

occurrences to be perfectly genuine after all!

6. When a witness catches a sensitive in the act of cheating, this often is because (a) the witness secretly wanted the sensitive to cheat and indirectly induced the cheating; (b) the witness is incompetent and his laxity actually encouraged the sensitive to take the easy road of cheating rather than the difficult path of producing genuine phenomena. (This charge was not only brought out against the scientists who caught Palladino in trickery, but it was also leveled against me because I allowed Uri Geller to employ trickery when I was investigating him. The implication is that if I was a good investigator, Geller would have not had the opportunity to cheat and would have been forced to display his genuine powers.)

7. A magician or critic who demonstrates that he or she can simulate, through trickery, an apparently paranormal feat (a) may actually be a renegade psychic who is not employing trickery but merely claiming to be using trickery (such charges were leveled at one time or another in all sincerity against Davey, Houdini, Maskelyne, Randi, and, recently, against myself); (b) further emphasizes the reality of the original paranormal event, because one can simulate or counterfeit only that which is real; (c) cannot do so under the "same" conditions as those under which the alleged "real" phenomenon occurred (whatever these "same" conditions were, it turns out that the "psychic" also cannot duplicate his or her own feats under these "same" conditions).

8. Because of the nature of paranormal phenomena, strict scientific controls are often inappropriate and self-defeating.

9. Truly paranormal powers and strong tendencies to cheat often occur together within the same individuals. In the case of poltergeists, we are told that the adolescent around whom the phenomena originally occur eventually learns to imitate the genuine phenomena through trickery.

10. If a sensitive has not been detected in cheating over several demonstrations, then the phenomena must be genuine. Richet stated as a rule that a medium who cheats could get away with it for a maximum of two years at the most. •

Proceedings of the 1976 CUFOS Conference. Center for UFO Studies, 1609 Sherman Ave., Evanston, Illinois 60201. 320 pp. Paperback, \$15.

Reviewed by Robert Sheaffer

"A secret UFO conference," charged the critics of the Center for UFO Studies, when word of this by-invitation-only symposium began to leak out. "The heads of the major UFO organizations were left out . . . How can I find out what goes on in there?" asked one writer in exasperation. The proceedings of the 1976 CUFOS Conference are secret no longer, and anyone who is willing to shell out \$15 for a paperback book can now obtain a copy of the papers presented at that highly controversial meeting. What went on behind those closed doors?

A great deal of new material was presented. Unfortunately, not all of it is good. A "mixed bag" is the most generous description one can give of this uneven collection. A few papers are excellent. A few others should have been laughed out

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of the hall. Let's peek inside the "secret" conference.

Dr. Richard F. Haines, a specialist in physiological optics, presented a detailed analysis of the way the human eye perceives a very bright object. This is, of course, an extremely important subject for UFO investigators to be aware of, because in a great many UFO reports the witness attempts to describe a brilliant light. This paper is highly technical, but the level of complexity is entirely appropriate to the subject at hand.

UFO investigators will find a wealth of new material in Dr. Haines's paper, as well as some valuable investigative insights: "If [a witness] cannot remember the presence of any afterimage when the viewing conditions were likely to have produced one, caution should be exercised in making further interpretation of the witness sighting report."

Equally technical is the paper by Mario DeSario and Jeffrey Kretsch, students at Southern Illinois University in Carbondale, concerning the mobile UFO Study Van that they soon hope to have operational. A very impressive paper. Linear dispersions of diffraction grating optical systems, expressed in Angstroms/Millimeter. A detailed analysis of the mathematical principles of a magnetometer. The derivative with respect to time of the double integral of $B \cos \theta$ over d -radius d -phi. Impressive as can be. Too bad it's nothing but eyewash.

Is it really necessary to dazzle the audience with differential calculus just to tell them that you hope to detect a UFO's magnetic field? If anyone out there wants to know how a magnetometer works, he can look it up in the same engineering textbook in which these SIU students found it. The highly technical razzle-dazzle serves no purpose here. It's as out of place as it would be if, announcing that I plan to buy a tape deck for my car, I suddenly launched into a quantum-mechanics discussion of the electron interchanges in the semiconductor crystals inside its circuits. It would appear that many UFO enthusiasts somehow think that the difference between a scientific paper and an unscientific one is that the scientific paper is filled with equations, any equations, from beginning to end.

Piling all those equations, graphs, charts, and calculations into a truck, and some useful equipment as well, DeSario and Kretsch hope eventually to meet up with a UFO, and "catch" it electronically. Lots of luck, fellows.

Another paper on instrumented UFO research, this one not at all pretentious, was presented by Ray Stanford, director of Project Starlight International (PSI). Stanford gave a fine talk on his group's determined efforts to obtain *hard data* on UFOs—something that no one has yet succeeded in doing.

PSI operates a highly sophisticated *fixed* observing station for UFOs, complete with telescopes, lasers, TV monitors, cameras, computers, and a barrage of other electronic devices. They seem to have everything they could wish for ... except UFOs. They thought they had one once. PSI triumphantly published a photograph that appeared to show the trail of a zig-zagging object that suddenly made an extraordinary right-angle turn. CSICP UFO Subcommittee member James Oberg looked into the matter and discovered that you could take an identical photograph of an earth satellite, provided that you bumped the camera. Stanford sadly agreed.

If a booby prize were to be awarded for the worst paper of the conference, the honor would have to go to Don Worley, industrial pattern-maker and UFO celebrity, for his findings on "UFO-Related Anthropoids." These are giant, hairy metaphysical apes ("King Kong Juniors," he fondly calls them) that tend to show

themselves predominantly to people who frequently report UFOs. Worley's apes, which can appear in full daylight and are sometimes transparent, are said to return often to the location of prior sightings and seem to have a positively uncanny ability to avoid being photographed. These hairy monsters, which Worley cautions against confusing with Yeti, Bigfoot, or similar mundane creatures, are said to exhibit "psychic" and "paraphysical" characteristics (they can "dematerialize" as if by magic), and they have reportedly been linked with UFO sightings in no less than nineteen instances. Here is a sample of one of Worley's ape reports, quoted in its entirety:

Derry, Pennsylvania: UFO link, Return

A farm was haunted by giant ape-like creatures when UFOs were seen in the sky.

I certainly am glad that Dr. Hynek has founded a *scientific* UFO Center, because I was getting fed up with all those *unscientific* groups out there, the kind that keep feeding us unsubstantiated reports from unnamed repeaters, while tying them in with "haunted" places and hairy ape-monsters. If CUFOS is a *scientific* UFO group, I'd hate to see the papers presented at the meetings of the unscientific ones! The Center for UFO Studies, like all groups, must be judged by what it swallows. Having swallowed Worley's tales with no apparent difficulty, they're about ready for sightings of the Tooth Fairy.

Skimming briefly through a few other papers:

Dr. F. Winterberg, theoretical physicist, presented some interesting speculations on how it *might* be possible to accelerate a spacecraft to nearly the velocity of light using very little energy (instead of the impossibly large amounts dictated by the theory of relativity), *if* there exist such things as particles of *negative mass* and if it is possible to somehow interleave them with the atoms of ordinary matter. He admits to a few sticky problems, such as the fact that nobody has yet proved that particles of negative mass exist, that they seem incompatible with relativity, that we don't know whether they contradict other areas in physics, and that these particles (negatons?) would even have to permeate the bodies of UFO passengers.

Dr. Bruce Maccabee, physicist, and Mr. William Spaulding, director of Ground Saucer Watch (GSW), each presented papers on the famous McMinnville UFO photographs of 1950, arguing that the object appears to be at a considerable distance from the camera and hence is an authentic UFO. Dr. Maccabee bases his conclusions on painstaking photometric measurements of the original negatives. His readings might, however, be interpreted in two ways: the object is huge and distant, or it is small, nearby, and either translucent or illuminated by daylight fill-in flash (which implies that it is a hoax). It is impossible to say which.

Mr. Spaulding says that his computer analysis of the photos reveals edge irregularities on the object, which is interpreted to mean that it is large and distant. Unfortunately, it is not that simple, because a few nearby wires also show irregular edges, while a distant tree and hill show edges that are perfectly straight. Also, his discussion of the photographic effect called "veiling glare"—very prominent in these photos—is not at all correct. How does this error affect GSW's analysis? A great deal more work needs to be done on these photos.

Ms. Anne Druffel, social worker, tells of "cloud-cigar" UFOs, which are said to appear repeatedly over the Santa Catalina Channel in California, near a place called Los Angeles. Unfortunately, they seem to be observed only by local UFO

buffs, and although they hover in place for an hour or more, sometimes in broad daylight, nobody ever seems to photograph them. Alas.

Three French scientists present their explanation for UFO propulsion systems: magnetohydrodynamics. Sounds terrific! Since this paper is crammed with mathematics from start to finish, its scientific merit must be overwhelming. However, the technically proficient reader, upon penetrating the jargon, will discover that this is a highly novel, highly speculative *aircraft* design. It is of no use whatever for spaceships. We might just as well try to fly to Zeta Reticuli on the Concorde.

The most scientific paper of them all, because he uses far more equations than anyone else, is the one by physicist James McCampbell. His not-too-surprising thesis is that microwave radiation in gargantuan doses, if focused *precisely* on the filament of an automobile headlight, *might* cause the headlight to dim or go out (an effect sometimes attributed to UFOs). McCampbell backs up his idea with 16 pages of mathematics. This is an invaluable analysis that should be studied carefully by every headlight designer. It has nothing whatever to do with UFOs.

Just as significant as the papers presented at this conference are those that were left out. Exactly how were the participants selected? Plainly the *quality* of the research was not a significant factor, because several of the papers are abysmally bad. One fact, however, clearly stands out: *all of these authors more or less agree with Hynek's ideas about UFOs*. Papers that are generally skeptical about UFOs, or even those that shoot down faulty UFO cases, are *not* represented here. Is this a *scientific* attitude? How can an organization call itself "scientific" if it encourages low-quality research, such as the papers by Worley and Druffel, *yet pretends that the often excellent work of UFO skeptics doesn't even exist*? No one associated with the CSICP was felt to have done any research worth presenting. Can it be that CUFOS feels threatened by dangerous, unwelcome new ideas (the same accusation they often hurl at the scientific establishment)? It appears that, like the Church in the Middle Ages, the Center for UFO Studies values orthodoxy very highly. •

Where Is Noah's Ark? By Lloyd R. Bailey. Festival Books, Nashville, 1978. 128 pp. Paper, \$1.95.

Reviewed by Robert A. Moore

Since 1970, at least eleven books, innumerable articles, and three films, one a box-office bestseller, have appeared discussing a mysterious object located in a remote section of Turkey and the efforts to locate it and study it. Quite a number of people have reported sighting the structure, several indistinct and unconvincing photographs of it have been published, and a few fragments of wood from the "landing site" have been recovered. It has spawned a new pseudoscience, "arkeol-

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