per second - thus a high frequency - compared to a slightly longer wavelength x-ray of a given length. From their frequency their photonic energy is obtained by multiplying the frequency by a constant - called Plank's constant. Generally, the range of gamma ray values are greater than that measured for the range of x-ray wavelengths.]* Remember, paper will impede alpha rays *[positively charged helium nuclei]* and a not inconsiderable thickness of aluminium will impede beta rays *[negatively charged (electron) and positively charged (positron) electrons]*. It requires lead to impede the passage of gamma rays - luckily the amount of gamma rays in space is tolerable."

To point 2

"X-rays are not as powerful as gamma rays *[see above]* and a large flux is required to pass through the metal of a camera body. A chunky, solidly built Hasselblad with its coating of reflecting paint, would easily provide protection to relatively slow film."

To point 3

"Upper temperature is more like 110-120 degrees C. But these temperatures are found when something is left to achieve equilibrium and also depend on surface properties of the material in question. The cameras were coated with a reflective finish, a poor radiator - keeping accumulated heat, and a poor absorber -reflecting sunlight and heat. *[The film carriers were also designed with temperature differences in mind.]* The cameras were also on the move constantly and were never allowed to chill out or overheat." (From David Woods, Bearsden, Glasgow)

"The programme was pretty awful. I could only manage to watch 20 minutes before having to turn it off because of the appalling quality of the discussion. Was that a tobacco cigarette in the 'interviewer's' hand or something stronger?" (From Kevin Elliott)

"But I also find their pathology of reasoning or non-reasoning compelling" (James Oberg, science writer and CSICOP Fellow)

DID NASA MOON THE WORLD

Roger Van Bakel

Bob Rickard

Editor's introduction: The following article originally appeared in Fortean Times 97 (April 1997). It is reprinted with the kind permission of Express Newspapers. I wish to thank Michael Stanwick for securing this permission.

The history books lie... as do the commemorative videos and the coffee mugs with the proudly smiling faces of Neil Armstrong, Edwin Aldrin and Michael Collins. When Armstrong got down from that ladder, proclaiming that it was only a small step for him, but a giant leap for mankind, he was merely setting foot on a dust-covered sound stage in a top-secret TV studio in the Nevada desert. NASA's spin doctors faked the whole Moon landing. Come to think of it, they faked all six Moon landings - spending about \$25billion to prove to the world that the Soviets could not hold a candle to the United States when it came to space exploration. At least, that's Bill Kaysing's view. Kaysing (who likes every conspiracy theory he hears) was positively delighted to see David Percy's photo-essay, as well he should be. For more than two decades he has been trying to break "the most electrifying news story of the entire 20th century and possibly of all time." In 1976, he wrote a book aptly titled (*We Never Went To The Moon,*) of which he claims to have sold 30,000 copies.

A white-haired, gentle Californian whose vitality seems mercifully untouched by his 75 years, Kaysing worked as head of technical publications for the Rocketdyne Research Department at their Santa Susana facility from 1956 to 1963. Rocketdyne was the engine contractor for Apollo. "NASA couldn't make it to the Moon and they knew it," asserts Kaysing, now a freelance author of books and newsletters. "In the late Fifties, when I was at Rocketdyne, they did a feasibility study on astronauts landing on the Moon. They found that the chance of success was something like 0.0017 per cent. In other words, it was hopeless." As late as 1967, Kaysing reminds me, three astronauts died in a fire on the launch pad, a horrendous climax to a long string of

mishaps. "But as of '69, we could suddenly perform manned flight upon manned flight, with complete success. It's just against all odds."

But John F Kennedy was convinced that the endeavour was possible. In fact, in May 1961, he announced that "landing a man on the Moon and returning him safely to Earth" would be a number one priority for the US - an accomplishment that was to instil pride in Americans and awe in the rest of the world. And so, Kaysing believes, NASA faked it, in accordance with the old adage that, in a war, cold or otherwise, the truth is often the first casualty.

But why would NASA stage Moon-landing after Moon-landing, instead of simply admitting that lunar strolls would have to remain the stuff of science fiction novels? "They wanted the money to keep pouring in," Kaysing says. "I've worked in aerospace long enough to know that was their goal."

NO STARS, NO CRATER, NO WAY

But we saw it. If television ever had a killer application, the Moon-landing was it. We bought new sets in droves, and flicked them on as zero hour approached. It was perhaps our first taste of a virtual community and it felt good. Now there's this character telling us that it was all a lie. Where's the proof? Kaysing pointed out numerous anomalies in NASA publications and in the TV and still pictures that came from the Moon. For example, where were the stars in many of the photographs taken on the lunar surface? With no atmosphere to diffuse their light, wouldn't stars have to be clearly visible? And why is there no discernible crater beneath the lunar lander, despite the jet of its 10,000lb thrust hypergolic engine? How do NASA's experts explain pictures of astronauts on the Moon in which their sides and backs are just as well lit as the front of their spacesuits which is inconsistent with the deep, black shadows the harsh sunlight should be casting? And how come there is a line between a sharp foreground and a blurry background in some of the pictures, almost as if special effects makers had used a 'matte painting' to simulate the farther reaches of the Moon-scape? "It all points to an unprecedented swindle," Kaysing concludes.

But how could NASA possibly have pulled it off? What about the TV pictures that millions of people saw over the course of six successful missions... the rocket lifting off from the Cape Kennedy launch pad under the watchful eye of thousands of spectators... the capsule with the

crews returning to Earth; the Moon-rocks... and the hundreds of space program employees in the know who would have to be relied upon to take the incredible secret to their graves? "Easy," says Kaysing. The rockets took off with the astronauts on board, but as soon as they were out of sight, the roaring spacecraft set course for the south polar sea, jettisoned its crew and crashed. Later, the crew and the command module were put on to a military plane and dropped in the Pacific for 'recovery' by an aircraft carrier. The Moon-rocks were made in a NASA geology lab right here on Earth, he goes on. Not very many people on the Apollo project knew about the hoax, as they were only informed on a need-to-know basis. Cash bonuses, promotions, or veiled threats could have ensured the silence of those who were in on the scheme.

ZERO GRAVITY, ZERO PROOF?

Kaysing is not alone in his assertion that NASA has been 'Mooning' the public. Besides David Percy, there's Bill Brian, a 47-year-old Oregonian who fathered a 1982 book called *Moongate*. Although Brian thinks that Kaysing might be right in saying that we never went to the Moon, he believes there is an entirely different reason for many of the inconsistencies. Maybe we did go he says, but it's possible we reached the Moon with the aid of a secret zero gravity device that NASA probably back-engineered by copying parts of a captured extraterrestrial spaceship. Brian, who has BS and MS degrees in nuclear engineering from Oregon State University, reasons that the Moon's gravity is actually similar to Earth's and that, most likely, the Moon has an atmosphere after all. He has crammed the appendices of his book with complex calculations to prove these points.

Ralph Rene, 'a scientist and patented inventor,' endorsed Kaysing's line, writing two books that cast doubt on NASA's quest. *In Was It Only A Paper Moon* (1994) and *Did NASA Moon America.?* Rene suggests, among other things, that without an impractical, 6ft (2m)thick shield, the spacemen "would have been cooked by radiation" during the journey. Ergo, the lunar endeavours were impossible and cynically faked at the expense of gullible people everywhere. Much to NASA's exasperation millions of people now doubt the authenticity of the lunar missions. Over the years, the agency's public department has been through reams of paper answering the queries of

incredulous teachers, schoolchildren, librarians and even Senators such as Alan Cranston and Strom Thurmond, making enquiries on behalf of constituents. Just one year after the first Moon landing, a newspaper chain polled more than 1,700 US residents and found that slightly more than 30 per cent of the respondents were suspicious of NASA's trips to the Moon. A conservative estimate by James Oberg, Kaysing's nemesis, still puts the number of disbelievers at 10-25 million Americans.

Oberg works for NASA contractor Rockwell as a space flight operations engineer with the Shuttle program. He also writes on all aspects of space activity, with a special interest in space folklore. "Myths have a way of blossoming on the fertile soil of scientific discovery," Oberg notes. "Every age of exploration is the same in that respect - from the time of the Phoenicians to Jason and the Argonauts, to Marco Polo, to mermaids and unipeds and all these mythological creatures that lurk at the edge of our exploration. To me, it's extremely humanising to have this typically human reaction - this denial, this mythmaking to our lunar adventure. I'm not at all surprised that these stories or interpretations exist. Actually, I'm rather surprised they aren't more widespread."

Nonetheless, hoax-believers can be found in many parts of society, here and abroad. According to Oberg, Cuban children are taught, officially, that Yankee space technology failed miserably and that NASA was reduced to pitifully faking every single lunar landing. Some New Agers, also contest the possibility of Moon-landings, as do the Hare Krishnas, fundamentalist Muslims and some non-mainstream Christians such as the folks at the Flat Earth Society, who liken the towering launch pads to the tower of Babel.

The eccentricity of such convictions does little to deter Oberg. "I respect these people's dedication to their view of the world. One reason they fascinate me is because they're a constant reminder to me that we can't rest on common knowledge, we can't be complacent with our traditional interpretations of things - although these interpretations are almost always right. But I also find their pathology of reasoning, or non-reasoning, compelling. We define health by the boundaries of pathology, and I try to define rational thought by looking at cases that go over the edge."

SUPPORT IN CELLULOID

If NASA Had faked the Moon-landings, it

picked a perfect time. The advent of television (which reached world-wide 'critical mass' only years prior to the Moon-landing) was instrumental to the fraud's success; in this case, seeing really was believing. The 'magic' of satellites, which enabled global (and interplanetary?) communication, fascinated and awed millions of people, much like the way anything 'atomic' caught the public's fancy 10-15 years earlier. There was also the fact that space research and rocket science had advanced far enough to make a trip to the Moon likely - or, at the very least, remotely feasible. "The structural nature of technology had changed to make the Moonlanding possible, but that also made it possible for people to doubt it," says Gary Fine, a sociology professor at the University of Athens, Georgia, who specialises in rumour and contemporary legend. Perhaps more importantly, Watergate hadn't happened, and people still trusted their elected officials. "A distrust of authority clearly plays into this whole thing," argues Fred Fedler, the author of *Media Hoaxes* (1989), who teaches journalism at the University of Central Florida. "With Vietnam and Watergate, people have become less trusting, and to some people it doesn't matter what the government says; their immediate reaction is to disbelieve and to sometimes embrace the opposite view." The distrust continues to be fed by the mass media, especially in the film and TV business. It is rare to find a movie, these days, in which a government agency is actually depicted as a bunch of fairly efficient, competent people who serve their country to the best of their ability. Dramatically speaking, an elite of sinister, evil bureaucrats is much more appealing.

Linda Degh, a retired folklorist who taught at Bloomington University in Indiana, drew attention to the 1978 movie *Capricorn One* in her 1993 book *American Folklore and Mass Media*. The film tells the story of a staged flight to Mars. When the astronauts (including OJ Simpson pre-bloody glove) hear that their spaceship 'crashed' and that all aboard are presumed dead, they can see the writing on the wall. They find themselves hunted down by bloodthirsty government thugs. Only one of the astronauts makes it to freedom and reporters' microphones. Degh recalls that it was "quite a slanderous movie, pretending that the government had been killing people", and she believes that it gave a boost to the Moon-landing hoax theory. "The mass media catapult these half-truths into a twilight zone where people can make their guesses sound as truths. Mass media have a

terrible impact on people who lack guidance." Peter Hyams, *Capricorn One's* director, made the film "for entertainment", not because he wanted to make references to the alleged Apollo hoax. "I was aware," he says, "that there were, people who believed that we never walked on the Moon, but I never read their books or consulted with them. And frankly, I think they are being totally ludicrous." (Nevertheless, an invitation to a preview of *Capricorn One* the *Capricorn One* mission challenged: "Would you be shocked to find out that the greatest moment of our recent history may not have happened at all?") The concept of the Moon swindle has appealed to other film makers as well. In *Diamonds Are Forever* (1971), James Bond accidentally stumbles onto a movie set in Nevada that consists of rocks, a lunar backdrop and a vehicle that looks like NASA's Eagle. Men in spacesuits move about slowly and clumsily, as if simulating low gravity. Bond's pursuers give chase, but 007 climbs into the lunar lander and makes his escape over land. The scene is never explained. Another throwaway reference appears in *Sneakers* (1992): Dan Ackroyd's character, a gadgeteer and conspiracy enthusiast, casually remarks that he is using "an XLT71 concealable mike, part of the same system NASA used to fake the Moon-landing."

VERY SPECIAL EFFECTS

Could the Moon-landings have been faked? Was the technical state of special effects advanced enough in the late Sixties to fool even the most discriminating eye? Simulating one-sixth gravity could have been done with the use of hydraulic cranes and thin wires the Peter Pan approach - or by filming scenes under water, says Dennis Muren, who has won more Oscars than anyone in his profession and is senior visual effects supervisor at Industrial Light & Magic, a division of Lucas Digital. He was responsible for making the Jurassic Park monsters come alive; and for every scene in Terminator 2, the Star Wars movies and The Abyss that either grossed you out or scared the wits out of you. "[A Moonlanding simulation] might have looked pretty real to 99.9 percent of the people," said Muren. "The thing is, though, that it wouldn't have looked the way it did. I've always been acutely aware of what's fake and what's real, and the Moonlandings were definitely real." He explains: "Look at 2001 or Destination Moon or Capricorn One or any other space movie: everybody was wrong. That wasn't the way the Moon looked at all. There was a very unusual

sheen to the images from the Moon, in the way that the light reflected in the camera, that is literally out of this world. Nobody could have faked that. And it's got very little to do with advanced technology or computing power. That wouldn't have been a problem. What I'm talking about is aesthetic." Of course, Bill Kaysing will have none of it: "Perhaps this guy [Muren] was part of the cover-up. Anything is possible. Ninety per cent of the American population has no idea what's going on in this country. I'd like to be the one to tell them - tell them at least part of it." And Kaysing is determined to have his day in court: he recently filed suit against Apollo 13 commander James Lovell, who described Kaysing as "whacky" in a newspaper article. "With any luck," Kaysing says cheerfully, "the truth will come out".

David Percy's question "did NASA Fake the Moon Landings?" drew the biggest response from readers that we've ever had - and only a handful of letters offered qualified support for Percy's notion of a conspiracy. Overwhelmingly, FT readers took issue with Percy - his rules were questioned, his analyses of photos rebutted and his conclusions scorned. The mildest included phrases like "total nonsense" and "load of bollocks". Before laughing this off, pleaded Bob Shell on the Internet, look at the photos. Drew Williamson replied: "I looked. I laughed." Barbara Barrett echoed several writers, saying: "Had Percy's article been in the April issue I wouldn't be writing."

The standard of explanation was high some people solicited comment from scientists who worked in the space industry and others commented on each image. All the information will be presented in due course on our website (www.forteantimes.com), but for now, I will summarise the reactions under general headings to do with cameras and lenses, lights and shadows, conspiracy and folklore. (Most ellipses are mine.)

But first, James Oberg, a space flight operations engineer with the Shuttle program who works for NASA contractor Rockwell says that we are right to try to examine the issues involved. "It's always a delight to see the latest variation on the Moon fake myth and to examine the ways people mislead themselves and others."

The topic which generated the most objection concerned the directions and shapes of various shadows which, Percy argued, were not parallel as one would expect if cast by the Sun. We'll deal with the lighting issue below, but

generally, it seemed to many that Percy made no allowances for the irregularity of shadows created by "irregular 3D objects on irregular 3D surfaces", as David Podmore put it. "Bumps and undulations can distort the apparent shape of a shadow," wrote David Jeffrey. James Oberg reminded us of the controversial observations of Moon spires in the mid-1960s, illusions created when "ordinary boulders cast shadows that looked like those of tall towers because they ran downhill". Distortions could also be an artefact of the photography. Ray Spears and a number of other photographers wondered "whether Percy understood the optics of wide-angle lenses", as these distort parallel rays. An anonymous ex-NASA planetary scientist went into some detail: "Apparent sun shadow vectors are not parallel in a photograph unless taken with a fairly long lens and/or in a direction well away from the Sun vector. I went to my files and found comparable shots to the 'fake' lunar photos, in terms of lens coverage and Sun position. Yup! huge shadow divergence."

IF THE LUNAR SURFACE.

Is so reflective, why are some of the shadows so dark" Michael Lacy, a historian-geologist and expert in lunar surface electrical properties, objected to Percy's Rule 2, that "Light in a vacuum is high contrast - very bright on the sun side, very dark on the shadow side and on the Moon there is no atmosphere to help fill-in or soften/lighten the shadows." Comments Lacy: "This is true for a single body in isolation, but the lack of an atmosphere will also enhance reflected light, as none of it will be absorbed or deflected. The grey surface of the lunar basalt under direct sunlight reflects more than enough light to fill in the shadow side of a white space suit, while leaving the back sides of rocks dark." David Jeffrey added: "Shadowed areas would be pitch black if they were shaded from the only light source and were perpendicular to the black lunar sky.

WHY ARE SOME OF THE SHADOWS.

Filled in with detail. Many respondents questioned whether Percy understood anything about the nature of Light and lighting in the lunar landscape. The lunar surface was not flat, nor of an even texture and colouring, so Percy's expectation that flat surfaces are evenly lit by the sun was unrealistic and not demonstrable in his examples. Percy supposed that curious lighting effects, which revealed detail (or fill) in some shadows, could only be achieved on a studio set

with many different sources of light including light reflector panels. Jeff Peacock wrote: "The astronauts are being photographed by the direct light of the Sun and by the reflected light from the lunar surface around and beneath them." Bill Jacobs, an astronomer at San Diego University, reminded us that there is another source of light and shadow on the moon; the Earth. "The Earth is far from being a point source. A full Earth seen from the Moon covers about 13.5 times as much sky as a full Moon seen from Earth, a bit less than 2 angular diameter' " Peter Grego, director of the Lunar Section of Britain's Society for Popular Astronomy, did some calculations of the two bodies reflecting power and declared" the full Earth is an incredible 68.4 times brighter than a full Moon. " The Sun and the Earth, therefore, qualify as Percy's big "super lights" while the lunar landscape itself "acts as one big fill reflector" reducing (or filling-in) shadows.

WHY IS THERE NO CRATER BELOW THE LUNAR LANDER?

"Although the descent engine of the LM is powerful most of the operation takes place thousands of feet above the Moon during the early stages of the landing," says a NASA information sheet. They also took some pains to manoeuvre to relatively solid ground as the consequences of standing on deep dust would have been dire. NASA continued "At the moment of touchdown, a small amount of surface dust is blown away, but the relatively cohesive lunar surface seems to deflect the blast sideways."

WHY IS THERE AN ARTIFICIAL LOOKING DIVISION BETWEEN A SHARP FOREGROUND AND A BLURRY BACKGROUND ON SOME PICTURES?

"What you see is simply the curvature of the Moon," explains Paul Lowman, a NASA geologist. "Because the Moon has such a small body, the curvature horizon is only two or three miles away from eye-level. That sharp line you see in some pictures is the visible horizon. The blurry part is mountains sticking up from beyond the horizon."

WHY ARE THERE NO STARS IN THE LUNAR PHOTOGRAPHS?

This is one of the two most persistent charges of the conspiratorialists. James Oberg explains "Go out at night and take a picture of yourself under a streetlight. Even if there is a star-

studded sky, you'd see no stars in your picture because the camera was set to properly expose that big lighted object in the foreground you and will not register much weaker light sources." As Drew Williamson puts it: "The exposure required to show the stars would have blown away the images of the astronauts." With the two big "super-lights" - the Sun and the Earth - around, exposure times would be short. Mark Harp, a Percy apologist, rejects this explanation: "The 1950 movie *Destination Moon* is technically more realistic."

WHY DIDN'T THE FILM FAIL?

"Even on matters of basic physics," says Michael Lacy, "Mr Percy seems to be at a loss. He insists that the film used in the astronauts cameras would have melted or cracked in the harsh lunar temperatures, pointing out that the cameras had no insulation at all.' If anyone can think of a better insulation than a meter of hard vacuum, I'm sure the Thermos company would like to hear from you."

SO, WAS THERE A CONSPIRACY?

Ray Spears found it fascinating that, as a fortune teller living "in a falling empire", fully one-quarter of the population preferred to believe that NASA would rather make up a cover story than try to solve the difficulties of getting a man to the Moon. "I expect rumours of extraterrestrial assistance in pyramid construction started within a generation of their completion," he said.

At the close of his feature, Percy hinted that details about the all-encompassing conspiracy by NASA would be revealed in his forthcoming book. Michael Lacy heard Percy enlarge on this when he attended a lecture by Percy at the Willesden Green Library on 28 November 1996. "Having convinced himself that the photographs, television footage and even the entire Apollo program itself was all faked," said Lacy, "Percy proceeded to extrapolate an elaborate theory of deception and cover up worthy of a season-ending, two-part X-files episode, involving not only NASA and the US Government, but the Soviets as well as the inevitable dark hints of ET involvement."

Percy seems ambiguous about whether manned flights actually reached the Moon, hinting that something prevented or spoiled the landings and EVAs (extra-vehicular activities). Bob Shell on the other hand, said that he did not doubt astronauts really went to the Moon, but that "maybe their photos weren't good enough and

NASA accordingly whipped up a batch in a studio somewhere." Chris Rutkowski replies 'if NASA really did stage something of this magnitude, they would hardly have left such obvious gaffes in public view". Most shadow anomalies could be explained by uneven ground.

"Where are the shadows from the [supposed] secondary light sources?" asks David Podmore. Anon's criticism of Percy's claim, that the Moonscape 'set' was lit by multiple lights, concluded "if you have multiple lights [...] you'll see multiple shadows." As Patrick Maboney observed, there are no multiple shadows in Percy's pictures.

WHAT ABOUT THE NUMEROUS LIGHTS IN THE VISORS?

Chris Rutkowski, at the University of Manitoba, said "The reflections in helmets and the hot spots noted by Percy are not unusual; one wonders why he would even point them out. With all the equipment [with reflective surfaces] on the Moon and the high albedo (reflecting power) of the lunar regolith, the number of reflected light sources around the astronauts would have been considerable."

WHAT ABOUT THE ASTRONAUTS THEMSELVES?

Percy's allegation of fraud against NASA scientists and staff offended many correspondents who defended their dedication and professional pride and especially the courage of the astronauts who faced great danger in the pursuit of knowledge.

A number thought it highly significant that there has not been the slightest hint of conspiracy in the memoirs of any astronaut or ex-NASA employee or consultant - nor from America's Cold War enemies, who would have revelled in any rumour of impropriety and rushed to expose it.

On the subject of professionalism, William Hohaus asked "What makes Percy think that the astronauts wouldn't take a little time to assure themselves that they got these historic shots right?" "The astronauts weren't incompetent," declared Peter Grego, who said that they had trained extensively with the standard issue Hasselblad camera. Astronaut Pete Conrad a veteran of Gemini, Apollo 12 and Skylab: "I must have taken about eight billion shots of T38s [training jets] in formation." "They followed detailed flight plans on a small pad on the sleeves of the suits, which contained photographic instructions

and suggestions. It is a tribute to the skill of the astronauts that so many fine images were obtained" said Grego.

DID LUNAR RADIATION PREVENT THE LANDINGS?

At the Willesden Green Library lecture, Percy elaborated on why he believed NASA had to film the EVAs in an Earth-bound studio. "He alleges that radiation on the surface of the Moon is so intense that any astronaut who attempted a landing would quickly be killed," reported Lacy. The idea had been proposed by Moon-hoax conspiracy theorists before Percy and, as it provides a motive for the great cover-up, it needs to be tackled. If true, the technical specifications of the necessary radiation shielding would be a dead give-away, widening the pool of conspirators to include engineers and subcontractors. Besides, says Lacy, throughout the 1960s, both NASA and the Soviet Union sent unmanned spacecraft to the Moon, whose primary mission was to determine the feasibility of a manned landing. Radiation levels were a major concern and were extensively measured. "The data on radiation collected by these missions," says Lacy, "has since been verified by dozens, if not hundreds of other satellites and probes from countries and agencies [...] If NASA had misled the scientific community about the levels of radiation in 1969, they would have long since been exposed if not by their arch-rivals in the space race, then by any one of the tens of thousands of scientists and technicians working for any one of a number of space-exploring nations. To suggest that they are all co-conspirators is to stretch credulity to the breaking point". Lacy continues: "I did, at last, manage to pry a name from him after the lecture had finished. He told me that his expert source for the lethality of lunar radiation was a 1988 article published in National Geographic by Apollo 11 astronaut Michael Collins. Aside from the contradiction of claiming that Collins is both a reliable expert and a sly minion of an interplanetary conspiracy, the article emphatically does not state that radiation in space makes interplanetary travel impossible.

WAS EVIDENCE IGNORED?

Nick Keeble reminds us that Percy's thesis is a good example of why one shouldn't rely on photographic evidence alone - which brings us to the huge body of contrary evidence that Percy ignores or dismisses when he says that there is no irrefutable proof that we ever set foot on the Moon.

James Oberg asks: "Since it's clear that Percy has viewed hundreds of hours of photos, video and film, why [haven't] other scenes, fatal to the whistle-blower premise [been] shown? How did the alleged hoaxers create the views of the Lunar Rover bouncing across the lunar surface in one sixth gravity, kicking up fountains of dust which fell directly to the ground without any swirl or puff that an atmosphere would have caused? How about the camera views downward out of the window during the LM ascent, showing engine effects on soil and equipment and, especially, the planted flag?" There is also the non-photographic evidence ranging from the rocks themselves to laser observations from Earth and amateur radio listeners' reception of signals.

The Laser Ranging Retro-Reflector (LRRR) experiment was also referred to by Adrian Barnett and Michael Lacy. "Large reflectors were left on the Moon so that its distance from Earth could be measured using lasers," said Barnett. "When I pointed out to Percy that these are still in use today," said Lacy, "he seemed genuinely unaware of their existence. Some researcher!"

Roger Musson of the British Geological Survey, Edinburgh, said: "The Apollo astronauts brought back a lot more than just photographs and Moon rocks. They brought back scientific data of various sorts, and even set up a seismometer to register Moonquakes." Christopher Allan joined Lacy and Musson in pointing out that data from a huge range of scientific experiments and observations on and around the Moon have been circulated widely outside NASA and no-one has yet questioned their validity or the way they were obtained.

ARE THE RETICLES IN FRONT OF OR BEHIND OBJECTS?

Many correspondents explained why the cross-hairs (reticles) on many photos appeared to go behind objects a 'whistle-blowers' sign, according to Percy. Adrian Barnett wrote: "Having worked on image processing software that uses these sort of images, I should point out, that reticles (also called fiducials) are often incomplete. They are extremely fine markings on a glass plate inside the camera, and not always perfectly formed. Of the large number of photos taken, it is to be expected that gaps in some of the cross-hairs would coincide with objects in the photos.

James Oberg suggested that the effect was caused by bright white glare from the hardware. William Hohauser thought a

combination of both uneven lengths of reticle arms and overexposure or flaring of the object behind were involved.

WERE THE NASA PHOTOS RETOUCHEDED?

There is a small question-mark over just how much NASA had retouched some photos using well understood, conventional darkroom techniques. For example, Jim Vickers spotted, "an obvious ellipse, centred to the right of the vertical which crops the cross-hair at exactly the point it appears to go behind the object". Composite shots, airbrushing and dodging or flashing (varying exposure times during developing and printing) are used quite openly to improve PR material, but there is little indication that Percy has taken account of them.

Ray Spears writes: "I look at what Percy claims has been filled-in and I see only pictures that were modified in the darkroom for publication, quite according to the standards of the time." Nick Keeble says: "We can assume that a certain amount of retouching might have taken place such as the burning in of the American flag. Evidence of over-indulgent American pride perhaps, but hardly conclusive proof of fakery."

WHAT HAS THIS TO DO WITH FOLKLORE?

The idea of a Moon-landing hoax is now enshrined in the canon of urban legends along with some pretty fanciful evidence. Oberg mentions "the neo-Adamskiite claim that one cine sequence shows a flag waving in a lunar breeze!" Australian ufologist John Stepkowski recalls hearing one caller to a national radio programme, *The Science Show* on the 10th anniversary of the Apollo 11 Moon-landing, who remembered watching the event on TV. As Armstrong stepped down from the LEM, the caller said, "an object rolled into view. A moment later an expletive in an American accent could be heard and a bare arm reached into shot to retrieve the empty Coke bottle. He realised then that the landing was a hoax." Stepkowski doesn't think this was a deliberate April Fool skit, nevertheless, at FT, we have noted that many comedy sketches of this calibre end up in circulation as urban legends. No video has been found that supports this story. "Besides," he asks, "why would anyone bother to mike the lunar set so that we'd hear the swearing technician?" A British viewer of the live TV coverage of the Moon-landing in 1969 remembers seeing a show hosted by

David Frost in which a new guest joked, as he settled into position, that on the way he caught a glimpse of the action going on in the studio next door. If true, this might be the earliest TV reference to the myth.

I'll let Oberg have the last word: "Anyone willing to believe Percy's claims is welcome indeed to buy the book [...] it's the most fair and direct tax on gullibility I can imagine... and the next time we examine similar claims for photographic forgery - such as the faked Russian astronaut group shots, or Oswald never owning the rifle that killed Kennedy, or OJ never owning Bruno Magli shoes (despite dozens of newspaper photographs of him in them) - we have this stark lesson in going too far to caution our conclusions. Hats (and space helmets) off to the authors for their creativity andchutzpah!"

ACKNOWLEDGEMENTS

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Thanks also to the following who contributed their opinions: Martin Adamson, Joyanta Acharjee, Christopher Allan, Tom Banner, Paul Barker, Adrian Barnatt, Barbara Barrett, Graham Birdsall, Johnathon Blakeley, Roy Boxwell, James Diss, James Easton, Angus Dorbie, Elvis, Mark Ewing, Phil Gardiner, Colin Glaster, Mark Harp, C Harper, Jurgen Heinzerling, William Hohausser, Paul Honigmann, David Jeffery, Nick Keeble, Arthur Kendy, Stuart Kirby, Seppo Kurki, William Llewellyn, Patrick Maloney, Philip Mantle, Simon Marriott, Roger Musson, Jeff Peacock, David Podmore, Ashley Pollard, Bill Robinson, Ed Scott, Bob Shell, Ray Spears, John Stepkowski, Karl Tate, Jean Umi, Mike Ververis, Jim Vickers, Richard Walsh, Julius Welby, A Whistler, Hugh Williams, Drew Williamson, Iain Woodhouse, Michael Wysmierski. I could not quote you all verbatim, but I hope I caught your gist herein.

A fuller treatment of the arguments will be posted on www.forteantimes.com.

BEYOND BELIEF III

Tony Youens.

The latest 'live investigation into the paranormal' was equally as good as the previous two, and I'm sure we can all agree exactly how good they were. This time however I managed to get tickets so that I could witness the miracles at first hand.

The first 'experiment' involved Uri Geller moving a compass needle. In order to accomplish this feat everyone had to join hands in a continuous chain which ended with a group of young children the last of whom connected with Uri. We all shouted "MOVE" and the compass twitched a bit. A second attempt produced a more distinct movement of the compass. Being a member of the audience, I was privy to some details not apparent on the TV screen. Firstly, although we rehearsed this prior to going on air, during the live transmission version we were not actually all holding hands. The gaps across the aisles were not joined, at least not at my end of the studio. Secondly, the children had been specially introduced for effect. Children under 14 years old were not allowed in so it must have been by special arrangement.

Luckily, despite the lack of hand-holding it still worked. I suppose cynics would say that it would have worked anyway had Uri concealed a magnetic source about his person. He did actually move closer to the compass when he shouted "MOVE" so maybe...no he wouldn't, would he?

Next came Matthew Manning's 'stick your hand in a load of ice' trick, sorry experiment. I saw this exactly the same as on the TV so I can't tell you anything you probably don't know already. The volunteer, Hazel Courtney of *The Sunday Times*, was told what to expect and so the whole experiment was biased from the outset. The first time she said it felt like burning - so she had to take her hand out after 25 seconds. But on the second attempt she felt an intense heat - so she could leave it in longer (58 seconds). According to Dr Brian Roet, an expert on pain control, Matthew was somehow 'blocking pathways' so she didn't feel the pain. I don't pretend to know much about pain control but other 'experts' say that part of the pain experience is psychological and it is control of this aspect that enables people to cope. Obviously pain control theory has moved on as Dr Roet made no mention of this.

Boris Tulchinski, who appeared in the first

show, made a return. His act, there I go again, I don't mean *act* I mean *ability*, consists of being blindfolded (which Sir David tells us has been checked) then a black bag placed over his head and despite these encumbrances he can still distinguish colour via his fingertips. Fortunately my seat afforded me an excellent view of those waiting to go on. If Boris's blindfold was checked he had enough time by himself to knit a new one. He was left alone for ages and only his interpreter turned up for company. Nevertheless I'm sure the blindfold was genuine. Sir David seems greatly impressed by Boris's ability. What Boris does looks and feels like a simple stage trick for example James Randi has had pizza dough placed over his eyes, a blindfold placed on top and then a black bag, somewhat similar to that used by Boris, placed over his head - he still managed to drive a car through rush hour traffic. There seems only one possible explanation - James Randi is psychic as well. I know he denies this but what other explanation can there be? If Sir David can't think of one then neither can I. It seems to help you psychically if you can supply your own blindfold, bag etc. and tie it yourself.

Next Uri asked viewers to pick one of five coloured disks: blue, red, green, yellow and pink. Viewers picking up Uri's thoughts had to phone in with their selection. The one chosen by most viewers was red. It turns out Uri also chose red. Another miracle. I have a few points to make;

1. Why was the choice of colour to transmit not random?
2. I have on occasion done a conjuring trick where the volunteer chooses one of five objects. The most common choice is the second one from the left.
3. When was the cut off point and who decided? Sir David commented that green was ahead for a while. Did the lines stay open long enough for red to go into the lead? It only won by 2%.

Next time this experiment is carried out I think there should be a tightening of the protocol, otherwise skeptics only nitpick.

Matthew Manning had a go at 'automatic writing'. By this means he hoped to divine the medical history of volunteers from the audience. His first attempt was unsuccessful. The volunteer did not

recognise any of the illnesses offered by Matthew's alter ego Thomas Penn. I think this showed great courage of the volunteer who must have felt under some pressure to agree. OK I admit it - I was that volunteer. Of all the volunteers in all the world Matthew had to chose this one. If only he had been telepathic. But wait, according to his book *In the Minds of Millions*, he is. He can also bend spoons (sound familiar). Matthew seems to have abandoned these talents in favour of his healing abilities. I wonder why?

In order for this accomplish this feat volunteers were sought prior to the show going on air. We had to give our date of birth and brief details of our medical history to the researchers. Using a date of birth Matthew would 'tune in' to the volunteer and thus come up with their medical condition. Sounds a little like telepathy to me! Anyway I decided to carry out a small experiment of my own. What would happen if I gave an incorrect date of birth? I was somewhat suspicious as I had given enough information for Matthew's success to be assured, IF he was able to view this prior to giving his demonstration. So I altered my date of birth by one month. If Matthew still came up with the correct diagnosis then surely there would be rats a plenty to be smelt. On the other hand if this operated in the way he believed then he would presumably 'tune in' to nothing. However he still gave a reading albeit an incorrect one. Believers would no doubt argue that because I gave the wrong information then this is why he failed basically garbage in - garbage out. Perhaps they have some justification for saying this. After all it is to Matthew Manning's credit that he did not look at any privileged information beforehand. All I would say is that Matthew needs to review his theory as to how this operates. The results of this test were the same as if Matthew had simply written whatever came into his head. This theory would also be consistent with his second attempt which despite using (one hopes) a correct birth date he still got wrong.

He tried a second time with about as much success. Sir David Frost salvaged the situation by pointing out that twenty years earlier Matthew had been 'absolutely right'. An impressive record.

Uri was now to try his hand at remote viewing. By satellite link David Morehouse, a self taught psychic and author of *Psychic Warrior* would transmit telepathically an image which Uri would try and 'receive'. To cut a very tedious story short both of them were successful at reading each other's thoughts. Any comment by me would be entirely

superfluous!

Coral Polge and her assistant Bill Landis then did what amounted to a cold reading with pictures. Despite a couple of dodgy moments this proved successful and everyone was presumably suitably impressed.

For the finale Uri was submerged in the water tank, thus increasing his psychic abilities to new found heights; he was to do a double act with Boris Tulchinski. Before this we were treated to a curious film in which Uri was shown trying to locate a missing pump from TWA flight 800 in which there were no survivors. We saw Uri in deep concentration over the crash site but alas we never found out if he was successful. I imagine that the relatives of those who died greatly appreciate his efforts.

Using only thought transference Uri guided the once again blindfolded Boris to collect a red rose from a make up room. Like a remote control car with a loose connection Boris bobbed and weaved through the corridors of Carlton Television and triumphantly plucked a single rose from a vase; and on returning to the studio graciously gave it to Hazel Courtney.

I despair to think that Beyond Belief IV will appear next year for yet another live 'investigation' into the paranormal. All the phenomena could easily be duplicated and there were no controls on any of the supposed experiments, so even the successful results are meaningless. Others I have spoken to who would not consider themselves skeptics thought it was just awful television. A friend of mine described it as, "more paracetamol than paranormal".

A LETTER ON FIREWALKING

Ray Ward.

Editor's introduction: Ray Ward recently contributed a letter on firewalking to Mensa Magazine. In the letter he initially submitted, Ray argued that the Leidenfrost effect plays a part in protecting the firewalker from injury. Later he revised the letter so as to remove this argument, but unfortunately Mensa Magazine printed the original version. The text we publish here is the amended one.

Like Alex McKenzie [*Mensa Magazine* letters, February 1996] I tried firewalking at Malvern. (It's been done at least twice there so I don't know if I was at the same one.) A fire was built and, when it had died down, spread out into a bed of glowing embers. I walked across it twice barefoot (and have a photograph to prove it) and was completely unscathed; nor, so far as I know, was anyone else

who tried it.

If people were rational the paranormal is the *last* explanation they would consider for a phenomenon, after all others had been eliminated. Alas, it is very often the *first* one they think of, and firewalking is perhaps the classic example. How, people ask, can anyone walk barefoot across glowing embers at high temperature unhurt? Surely they must have mystic powers to withstand pain and avoid injury.

In fact anyone can do it with little risk. The main reasons are the difference between temperature and heat - the embers may have high *temperature* but, because of their looseness, relatively little *heat*, and the short time the skin is in contact (you can touch red-hot metal for an instant without harm). There are other factors including the fact that firewalking often takes place in darkness, making the embers glow a spectacular red and look very hot when in daylight they would look grey and cool.

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Bernard Leikind and William J McCarthy, An Investigation into Firewalking, Skeptical Inquirer, Fall 1985, 10(1): 23-34.

Describes a firewalking seminar attended by the authors and provides a straightforward account of the physical and psychological factors that allow firewalking to be carried out safely.

B.J. Leikind and W.J. McCarthy, Firewalking, Experientia, 1988, 44: 310-315.

Provides descriptions of firewalks from around the world, and discusses the physical and psychological factors involved in firewalking, plus the reasons why unconventional explanations are preferred over scientific ones. The examination of the physics of firewalking includes extensive references to reports of observations and experiments that substantiate the authors' account.

Bernard J. Leikind. Fire Immunity. 1996. In Gordon Stein (Ed), The Encyclopedia of the Paranormal, Prometheus Books.

Describes the psychological effects of firewalking and gives what is probably the best available account of the physics of the matter.

Loren Pankratz, Firewalking, 1988, Firewalking and the Persistence of Charlatans, Perspectives in Biology and Medicine, 31(2): 291-298.

Repeats the account of the physics of firewalking given by Leikind and McCarthy in 1985. Also outlines a test of firewalking carried out in 1934 with the assistance of magician Kuda Bux, describes various performers of daring acts, and discusses charlatanism.

PUT A LITTLE 'SUN'SHINE IN YOUR LIFE

Anne Corden.

Skeptics UFO Newsletter (SUN) is published by Philip J. Klass, Chairman of the CSICOP UFO Sub-committee. For anyone who is interested in digging beneath the surface of the major claims of sightings, abductions and government cover-ups etc. SUN is an invaluable source of information. Klass has been involved in the field of UFO investigations for some 30 years and is known for his tenacity and unwillingness to leave any stone unturned when pursuing his enquiries. For example, in a recent edition of SUN (January 1996) Klass reports that he spent many hours examining the publications of the telephone industry to assess whether the telephone cord evident in Ray Santilli's Roswell alien autopsy film was in use at the time the film is alleged to have been made.

Unsurprisingly, given the splurge of publicity engendered by Santilli's film, large parts of the recent editions have been given over to Roswell and the assortment of claims associated with the events of 1947. The last issue but one (March 1997) gave a fascinating if mind-boggling account of the origins of the so-called MJ 12 papers. You really ought to read it you know.

SUN comprises 8 typed pages and is available at a subscription rate of \$20 for 6 issues. Klass accepts either cheques in U.S. dollars or U.S. currency. He can be contacted at: Skeptics UFO Newsletter, 404 'N' St. SW, Washington DC, 20024, USA

ROSWELL: SOME BACKGROUND READING

Wayne Spencer.

It seems that both Karl Korff and Philip Klass are currently writing book-length skeptical appraisals of the Roswell 'flying saucer' crash for Prometheus Books. Until those works appear, skeptics may wish to consult Brooksmith (1996) and Peebles (1994) for fascinating accounts of the history of the idea that the American and other governments are concealing evidence of extraterrestrial visitations. Their comparisons of actual government activities and thinking (as revealed for example in now declassified documents) and the past and present allegations of certain Ufologists demonstrate how useless the basic assumptions of the conspiracy theorists are as guides to reality.

Most Skeptics will probably be familiar with the material on the Roswell 'autopsy' film published in the *Skeptical Inquirer* (see page 6 of the March/April 1996 issue for a reader). A very useful addition to this material is the excellent *SCAM Report* produced by the International Roswell Initiative. A copy of the report can be obtained by sending £2.00 (which includes postage and packing) to Andy Roberts, 84 Elland Road, Brighouse, West Yorkshire, HD6 2QR.

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THE WILD PSIDE

Anonymous.

I feel I must warn people of the dangers that lie in wait for the earnest student of the paranormal. Once I was just your normal everyday guy, a man of the nineties. Apart from the mortgage, children, payments to my ex-wife sort of worries I was relatively carefree. Oh, how I long for those simple days.

My troubles began when I started buying books that promised to enhance my psychic abilities. I worked on telepathy first. Starting with a fairly relaxed approach, I soon began to realise the unlimited potential that ESP could offer. With nothing but gritty determination and a mind so open you could virtually see my cerebellum, I quickly mastered the basics. I began with the easy stuff,

eavesdropping on my wife's thoughts. She kept thinking about redecorating the living room. Impressions of wallpaper patterns and paint charts constantly invaded my thoughts. So much so in fact that I had very little room left for my own. Have you ever tried thinking of two things at once?

Flushed with this initial success, I cancelled my mobile phone. All my wife had to do was think of what ever message she wanted to transmit and bingo! It was at this point I should have foreseen the trouble. Foolishly I had postponed learning prophesy until later.

I would be driving along and Ruth, my wife, would start transmitting a detailed shopping list. After a desperately close incident involving a Telecom van and a woman who looked a little like Doris Stokes, I knew something had to be done. Through meditation and fasting I managed to section off an area of my thinking and developed a kind of answering machine. To operate, I simply thought of a message, e.g. "I'm sorry but I'm thinking of something else right now. But if you would care to leave a message please think clearly after the tone."

This worked well for a few days but then I would forget to play back the messages. When I eventually remembered, I would be deluged with dozens of thoughts which became garbled and incoherent. This wasn't helped by the fact that my wife's thoughts would wander while sending me a message. Although I tried, I couldn't get the hang of replaying her thoughts, and despite great initial promise I reluctantly had to admit defeat.

I moved swiftly on to metal bending and psychokinesis. Spoons were the obvious starting point. These were a cinch, so I had a go with keys. I had been warned not to worry if nothing happened at first, but once again approaching things with an open mind, keys were bending all over the place. In no time at all I was locking myself out of my house and car on a routine basis. The central heating kept breaking down due to bent parts. I was on a roll. I was approached by a local television station and asked to appear. Viewers were asked to phone in if anything strange happened. The switchboard was jammed. One man's kettle refused to work and a teenage girl found a bent spoon in her kitchen. I would have been quite happy with that but tragically the local hospital telephoned to say that a patient had died after his iron lung had developed a fault. I felt awful.

Once again defeat stared me in the face. The thought of a death on my hands was too much to bear. But then luck, fate, karma, call it what you will, smiled on me. I visited a local homoeopath who

carefully diagnosed my condition and with a mixture that tasted a lot like water, but was in fact a careful blend of stinging nettle and mugwort cleverly diluted to the correct level, I soon felt better. In fact I can honestly say that whilst the man's death was an undoubted tragedy, personally I could no longer care less.

By way of atonement I became a healer. I was by now somewhat cautious, so I began by curing people's colds without them knowing. Gaining confidence I moved on to the athlete's foot, no problem. I worked my way up first by tackling arthritis in the knee and then on to stomach ulcers (I decided to miss out Gynaecology and bowel cancer for now). After curing two patients of diabetes, I was 'warned off' by a prominent doctor whose private practise was beginning to suffer. He was a Free Mason and thus had powers far greater than my own.

Unemployed, I decided to take up James Randi's psychic challenge which at that time was only \$10,000. I could already read minds, bend spoons and virtually raise the dead, so I felt in with a chance. However, although I had developed my abilities quickly, I had not yet had time to gain experience. This was to be my downfall. A simple test was devised which under any other conditions would have been easy peasy, but then I learned a hard lesson. Psychic powers are inhibited if skeptics are present. In fact the more skeptical the person the less my powers seemed to work. I was made to look ridiculous in what I now realise was a completely unfair test.

So let this be a lesson to those of you considering entering the world of the paranormal. Firstly, do not develop your powers to such a high degree. For example, stick to reproducing drawings in envelopes. Secondly, only ever heal things that cannot be confirmed by medical science. If you ignore this basic principle, and I'm happy to say most healers don't, you will have the might of medical profession down on you like a ton of temazepam. Thirdly, and most importantly, never allow yourself to be tested by skeptics. They have closed minds and continuously prattle on about evidence and proof. I ask you where would we be today if everyone took this attitude?

Please note that next issue's article on alien abduction has had to be cancelled due to missing time.

PLANTED EVIDENCE

Wayne Spencer.

Ramar Pillai is a 30 year-old self-taught chemist and high school dropout from Tamilnadu, India who claims to have discovered an extraordinarily simple means of producing a fuel akin to petrol. According to Pillai, his process involves nothing more than the heating, cooling and filtering of a mixture made up of tap water, parts of a local herb, a little salt, a few drops of lemon juice or citric acid, and certain undisclosed chemicals. The total production cost is said to be one rupee (about 2 pence) per litre. However, tests conducted by the National Chemical Laboratory in Pune and the mechanical engineering department of the Indian Institute of Technology (IIT) have suggested that the supposed product is a pure hydrocarbon which is superior to petrol in its fuel economy. Moreover, the liquid was said to be cleaner than petrol in that no sulphur was included in its exhaust products.

In September 1996 Pillai demonstrated his process in a chemistry laboratory at the IIT in New Delhi. Under the eyes of a scientific audience, Pillai started with 55 grams of leaves and bark and 1000 millilitres of water. Half an hour later he had succeeded in producing 460 milligrams of a yellowish inflammable liquid that smelled of kerosene. The assembled scientists could not explain the process at work, and in particular were unable to account for the speed of the reaction and the source of the carbon which appeared in the product. Notwithstanding this, some were convinced by what they saw. "It is just unbelievable but true", stated N.K. Jha, the head of the chemistry department at IIT, while Valangiman Ramamurti, the Secretary of the Department of Science and Technology (DST) and a participant in the experiments, commented: "Like everyone else, I was skeptical, but we now know it is not an Indian rope trick".

The DST appears to have felt that it was "sitting on something big" and agreed to finance a pilot production facility and an investigation of the mysterious process by India's leading chemists. However, as the demonstration at New Delhi had "raised some questions", further tests were arranged at IIT Madras. Unfortunately for Pillai, in the new tests he was totally unable to produce any fuel, which led to the DST abandoning its plans to patent the process. Valangiman Ramamurti stated that the DST was withdrawing its support because Pillai "is not satisfying our test criterion." He denied that they had been duped.

What exactly happened at IIT Madras? In a

letter to *Nature*, Pushpa Bhargava alleged that Pillai had been "caught trying to introduce commercial petrol into the system on the sly". Bhargava also stated that a controlled experiment into Pillai's claims conducted at the Centre for Policy Studies in early 1995 had resulted in Pillai abandoning his equipment and disappearing.

A possible means by which petrol could be surreptitiously introduced was proposed in October 1996 by Narendra Nayak, a Rationalists' Association convenor. In front of certain surprised members of the press, Nayak contrived to produce petrol by mixing beedi leaves, water, sodium citrate and coffee powder in a glass container and then leaving the collocation to stand for a time in a sealed metal jug. Nayak explained that the steel jug possessed a hollow part. The petrol found in the mixture had been concealed in this part.

Following the Madras affair a fresh experiment was carried out at the Indian Institute of Petroleum in Dehra Dun. Pillai again produced his supposed fuel, but according to a report by observers from India's parliamentary committee on science and technology, he did so simply by dissolving some camphor in kerosene. The report, which declared Pillai to be a fraud, added that scientists at the institute had produced a liquid identical to Pillai's without using the herb purportedly central to the process.

Speculation can doubtless supply a number of more or less plausible-sounding accounts of Pillai's motivations. However, in his letter to *Nature* Pushpa Bhargava has put forward an hypothesis which I suspect few of us would have thought of:

"A large number of reports have since appeared in Indian newspapers expressing doubts about Pillai's claims, as well as providing a reason for his deceit. There have been large-scale thefts of petrol from tankers in and around the area in which Pillai lives, and the strategy seems to have been to sell this petrol on the open market as 'herbal petrol'. It is widely believed that individuals with political links have been involved, knowing that they could exploit the gullibility of many people, including scientists, prepared to believe in miracles."

This article has been assembled from the following sources:

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5, February 1997.

Nature. 1996. 'Petrol from plants' claim baffles Indian scientists. *Nature* 383: 112

Nature. 1996. Indian hopes for 'herbal fuel' disappear into thin air. *Nature* 383: 374

Nature. 1997. Herb petrol dismissed as 'fraud'. *Nature* 385: 5

Press Trust of India. 1996. School dropout stuns scientists with 'herbal petrol'. Reproduced in *Rational Enquirer* 8(2): 5-6, September 1996

TWO JOURNALS OF PSYCHICAL RESEARCH

Wayne Spencer.

Keeping up to date with the literature on the paranormal is not an easy task. To assist skeptics, I propose from time to time to provide outlines of the contents of various relevant journals. I start with the recent editions of the *Journal of the American Society for Psychical Research* and the *Journal of the Society for Psychical Research*. Minor articles and letters are not listed. Abstracts or introductions are reproduced where they appear in the originals.

The Journal of the American Society for Psychical Research. 90(4). October 1996.

Douglas G. Richards. *Psi and the Spectrum of Consciousness*. Pages 251-267.

Humanistic and transpersonal psychology seek the highest in human potential. Do psychic phenomena have a place in this quest, and can parapsychology aid in understanding the role of these phenomena? The contemplative or mystical traditions view psychic phenomena as consequences of higher development, yet tend to see these phenomena as by-products of the spiritual path rather than as goals. Parapsychologists, on the other hand, have observed these phenomena in animals, children, and the mentally ill, as well as in individuals with normal ego development. They have often seen psychic abilities as need-motivated and as developmentally and evolutionarily primitive. This paper reviews the evidence that psychic phenomena occur across the entire spectrum of consciousness. It discusses methodological issues relevant to understanding the place of Psi, including experiments, and narrative and longitudinal approaches to experiences and meaning.

Michael A. Thalbourne. *Varieties of Belief in Life After*

Death: A Factor-Analytic Approach. Pages 261-291.

Belief in life after death (form of survival not specified) appears to be related to a number of demographic and psychological variables. However, little research has been conducted to examine whether these relationships vary according to the particular form in which survival is envisaged as occurring. Five studies are described in which a total of 559 subjects were presented with up to eight different hypotheses about the fate of human personality after death. In every case where size of study permitted factor analysis (4 groups out of 5), two factors clearly appeared: belief in reincarnation loaded on the first factor, while belief in immortality, resurrection of the dead, and explicit rejection of the notion that consciousness is extinguished at death loaded on the second. A division of the subjects into extinctionists, agnostics, immortalists, "pure" reincarnationists, an eclectic group (combining belief in reincarnation and immortality), and "other" believers (who believed in life after death but not of the immortalist or reincarnationist form), showed some demographic and many psychological differences, suggesting that research in this area should indeed take into account the form of afterlife believed in.

Alfred S. Alschuler. When Prophecy Succeeds: Planetary Visions Near Death and Collective Psychokinesis. Pages 292-311.

Planetary visions seen in prolonged near-death experiences from 1950 to 1980 consistently predicted an escalation of natural and human disasters reaching a peak around 1988. At that time, either there would be an apocalypse, or it could be postponed if human beings increased their love of God, other people, and the Earth itself. Positive geopolitical shifts and increases in long range trends in global care correlate with decreases in long range trends in disastrous weather, each changing around 1988. I examine this apparently successful precognitive prediction of collective psychokinesis (a possible form of macro-PK) from several perspectives. First, I review the history of apocalyptic prophecy to identify what is new and different about this source of prophecy. second, I critique the supporting data for precision, completeness, reliability and validity. Third, I suggest additional ways to test this form of precognitive prediction and the possibility of collective psychokinesis.

Harvey J. Irwin. Review of Science in the New Age by David J Hess. Pages 312-317.

Douglas M. Stokes. Review of Toward a Science of

Consciousness edited by Stuart R. Hameroff. Pages 317-328.

Stephen E. Braude. Review of A History of Hypnotism by Alan Gauld and From Mesmer to Freud by Adam Crabtree. Pages 329-334.

Douglas M. Stokes. Review of A Brief History of Everything by Ken Wilber. Pages 335-339

Journal of the Society for Psychical Research. 61(846). January 1997.

Montague Keen. A Sceptical View of Parapsychology. Pages 289-303.

This paper examines the nature, legitimacy and strength of attacks by leading sceptics on claims of the paranormal. It is an expanded version of an address given by the author to the Twentieth International Conference of the Society for Psychical Research.

Carlos S. Alvarado and Nancy L. Zingrone. Out-of-Body Experiences and Sensations of 'Shocks' to the Body. Pages 304-313

Previously-collected OBE data was analysed in terms of one of the experience's features, the sensation of a shock to the physical body on return. Following a trend observed by Sylvan Muldoon with his own OBEs (Muldoon & Carrington, 1929), it was hypothesised that OBE-experiencers who reported sudden returns to the body at the end of their experiences would report shocks more frequently than those who reported gradual returns. Out of 54 cases with information necessary for the analysis it was found that 6% of the OBE-experiencers with gradual returns (N = 16) reported a shock to the body, while 45% of the experiencers with sudden returns (N = 33) reported the same feature (Fisher's Exact P = 0.005 one-tail, Phi Estimated = 0.31). Shocks to the body on return were not significantly related to age nor to most other features, except for self-perception during the experience (χ^2 , two-tail = 8.57, $p = 0.014$, Cramer's Coefficient = 0.46). An interaction analysis revealed significant effects between shocks and specific aspects of OBE self-perception. It is argued that research such as this reminds us of the importance of testing hypotheses that are derived from the experiential and occult-oriented literature and of conceptualising such findings from the point of view of existing

psychological models of OBEs.

Luigi Garlaschelli and Massimo Polidoro. Testing a Miracle by Means of Tamper-Proof Containers. Pages 314-316 [Note: the authors are members of the Italian skeptics group CICAP]

Tom Cross. Confirmatory Evidence of Survival from Accounts of a Brain Tumour. Pages 317-319

During one of the author's continuing regular sittings with mediums in 1995 reference was made to the surname of a friend who was known to have passed away in 1973. In 1986 there had been an apparent substantial communication from him which had included a quite precise reference to the pathology of the illness which caused his death, together with other detail. In 1995, almost ten years later and from another medium elsewhere, remarkably similar details were repeated, together with other comments suggestive of his survival.

Rona Somerville. On the Wings of a swan: An Analysis of a Precognitive Dream. Pages 319-329.

W. Peter Mulacz. Can Combination Lock Tests Provide Any Proof of Survival? Pages 330-333.

Susan Blackmore. Back to Basics. Pages 333-335

At the 20th International Conference of the Society for Psychical Research, four of us - John Beloff, Guy Playfair, Richard Wiseman and myself - were asked to speak for just ten minutes on the theme 'Back to Basics'. The idea was originally Guy Playfair's. He suggested that we may have lost our way and could benefit by going 'back to basics' and asking ourselves what our subject is all about and what we are trying to achieve. At the last minute we were also asked by our Chairman, David Fontana, to make sure we included a personal position statement: to say where we each stand today. I rather enjoyed this improbable challenge and the following is what I found myself saying.

Alexander Imich. Joe A. Nuzum, a Little-Known Psychic. Pages 336-7

Jose Martinez Romero. The Faces of Belmez: Its Mystery and Message. Pages 337-339

Guy Lyon Playfair. Review of Las Casas Que Se Incendian Solas: Psicopirosis en Panama by Ramon De Aguilar. Pages 340-343

M.H. Coleman. Review of In Search of Ghosts by Ian Wilson. Pages 343-345.

John Beloff. Review of Reincarnation: A Critical

Examination by Paul Edwards. Pages 345-347

STRAY NEWS ABOUT ALTERNATIVE MEDICINE

Wayne Spencer.

Anecdotal evidence suggests that it is widely believed that vitamin C supplements offer some measure of protection against the common cold. However, the Minerva column in the *British Medical Journal* recently brought news of a new survey of the scientific evidence which indicates that confidence in the efficacy of such supplements may be misplaced. To quote from Minerva:

"Minerva has had a bad winter, sniffing her way from meeting to meeting. A surprising number of her colleagues have told her to take to take vitamin C; belief in the prophylactic effect of high doses of ascorbic acid has persisted since the first reports in 1970. Yet reviews agree (*British Journal of Nutrition* 1997;77: 59-72) that the major trials have shown no effect on the incidence of colds. There may be a small effect in men with poor vitamin intakes, but for most people the treatment is useless." (Minerva, 1997)

Another alternative medical claim which seems to have secured some measure of popular acceptance is that which alleges that chiropractic manipulation is an effective treatment of low back pain. Indeed, this claim has been regarded by some as one of the strongest which alternative medicine has to offer. Unfortunately, once again a new review has been published which indicates that adequate evidence is lacking. In the words of the National Campaign Against Health Fraud:

"Research methodologists attempting to statistically pool data from randomised clinical trials (RCTs) of chiropractic treatment of low back pain concluded: 'A vote counting of the available RCTs provided no convincing evidence of the effectiveness of chiropractic for acute or chronic low back pain. All RCTs had serious flaws in the design, execution and reporting. There is certainly a need for further correctly executed trials'.

Assendelft et al. 'The effectiveness of

chiropractic for treatment of low back pain: an update and attempt at statistical pooling,' *J Manip & Physiol Therapeut*, 1996;19:499-507." (NCAHF Newsletter, 1997)

Yet another alternative medical claim recently receiving a setback is homeopathy. Certain homeopathic preparations have been employed as an aid to postoperative recovery. Hart et al (1997) reported the results of a randomised clinical trial of one such preparation: arnica C30. They found no significant differences between a group treated with the homeopathic preparation and a control group given a placebo only.

Hart et al had their results published in the *Journal of the Royal Society of Medicine*. But would their study have been published in one of the leading journals of complementary medicine? In a recent study, Ernst and Pittler (1997) analysed all the articles published in one year's editions of four such journals, classifying the articles as positive (a particular invention is helpful for a particular condition), neutral (no conclusion) or negative (intervention is not helpful). They found the following:

"The pattern in all four journals was strikingly similar, with 64% of papers classified as helpful, 35% neutral and only 1% negative."

The authors conclude:

"Although our results are limited because our survey is small, they demonstrate a strong publication bias in favour of positive conclusions about alternative therapies. If confirmed, our findings imply that the literature in this field is not objective."

References.

E. Ernst and M.H. Pittler. 1997. Alternative therapy bias [letter]. *Nature*; 385: 480

Hart, Oliver, Mark A Mullee, George Lewith, and John Millar. 1997. Double-blind, placebo-controlled, randomised clinical trial of homeopathic arnica C30 for pain and infection after total abdominal hysterectomy. *Journal of the Royal Society of Medicine*; 90: 73-78

Minerva. 1997. *British Medical Journal*; 314: 528
National Campaign Against Health Fraud. 1997. Chiropractic Meets Scientific Reality. *NCAHF Newsletter*; 20(1)

NORTH OF STONEHENGE

Wayne Spencer.

If you have visited a bookshop recently you may well have encountered John North's (1996) massive new book on the supposed alignments between the layout of Stonehenge and the position of various astronomic objects. Skeptics may wish to note that North's claims have been examined by Aveni (1996) and found wanting. Amongst other things, Aveni points to dubieties in North's methods:

"In other words, to assure an astronomical rendering, North manipulates the components of a monument to fit the stars; but given the astronomical subjectivity and uncertainty, together with the impossibility of reading from ordinance maps the precise gradients and heights of ditches dug in turf 5,000 years ago, making things fit is a bit like using a rubber template and blunt architect's pencil to sketch out a design plan."

For a sober assessment of the connections between astronomy and Stonehenge we must turn from North to the archaeologist Carl Ruggles (1996a), who observed in his recent review of the *Science and Stonehenge* conference:

"Finally, what happened to the astronomy? Jacquetta Hawkes, who sadly died the day before the conference began, once famously said that every age has the Stonehenge it deserves, or desires. The idea that Stonehenge was some sort of astronomical observatory or computer, so popular in the 1960s, is now seen as an artefact of its times - one of the most notorious examples known to archaeologists of an age recreating the past in its own image. Yet the axial alignment upon midsummer sunrise and midwinter sunset does seem to have formed a vital part of the symbolism of the stone phases of the monument; it is strengthened by the discovery in 1979 of a probable companion to the Heelstone, the two stones forming part of the 'corridor' down which the Sun would have shone into the interior of the sarsen circle on mornings around midsummer.

The evidence for other astronomical symbolism, including a possible lunar significance in the earlier phases, is more equivocal. But the idea that the monument may have symbolised cyclical time through alignments on the Sun or Moon, or that

astronomical considerations formed part of the sacred principles that helped to structure the Neolithic and Bronze Age landscape around Stonehenge, no longer seems far-fetched." [Footnote references omitted]

Additional information on what we know and do not know about the religions of Ancient Britain can be found in Hutton's splendidly skeptical survey (Hutton 1991). Ruggles has written an interesting short chapter on archaeoastronomy in Europe (Ruggles 1996b), and this in turn informs me that he has a book forthcoming called *Astronomy in Prehistoric Britain and Ireland* (Ruggles in press). Hayman (1997) gives a history of ideas about Stonehenge and other structures erected by the Ancient Britains

Aveni, Anthony F. 1996. Between a rock and a hard place. *Nature*; 383: 403-4

Hayman, Richard. 1997. *Riddles in Stone: Myths, Archaeology and Ancient Britains*. Hambledon

Hutton, Ronald. 1991. *The Pagan Religions of the Ancient British Isles: Their Nature and Legacy*. Blackwell

North, John. 1996. *Stonehenge: Neolithic Man and the Cosmos*. Harper Collins

Ruggles, C.L.N. 1996a. Stonehenge for the 1990s. *Nature*. 381: 278-9.

Ruggles, C.L.N. 1996b. Archaeoastronomy in Europe. In Christopher Walker (ed). *Astronomy: Before the Telescope*. British Museum Press.

Ruggles, C.L.N. In press. *Astronomy in Prehistoric Britain and Ireland*. Yale University Press.

SOME NEW BOOKS OF POSSIBLE INTEREST

Wayne Spencer.

Daniel L Schacter. Searching for Memory: the Brain, the Mind and the Past. Basic Books. 1996. £20. ISBN: 0-465-02502-1

Contents: Introduction: Memory's Fragile Power/Building Memories/Of Time and Autobiography/ Reflections in a Curved Mirror: Memory Distortion/ Vanishing Traces: Amnesia and the Brain/The Hidden World of Implicit Memory/Emotional Memories: When the Past Persists/Islands in the Fog: Psychogenic Amnesia/The Memory Wars: Seeking Truth in the Line of Fire/Stories of Elders.

Memories lie at the heart of many paranormal claims. My own mother, for example, likes to tell me a story about how a friend of hers one

day returned home to announce to his wife and my mother that he had just been walking and talking with a certain acquaintance; yet, supposedly unbeknown to the friend, this acquaintance had died earlier that very night. My mother argues that although this alleged incident took place some 50 years ago, her long-term memory is excellent, and this memory is veridical. Her son has his own thoughts on the matter; and, unfortunately for family harmony, he has on occasion been known to give air to them.

In *Searching for Memory*, Daniel Schacter, Professor of Psychology at Harvard University, seeks to provide a summary of our knowledge of memory. To this end, he describes the various types of memory that have been discovered, the neurophysiological bases of memory, and the strengths and weaknesses that memory possesses. Quite properly, Schacter relies heavily on the results of scientific studies, and the book includes many descriptions of tests from the scientific literature. In addition, Schacter has supplied literally hundreds of endnotes on technical matters and a 35 page bibliography. However, the main text of the book is written in a style which is accessible to the intelligent lay reader. Moreover, Schacter repeatedly illustrates his themes with stimulating examples drawn from literature, art and the fascinating case histories of individual neuropsychological patients. The result is a work that is readable, interesting, yet well-grounded in science.

Schacter has little to say about the paranormal. He does, however, address the disputes about recovered memories of child abuse and multiple personality disorder (MPD) in which skeptics have played a part. Schacter attempts here to steer a middle course. He does not deny that false memories and MPD can be created by incautious therapist. However, he considers that the belated recovery of reasonably accurate memories of childhood sexual abuse and the existence of non-iatrogenic MPD are not wholly inconsistent with the scientific background knowledge. He also suggests that there are fragments of evidence which suggest that they may sometimes arise. I did not find Schacter's arguments entirely persuasive, but his discussion is nonetheless stimulating and it usefully reminds us that skeptics would do well to avoid dismissing recovered memories of sexual abuse and MPD as somehow impossible *in principle*.

All in all, I would recommend this book to all skeptics. In order to appraise paranormal and other claims we all too often need to understand the nature and workings of human memory. I can think of no better guide to these fields than Schacter's excellent

work.

Nicholas P. Spanos. Multiple Identities and False Memories: A Sociocognitive Perspective. American Psychological Association. 1996. £25.95. ISBN: 1-55798-340-2

Contents: Preface/About the Author/Introduction/Hypnosis: Mythology Verses Reality/High Hypnotizability and Dramatic Behaviors/Hypnotic Amnesia, Posthypnotic Response, and "Brainwashing"/Distortions of Memory/The Seduction Theory: Old and New Versions/Child Sexual Abuse and the Fate of Abuse Memories/Hypnosis, Age Regression and Memory/Complex False Memories, Body Memories, and Hypnosis/UFO Abduction: An Example of Complex False Memory/The Experimental Creation of Multiplicity/Cross-cultural Studies of Spirit Possession/Historical Manifestations of Demonic Possession/The Social Functions of Possession/From Possession to Dual Consciousness to Multiple Personality/The History of Dissociation/Multiple Personality Disorder and Social Learning/Correlates of Multiple Personality Disorder/Child Abuse and Multiple Personality Disorder/Multiple Personality Disorder, Recovered Memories, and Sociopolitical Considerations/Final Thoughts

Written before the author's tragic death in 1994, this book is a critique of the claim that multiple personality disorder (MPD) is a naturally occurring mental disorder. As an alternative, Spanos defends the view that MPD is a sociohistorical product:

"In short, the sociocognitive perspective suggests that patients learn to construe themselves as possessing multiple selves, learn to present themselves in terms of this construal, and learn to reorganise and elaborate on their personal biography so as to make it congruent with their understanding of what it means to be a multiple. These patients are conceptualised as actively involved in using available information to create a social impression that is congruent with their perception of situational demands, with the self-understandings they have learned to adopt, and with the interpersonal goals they are attempting to achieve..." (page 3)

In his review, Merskey (1997) said that this book "deserves to be designated as a classic". I have to say I agree. The arguments Spanos presents in support of his hypothesis seem to me to be detailed, diverse and powerful. Moreover, in the course of elaborating those arguments Spanos skilfully and lucidly addresses the findings of scientists and scholars in many areas of interest to skeptics. Of course, the book is not without faults. To give just one example, in his discussion of the 'Bridey Murphy' past-life regression case (pages 135-6),

Spanos unfortunately repeats a number of statements about the childhood of Virginia Tighe which there is reason to suspect are journalistic inventions (cf. Edwards 1996, pages 65-6). Overall, however, it is a quite breathtakingly fine work, and I would wholeheartedly recommend it to every skeptic interested in such matters as hypnosis, MPD or the creation, maintenance and enactment of false beliefs in general.

It is my hope that this book will not only advance the argument concerning MPD but also stimulate a new generation of explanations of paranormal beliefs. The sociocognitive view is a powerful explanatory perspective, and it would be good to see it employed more widely by skeptical enquirers.

References.

Edwards, Paul. 1996. *Reincarnation: A Critical Examination*. Prometheus Books

Merskey, Harold. 1997. [book review]. *FMS Foundation Newsletter* 6(3): 14-15.

August Piper. Hoax and Reality: The Bizarre World of Multiple Personality Disorder. J. Aronson. 1997. £31.95. ISBN: 1-56821-854-0.

Perhaps because of temporary interference on the spirit telegraph, Spanos was unable to include in his book any material written after his death in 1994. August Piper, in contrast, has not been labouring under the disadvantages of incorporeality, and any readers with a particular interest in multiple personality disorder may wish to consider bringing themselves up to date with his new critique.

Mark Pendergrast. Victims of Memory: Incest Accusations and Shattered Lives. Revised edition. Harper Collins. 1996. £14.99. ISBN: 0-00-255684-7.

Contents: Forward/Introduction to the British Edition/The Memory Maze/How to Believe the Unbelievable/Multiple Personalities and Satanic Cults/The Therapists/The Survivors/The Accused/The Retractors/And A Little Child Shall Lead Them (And Be Led)/A Brief History: The Witch Craze, Reflex Arcs, and Freud's Legacy/Why Now?/Survivorship as Religion/Conclusions and Recommendations/Appendix: Myths and Realities

Massive new edition of a much praised book on recovered "memories" of child abuse. For a recent review, see Huston (1997).

References

Huston, Peter. 1997. *Victims of Therapy or Victims of Memory*. *Skeptical Inquirer* 21(1): 53-4

Lawrence A. Kuznar. Reclaiming a Scientific

Anthropology. AltaMira Press. 1997. £16.50. ISBN: 0-7619-9114-X

Contents: About the Author/Preface/Introduction/Anthropological Science/Science-Problems with Progress/Two Examples of Anthropological Science/Traditionalist Critiques of Anthropological Science/The Post-modern Vanguard: non-traditional Critics of Science/Elevating the Other-Looking Back Upon Ourselves: Post-modern and Critical Anthropology/The Mutable Past: Post-modern Archaeology/A Comparison of Challenges to Scientific Anthropology/The Case Against Crusading Anthropology/Where do We Go From Here? A Future for Scientific Anthropology.

"A strong advocate for anthropology as science, Lawrence Kuznar reviews the recent challenges to this way of thought from creationists and 'scientific' racists on one side, and postmodernists, Marxists and feminists on the other. Kuznar provides a brief review of anthropology and other fields on the science/humanism debate, as well as offering several important case examples from cultural anthropology and archaeology showing science in action." (From the cover)

Keith Windschuttle. The Killing of History: How a discipline is being Murdered by Literary Critics and Social Theorists. Revised Edition. Macleay. 1996. £22.99. ISBN: 0-646-26506-7.

Contents: Preface/Paris Labels and Designer Concepts/The Omnipotence of Signs/Bad Language and Theatrical Gestures/The Deconstruction of Imperial History/The Discourses of Michel Foucault/The Fall of Communism and the End of History/History as a Social Science/History as Literature/The Return of Tribalism

Windschuttle defends historical science against its post-modern foes. He bases his arguments on "cases where both genuine historians and the new theorists have both covered the same field" (from the book's jacket).

Paul Edwards. Reincarnation: A Critical Examination. Prometheus Books. 1996. £24.50. ISBN: 1-57392-005-3

Contents: Introduction/Reincarnation, Karma, and Competing Doctrines of Survival/The Moral Argument/The Law of Karma/Child Prodigies, Deja Vu Experiences, and Group Reincarnations/The Rise and Fall of Bridey Murphy/More Hypnotic Regressions and "Progressions"/Spontaneous Memories of Earlier Lives/The Conservation of Spiritual Energy/The Astral Body/Telephone Calls from the Dead, Birth Marks, and the *Modus Operandi* Problem/Dr. Kubler Ross, Dr. Moody, and the New Immortality Movement/The Fantasies of Dr. Kubler-Ross/Dr. Grof, LSD, and the Amorous Snake-Woman/The Population Problem and Other Commonsense and Scientific Objections/The "Interregnum": What Happens Between Lives? More about Dr. Ian Stevenson, the "Galileo of Reincarnation"/The Dependence of Consciousness on the Brain/Irreverent Postscript: God and the *Modus Operandi* Problem

According to the jacket, this is "The first comprehensive and systematic evaluation of reincarnation and Karma in any language". It is written by a professional philosopher with a sense of humour.

Kenneth L. Feder. 1996. Frauds, Myths and Mysteries: Science and Pseudoscience in Archaeology. Mayfield Publishing Company. 1996. £13.95. ISBN: 1-55934-523-3

Contents: Preface/Science and Pseudoscience/Epistemology: How You Know What You Know/The Goliath of New York: The Cardiff Giant/Dawson's Dawn Man: The Hoax at Piltdown/Who Discovered America/After the Indians, Before Columbus?/The Myth of the Moundbuilders/Lost: One Continent - Reward/Prehistoric E.T.: The Fantasy of Ancient Astronauts/Good Vibrations: Psychics, Dowzers, and Photo-Fields/Old Time Religion - New Age Harmonics/Real Mysteries of a Veritable Past

Expanded edition of a well-regarded, straightforward book by a CSICOP Fellow.

Ellen R. Klein. Feminism Under Fire. Prometheus Books. 1996. £28. ISBN: 1-57392-011-8.

Contents: Preface/Introduction: What is Feminist Philosophy/The Feminist Critique of Science/The Feminist Critique of Epistemology/The Relativism Question in Feminism/Feminism and Naturalism/Is Quine Right?/Feminism and Naturalism, Part 2/Pedagogy and University Politics: Getting Personal/Conclusion: Feminism Is Not Philosophy

This is claimed to be "the first systematic analysis of feminist epistemology, philosophy of science, and pedagogy". The author states in the preface that she "tried to write the book in such a way that would allow its reading by nonphilosophers..." (page 11). Unfortunately she has not entirely succeeded in this aim, and readers wholly new to academic philosophy may find the lengthy discussion of the epistemological theories of W.V. Quine that makes up chapters 4 and 5 somewhat hard going.

Brian P. Levack. The Witch-Hunt in Early Modern Europe. Second Edition. Longman. 1995. £15.99. ISBN: 0-582-08069-X.

Contents: Prefaces/Introduction/The Intellectual Foundations/The Legal Foundations/The Impact of the Reformation/The Social Context/The Dynamics of Witch-Hunting/The Chronology and Geography of Witch-Hunting/Decline and Survival/Biographical Note

References to the witch-hunts are not uncommon in the skeptical literature, but unfortunately such pronouncements are not always as well-founded as they might be. For anyone

interested in knowing more about the witch-hunts, this splendidly written introduction to current scholarly thinking is an ideal place to start.

Steven J. Dick. *The Biological Universe: The Twentieth-Century Extraterrestrial Life Debate and the Limits of Science*. Cambridge University Press. 1996. £40. ISBN: 0-521-34326-7

The *Scientific American* (February 1997, page 85) reviewed this book in the following terms:

"Steven J. Dick, a historian at the U.S. Naval Observatory, has written a sober, exhaustively researched analysis of popular and scientific attitudes towards alien life. He picks apart topics ranging from UFOs to the Search for Extraterrestrial Intelligence (SETI) to the ever shifting ideas on the origin of life. The book's measured tone sometimes verges on the comically deadpan, but its wealth of detail offers a welcome perspective above the current media din about life on Mars."

Harry E. Gove. *Relic, Icon or Hoax? Carbon Dating of the Turin Shroud*. Institute of Physics Publications. 1997. £19.50. ISBN: 0-7503-03980.

Minutely detailed account of the carbon dating of the Shroud of Turin by a scientist who was involved in the process of arranging for the testing to be done. Unlike many skeptics, the author considers the Shroud to be an icon and not a hoax. The reviewer in *Nature* had his reservations: see Hedges (1997).

References.

Hedges, Robert. 1997. Backcloth of Mystery. *Nature* 385: 310

Robyn M. Dawes. *House of Cards: Psychology and Psychotherapy Built on Myth*. Free Press. 1997. £12.99. ISBN: 0684830914.

Paperback edition of a book favourably reviewed in the *Skeptical Inquirer* (Lilienfeld 1995) and the (British) *Skeptic* (Jones 1996).

References.

Jones, Lewis. 1996. Houses of Myth. *Skeptic* 10(4): 22-23
Lilienfeld, Scott O. 1995. Arguing from a Vacuum. *Skeptical Inquirer* 19(1): 50-51

Iain K. Crombie. *The Pocket Guide to Critical*

Appraisal. BMJ Publishing Group. 1996. £8.95. ISBN: 0-7279-1099-X

"This practical handbook is designed to accompany researchers on every library visit, taking them step by step through the process of appraisal.

- * Introduces the rationale behind critical appraisal
- * Tackles the five main methods of medical research in detail: surveys, clinical trials, cohort studies, case control studies, review papers
- * Provides a comprehensive one page check list for each method to aid the reader in assessing the quality and relevance of a paper
- * Identifies the common pitfalls in publishing research

Written in a lively, jargon-free style, this accessible book arms the reader with all the knowledge needed to make sense of the overwhelming mass of medical literature". (From the publisher's advertisement)

Martin Gardner. *The Night is Large: Collected Essays 1938-1995*. Penguin. 1997. £12.99. ISBN: 0-140-263721

Martin Gardner probably requires no introduction. For a review of this particular collection of essays, see Dirda (1997).

References.

Dirda, Michael. 1997. A Mansion of a Book from a Sparkling Intellect. *Skeptical Inquirer* 20(6): 47-48

THE SKEPTIC INTERVIEW

Mark Gould.

An article of note should appear in the next issue of *The Skeptic*. The editor of this Journal Wayne Spencer will be interviewed by Toby Howard, co-editor of *The Skeptic*. The format will take a question and answer session with the aim of increasing our profile within the skeptical community and seeking new members. With twenty questions Wayne puts

an excellent case together for whom, what and why, we are what we are. Wayne was successful enough to recruit the co-editor himself to the Association. Next task the other co-editor.

FURTHER NOTICES

Michael Heap.

I have put an announcement for potential members of ASKE in the newsletter of the British Society of Experimental and Clinical Hypnosis. The Society, of which I am currently the Vice-Chairman, is mainly an organisation of psychologists, but it also includes medical and dental practitioners who have a practical and theoretical interest in hypnosis and are keen to promote a scientific understanding. I have also had a covert announcement (covert, because an explicit advertisement would cost money) published in the Psychologist.

RESPONSES TO MONTAGUE KEEN

Wayne Spencer.

To date, responses to Keen's (1997) attack on the skeptical movement have been written by Gordon Livesey, Michael Stanwick and Tony Youens. Any and all further critiques would be most welcome.

Keen, Montague. 1997. A Sceptical view of Psychology. Journal of the Society for Psychical Research: 61 (846): 289-303.

MINUTES

Tony Youens.

Minutes of steering committee meeting held on Friday 4th April 1997 at Sheffield University.

Those present:

Michael Heap Wayne Spencer

Tony Youens Anne Corden
Apologies for absence: Mark Gould

1. Steering committee. Confirmed that for now at least those in attendance and Mark Gould would continue to act as steering committee for the organization.

Anne Corden is to act as Secretary and Wayne Spencer was confirmed as Editor of the Newsletter.

2. Organization name. The name was confirmed as the **Association for Skeptical Enquiry** which will generally be shortened to ASKE. In the previous minutes this was reported incorrectly as being the Association of Skeptical Enquirers.

3. Constitution. Those present did not want limitless debate on the exact contents on the constitution, although all agreed on its importance. A working party consisting of Wayne and Anne will produce a draft constitution. Members of the organization will be given a chance to vote on this in the future. This will either be at the Annual General Meeting or by postal vote.

A brief discussion of the benefits of membership ensued. Namely these were:

Bi-monthly newsletter

Membership Card

Ability to contribute articles etc. to newsletter

A list of fellow members with their interests and areas of expertise.

4. Aims and Principles. Michael Heap had produced a list of seven principles and these were discussed and to some degree amended. There was concern that the organization should not be too narrowly defined as simply 'anti-paranormal/psychic'. Subjects such as medical fraud and holocaust revisionism were felt to be equally valid areas of interest.

Michael will re-issue the list with the agreed changes. This will be sent to existing members and

all future applications for membership.

5. Application form. Michael had produced a sample application form. This was discussed and various amendments were made. The statement '*..extraordinary claims require extraordinary evidence*' was dropped along with the drawing of the bent spoon. Members are invited to suggest ideas for a symbol to go on the front of the form. Alas Randi already has the flying pig.

6. Application form for those wishing to be included on a 'media list'. In those rare moments when those in the media wish to obtain a skeptical view of things we would like to be able to give them a list of names who are available to talk on TV or radio. Michael had designed a second application form for this purpose. However it was decided that those who feel they would like to do this should initially contact Tony Youens. To this end Tony would act as Media Secretary.

7. Membership Fee. It was agreed that any organization to function would need some form of income. A fee of £10 was decided on and this will become payable once the final version of the Application Form has been produced. The fee will be payable annually at a regular date (to be decided on). Those who join have way through the year will still need to pay the full £10. This has been adopted to ease administration.

As this will obviously mean that the Association will be receiving income Anne will first seek to clarify the tax position. It is hoped that eventually we can apply for charitable status.

8. Publicity. Once we are 'up and running' we will need to get publicity so as to encourage new members. In the first instance this will consist of:

Wayne to contact Toby Howard of *The Skeptic* to see if they can run an article.

We will write to *Skeptical Briefs* with a similar objective.

Wayne will contact *Magonia* a semi-skeptical UFO magazine.

Tony and Michael will talk to their respective university staff magazines.

Local radio/TV may be a future option once we can claim a reasonable membership. Again members are invited to offer suggestions for gaining further publicity.

9. Annual General Meeting. It is planned to hold this approximately 12 months from now. This is to allow time to see how things develop.

10. Newsletter. As already discussed this is will be a bi-monthly production. It is for all members to make use of, with articles, letters and comments etc. The current title is *Skeptical Intelligencer*, but Wayne said he was open to other suggestions.

Due to the difficulty in arranging meetings no date has yet been set for the next but it is hoped to happen within the next two months.

ODDS AND ENDS.

Mark Gould.

Gordon Livesey has made the suggestion that it would be interesting to hear from readers, which book first initiated their skeptical interest. Put pen to paper and let us know what worked for you. A list of the most influential and useful books will follow in a future issue.

WEB WATCH

Mark Gould.

Interesting sites to point your browser at this month:-

Thanks to Michael Stanwick for submitting most of the following links:-

<http://www.abarnett.demon.co.uk/main>

Very interesting site with super links, especially if you are an atheist.

<http://www.irowland.demon.co.uk/>

Ian Rowland has an interesting site, especially if you intend booking this talented human for your millennium celebrations.

<http://www.skeptics.com.au/>

An excellent, well constructed skeptics' site from the antipodes(Australia) - brash, informative and exciting.

<http://www.csicop.org/>

A good, basic site for links to the International Network of Skeptical Organisations. For those skeptics who do not subscribe to *Skeptical Inquirer* or *Skeptical Briefs*, this site provides access to the latest issues.

<http://wheel.dcn.davis.ca.us/~btcarrol/skeptic/dictcont.html>

The Skeptics Dictionary. Good, wide ranging and fairly comprehensive - but by no means complete - coverage of subjects most commonly encountered by skeptics on their travels through the realms of unreason.

<http://hugin.imat.com/~sheaffer/>

More skeptical positions plus resources and links.

<http://bcn.boulder.co.us/community/rms/> Rocky Mountain Skeptics site. Position on Therapeutic Touch plus updates and more links.

<http://www/cse.ucsd.edu/users/dnoelle/sdari/>

More links to other Skeptic sites to be found here.

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

Skeptic Society site - producers of *American Skeptic*. Very good links to other sites plus book offers etc.

Finally from the James Randi hotline.....

I'LL BET MR. GELLER IS ANNOYED....

James Randi

You may remember the former psychic superstar, Uri Geller. Well, just as we were losing memory of him here in the USA, a major TV special aired that referred to him as a "con man," and showed—quite clearly -- what I have always supported as the probable modus operandi of the spoon-bending miracle as performed by Mr. Geller. Unless, that is, he really does it by supernatural means, as he has so often claimed. One wonders what Mr. Geller thinks of this latest commentary on his claims.

Simultaneously with this item, there arrived on my screen a notice that this last weekend (26th April) one of the UK football teams, Chester City, played Exeter. Chester were clear favourites to win, so Exeter, I'm told, contacted Geller for some magical help. Ever eager to show his wondrous powers, he sent them some crystals which, if placed behind the goals, he felt would prevent Chester from scoring. At half-time it seemed that Geller's charm just might be working, with Exeter holding a 1:0 lead. What then went

wrong with the spell is unknown, but by full-time Chester had overcome this baleful crystalline influence and stormed on to a 5:1 victory, which, I'm told, is an incredibly high score in football. An explanation has not yet been forthcoming from the spell-caster, but you can be assured that it will be interesting!

Those of you who remember Geller at all may recall that he was once working his wonders with the Reading football club; they promptly went to the bottom of the league and stayed there.

I've often said that if a physician were in business for 25 years, and every one of his patients died, it might be time for him/her to consider a different line of work.....

Brief Notes

Mark Gould

A brief note on the compilation of this Journal. Several changes are planned in the near future, however if you have any suggestions they would be most welcome, as would any clip art that we could use. Thanks to Dave Rogers for the art already sent.

Stop Press,

Stanley Jeffers has had to cancel his visit to the UK. This means of course that his expected talk on the 29 June is cancelled. However, Wayne Spencer, will take his place at Conway Hall, 25 Red Lion Square, London, WC1. On the same day at 3pm. The talk is free, and the title is 'Written in the Stars? The History and Psychology of Western Astrology'.

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