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'Science is the Pursuit of the Unexplained'

Fall 1980 Journal of
The Society for the
Investigation of
The Unexplained



Portrait of a Pre-Columbian American

But where did he come from and how did he get here?

Volume 13
Number 4
Whole 52

THE SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

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THE QUARTERLY JOURNAL OF THE

Pursuit®

SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

'SCIENCE IS THE PURSUIT OF THE UNEXPLAINED'

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THE STRENGTH OF SITU and the power of its *Pursuit* derive from a high quality of loyalty among our member-subscribers that the passage of 15 years since our founding seems only to have enhanced.

What this means, in a practical sense, was happily demonstrated last spring when member Robert Wall sent us the manuscript of an article and a covering letter written in Moscow by an author not previously known to us.

The article begins on page 140. But before you turn to it, please read the letter:

DMITRI BAYANOV
Darwin Museum, Moscow, 119 435 U.S.S.R.

April 29, 1980

To Editors of *Pursuit*
the journal of the Society for the
Investigation of the Unexplained

Dear Sirs,

I happen to be, what we call, a hominologist, that is one who is looking into the yet unexplained business of Sasquatch, Bigfoot, Yeti, Kaptar, Almasti, etc. I did not have occasion to meet your founding father and veteran hominologist, the late Ivan Sanderson, but I had the pleasure of talking to him on the phone, calling from Moscow to New York, when in the fall of 1967 Prof. B. Porshnev and I discussed with him the details and implications of Patterson's Bigfoot film.

The reason I'm writing you is as follows. I've written some pages of criticism concerning John Green's volume "Sasquatch" and asked my friend and fellow-hominologist Robert Wall of Seattle for advice as to where I can offer these pages for publication. He suggests as the first choice your magazine, which was also recommended by my colleague Dr. Vladimir Markotic who is on your editorial board. I'm therefore asking Robert Wall to forward my paper, along with this letter, to your address and wish you would consider my rebuttal to Green for an early, if possible, publication in *Pursuit*.

With sincere regards and gratitude,

Dmitri Bayanov

Chairman
Hominoid Research Seminar
Darwin Museum.

Welcome, Mr. Bayanov! And very many thanks to Robert Wall and to Dr. Vladimir Markotic.

Science in Conflict

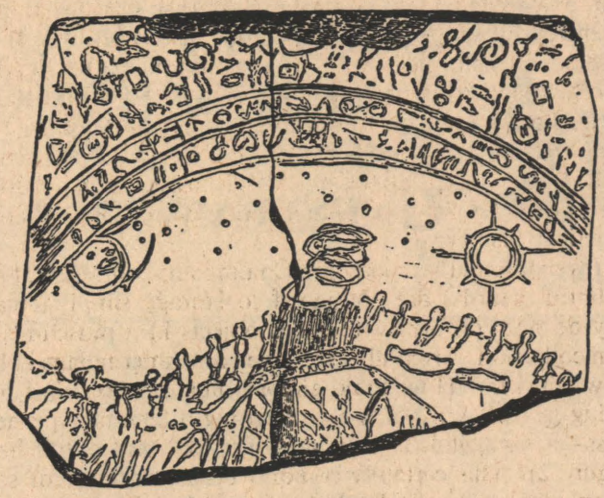


Figure 1. The Davenport Calendar Stone. (From "The Mound-Builders and the Mastodon" by S. D. Peet)



Figure 2. Pre-Columbian incense burner, from Maya zone at Iximche, near Chimaltenango, Guatemala. (In Musæ de L'Homme, Museum Nationale d'Histoire Naturelle, Paris)

by Diane E. Wirth

WHERE did the American Indian originally come from, and who "discovered" America?

Most grade-school students will be able to give you the answers to these questions in accordance with what they have been taught. But do our school textbooks contain accurate information on the subject? Many scholars are saying "No!" and feel it is time for the academic world to reexamine the peopling of the American continents in light of accumulating evidence that contradicts established theories. Let's look back to the times when these theories developed.

American anthropology was in its infancy in the nineteenth century. It was a time when scholars indulged in enthusiastic speculations on the origin of the American Indian. As early as 1590 the Bering Strait had been considered a possible route used by the Mongolians as a land bridge, paving their way to the Americas. (This traditional view is widely held today.) By 1610 several researchers had advanced the thesis that the American Indian was ethnologically related to the Ten Lost Tribes of Israel. Soon thereafter notions of ancient sea voyages from various parts of the Old World to the New World were being bandied about by the scholars of the day.

Over the years the Bering Strait theory gained wide acceptance, and by the nineteenth century those who supported such "wild theories" as inter-hemispheric contacts were being criticized by their colleagues. The fracas produced at least one human tragedy: Lord Kingsborough spent a lifetime of exhaustive work trying to prove a Semitic presence in ancient America, only to die in a debtors' prison because he couldn't pay for the paper and printing of his massive nine-volume work, *Antiquities of Mexico.*[1]

The investigations of Kingsborough and others of his era gave birth to a new and bold concept, and today archeological evidence of ocean voyages to the Americas in ancient times gains strength with each new discovery—but will the world of academic learning listen to the supporters of the theory of diffusion?

Imagine, if you will, the following scenario. The setting is Europe during the Dark Ages. A young explorer, with a new and unpopular theory, believes there is a great land mass across the sea. As he stands before a jury of scientists, the foreman begins to address the upstart.

> "Can you honestly stand there and tell us, a body of educated scientists, that you are right and we are wrong? Good heavens, fellow, we've studied these things for years. These are modern, civilized times, and you want to upset the verdict of history? If you continue to profess such ridiculous theories you will be ostracized by every body of learned men whose opinions are highly regarded and accepted, and your theories, my friend, will eventually be driven underground by our rebuttals. No one will listen to you. Everyone knows our word is law."

Subsequently, we are told, the young man of vision went to work in a sawmill.

We don't live in the Dark Ages. We live in a time of invention, freedom of speculation and, supposedly, a time of open-mindedness. Yet many who support the theory of cultural contacts between the East and West as a result of ancient sea voyages find their support eroded by the undertow of "established" opinion. A number of serious, well-researched manuscripts have been rejected by publishers because the subject matter was considered "unmarketable."

Some scholars who endorse the theory of diffusion have been fortunate enough to find publishers willing to take a chance on an unpopular concept, but such authors eventually get their full share of criticism (and derision) from the academic world. A case in point is the highly acclaimed and equally criticized work of Barry Fell, a professor at Harvard who claims to be an expert in deciphering ancient scripts. A rebuttal of his findings concerning the Davenport Calendar Stone is typical. The stone, inscribed with unusual characters, was found in Davenport, Iowa, by an amateur archeologist in 1874. In his book *America B.C.*[2] Dr. Fell set forth his conclusions that the stone (Figure 1) is inscribed in three languages: Egyptian hieroglyphics, Punic-Iberian, and Libyan.

Marshall McKusick quickly came forward to destroy Fell's interpretation. In his article "The Davenport Stone" published in *Early Man*[3], McKusick explained that although many people accepted the stone as authentic, the Smithsonian



Figure 3. Author's synoptic drawing of photograph reproduced on cover. The photograph, by Wide World Photos, shows a pre-Columbian carving from Campeche, Yucatan Peninsula; originally reproduced with Fig. 2 in Ms. Wirth's *Discoveries of the Truth*.

Institution had concluded that European mound-builder theories were "just fanciful speculations."

McKusick then stated his position on why he felt the stone was a hoax, but he never bothered to explain how someone in the nineteenth century had the knowledge to write a script that epigraphists of the time were unable to recognize. It is only in recent years that Punic-Iberian has been deciphered. How could anyone in 1874 have written in a script that supposedly didn't exist?

Researchers not as fortunate as Barry Fell (who did find a publisher) have chosen to reach the public whether the public asked to hear them or not. Years earlier none other than Benjamin Franklin found himself in the predicament of having much to say but no one willing to help him say it. He was a man of ideas, new concepts and theories that were not readily accepted by his peers. The Royal Society in London laughed to scorn his paper suggesting that lightning is a form of electricity. Undaunted, he set forth to find a means whereby he could publish his works. In company with a few sympathetic friends he founded the American Philosophical Society in order to publish the "unpublishable" papers that he and other American colonials were writing.

We have some adventurous and dedicated people today who have had to reach the public in ways that were simply the best available to them. Dr. Henriette Mertz's manuscript on Atlantis was repeatedly rejected by publishers because of pressure exerted by members of the academic community. What did she do? She chose to privately publish her own book.[4] I do not propose that her theory on the location of Atlantis is a valid one, but when a researcher brings to light evidence that has been overlooked in scholarly circles the information should not be placed in limbo merely for want of a "reasonable explanation" according to "known facts." As surely as if it were introduced in a court of law, new evidence brought into the arena of public knowledge should be presented, examined and weighed carefully in order to determine whether a conviction should stand, be modified, or be dismissed.

Dr. Mertz's work deals with the theory of diffusion, or transoceanic voyages to and from the Americas in ancient times. She described such unusual and important pre-Columbian objects as a fourteen-foot-high obelisk discovered in the seventeenth century near Huntingdon, Pennsylvania. It was covered on four sides with what appeared to be Egyptian hieroglyphics. Although the object is several times mentioned in the state's archives, it is ignored by scholars today. Anything that supports the theory of Old World peoples settling in the New World is all too quickly dismissed when it is found not to coincide with the established and accepted pattern of American history.

It is shameful that many pre-Columbian sculptures, of men with full beards, are consigned to storage simply because they do not conform with other objects in a museum's Indian collection. After all, since when are Amerindians able to grow whiskers? How could anyone thus account for a piece dating to 600 A.D. of a man wearing a Semitic-type headdress—a man with a large aquiline nose and a full beard (Figure 2)? This certainly couldn't be the ancestor of some Asian who came over the Bering Strait! So why don't we just not discuss it—better yet, why don't we shelve it?

Unfortunately it seems to be the attitude of many scholars to adhere blindly to the Bering Strait theory as the one and only route whereby Asians, and only Asians, originally populated the Western Hemisphere.

As for that unquestionably pre-Columbian carving from the Yucatan Peninsula, of a bearded man wearing a reed boat for a headdress and an ear spool with the Star of David partially visible on the water, encircled by what appears to be a nautical rope—well, that simply must be a coincidence, or is it?[6] (Figure 3)

Perhaps we need to take a closer look at unexplained pre-Columbian artifacts. In his article "The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica"[7] Dr. John Sorenson lists hundreds of similarities between the New World and the ancient Near East. Other scholars have noted over five hundred pre-Columbian inscriptions on the North American continent, many of the scripts appearing to have identifiable roots in the Old World. With the passing of time, many more will be unearthed as archeological expeditions continue their research. Will we watch and listen, or will we close our eyes?

REFERENCES

1. Kingsborough, Edward King, Lord, *Antiquities of Mexico* (9 vols., London) 1830-1848.
2. Fell, Barry, *America B.C.*, Quadrangle/The New York Times Book Co., Inc., Three Park Ave., New York, N.Y. 10016 (1976)
3. McKusick, Marshall, "The Davenport Stone: A Hoax Unravelled," *Early Man,* published by Northwestern Archeology, Spring 1979, pp. 9-12.
4. Mertz, Henriette, *Atlantis,* Box 207—Loop Station, Chicago, IL 60690 (1976).
5. Wirth, Diane E., *Discoveries of the Truth,* P. O. Box 945, Danville, CA 94526 (1978) p. 70.
6. Ibid., p. 75.
7. Sorenson, John L., "The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica," in Carroll Riley, et. al., eds., *Man Across the Sea,* Austin: University of Texas Press, 1971, pp. 219-265.

Why It Is Not Right To Kill A Gentle Giant

A Rebuttal to John Green's Conclusion in *Sasquatch*

by Dmitri Bayanov
Chairman, Hominoid Research Seminar
Darwin Museum, Moscow

HAVING READ half of Green's 1978 volume* plus its last chapter, I sent him the following message of acknowledgement: "It seems to be an admirably good book with a notoriously bad ending." My opinion did not change after I read the whole thing.

Why the book is good is clear to any reader interested in the subject: It is the most complete and detailed presentation of Sasquatch sighting-reports in North America to date. It is as if the author had opened his files for everybody to see and learn. Great many thanks to him for that, from Sasquatch-lovers all over the world!

Not so, alas, with the concluding chapter of the book. It is *bad,* not only because of its bad treatment of Sasquatches but also because it is evasive and unfair in the treatment of truth. For this very reason the quality of the last chapter is not apparent to the reader; hence my protest.

On page 150 Green says that "Dmitri Bayanov and I have engaged in a protracted debate by mail in which he contends that no 'Homi' as he calls them should ever be killed." Yet in the space of 492 pages of his book and in its last chapter specially devoted to the question, Green never cites or answers a single argument of mine from that "protracted debate" of ours. Love's labor lost.

Instead of citing my arguments and dealing with them, John Green cites his pessimism regarding the future of mankind, as if saying: Personally I have no grudge against Sasquatch, but why bother about good treatment of animals if mankind itself is going down the drain? To wit: "In my opinion our species is a blight that the world would have been better off without. Had we realized a century or two ago that we were becoming too numerous, and had we been able to halt human multiplication, everywhere, man might have been the crowning glory of the planet. With his present numbers and continued growth, man can only be considered as a cancer that is destroying the planet." (p. 461)

My answer to that is that mankind's plight has something to do with its ill-treatment of living creatures. To my mind the quality of life depends first and foremost on the quality of man's social behavior, and only in second place on the quantity of population. I'd rather live in a country densely populated with decent people than sparsely with thugs.

The main and immediate problem for mankind is not its numbers but the lack of an ethical balance between the rational and the emotional, between the brain and the heart in man's behavior and institutions.

The trouble with Hitler was not that his policy increased the world's population. It did the opposite. The trouble with Hitler was that he stopped at nothing to achieve his aims. And as far as science is concerned, the trouble is not that there are too many scientists in the world, but that more than half of them are engaged in the arms business, i.e. devote their time and talent, at the taxpayer's expense, to devising ways of destroying life instead of improving it.

But why such generalizations? Why make a fuss over the fate of Sasquatches? Is our research really of so much consequence? Fortunately, in this respect Green makes no mistake: "This is not a game or a fantasy, it is a question of serious scientific research of tremendous importance. It may not have the glamour of moon shots, but in what it can teach us about our origins and our physical potential it may be even more important." (*The Sasquatch File,* p. 70)

On that we agree, so let us return to what is at issue here. It was with great relief and approbation that I learned from Green that "public objection to the killing of any of the great apes for research purposes has risen to the point where projects involving it are not approved, even though there are sufficient animals available." (p. 463) Yet when it comes to Sasquatches, the author is adamant: "Should they be hunted for scientific purposes? Definitely yes . . . They will have to be studied, and study will have to include dissection. . . . Sasquatches are not available for study without killing them." (pp. 462, 463)

If there is a public objection to the killing of the great apes, why wouldn't, or shouldn't, there be to the killing of Sasquatches? Green gives no answer, or, at least, the answer is not to be easily grasped. What he clearly says is that "To give special treatment to one type of animal because it reminds us of ourselves obviously reflects concern for ourselves, not for animals." (p. 462) Does it follow from this that by killing a man-like creature we display our unselfishness? It is obvious that special treatment of man-like animals reflects concern both for ourselves and for that type of animal.

Why is public opinion in favor of special treatment in such cases? Green seeks rational reasons and, to his great satisfaction, finds none. And no wonder, because the reasons are emotional. But does that invalidate them? Much of my protracted argument with Green centered just on this question. Back in 1975 I wrote him that "the emotional is an integral part of human nature, just as natural and legitimate as the rational. If we had no emotions we'd be computers, not people. A wise policy in any endeavor is not to reject emotions but to understand their workings so as to strike a balance between the rational and the emotional. . . . Man can't be a 'really unbiased' judge in the matters of life and death. Being himself alive and human he can't help being impartial towards anything which is alive and intelligent, or at least looks "man-like". . . To show that the above is not all my invention let me back up my stand by citing no less an authority

* *Sasquatch: The Apes Among Us.*

than Konrad Lorenz who, in his book *On Aggression* in the chapter "On the Virtue of Scientific Humility," says the following:

> The scientist who considers himself absolutely "objective" and believes that he can free himself from the compulsion of the "merely" subjective should try—only in imagination, of course—to kill in succession a lettuce, a fly, a frog, a guinea-pig, a cat, a dog, and finally a chimpanzee. He will then be aware how increasingly difficult murder becomes as the victim's level of organization rises. The degree of inhibition against killing each of these beings is a very precise measure for the considerably different values that we cannot help attributing to lower and higher forms of life. To any man who finds it equally easy to chop up a live dog and a live lettuce I would recommend suicide at his earliest convenience." (pp. 194-5)

After reading all that in 1975, Green still continued asking in 1978: "People kill other animals, so what are the grounds for treating this one differently?" (*The Vancouver Sun,* issue of May 15, 1978) Still I am grateful to him for citing in *Sasquatch* such examples of eyewitness reports of the animal, which he proposes to treat no better than frogs, as this one:

"It was half-ape and half-man. I've been reading up on the abominable snowman since then and from articles you get the idea that these things are more like gorillas. This thing was not like that at all. It had hair all over the body as if it was an ape. Yet the face was definitely human. It was more like a hairy human." (p. 194)

In an appeal to the would-be participants in the Sasquatch conference in Vancouver I wrote in December 1977: "Modern *Homo sapiens* represents and symbolizes the achievements and failures of civilization. Modern *Homo troglodytes* represents and symbolizes the top achievement and subsequent retreat of nature. Now for the first time in history the two species are going to meet in the limelight of science. Let us make this meeting a happy one for both. Let it be on the credit side of civilization."

Green, however, sees no alternative to a *bloody* meeting. "To begin with, one (Sasquatch —D.B.) must be presented to the scientists in the flesh in order to establish that such a creature exists at all." (p. 462) Then, "sasquatches are not available for study without killing them." (p. 463)

Let me remind Green that nowadays it is perfectly feasible to establish the existence of life forms without presenting them in the flesh to the scientists. Millions of dollars have been spent on the search for the minutest signs of life on Mars by such a proxy method. Surely a tiny fraction of that sum would suffice to establish beyond any doubt the existence of a creature the size of a Bigfoot here on earth. And why must anybody bring a Sasquatch in the flesh to a scientist in an armchair? It is the scientist who must be brought in the flesh to the mountains to meet and study Sasquatches in their habitat without so much as disturbing them.

Jane Goodall and George Schaller have set an example of this kind in the treatment of higher primates in the wild, and it is the business of those who know what's what in our research to persuade the scientific community to start moving in that direction. Of course, it is easier to bestir the "trigger-happy types" than the scientists, but the easy way is not necessarily the right way.

Since I relied on the reputation of Jane Goodall to argue my point (see *The Scientist Looks at the Sasquatch,* p. 152) Green decided to deprive me of that advantage by citing Goodall to support his own case (*Sasquatch,* p. 466). I corresponded with Jane Goodall and asked her what she thought of Green's stratagem and our controversy. She replied from Dar-es-Salaam, Tanzania, on August 22, 1978:

> Dear Dmitri Bayanov,
>
> Very many thanks for your letter of 11 July. I am answering it more quickly than usual because of the questions in it. Most particularly the one about the killing of a Sasquatch—or any other form of ape-like or human-like creature. I deeply deplore the killing of animals for museums. I loathe to see a stuffed chimp or gorilla—or monkey—or lion and so on. A photograph is just as good. A film is better. . . . Nor do I look back kindly on what I wrote, which John Green has been able to use to his own ends. I no longer agree with what I said then—I don't think it is at all justifiable to use chimpanzees to find out about a disease which people would not get if they did not eat one another! When I included this (as the book was going to press) I was trying to find out something really useful which scientists had learned from chimps. Something which really would alleviate human suffering. The kuru was a bad example, and got into the final book before I had thought about it properly. . . . Anyway—to shoot a creature just to see what it is—well, that is even worse. Most undesriable ethically—and the mark of a poor researcher."

I wish all of us could be as magnanimous and uninhibited as Jane Goodall in admitting a mistake.

Now let's look at the matter from a different plane. Let us imagine that during one of his lectures on the "rightness" of killing a Sasquatch John Green could tune in on an exchange of opinions between two UFOnauts invisibly hovering in the auditorium.

"You know, mate," says one to the other, "back home on our planet they never believe the existence of such bloodthirsty creatures in the universe. Let's vibrocute this one and dispatch his body or part of it to our learned skeptics."

"But that would be murder!" gasped the other.

"I don't think so," continued the first. "Take a good look at him and be rational. Is he really like us? His body is not transparent; he cannot levitate; he doesn't speak the Milky Way lingo; his brain doesn't work on neutrino energy . . ."

I wonder what message Green's brain would send back to his would-be executioner. Perhaps this: "Hey there, just let me *see* a killed Sasquatch and then do with me whatever you like!"

REFERENCES

Austin, Edie and Tim Padmore
1978 Sasquatch: The Skeptics Want Corpse. *The Vancouver Sun,* May 15, p. A6.

Bayanov, Dmitri
1977 *The Scientist Looks at the Sasquatch,* Moscow: The University Press of Idaho, p. 152.

Green, John
1973 *The Sasquatch File.* Agassiz: Cheam Publishing Ltd., p. 70
1978 *Sasquatch: The Apes Among Us.* Seattle: Hancock House.

Lorenz, Konrad
1969 *On Agression.* London: Methuen & Co. Ltd. pp. 194-5.

Jane Goodall's letter quoted by permission.



野人

'Wild Man'—Fact or Fiction?



Shennongjia, where "wild men" have been reported.

LI DELU

Reprinted by permission from *China Reconstructs,* English-language monthly published in Peking by the China Welfare Institute.

by Yuan Zhenxin and Huang Wanpo

AT 1 a.m. on May 14, 1976 six cadres from the Shennongjia forestry region in Hubei province were driving along the highway near Chunshuya village between Fangxian county and Shennongjia, when they came upon a strange, tailless creature with reddish fur. The driver kept his headlights on the creature while the others went forward to investigate. They got a good look at it from a distance of a few feet before it walked away. It was neither a bear nor any other animal they had ever seen before. A telegram reporting the incident was sent to the Institute of Paleoanthropology and Vertebrate Paleontology of the Chinese Academy of Sciences.

This was not the first time such a thing had been heard of. Down through the centuries Chinese literary works and folk legends had told of big, hairy man-like creatures that walked erect on two legs, frequenting the vast forests of the Qinling-Bashan-Shennongjia mountain region in central China. Two thousand years ago during the Warring States period, Qu Yuan (340-278 B.C.) the statesman-poet of the State of Chu, referred in his verses to "mountain ogres." Qu Yuan's home was just south of Shennongjia, in what is today's Zigui county in Hubei province. The Tang dynasty (A.D. 618-907) historian Li Yanshou in his *Southern History* describes a band of "hairy men" in the region that is today Jiangling county, also in Hubei province. The Qing dynasty poet Yuan Mei (1716-1798) in his *New Rhythms* tells of the existence of a creature "monkey-like, yet not a monkey" in southeastern Shaanxi province's Xianning county.

More recent accounts include the one by Wang Zelin, a former biology student now living in Xuzhou, Jiangsu province. He claims to have seen an unknown creature, shot by hunters, while he was traveling in southwestern Shaanxi in 1940. "It looked like those plaster reconstructions of the Peking Man," he recalls, "only much more hairy, and it had an ugly protruding snout." Peasants living in this locality also tell about encounters with strange hairy "wild men" which "walk upright like humans but have faces like monkeys."

The main reaction to such accounts had been one of skepticism or disbelief. But there were people intrigued enough to look into the matter. Groups of scientists, army men and others have penetrated the fastnesses of the primeval forests in the past few years to see what they could find. Some, fascinated by the idea, have delved into ancient literature. Others have written to the Academy of Sciences contributing information and asking to be included in investigating teams. Still others went investigating using their own time and money.

Thus, when news of the incident on the highway near Chunshuya reached the Chinese Academy of Sciences, it was decided to organize an investigation team. Composed of science workers from Beijing, Shanghai and Hubei, Shaanxi and Sichuan provinces, a hundred people in all, and assisted by a contingent of army scouts from Wuhan, the team worked in the region during 1976 and 1977.

On June 19, 1976, Gong Yulan, a 32-year-old member of the Qunli brigade of the Qiaoshang commune in Fangxian county and her four-year-old child were in the mountains cutting grass when they saw some such creature scratching its back against a tree trunk.

When our team questioned people in the area, the wife of the brigade leader recalled how Gong Yulan had come running to her door, all out of breath with great beads of sweat on her forehead, saying, "A wild man! A wild man!"

Gong Yulan led us to the spot where she had seen the creature. On the tree trunk, 1.3 meters from the ground, we found several dozen fine hairs of varying lengths. In August of the same year another group of investigators discovered two long hairs 1.8 meters from the ground on the same tree trunk.

In 1976 and 1977 our team interviewed hundreds of people—cadres, teachers, hunters, herb collectors and others, who gave vivid accounts of encounters with the "wild men" in Fangxian county, the Shennongjia forest district and Zhushan and Zhuxi counties.

With local militiamen and commune members the team organized several large searches. But no such creatures were found, perhaps because of the extremely rugged terrain and thick vegetation.

In two years the team investigated an area of 1,500 square kilometers, traveling a total of 6,000 kilometers. Practically every place in Shennongjia and surrounding counties where traces of the "wild men" had been reported was visited by members of the team.

We collected data on the region's geology, terrain, glaciation, meteorology, vegetation, and vertebrates including amphibians, reptiles, mammals and bird life. But on the "wild man" we got only indirect evidence, such as hair, footprints and samples of

excrement, and taped interviews with many people who claimed personally to have seen a "wild man."

Nevertheless we felt that the veil of mystery and legend surrounding the matter was beginning to lift a little.

Let us take a brief look at some of the data collected.

HAIR: Samples of hair brought back to Beijing and analyzed by several research departments were found to differ greatly in nature and shape from that of the brown or black bear, but resembled that of primates. This discounted the theory that it might have been a bear Gong Yulan had seen.

Could it have been some sort of primate? Investigations revealed four members of the monkey family living in the Shennongjia forests. But all of these were smaller in size and quite different in appearance from the creature described by Gong Yulan. Thus hair analysis in itself was inconclusive.

FOOTPRINTS: The question has been asked: Did you definitely see footprints of the "wild man?" This requires more than a straight "yes" or "no" answer.

In those two years we came across a great many footprints of bears and other creatures large and small. Among them were a number of highly peculiar ones, similar to, yet unlike those of either bears or men. A report written on the spot by investigators describes them thus:

1. The prints are of an elongated foot, wider (approximately 10 centimeters) in front and narrower (approximately 5 cm.) at the back.

2. Toe marks are oval in shape, with one somewhat separated from the others.

3. The footprints follow each other in single file, the distance between them varying between 50 cm. and one meter.

EXCREMENT: In September 1976 six little piles of excreta were discovered on top of a steep rock halfway up a mountain in the Hogta commune in Fangxian county. During the period before and after this find there were four reports of signs of "wild man" activity in this area. On three occasions—in March, May and July 1976—these involved a female and its child. A single adult was seen in November of the same year.

The excrement, already dry and hard, was similar in appearance to that of human beings. Analysis found bits of undigested fruit skins and wild chestnuts, but no animal fur or bone fragments.

Another such discovery occurred on August 30, 1977 at a place called Tielu Gully at the Panshui commune in the Shennongjia forest region. Investigators had been told of "wild man" footprints there and followed them. At one spot it had dug insect c ocoons out of the bark of birch trees, presumably to eat them. Further along, on a hill slope and in a cave, excrement was found containing large amounts of cocoon skin.

These findings in both instances exclude the possibility of the excrement being that of humans as we know them or of a carnivorous creature. On the other hand, in each case both the quantity of the droppings and the size of remnant food particles were smaller than that of hoofed animals or bears. On the whole, the samples bore a strong resemblance to the excreta of the omnivorous primates.

YUAN ZHENXIN



An investigator briefs schoolchildren on the "wild man."

Some idea of the "wild men" can be obtained from interviews with eyewitnesses. We amassed hundreds of thousands of words of these. Unfortunately, the photographers from the Beijing Scientific and Educational Films Studio who spent a year and a half trudging through the forests with us never caught sight of a "wild man."

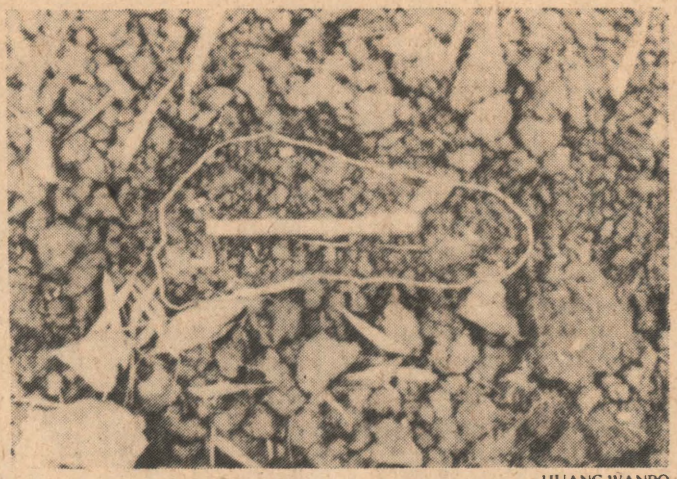
A more-or-less typical description is this one taken from a statement by Wu Jiayan and Niu Yong of the Shaanxi Biological Resources Investigation Team in October 1977, on the reported discovery of a "hairy man"—as the creature is known locally in the Taibai mountains in central Shaanxi province. Pang Gensheng, a 33-year-old team leader in the Cuifeng commune in Shaanxi's Zhouzhi county told them:

"In early June 1977 I went to Dadi Gully to cut logs. Somewhere between 11 and 12 in the morning I ran into a 'hairy man' in the gully. It came closer and closer. I got scared and kept retreating until my back was against a stone cliff and I couldn't go any further. The hairy man came up to seven or eight feet, and then to about five feet from me. I raised my axe, ready to fight for my life. We stood like that, neither of us moving for more than an hour. Then I groped for a stone and threw it at him. It hit him in the chest. He uttered several howls and rubbed the spot with his left hand. Then he turned left and leaned against a tree, then walked away slowly toward the bottom of the gully. He kept making a mumbling sound.

"He was about seven feet tall, with shoulders wider than a man's, a sloping forehead, deep-set eyes, and a bulbous nose with slightly upturned nostrils. He had sunken cheeks, ears like a man's but bigger, and round eyes also bigger than a man's. His jaw jutted out and he had protruding lips. His front teeth were as broad as a horse's. His eyes were black. His hair was dark brown and more than a foot long, and hung loosely over his shoulders. His whole face, except for the nose and ears, was covered with short hairs. His arms hung down to below his knees. He had big hands with fingers about half a foot*

* A Chinese foot is 33 cm.





HUANG WANPO

Searching for hairs (left), and a "wild man" footprint as outlined by an investigator.

long and with thumbs only slightly separated from the fingers. He didn't have any tail, and the hair on his body was short. He had thick thighs, shorter than the lower part of his leg. He walked upright with his legs apart. His feet were each about a foot long and half that broad—broader in front and narrow behind, with splayed toes. He was a male. That much I saw clearly."

Ancient literature on the subject of the "wild man" limited itself to accounts and descriptions, and made no attempt to look into the whys and wherefores.

Today, there are two main lines of conjecture on the origin of the purported "wild man." One holds that he is a "hairy man"—an atavistic throwback of the human race; the other that he is a descendant of the great ape, *Gigantopithecus.*

Are the "wild men" genetic throwbacks—individuals born with a lot of hair who have been discriminated against and rejected by society, and forced to seek an existence in the wilds? Recent descriptions of children and adults born with exceptional amounts of facial and body hair, a feature often accompanied by longer arms than average, might seem to support this supposition.

Are the "wild men" descendants of *Gigantopithecus,* the gigantic prehominid or man-like ape that inhabited the earth long ago, but had been considered extinct? The earliest and most recent records of these great apes in China are all in Guangxi, further to the south. But somewhere between the latter part of the Early Pleistocene Epoch (700-800,000 years ago) and Middle Pleistocene (500-600,000 years ago) they also existed in the vicinity of Hubei's Jianshi county, southwest of Shennongjia in the same mountain chain. *Gigantopithecus* bones have been found among fossilized bones used in traditional Chinese medicine and bought from local peasants by government trading companies in Hubei's Badong and Xingshan regions, although there is no way of ascertaining the exact period to which they belong.

On the basis of studies in comparative anatomy, the paleoanthropologist Prof. Wu Rukang says, "Proceeding from available data, we can only say in general terms that *Gigantopithecus* had large, massive bones and a huge and powerful torso, although his limbs were only slightly longer and sturdier than man's. He was probably as tall as, or slightly taller than modern man."

This description is similar to eyewitness descriptions of the "wild man" which tell of a semi-ape, semi-human being that escapes classification.

What about the theory that *Gigantopithecus* has long been extinct? This may not necessarily be so. The Giant Panda, a species known to have existed side by side with the great ape for several million years, is still very much alive today. Many relic plants, all living fossils, still grow in the Quinling-Bashan-Shennongjia region. The metasequoia, the dove tree and the Chinese tulip tree, for instance, are rare species surviving from the Tertiary Period. The fact that they exist shows that this region, unlike other middle-latitude regions, did not undergo a total eradication of its ancient flora since the Tertiary Period. This is because the glaciers of the Quaternary Period (the last geological era) were, in this region, of the valley type and did not greatly affect the flora and fauna. So *Gigantopithecus,* too, might have survived.

At both low and high altitudes, the region provides an excellent ecological environment for its rich and varied mammalian species, such as serows, musk deer, river deer, several types of muntjac, masked civets, ferrets and porcupines. Such rare animals as the takin, the golden monkey and the Giant Panda live and multiply here. Also here is a white-colored bear, which may be either an individual variation or a new species.

The centuries-old "wild man" riddle remains unsolved. Like the Loch Ness investigators who have not yet found their monster, we still do not have sufficient evidence to prove—or disprove—the existence of "wild men" in the primeval forests of China's temperate and subtropical regions. But science has been challenged, and we have taken up the challenge.

Rubbing from a Han dynasty tomb portrays what may have been a "wild man" sighted between 206 B.C. and A.D. 220.



Two Experiences of the Third Kind

-1-

Family of Three Taken Aboard UFO in Mexican Desert

The following statement of a UFO experience was made in June 1979 to Dr. Leo Sprinkle, Director of Counseling Services at the University of Wyoming, Laramie, Wyoming. The statement was first published in *Proceedings of the Rocky Mountain Contactee Conference,* privately printed by Dr. Sprinkle. Reprinted by permission.

by Mr. Anonymous

A NUCLEAR blast will destroy an American city in six years (in 1980). This message may have been given to me by the commander of a UFO during the night of February 4, 1974, in a remote area of the Sonora desert in Old Mexico. On an unusual map he pointed to a location in another part of the world where a battle or other event would precipitate the catastrophe.

Was this warning fact, or was it my imagination? Were my wife, my son and I actually taken aboard a UFO that night in 1974, or did my son and I create for ourselves the story? I have asked myself this question countless times.

If it was all imagination, two actual events remain unexplained. One event, strange and unnatural, happened that night in the desert, witnessed by all three of us. The other event, which would have been natural a few days earlier or later, occurred out-of-time the following day.

In February, 1974, my wife, our 13-year-old son and I decided to visit a primitive Seri Indian village called El Desemboque which huddles in the sand on the Gulf of California in the northwestern Mexican state of Sonora.

The normal way to reach the village would be to make a day-long drive south from the border, at Nogales, Arizona, to Kino Bay, then drive over a rough dirt road north along the coast for another sixty miles. Instead, we decided to leave the highway at Caborca and drive southwest across the desert until we reached the seacoast, following primitive roads occasionally used by Mexican cattle ranchers. The trip would require about 150 miles of back-country driving. The truck was equipped with extra gas tanks and tires for desert travel, and we were used to exploring the back country in Sonora.

Nightfall found us in an extremely remote region of the desert, separated from the seacoast by a low range of mountains. The last ranch we had passed was more than thirty miles away. At the foot of a rocky hill we cooked supper over a campfire, listened to the coyotes for awhile, then the three of us squeezed into the topper on the back of the pickup to sleep.

Approximately two hours after sundown we were jolted awake by beeping noises that sounded electronic. The noises were clear and sharp, about one second apart. I thought disgustedly that I had forgotten to turn off the truck AM or CB radios. I checked. Both radios were off. We looked out of the windows to locate the source of the noise. The night was clear and moonlit, but because of heavy desert brush we could see only forty or fifty feet. The beeping continued.

In northern Mexico there are several communication relay stations on mountaintops. I next thought that we must be closer to civilization than we had supposed, and that a relay station must be on the hill next to our camp. I went to sleep. Whenever I awakened during the night—and I have no idea when that could have been—I heard the steady beeping noise.

Next morning my son and I climbed the rocky hill—no relay station to be seen. We could see miles in all directions across the flat desert floor. No ranches. No Indian camps. No power lines. No roads other than the two ruts we had been following.

As we sat around the campfire eating breakfast, my wife said she felt we had been visited by a UFO. Later that morning, suddenly and unexpectedly, her monthly period began.

Five and a half years passed. We sometimes wondered about the strange events of that night in the desert. But how does one find the answers to this type of question? Had we been visited by a UFO? We heard about Dr. Sprinkle, a leading UFO investigator. I wrote to him at the University of Wyoming. "Ever hear about beeping noises in connection with UFOs?"

"Come see me," he replied.

On June 1, 1979, my wife, my son and I sat in Dr. Sprinkle's office at the university while he led us repeatedly by regressive hypnosis through the events that happened during the night of February 4, 1974.

* * *

I am in my sleeping bag in the back of the pickup truck with my wife and son. I sense hysteria by all of us, yet none of us is prone to hysteria. Four or five figures about four feet tall and dressed in space suits with helmets are walking around the rear of the truck. One of the figures places his face against the right-side window. The face has slanted eyes.

BLOCKED OUT.

There is a blinding white light in front of, and a little above me. I am standing in the desert. Someone is at each elbow.

BLOCKED OUT.

I am underneath the UFO. It is huge. The body of the craft is at least 15 feet above the ground, the bottom curved. Four legs arch down and support the craft. I feel that the blinding light is behind me, probably on the perimeter of the craft. Something is still at each elbow, guiding me. A stairway extends from the belly of the craft to the ground. We walk toward it.

BLOCKED OUT.

I am inside the craft, walking up a curving stairway. I have been in the craft for some time. For the first time I experience color. Everything is light blue. Also for the first time I have lost my fear. I neither fear for myself, nor for my wife or son

who are not with me. I must explain the blue. Everything is made of a material that is solid, but which is somewhat translucent.

BLOCKED OUT.

I am standing in a room. Everything is still blue. To my right the structural ribs of the craft come out of the floor at the wall and arch overhead. In the wall is a rectangle of very dark blue, about two feet by three feet. I think it is a star-map as I can see many yellow dots on it. By my left side is a desk attached to a vertical wall. There is a structural beam (vertical) in this wall at one end of the desk. Before me is the fuzzy outline of a man about my size. I feel that he is the commander of the craft. I have no fear of this man. I think of my wife and son, but also have no fear for them. I am quite content to be here. I remember being curious about the star-map and try to memorize it, but it becomes a blur. The commander gives me a message. He doesn't actually speak to me, but I know what he is saying. The picture he gives me mentally is in definite black and white. It is the skyline of a large city with skyscrapers. The skyscrapers are all black. Behind them the sky is a brilliant white. I think, no, I know it is an atomic explosion. I think the place is New York, but I am not sure. The picture is a warning.

There is another message. The figure tells me that my wife and I are handling our chore correctly. I think he means about building the cabin and storing food there.

BLOCKED OUT.

I am again, or still, in the cabin with the commander. Again, I am studying the star-map and trying to remember it. All I can remember are three stars to the left of the map with tails trailing behind them. The commander tells me to forget the map. That is not why I am here.

BLOCKED OUT.

Again, or still, in the room. This time the commander points to a map on the desk beside me. I feel that it has been there all the time and if I hadn't been looking at the star-map I would have noticed it. The map on the table is one of the reasons for me being here. The commander is now beside me. We are leaning over the desk, studying the map. He is now less fuzzy. He is wearing tight, red pants. The rest of him is still unclear. I recognize the region of the map. It is the eastern Mediterranean area. There are two regions on the map that impress me: the Fertile Crescent and north of the Black Sea. I know it is one map, but the area between these two points is cloudy. The map is strange because as I look at it one time it is very detailed, with the names of each city, village and mountain range and is in color. As I look at it again, it is very plain with only the Fertile Crescent and the Black Sea outlined. It is as though these are the important points he wants me to see. At the extreme top of the Fertile Crescent is an "X." The commander tells me that an important battle will be fought there. I am surprised because I think the next battle in that region would be fought on one of the borders of Israel. This battle will trigger a later battle or catastrophe. When the first battle occurs, we should prepare.

Then the commander points to an area north of the Black Sea. On a river is a dot with a dark circle around it and the word "Kiev." The commander tells me that this is by far the most dangerous place. I picture rockets coming from there, but that may not be the true picture. I also picture assassination. The commander says that bad things are happening in Kiev and I must stop them. I tell him that I know nothing of Russia and have absolutely no control over what happens there. He becomes somewhat irritated with me and says that if the bad things are not stopped a catastrophe (war?) will occur. I ask him when this will happen. He replies it will happen in six years (in 1980).

-2-

Pennsylvania Woman Healed By Alien Practitioner

The story of a young Pennsylvania man and his wife allegedly abducted aboard a UFO in April 1975 remained untold until March of this year when the couple agreed to be interviewed at their home by investigative reporter E. Macer-Story. After recording the interview on tape, Ms. Macer-Story herself made the transcript and added an introduction, a summary and an experience of her own to complete the following article. In September this editor heard the tape replayed and found the transcript to be generally accurate. Only the subjects' names have been changed to protect them against possible harassment at home or at work. Since neither the reporter nor the editor, nor anyone, is in a position to verify what "Frank and Alice Johnson" say happened to them, the report is presented to our readers as it came to us—with a choice among many degrees of belief and doubt. —F.S.W.

by Eugenia Macer-Story

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I HAVE visited a Pennsylvania couple who claim to have been floated from their bed to a UFO craft. Once inside a circular entrance chamber, they were separated. The male human was taken to a diversionary room where he was chatted with telepathically about fossil fuels and star locations, while the female human was taken to an examining room where she was put under fluoroscope-like equipment and examined physically.

During the course of the examination, the alien practitioner—who was female, less than five feet tall and communicated telepathically—discovered that the female human had a congenital malformation of the reproductive mechanism. The human then asked the alien what was the matter, and the alien volunteered to fix the problem after the examination.

Subsequent to this medical procedure—which involved use of an instrument generating an energy probe, rather than surgery or physical entry of the body—the female human was functionally cured of her reproductive disorder and she was able to bear a child. Human doctors had told her that she could not have children.

If this story is true, it is obvious that alien beings know more about the human reproductive system than we do. It is apparent that quite a few UFO abduction cases have involved both physical examination and sexual molestation of the humans selected for this kind of study. Perhaps it is because—as Wilhelm Reich intuited*—sexual activity and conception do involve the transmission of life-sustaining energies from one dimension to another. If the soul does enter the body as part of the reproductive process, conception is a rudimentary form of interdimensional travel. However, at this stage of human cultural development sexual behavior and childbirth are still very personal physiological matters which are often embarrassing to discuss in public.

Frank and Alice Johnson did not contact a UFO organization to report their experience. I was told of their abduction by a person who happened to attend one of my UFO lectures in Boston. At that time the Johnsons had no telephone, so I traveled to a rural area in eastern Pennsylvania to interview them about their contact with alien beings.

I found the Johnsons to be an enthusiastic, new-age couple with a healthy, impish three-year-old child. Although Frank had put out on his bar some pamphlets on ECKANKAR: *The Science of Soul Travel,* I noticed no ostentatious display of UFO paraphernalia. However, both Frank and Alice had been interested in ESP and the supernatural for some time before their UFO contact, and Frank had decided to try to communicate with UFOs telepathically.

It is interesting that UFO beings did not communicate with him directly on his first try, but manifested at first as light-formations over a mountain near the Johnsons' cottage. Despite a lot of talk in UFO publications about the negative effects of interdimensional contact, there continue to be numerous reports of positive experiences with UFO beings.

Both Frank and Alice seemed to be happy to recall their experience and mentioned no ill effects from the abduction, although the memory of the event had receded somewhat in the five years since it happened.

I interviewed the Johnsons separately, and the following conversations are taken from a tape of the interviews.

FRANK: It was in the year 1975. I was seeing lights at least once or twice a week over the highest peaks near Mt. J_____. The lights traveled directly from north to south and east to west or the reverse of these directions; they didn't seem to want to travel within the valleys. I very much wanted to make contact. I was very much into astronomy at that time, and studying the constellations. I kept trying to make contact by flashlight every time I'd see a UFO in the sky. If you want to find a UFO, you must go out and observe the sky. Don't take anything in the sky for granted, if you have an interest in UFOs.

EUGENIA: Would you describe the actual contact you experienced? I am particularly interested in knowing whether you traveled "out of your body" during this experience.

FRANK: After I had actually boarded the spacecraft, I lost interest. The drive that I had, to leave this earthly plane because I was so depressed, had changed. I think it was an out-of-body experience, but I'm not completely sure. Both of us remember being floated into the spaceship. I have friends who have had out-of-body contact, but in our case we were definitely floated up toward the entrance to the ship.

EUGENIA: Previous to being floated into the spacecraft, how did the beings make contact with you? Were you outside, or did they come inside your cottage? What did they look like, and did you notice any unusual physical effects or lights before your experience?

FRANK: I think we were in bed, just about falling asleep. All of a sudden we were compelled to go outside. It was very calm. I had wanted to make contact, and I wasn't at all nervous. We saw a round, luminous object up near the electric light pole, and then we just felt like we were sucked into it. We entered up into this chamber, and there was no one in the chamber at first. It was circular and we were floating, bobbing in midair. Suddenly, doors opened and beings in suits came out. They had eyes, nose and ears, but not as much of a mouth as ours. They were bluish-silvery. There was a female. She grabbed Alice and took her into another area. This was all telepathic. There was no mouth action; it was all through the mind. Alice just knew to follow this person. She knew where she should go with her mind, and I stayed behind with the men. There were two men. They showed me some star tracks and about the universe, and how much more there is beyond us.

EUGENIA: What do you remember about the star tracks that you saw? Even something which might seem strange to you. Can you describe what was on the charts?

FRANK: There were three charts on the wall. Once we started talking, others started gathering. I guess these were the crew. I told them I was studying astronomy. On the charts, I did recognize the Milky Way in the midpoint range of the stars, and I pointed that out. Then they showed me another star region. But the captain, the one in charge, he wasn't really concerned with the stars. He was just concerned with trying to enlighten me. He told me that there's more beyond the star regions in this physical dimension than I could imagine, and that's when my consciousness, my awareness, became expanded. There are other dimensions: physical dimensions, not just this one physical dimension. They used this kind of subtlety, and it was very interesting.

EUGENIA: Do they have notations on their charts, similar to our designations of north, south, east and west, which would indicate a navigational shift into other dimensions?

FRANK: I really don't think so. I think they just showed the charts and I pointed out the center of the galaxy where we were, and they said "very good." They never pointed out any charts on other dimensions. I picked up telepathically that there are other dimensions. It came to me that I was locked into this three-dimensional mode of thought about escaping to other planets via flying saucers, which is wrong. There are other dimensions. These beings, I think, come from another sub-level dimension attached to what we call the "astral" plane. After that encounter, my whole concept of the universe changed, and that's all they wanted to do, really: to enlighten me and expand my awareness.

* * *

From about the time she was nine years old Alice Johnson had suffered from a negative reproductive condition she called "bleeding ovaries." Symptoms were very painful cramps and

* *The Function of the Orgasm,* by Wilhelm Reich, Farrar, Straus & Giroux, New York, 1961.

unusual menstrual bleeding. Doctors had told her that it would be inadvisable for her to try to have children.

Shortly after her session aboard the UFO Alice visited a Planned Parenthood clinic. The doctor who examined her said that she was perfectly normal—so normal, in fact, that he asked an intern to examine her so that he would know what a normal reproductive system was like; the doctor commented that it was unusual for a woman who consulted a Planned Parenthood clinic to be in such good shape.

After her medical treatment aboard the UFO craft, Alice was healed of her chronic ovary problem and has a daughter, Nadja, three years old at the time of our interview. Nadja is living proof that *something* very unusual happened to Alice. Whether she and Frank traveled out of their bodies or were in fact levitated into an interdimensional craft, the fact remains that Alice was certifiably barren and could not have successfully conceived and carried a child to term before this incident.

* * *

EUGENIA: Can you describe what happened aboard the UFO?

ALICE: This particular night we were asleep in bed, and suddenly I felt as if I was sitting up. The room was luminous. I thought at first it was the moon shining through the skylight. Then it seemed *very* luminous, and Frank was sitting beside me, and then we were up out of bed, facing the door. I could see through the door the shadow of a figure about six feet tall. Then, the door was open and we were out on the porch. The ground was very white, like snow, and on the road through the trees I could see a vehicle of some sort, about the size of an average car. They were picking up samples of rocks and stuff and putting them in containers. Then, we saw a light up over the side of the house. We were lifted and somehow floating. I couldn't feel the sensation of somebody pulling me up under the arms, but I just felt very light. As we were approaching the bottom of the craft, a circle of light seemed to open. I knew we were going in there, and once we were inside we just sort of floated there in this little room, bobbing around in the air. I don't know if we were being decontaminated, or what. We didn't say anything. I was half asleep.

Then the partition opened and two men and a girl came into the room. She motioned to me to follow her. I went down a curved hall, following her. It was curved at the top and the walls were luminous panels. These panels lit up for us automatically as we went past. I got a good look at her silvery-blue suit as we went down the hall. They were all wearing the same sort of suit. There were bulb-like things over her eyes, rounded at the top and somewhat rounded at the bottom, and I figured it must be something to protect the vision. She knew I was looking her over, and I got the idea she thought that was funny. She had small spots for the nasal area. The nose wasn't as pronounced as ours at the bottom. It didn't have as much cartilage.

I couldn't see if there was hair underneath the suit. The blue fabric covered the head except for the face. There was a thin line down the back of her head that went all the way down the back of the suit and I assumed that was the opening. She had a bosom, and she was a little taller than me, but I'm not very tall. It was definitely a woman. I remember thinking: they're not that much different. They just didn't have a mouth. The chin was pronounced. They have longer faces than we do. I think the suit was to protect them, but not with all the gadgetry that we have.

The room we entered didn't look much different than one of our medical clinics. The style of the equipment was similar. She had a desk, which she later used to fill out papers. When I was in the service I worked as a blood technician, so I know that the setup was similar. I don't remember whether we had our clothes on or not. We often slept in the nude, and I don't remember putting clothes on when we left the house. She lifted her hand and I was just lifted up and set on the table. I felt her telling me telepathically that it was all right, that she was not going to hurt me. She brought an instrument with a light on it down toward me, and began to run the light over my body. As she was running the light over me, I realized she was checking this on a wall panel. I looked up at the wall and I could see the ridges around my skull, the outline of my head and the shape of my brain and then—as she moved the light down—my tongue when I swallowed. This was all projected in blues and purples, and I thought: Wow, that's fabulous! As she went further down, I could see my lungs taking in the air, and my heart pumping. The deeper blue of the blood was going down the aorta, and I thought: this must be done by some sort of heat process. She responded to that thought. She told me telepathically: yes, something like heat radiation. Her reply had an emotion to it.

As the light moved down still further I saw my stomach partially full, and then she went down over the intestines and into the genital area, and when she got there I couldn't help thinking: I wonder what's wrong with my ovaries. Although it was a strange situation, I just couldn't help but feel curious. She heard my question telepathically and stopped for a minute to question exactly what I meant, and then she told me that the problem could be fixed easily.

She told me to wait until she had finished, and then she went over my legs with the light, as I was thinking: I wish she could fix it. We kid around now that I should also have asked her to fix my sinus condition while I had the opportunity. When she finished with the light, she filled out papers and forms at the desk, and then she brought over a rack with several instruments hanging on it. It looked like a cross between the kind of rack used to hang containers of blood in a hospital, and the rack used for drill-bits in a dentist's office. There were several drill-like attachments hanging on it. After she had brought over this rack, she brought a box with dials. She attached one of the drill-like instruments to the box, and tested it against a sheet of something which looked like thick paper. She moved this instrument over my ovaries, about six inches away from my body, but I could feel the sensation inside. I felt a tingling inside my abdomen for several days afterward. She started above one of the ovaries, and it stung. She immediately apologized and then the radiation didn't seem to be as strong. This adjustment happened quickly. After that, she seemed to trace what I thought was the Fallopian tubes, and then the cervical area. When she moved up to the ovary on the other side, she used a different attachment that seemed smaller. She used this smaller energy probe only in one particular area. I'm guessing at exactly what happened since the instrument was outside my body, so I was gauging it by the approximate location of her movements.

Afterwards, she told me telepathically: That's it. It was just like a visit to the doctor. She put some more notes down, and then helped me off the table. I felt funny when I sat up because I was tingling. It wasn't painful at all, but I could feel a strong tingling in my abdominal area. After she helped me off the table, I followed her down the hall. She was carrying

papers. Part way down the hall, a man came around the curve traveling in the opposite direction and they communicated telepathically on a personal level. I remember thinking: that must be her lover.

After that we stepped into what seemed to be an elevator. She touched the wall, and a panel slid open. It was bright inside, but I couldn't see lights. It seemed that the walls themselves were lit. It was big enough to hold two or three people at the most. Once we were closed inside this small chamber, we must have moved. After a few seconds the wall on the opposite side of the room opened and we entered another hall. I could hear her talking telepathically with some other people, and then we walked into a room where five or six of the alien men were standing around Frank, casually talking telepathically. They were questioning him, and he was talking about fuel. They asked what sort of fuel we used for cars, and before he could answer one of them just picked it up out of his mind and said "fossil fuel: decomposed animal matter." This was all telepathic.

I remember thinking how wonderful it felt to be able to talk with my mind. We got into a real conversation with the aliens. Frank was asking questions about pollution and ecological balance, and they really surprised us by saying *"have faith in people. Human beings are farther advanced than you think. At least, you are aware. There are others who are as aware as you are. Pollution will be corrected."* They were not saying this verbally. I have to stress that they always communicated telepathically and we could hear the words in our minds. One of them had a religious attitude, like a priest. He stood over by a platform with steps, and behind him were big panels showing star systems. I felt ashamed because I didn't know for sure which galaxy was the Milky Way. There were three stars off to the bottom of the panels, and I had the idea that might be their home base. I wasn't sure what I saw.

EUGENIA: Could you draw what you saw?

ALICE: Just three dots. The map was black and white, with moving things tracking across it. Like a living map. It looked quite simple. I can't remember everything that happened, but I do remember the console. It was about the size of our television set. There were lights on it, and one light blinked. He went over and checked his desk, and touched something and it stopped blinking.

EUGENIA: Did they give you anything?

ALICE: No, not me. But what happened to him I didn't even know. It was terrible. I almost didn't remember anything.

* * *

One significant detail which is omitted from both Frank's and Alice's spontaneous recollection of their experience is their return to the cottage in which they had been sleeping. Apparently they both woke up the next day as usual, each thinking that the experience had been a dream. Alice remembered the experience as reality before Frank was willing to acknowledge the possibility. After a brief separation, during which Frank was studying various systems of consciousness-expansion, he became aware that Alice's insistence that their "dream" might actually have taken place was not just simple "imagination." The reality of the incident was further validated by Alice's pregnancy. She was several months pregnant before it occurred to her that the problems she was experiencing were anything other than some new aspect of her previous gynecological difficulties.

* * *

ALICE: When I was eight months pregnant I had a 45-minute lapse of consciousness that I couldn't explain, and after that, I knew that the baby was going to be normal and healthy.

EUGENIA: Do you think that the time lapse was caused by a UFO presence?

ALICE: I think so. The last thing I remember seeing was the light bobbing through the venetian blinds out back. I thought it was a helicopter and that I was seeing things. The theme for "Sanford and Son" was coming on the TV. The next thing I knew, I was in the kitchen and the light was on in the room. I was facing my living room, right in front of the refrigerator. I remember thinking: *what the heck?* "Chico and the Man" was on the TV and 45 minutes had elapsed since I saw the light out the window. Just like going under anesthesia.

After that happened, I knew she was going to be normal and healthy. I wasn't fearful like I was before. I had been worried that this all would build me up to a miscarriage. I knew it was going to be a girl. I knew that telepathically, but I can't remember any details like I do from the examination. I told them I was going to remember. They said I would not remember, but I told them that if there was any way to remember they would not be able to block me. I think they tried to put this suggestion that I would not remember into my mind telepathically. I didn't remember in any ordinary way. I'd be in the bath with my mind blank, or cooking, just thinking of nothing, and I'd get a flash of memory. Gradually these flashes all began to tie in together, and I knew that I wasn't hallucinating. I kept getting pieces of the same images, like real memory.

* * *

Neither Frank nor Alice has been under hypnosis. The recall session taped at their home was done in response to ordinary questioning.

Oddly, the night before I was to begin transcribing the tape of this interview I had a very unusual experience myself. I was sitting in the kitchen at about 10:30 p.m. when I saw a green flash of light on the wall. I went into the living room to phone a friend who researches UFOs and has also experienced flashes of light in my vicinity. As I was dialing his number, large shadowy squares and frames of light appeared in the room and the wall opposite me seemed to pulse purplish-blue, then yellow. This lasted about ten minutes, like a display of fireworks, and during this time I also saw a smoky form near the kitchen door.

After this incident I was unable to sleep normally, and finally lost consciousness at about 3 a.m. When I awoke to the alarm at 6:30 I felt *perfectly all right, euphoric, not tired at all.* I also had the clear idea that my tape recorder—which has been on the blink—was fixed and that I would be able to use it instead of having to buy a new one. I had planned to buy a recorder on the way to work, but decided instead to test the perception by first examining the old recorder. Much to my astonishment, it worked; both sound and tape-speed were normal.

I do not jump to the conclusion that UFOs are so interested in my psychical reporting that they take the trouble to repair my equipment, but on the other hand, I cannot dismiss the incident as meaningless. As an investigator, it seems that I have at times acted as a "lightning rod" to attract unusual PK events similar to those I was describing. A faulty machine was "healed" in response to my need for assistance. However, this is no guaranty that UFO and PK phenomena are generated by the same sort of interdimensional entities. Watch out for prankster spirits!



Kivas: Inverted Pyramids And Observatories

by Dr. Ronald P. Anjard

MOST PEOPLE have heard of Stonehenge in England. Many experts now agree that it was an observatory. There are similar structures elsewhere in England and in Ireland and France. In America stonehenge-like structures are found in New England, particularly in New Hampshire and Vermont. The Mayans of Mesoamerica were quite skilled in astronomy and knew how to orient temples and buildings to determine equinoxes; a system of rocks arranged in circular fashion, as at Stonehenge, guided their observations. In Peru it has been noted that the Incas, or pre-Incas, had similar structures, made of wood instead of stone. But few people know of the kivas the American Indians built in the Southwest.

The "kiva belt" extends as far north as Kansas. According to some experts who have analyzed them as Hawkins analyzed Stonehenge, kivas were built as permanent and very accurate observatories. A Hopi friend notes that kivas are really inverted pyramids: Originally they were intended to be built in two sections—the visible structure above the ground and a counterpart extending far down into the earth. At some locations (for reasons of security, it was explained to me) the upper sections were not built. But the value of the pyramid—its ability to provide "balancing energies" and other attributes important to Amerindians—was preserved even in a pyramid turned upside down.

The Zuni, like the Hopi, consider the kivas sacred. Some tribes used them as the pyramids of Egypt were used, as temples for the initiation of members into various clans and for a variety of religious purposes. So it was also with the kivas of Mesoamerica and Peru.

The kivas in the Southwest U.S.A. have been analyzed as Indian observatories. Large kivas, for example, are to be seen at Pueblo Bonito, Chetroketl and Casa Rinconada in Chaco Canyon, New Mexico, just west of the Continental Divide. The kiva at Casa Rinconada is approximately 65 feet across and has two stories above ground with a huge T-shaped door at ground level. The "Tau" shape has a special religious significance to the Hopi and is found also on the major pyramid in Peru where, according to the Hopi, it had much the same significance.

Except in North America the procedure at "stonehenge-type" observatories was to move markers progressively outside the structure from site to site, or to align on markers outside the core. Placing the markers outside the main complex seems to have been a principal requirement. With the Amerindians the concept was the same, but the markers were in the perimeter with key windows; the entering light shone through slots or holes on the inside surface. A remarkable calendar was developed which was operated by moving markers step-wise from slot to slot.



"Tau" door in a kiva in Chaco Canyon, Casa Rinconada, New Mexico.

Each kiva had a different style. Pueblo Bonito and Casa Rinconada each had 34 stations. Experts say that 28 and 29 of these monitored the moonrises and sunrises per lunar month while other stations monitored a master cycle. Some investigators support the hypothesis that the Indians' use of kiva-observatories reflected the duality evident in other aspects of their life. An example is at Casa Rinconada, where the western half may have been used as a solar calendar and the eastern half as a lunar calendar.

Another important astronomical task apparently assigned to at least one kiva was tracking the "morning star," otherwise known as Venus. At Chetroketl kiva a detailed study demonstrated that the 292 days of the average interval of Venus' heliacal rising can easily be "processed" by a combination of "stations."

As our Pioneer Venus I continues to circle the cloud planet and with costly sophisticated equipment maps a surface we long called "featureless," it's no bad idea to take a look-back at the kiva-builders and many other ancient peoples who unlocked some of the "secrets" of the universe long before we were even thought of.

REFERENCES

R. Anjard, "When Did Our First Ancestors Come to America?"—*American Mercury,* Fall, 1977.

Gerald S. Hawkins, *Stonehenge Decoded,* Doubleday, Garden City, New York, 1965.

J. Morgan, "Ancient Calendars' Advanced Concepts,"—*Rosicrurcian Digest,* October, 1975.

Evidence for the Stability Of the Solar System Since c. 2700 B.C.

by Edgar D. R. Wilson

WITHIN the last three decades the orbital stability of the planets Venus, Earth and Mars has been brought into question. Recent data gathered from space explorations has been manipulated so as to give the appearance of supporting radical changes in the orbits of our solar system, the most recent being the suggestion that Io apparently is a hot, young, recently formed body orbiting Jupiter. A similar "satellite of Jupiter" was supposedly the source of the "disturbance" in orbital continuity.

The problem in dealing with the orbital-disturbance theory is the near impossibility of proving cataclysmic changes could *not* have taken place from the present orbital elements. Ironically, the evidence against the orbital-change theory comes from a time before the myths supporting it were created. Considerable evidence now suggests that the Egyptians of the Old Kingdom not only observed the same heavens as we do; they apparently set out the results of their observations for all posterity to see by constructing a model to represent the three inner planets: Mercury, Venus, and Earth. By the time in which this model was built, and if its accuracy is confirmed in describing the size, positions and orbital velocities of its members, the possibility that major orbital changes took place after c. 2700 B.C. will be substantially refuted.

In 1950 a theory, suggesting the possibility that Venus entered the inner solar system from the orbit of Jupiter causing great damage to Earth and displacing Mars to an outer orbit, was presented by Immanuel Velikovsky[1] in the popular press. Since that time numerous books and articles have been written in support of his ideas and calling into question established scientific methodology. Now, after nearly 30 years of debate, it is possible to show concrete evidence that our solar system has remained stable during the period of time Velikovsky claims cataclysmic changes took place (between 1600 and 700 B.C.).

The evidence showing the orbital stability of our solar system is found in a group of pyramids known as the Giza group. The building of the Giza pyramids took place about 4700 years ago, during the 27th century B.C. These pyramids apparently constitute a model of the three inner planets of our solar system, representing Mercury, Venus and Earth. The Giza group of pyramids, referred to here as the "Giza model," will be shown to be a highly sophisticated representation of the solar system, Mercury through Earth inclusive.

The scale of this model was apparently derived from (1) the universal constant known as the velocity of light, and (2) a local constant of distance: the radius of Earth. The designer of the Giza model was able to deduce not only the positions and volumes of the three inner planets but their orbital velocities as well.

It requires 1/47 second for light to travel a distance equal to Earth's radius. The Giza model was built to a 1/47 scale representing the orbital velocities of the planets. The method employed placed the major pyramids a meaningful distance from a common datum, thereby representing the orbital velocities of the planets. The datum position is marked by the well or pit in the Temple of Chephren (figure 1). The known history of this well does not explain its original purpose, for it deviates from the standard equipment usually supplied by the temple-builders of ancient Egypt. If the intention was, in part, to hide some object for future discovery, the well has served that purpose. However, the object found in the well could not have been what the well was originally designed to hold. The object found was a somewhat larger-than-life statue of Chephren, evidently lowered into the well to preserve it during a time of religious or political upheaval. The question is not how the statue came to be in the well, but *what was the original purpose of the well?*

In decoding the Giza model it will be assumed that the three largest pyramids represent the planets Mercury, Venus and Earth. Since the noon Sun is always to the south at the latitude of Giza (29° 59′ N) it would follow that the pyramids representing the planets nearest the Sun would be nearest the southern limit of the model. The arrangement of the Giza model is such that the pyramids progress from south to north obliquely (figure 2), possibly showing the direction of motion as well as positional relationship. The smallest of the three major pyramids is farthest south and will be taken as representing Mercury. The largest of the group is farthest to the north and will be taken to represent Earth. The planet Venus is located between Earth and Mercury; therefore, the pyramid selected to represent Venus is between the largest and smallest pyramids.

The base area of the pyramid representing Earth, henceforth to be called P_e, can be compared to the base areas of the pyramids representing Venus and Mercury, to be designated P_v and P_m respectively. The base area of P_m was changed during construction for some as-yet-undetermined reason. According to Petrie[2] and Edwards[3] it would be reasonable to assume that the length of each side of its square base was doubled. Edwards gives its present base length as 108.661 m., making a reasonable estimate of its original size as 54.331 m.[4] and P_v as 215.722 m. on a side[5]. The Survey of Egypt Paper No. 39[6] gives 230.36 m. as the mean length of a side for P_e. Comparing base areas of the pyramids and the volumes of the planets, the correlation can be found by inspection. The area of P_e to P_m is 17.902, and the volume of Earth to the volume of Mercury is estimated at 17.845 by telescopic observation. The area of P_e to P_v is 1.140, implying a radius for Venus at 6105 km. This compares well with recent Venus-probe data which give the solid surface as 6056 km. It is entirely possible that the cloud cover of Venus was close to 50 km. 47 centuries ago. It is also possible that mass was represented by base area rather than volume, for the base-area ratios P_e / P_m and

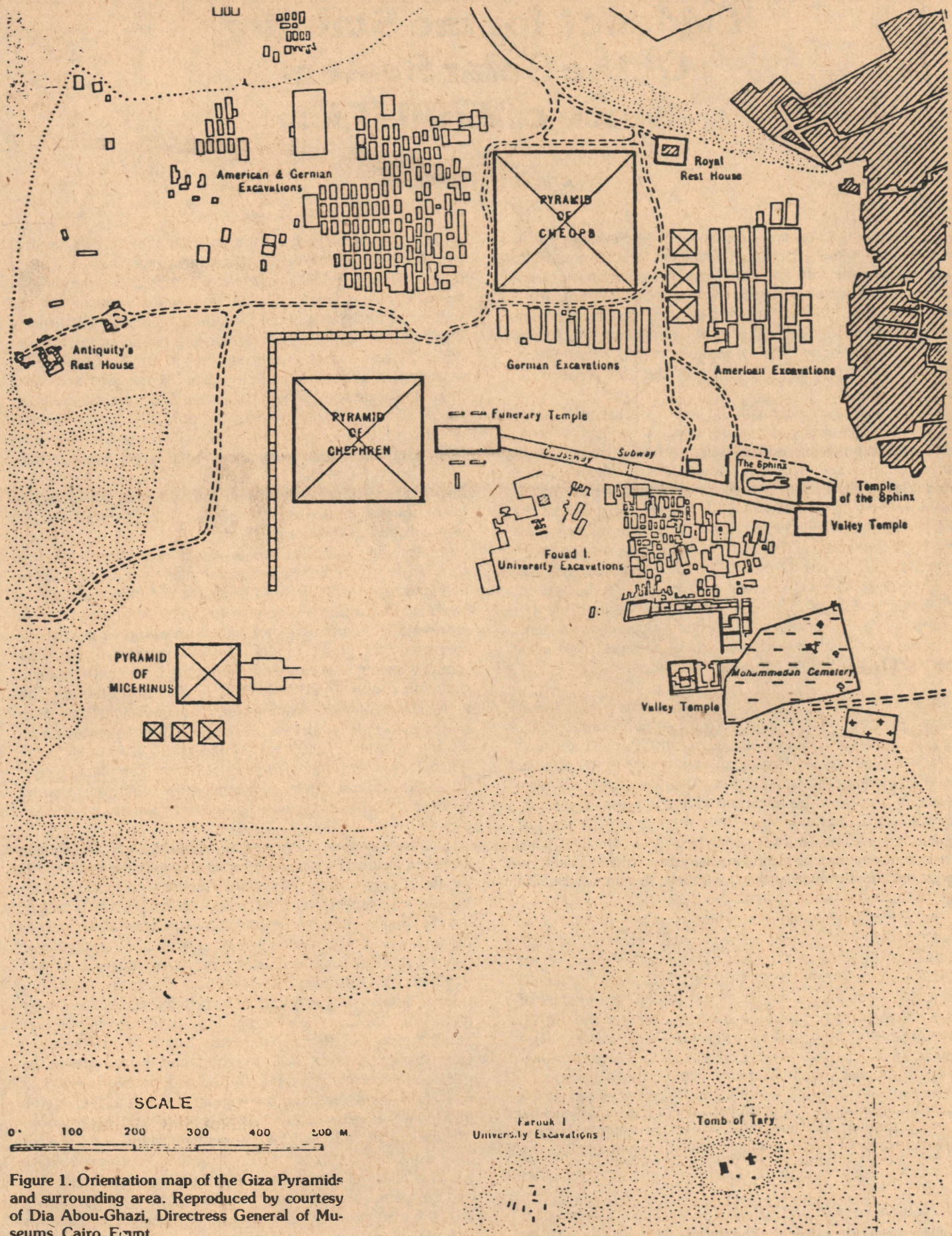
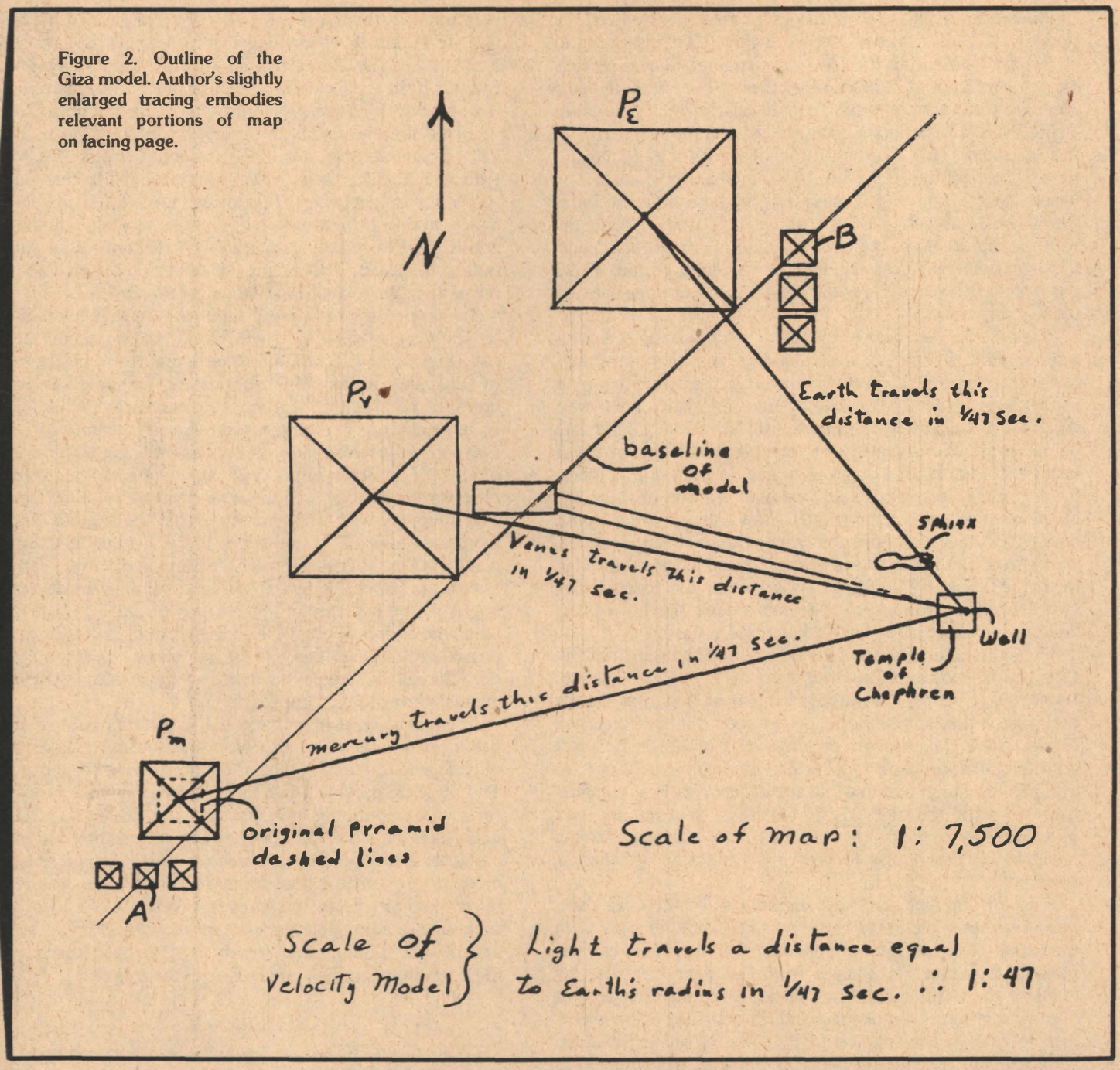


Figure 1. Orientation map of the Giza Pyramids and surrounding area. Reproduced by courtesy of Dia Abou-Ghazi, Directress General of Museums, Cairo, Egypt.

Figure 2. Outline of the Giza model. Author's slightly enlarged tracing embodies relevant portions of map on facing page.



P_e / P_v are very close to the actual mass ratios. This of course would not affect the conclusion that the Giza group represents the three inner planets of our solar system, nor could it be manipulated in such a way as to support the theory that Venus is a recent "addition."

Returning to the method by which planetary velocities are represented in the Giza model, it was noted that the distance from the well to the center of P_e is shown on maps of the Giza group to be c. 640 m., P_v c. 755 m., and P_m c. 1020 m.[7,8] It is evident the distances given are 1/47 of the present orbital velocities of Earth, Venus and Mercury. The distances shown on maps of the Giza model are certainly close enough to deduce the probable intent of its designer, although an accurate on-site measurement would certainly be desirable.

Since Earth and Moon constitute a single planetary system with its center of gravity within the body of Earth, it would be reasonable to assume, on the basis of the above correlation with orbital elements, that Moon-related data will be found within the body of P_e. For reasons beyond the scope of this article the chamber within P_e, known as the Queen's Chamber, has been selected as representing Moon, henceforth to be designated as Cm. The passage leading to Cm. can be imagined as Moon's orbital path about Earth. The height of this passage above the base is given by Petrie as varying from 854.6 inches to 858.4 ± .3 inches or mean of 21.755 m.[9] This distance is 1/47 of 1022.5 meters, or the distance Moon travels in 1/47 second, once again showing the orbital velocity of a member of our solar system. This completes the set of orbital velocities for all the members of our solar system out to the third planet, as Mercury and Venus are without detectable natural satellites. The velocity data is complete, but there is more data concerning Moon to be found in Cm.

The height, length and width of Cm are given by Petrie as h. 245.1, l. 226.47, and w. 205.85 inches.[10] Taking the ratio of h/l and comparing it to Moon's synodic/sidereal periods we get 1.08226 and 1.0809, respectively. The measurements compare to an accuracy of 1 part in nearly 800, well within Petrie's stated variation in construction and probable error in measurement. This assumes a unit of measure 21.08 cm. in length, representing time, i.e., days in the above case. The height, length and width measured in these units becomes 29.53, 27.29 and 24.8 of the above time-units. While the width is slightly more than twice the number of synodic periods of Moon per year (12.368), the sidereal period (27.32 days) and the synodic period (29.53 days) are represented quite accurately.

From the arrangement of the major pyramids along a common baseline, it is reasonable to assume that they were built to a master plan. The execution of an alternate building plan for P_m was evidently ordered by the king, Micerinus, who died shortly thereafter. Although historians do not speculate on the cause of his death, it is possible that his demise was brought about, in part, by his changing the plan of P_m, thereby degrading the recognizable elements of the model. The baseline employed in the model shows the designer could have had the benefit of previous experience in erecting models where overbuilding or destruction represented a major risk factor. Whether by design or by accident, the baseline has served to retain the integrity of the model, for both overbuilding and destruction have taken place at Giza.

The site chosen for the first and largest pyramid built at Giza shows evidence in favor of a master plan for the group. Its builder, Cheops, did not select the most imposing site for the construction of what is believed to be his intended eternal resting place. The second pyramid (P_v) occupies the most desirable location as it is centrally situated with respect to available building area and the site it occupies is at a higher elevation than that of P_e. Since the choice site was not used by Cheops it would follow that a plan to build on that site could have been approved before the building of Cheops' pyramid.

Without knowing the exact dimensions of the Giza complex it is impossible to calculate by what probability the Giza model was erected to its present dimensions. However, it is possible to derive some clues from the data furnished by maps of the Giza necropolis. The available building area at Giza was in excess of one km.^{2} and the accuracy of the placement of the well in relation to P_m, P_v, P_e will be assumed within $\pm$ 2 m. The base area of the pyramids will be taken as being accurate within one percent.

Assuming a range of factor 2 for base area variation from the desired mean, or an error factor of 100% maximum the permutations for P_m, P_v, P_e = $\sim 10^7$. The area of the building site (1 km.^{2}) when divided into 4 meter squares yields 2.5×10^5 and the chance that all three pyramid centers will be found within a square the correct distance from the well is in the order of 10^8. The probability that both the above events occurred simultaneously by sheer coincidence is virtually nil. This of course does not take into consideration the Moon data which will greatly increase the probability that the designer was in fact aware of the orbital elements of the planets. When taking into consideration that the entire model was constructed to a scale relative to the velocity of light and the radius of Earth, statistical probabilities tend to lose their meaning in the rush of mind-boggling possibilities.

The use of the velocity of light and the Earth's radius to set the scale of the Giza model yields the possibility of discovering the key to decoding the model from an aberration of starlight position. This is fortunate, for the discovery actually came about by noting the distance from the well to P_e in seconds of arc, as measured from the center of Earth. The constant of aberration for an observer on Earth is 20.5″ of arc; for an observer on Venus it would be 24″; and for an observer on Mercury the angle of aberration would be 33″. The discovery was made by noting that the angular distance from the center of P_e to the well in the Temple of Chephren is 20.5″ of arc. This seemingly fortuitous discovery led to a systematic search for additional data, yielding the aberration angles for both Venus and Mercury at P_v and P_m. Due to the apparent ingenious use of physical constants in its design, it is possible to discover the scale of, or the key to decoding, the Giza model by employing either a linear-measurement or angular-measurement approach.

In conclusion, it must be stated that no amount of statistical evidence can prove the intent of a model designer without a logical ordering of data and a possible use for the model. The evidence presented here qualifies on the first two counts for at least continued investigation and, by choice, will remain silent on a possible use for the model as intended by the designer. This does not preclude the possibility of using the model to support the decision by Harlow Shapley to prevent by all possible means the spread of Velikovsky's ideas until such time as admissible evidence on the subject might be presented. The Giza model hypothesis, if proven correct, will most certainly justify Shapley et al in standing fast.

Patching Up the Pyramids

Finally responding to generations of world pressure to keep the Giza Pyramids from blowing away over the next several centuries, the Egyptian government is now engaged in a program designed to stop erosion that began at the time the huge monuments were completed some 47 centuries ago. Starting with the southern face of the Great Pyramid, workers are repairing the eroded blocks "by filling in the gaps with identical but new limestone," according to government archeologist Nassef Hassan, project director. "We chemically treat the new stones first, so they will resist erosion," he said. After the Great Pyramid is restored, Hassan and his team will direct their attention to the adjacent pyramids of Cephren and Mycerinus, also in dire need of restoration.

REFERENCES

1. Velikovsky, *Worlds in Collision* (New York: Doubleday & Company, 1950)
2. W. M. Flinders Petrie, *The Pyramids and Temples of Gizeh* (London: Field & Tuer, 1883) p. 40
3. I. E. S. Edwards, *The Pyramids of Egypt* (London: Penguin Books Ltd., 1978) p. 160
4. Ibid p. 161
5. Ibid p. 151
6. Survey of Egypt, Paper No. 39: *The Determination of the Exact Size and Orientation of the Great Pyramid of Giza* (Cairo: Government Press, 1925)
7. *Excavations at Giza 1949-1950,* Professor Dr. Abdel-Moneim Abu-Bakr (Cairo: Government Press, 1953)
8. *Excavations at Giza, Vol. VII,* Dr. Selim Hassan (Cairo: Government Press, 1953)
9. W. M. Flinders Petrie, *The Pyramids and Temples of Gizeh* (London: Fields & Tuerr, 1883) p. 22
10. Ibid p. 23

Transformism Reconsidered: Darwin in Perspective

by Neil M. Lorber, Ph.D.

AS a Fortean of long standing, I have always been of open mind to observations, phenomena, and theories outside of the traditional "scientific" realm. I was, however, moved to write this follow-up to Dr. Silvano Lorenzoni's article "The Transformist Myth" (*Pursuit* No. 42, Spring 1978, pages 70-72) in an effort to insure that SITUans would be duly exposed to a fuller picture on such a highly significant issue as that of evolution. (I have had considerable scholarly fascination with it, as well as some of his skepticism in the area.) Readers of *Pursuit* should not be denied a more comprehensive treatment of the issue of evolution (or "evolution" if you must) than Dr. Lorenzoni has provided.

It was, indeed, quite pleasing and stimulating to see this subject reach the pages of *Pursuit* with Dr. Lorenzoni's article. The subject deals with as profound a mystery as might ever be found within the Fortean annals. Its arrival, and that of similar provocative scientific issues, at the doorstep of Fortean attention has been long overdue. Moreover, at least to date, no truly scientific explanation of the history of life on earth can fully account for *all* the facts at hand about the matter, throwing open the door to iconoclastic thinking on it. It is in this that I am in greatest concordance with Dr. Lorenzoni and applaud the insight expressed in his belief that no headway will be made in unraveling the mystery of evolution through failure to recognize "subtler forces which, even though normally undetected, nonetheless pervade the entire Universe" (page 72). One must also applaud Dr. Lorenzoni's reference to Croizat's indication of the important role of factors and agents *internal* to the living organism—factors of a molecular-biological nature—in explaining evolutionary processes. In addition, one must be indebted to him for first bringing the issue of "transformism" to the attention of SITUans.

However, Dr. Lorenzoni's belief that the term evolution carries, implicitly, a certain idea of "betterment" is presumtuous; it does not necessarily have such a connotation. Also, the charge that, in certain circles, modern biology's staunch adherence to "Darwinian transformism" indicates "the intention to continually 'brainwash' listeners" (page 70) is simply unfounded.

One certainly need not postulate that, "in order for Darwinism to function, individuals must (at least sporadically) appear to differ substantially from the average of their species" (page 70). Over the very great periods of time in which evolution works, the cumulative effect of very small differences between individual members of a species can lead, in itself, to profound evolutionary changes in phylogeny. Also, though mutations are indeed extremely rare, they nevertheless still have provided the essential basis of variation on which evolutionary processes have operated—due to the very great lengths of time that were historically available for these processes to "do their thing." The magnitudes of these earthly epochs are so awesome that they defy human comprehension.

It is simply not true that "within the limits of our present knowledge [mutations] never produce anything but monstrosities" (page 71). Moreover, *harmful* mutations soon entirely remove themselves from the picture (as their owners tend to die away); their existence is therefore a moot point. Accordingly, it is only the beneficial mutations, however rare they may be, that can and do leave their mark upon future generations of a species.

One must also recognize that mutations may result in dominant (as opposed to recessive) genes which carry the new trait and which, in being dominant, thus can (even in combination with genes from a member of the normal population) always produce progeny with the very same phenotype (i.e., observable trait) as the original mutant and having the same intensity as the trait which appeared in the original mutant. Moreover, the stable nature of any gene prohibits the "dilution" in any true sense of the word, of even a recessive mutant in the gene-pool of a species. A recessive mutant gene can "bounce around" in the genetic pool of the unmutated population for countless generations without manifesting itself in the phenotype (and without a loss of "potency"), yet, whenever it ultimately chanced to meet up with a similar recessive mutant gene, it would "resurface" with every bit of its "strength" as unimpaired as originally.

Postulation of a feasible *mechanism* by which evolution is actually carried out is necessary for any viewpoint in this area to command scientific respect. This is indeed the key point in the entire matter; unless and until a more realistic and scientific evolutionary mechanism is identified than that of "Darwinian transformism," we can do no less than lean in the Darwinian direction (and are entirely justified in so doing). Dr. Lorenzoni offers no alternative mechanism, or even simply any explanation, for the changes in biological life forms that are indisputably documented in the paleontological record.

Darwinism can hardly be justifiably described as dogma when the infinite wealth of scientific evidence in its support is taken into account, especially in light of the relative dearth of scientific evidence supporting any rival theory (if, in fact, any substantive rival theory but that of Divine design really exists). That "Darwinian transformism" is too enthusiastically subscribed to by establishment science (to the exclusion of responsible criticism and challenge) is probably true, but, then again, two wrongs don't make a right: Darwinism should not be irresponsibly condemned and discarded via the zealous and dogmatic wit and barbs of those who do not want to accept its distasteful implications (as to the absence of Divine Cause) and merely seize upon its imperfections. The concept of natural selection may not constitute the entire answer to how life has evolved, but it is, no doubt, a central part of that answer.

Imbedded in the "secrets" of the evolutionary process are not only the explanation of the origin of life itself but *potential* answers to the questions of what we are, what created us (and how), and why we're here (i.e., for what purpose). Moreover, even the question of what the essential nature of life is (and whether it can transcend physical death), as well as the question of Divine Presence (and its creative role and intent), are connected with the evolutionary issue. As such, the phenomenon of evolution is today perhaps one of the most awe-

some and rightfully captivating of scientific considerations; the most sublime spiritual and philosophical questions that challenge the human mind can potentially be tested in its crucible (as it is an empirical, material, scientifically-researchable issue). Accordingly, it is not absurd to state that digging in a ravine *a la* Louis S. B. Leakey* can well be viewed as a very real way of scratching at the question of Divine existence.

There are certain general "scientific principles" regarding theorization which pertain not only to this discussion but to all areas in which Forteans intellectually indulge. For example, all other things being equal, one theory is to be preferred over another if it does a better job of explaining the available facts; a theory is a "good" one if it constitutes the best scientific explanation available, whatever its particular shortcomings may be. So far at least, no other scientific theory comes within "light years" of Darwinian theory in explaining the abundant accumulation of substantive and tangible facts on the history of life on earth (and in explaining them so very simply). Alternative theories should at least be proposed by those who merely indict "Darwinian transformism."

The enormity of the paleontological record is indeed awesome and striking. Let anyone walk the endless halls of the American Museum of Natural History, for example, and attempt to offer an alternative thesis to "Darwinian transformism" which can even begin to scientifically explain the evolutionary data that he sees displayed before him.

The value of *any* theory is indeed relative—relative to the value of alternative, rival theories—whether biological or UFOlogical. All other things being equal, it is a good theory (relative to the goodness and usefulness of competing theories) to the extent that, more than its challengers, it meets certain time-tested criteria. For example (in addition to the criterion already noted), a good theory gives order to an otherwise chaotic world; it consolidates, clarifies, and provides understanding of empirical observations and structure, and penetrates beneath their surface (making explicit what is implicit). Besides identifying new functions and relations within observational data, a good theory synthesizes data into "operational wholes," establishing an order or pattern among the relationships. Also, a good theory uncovers, and presents as precisely as possible, the regularities of the world in such a way that events can be related and interpreted by these "laws" of nature (which the theory discovers by going beyond mere observable data). In all, the scorecard for Darwinian/Neo-Darwinian theory on these criteria tends to look quite good, which is the precise point to be made.

Until something better comes along—that offers a superior alternative *mechanism* to explain evolution—we had all better stick to Darwin and the Neo-Darwinists, whether we choose to be reverent or not. The implications of the Darwinian explanation of the evolution of life may be admittedly cynical and uninspiring, and (understandably) especially displeasing to those who hold out hope for evidence of some form of Divine responsibility in the matter. However, if, in the truth of it, evidence of a Divine Hand is lacking, its absence from the picture is not something for which poor Darwin should be held accountable, no less blamed—and certainly not villified.

* The widely recognized late archeologist/physical anthropologist, probably best known for his 1959 unearthing in Olduvai Gorge, Tanganyika, of a humanoid skull thought to be almost 2 million years old.

Pyramid Power:

by Kenneth W. Moak

A method is described whereby an oscillating quartz crystal is utilized to convert the unidentified (provisionally termed etheric) energy field surrounding a pyramid into an EMF, which can then be measured by a standard voltmeter.

SOME TIME AGO I became interested in the field of "pyramid power," considering it to be a probable manifestation of a hypothetical etheric spectrum of energy. My early study of the voluminous literature on pyramids quickly disclosed a major stumbling block in the course of any serious investigation—to wit, the absence of any objective, quantitative method for detecting the energy in question. Virtually all work in the past, serious or otherwise, has relied upon either highly subjective detection (dowsing) or purely qualitative effects (dessication of foodstuffs, alteration of plant growth), neither of which is suitable for producing hard data for analysis. The only objective approach I could find lay in the work of Schul and Pettit[1] with possible mass change inside a pyramid. While highly important from a theoretical point of view, this line of attack seemed unavoidably too complex, bulky, and sluggish of response to form the basis for instrumentation, nor was it obviously quantifiable.

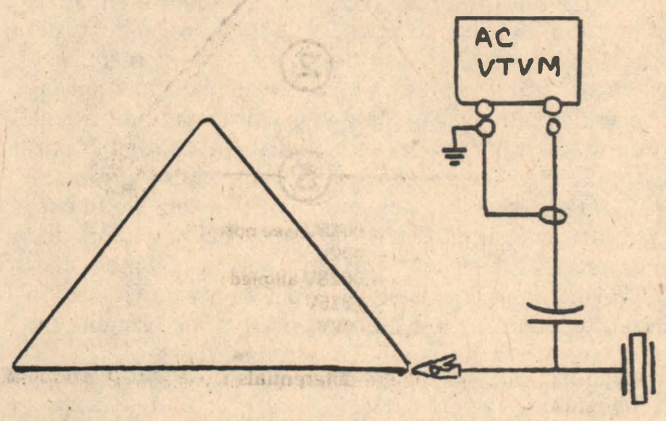


Figure 1. Circuit diagram.

pyramid	8" base, thin cardboard
crystal	A.E.M. 4100MHz
capacitor	100pf ceramic
vtvm	Mesurmatic VAC-2

From the start it appeared that the most promising direction lay in a possible etheric/electromagnetic interaction. If such an interaction could be found, it would make possible the conversion of etheric into EM energy, which could then be measured on a standard analog device. My initial efforts were directed at producing a change in some EM parameter (capacitance, inductance, or resistance) by means of etheric energy, but lengthy experiments failed to disclose any such effect, at least of a magnitude detectable by my equipment. Consequently I turned my attentions to a different approach, the direct transductance of etheric energy into an EM potential. This proved much more fruitful, and I now believe I have discovered a simple method for detecting and measuring etheric fields.

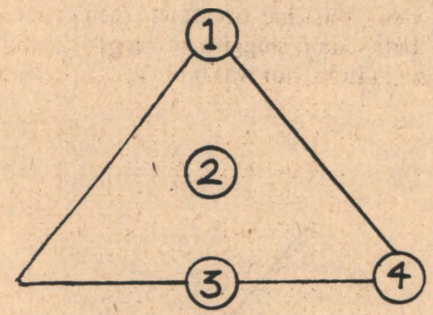
The apparatus is quite uncomplicated, consisting of a quartz crystal (I used a 4100MHz Xtl, primarily because of availability) connected through a small capacitor to a standard

Etheric-Electromagnetic Interaction

ac vtvm, and having a lead brought out to serve as a probe for etheric fields (see Fig. 1).

The theoretical basis for this is not particularly original; traditionally pyramid enthusiasts consider crystals, particularly those of quartz, to be capable of resonating with etheric fields. Since quartz is known to be strongly piezoelectric, it seemed logical to suppose the two functions might occur simultaneously, with the etheric energy feeding EM oscillations. The problem of coupling the etheric energy into the crystal was solved by a note in the *Pyramid Guide*[2], suggesting that ordinary wire can carry the "charge" from a pyramid.

After considerable trial-and-error experimentation I arrived at the circuit shown in Fig. 1, where a single lead connects the crystal to the pyramid, and another to the vtvm through a capacitor, the latter serving to "smooth out" the resulting EMF for easier measurement. If such a circuit is operable, one should expect its sensitivity to be limited only by that of the voltmeter, its response time to be very short, and its results both totally objective and highly quantifiable.



1. + .0045V (see note #4)
2. + .002V
   + .0028V aligned
3. + .0015V
4. + .002V

Figure 2. Average voltage differentials in various portions of the pyramid.

From the first the results were exciting. There was a uniformly repeatable increase in the voltage when the crystal probe was brought close to the pyramid, an increase that varied for different portions of the pyramid, with the apex and base producing the largest differential. I had begun work with a frame pyramid of copper rods, and therefore my first thought was that I had actually done no more than detect stray EM fields. Indeed, the very small magnitude of the voltages involved and the enormous effect of bringing a metal object, or even my hand, near the pyramid convinced me of this. There was no way—short of putting the entire assembly inside a Faraday cage—of determining what portion, if any, of the response was due to etheric input.

To eliminate this EM antenna effect I switched to a pyramid constructed entirely of thin cardboard and masking tape. With no metal or other conducting material in it, this pyramid would be electromagnetically inert.

When I repeated a simple series of tests with the cardboard pyramid I found that although the overall voltages were much lower, the effect of the pyramid was even more pronounced. When the pyramid was simply placed over the probe there was invariably an increase in voltage, generally on the order of .002V. Even more exciting, if the pyramid was then turned to bring two of its faces in alignment with magnetic north there was a further increase on the order of .0005-.001V. Even larger increases were obtained by clipping the probe[3] to the edge of the pyramid, and zones of varying field intensity seemed to be identifiable in and on the pyramid.

With such simple apparatus it might be expected that problems would be few. However, I quickly found that when dealing with these very small voltages noise became an important factor. Even the shortest leads pick up a certain amount of EM radiation, with which the crystal is quite happy to resonate. Consequently, shielded cable from crystal to vtvm is essential (I use RG-58-U/A with double banana terminations, shield grounded to vtvm), and the position of the probe lead must remain unchanged during any single experiment.[4] Furthermore, the experimenter's body can act as an excellent antenna, so tests must be run "hands-off." Despite all precautions my apparatus produces a noise voltage baseline of approximately .035-.038V. No doubt slight variations in repeated tests (on the order of ±.001V) can be accounted for by varying amounts of EM reception in the leads, but I must emphasize that the proportional change remains almost identical from one test to another.

EXPERIMENT #Q24

Probe clipped to glass flask on bench to raise it near middle of pyramid.

no pyramid	.033V
pyramid in place	.035V
pyramid aligned	.0355V
pyramid removed	.034V
pyramid replaced	.0355V
pyramid aligned	.0365V
pyramid removed	.034V
pyramid replaced and aligned	.036V

Figure 3. Typical experimental results.

Although I have done only the most basic work, I believe I can already draw a few tentative conclusions regarding pyramids:

1. There is an unknown, apparently non-EM energy field in/on a pyramid.
2. This field is generally stronger on the surface of the pyramid than in its interior.
3. The field varies in strength consistently in different zones in/on the pyramid.
4. There is a small increase in field strength when the pyramid is aligned to magnetic north.

In addition, preliminary work with non-pyramidal shapes, primarily a cubical box, indicate that any regular geometric form possesses such a field. For a cube the average voltage increase seems to be just half of that for a pyramid of identical materials and similar size[5]. There are indications that

ASTROLOGY: The Way It May Work

by J. B. Williamson














WHEN I ASSUMED the editorship of an Indianapolis-based publishing company in 1962 a knowledge of astrology was a job requirement. Marguerite Carter was the astrologer for whom I was both ghosting and editing. For six months I was instructed daily in astrology by Ms. Carter and her son, who was also a professional astrologer.

Then, from 1966 through 1971 my wife Mary and I owned our own mail-order astrology company. I prepared and personally appraised several horoscopes every day, and some seven or eight astrology forecasts each week.

During all nine years of my astrologizing there was one central problem that simply would not go away: *How* does astrology *work?* I knew perfectly well, when I used the standard phrase "planetary influences," that there was probably no literal, tangible influence, cosmic or otherwise. I also knew that when I did my work properly, astrology *did* work, amazingly well. Yet I remained quietly in sympathy with the science-minded who insisted there must be *some* discoverable way it worked, if it was as accurate as I knew it to be.

Recently, from a reading of books by such interesting thinkers as D. Scott Rogo, a line of thought began to develop from a theory about UFO sightings which seems to point toward a plausible explanation of the way astrology works.

Briefly stated: If it is likely that a certain kind of person is more "open" than others to UFOs—a likelihood considerably enhanced if the UFO phenomenon is viewed as of psychic, or partly psychic origin—it seems reasonable to me to assume that one-twelfth of the population is more "open" to the characteristics of Aries than the rest of the nation, one-twelfth more "open" to Taurus, one-twelfth more "open" to Gemini, and so on around the zodiac.

Rather than a direct, causal "planetary" influence that makes a person Saggitarian in nature, for example, it may be that people born between late November and late December are *psychologically and/or physiologically possessed at birth* of those characteristics associated with Saggitarius.

There may be tangible, even traceable, mental and/or bodily distinctions inherent in all persons born in a certain 30-day period of the year. Perhaps they may be attributes passed along genetically as a consequence of a baby having been conceived at a fairly predictable date close to nine months before birth.

I have known good astrologers who often may deduce, just by looking at a person, his or her time of birth. And I won't deny what other astrologers have written and said, that the individual's ascendant, or rising sign at birth, tends to moderate birth-sign characteristics. But, a person with quite large ears standing out from the sides of the head seems almost always to be either Gemini or Saggitarius; someone with large, liquid eyes, especially with the white of the eye showing beneath the pupil, always seems to turn out to be either Pisces or Cancer.

I would welcome help in pursuing this theory by those who feel more knowledgeable about physiology and who would like to find an understandable source for the so-called "influences" of astrology.

heavier cardboard (corrugated) produces an overall increase.

The applications of this effect are intriguing. At last it becomes possible to test the many assumptions of pyramid enthusiasts. One, at least—the increase of field strength with magnetic alignment—seems to be valid, and there are strong indications that the idea of zoned field intensity is also correct. Further elaborations on the apparatus might include better shielding, probes, and possibly some method of tuning. It should be possible to calculate such parameters as etheric frequency (if applicable) and amplitude from the characteristics of the crystal. It is hoped that other workers, utilizing better apparatus than mine, will be able not only to duplicate these results, but to take them much further.

REFERENCES AND NOTES

1) *Pyramids and the Second Reality,* by Bill Schul and Ed Pettit, Fawcett Books, 1979.

2) *The Pyramid Guide,* 741 Rosarita Lane, Santa Barbara, CA 93105. In the March-April 1975 issue, editor Bill Cox replies to a query with directions for attaching leads to a pyramid.

3) My "probe" is simply an alligator clip. Results obtained by clipping it to the pyramid are necessarily approximate, since the action of clipping involves some change in the position of the lead. (See below.)

4) For this reason tests with the probe resting on the bench or some support are preferred, as the relative positions of it and the pyramid can then be changed solely by moving the pyramid. Measurements at the apex are most difficult to make without disturbing the lead. Some sort of rigid framework should overcome this problem.

5) It is tempting to conclude that the etheric field strength of a pyramid is therefore twice that of a cube, but of course this would be the case only if the etheric/EM relationship is directly proportional, and at the present time, this is an unfounded assumption.



Solving the Mutilation Mystery: A New Approach

by David DeWitt

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AUTHOR'S NOTE: This is a preliminary study which is part of an ongoing investigation. It will be revised and expanded as research uncovers new information.

IT is a curious comment on human nature that investigations into "paranormal" phenomena now generally dwell on the *unknown* rather than the *known*. By "true believers," astrology is given more credence than astronomy; UFOs are presumed to be extra-terrestrial and benign; ESP and psychic powers are taken as gospel (despite the fact that very little has been accomplished in that field). And when such quasi-science as *Chariots of the Gods?* is blindly accepted as fact, we must face the truth: There is a new rejection of science prevalent today in our society.

Likewise, the bizarre cattle mutilations have produced mostly wild speculation rather than logical and scientific investigations. Many people interested in the paranormal, including a few sociologists, are now investigating not only the *occurrences* of strange phenomena, but also the *effect* that such occurrences have on the public. They are trying to answer the question of a human nature which, in the most enlightened age of mankind, readily embraces speculation in place of scientific examination. Why do seemingly sane human beings, from farmers to engineers, enthusiastically replace rationality with fantasy? One part of the answer probably concerns the enormous growth and popularity of science fiction, but the overwhelming reason is simple: They *want to believe* in such things so much that they easily accept ideas and theories as *facts*.

Their reasoning is this: Since rational and scientific evidence has not yet explained such odd occurrences, their nature must therefore be controlled by a "parascience" that we do not understand. Many people desperately want to experience such an exciting event as extra-terrestrial visitation, so they create their own reality. In fact, noted UFO researcher Jacques Vallee believes that the UFO phenomena have been embraced by many as a "new" religion, although the UFO cultists exhibit classical religious tenets like belief in an unknown, unseen, yet benign and omnipotent entity. They also demonstrate the classical need to belong to groups of people with similar beliefs. Hence the development of UFO cults that seek to exploit the phenomena which, in reality, after all the decades of study, *we basically still know next to nothing about*. But people need a religion, need to pray, and I'm reminded of Ambrose Bierce's famous definition of prayer: ". . . to ask that the laws of the universe be annulled in behalf of a single petitioner confessedly unworthy."

The preceding has been stated to illustrate that this writer is not a true believer but very definitely a skeptic. But not skeptical of the *existence* of mutilations or UFOs—the overwhelming preponderance of physical evidence indicates without question that cattle have been mutilated and that people have spotted unidentified "objects" in the sky. I am skeptical nevertheless of nearly every "fact" about the mutilations except their existence. And I am particularly skeptical of the usefulness of current investigations underway, both official and private. I question the motives and personnel of many of these surprisingly casual and disorganized studies, but more important, I question the methods employed in these studies. It seems that there has been an overwhelming effort *not* to solve the mutilation mystery. This may sound like an accusation of a conspiracy, but it's merely a reflection on the new rejection of scientific methods.

This paper is not a history of mutilations—that would take a voluminous book. Rather, it is an attempt to formulate a new approach to solving the mystery, an approach which takes into consideration my major premises: The mutilation of cattle in the western states and provinces are terrestrial in nature, have a logical purpose and methods, and can possibly be prevented. Through application of scientific method, I believe that *an* answer, if not *the* answer, to the puzzle of the mutilations can be found. The *why* and the *how* of the mutilations may already have been solved—but the exact *who* may take a little longer.

A detective uncovers a clue, then another, and advances a theory about who must have committed the crime, thus solving the case. The investigator has deduced the answer, right? Wrong. The detective has *induced* the answer, reasoning from particular facts or individual cases to a general conclusion. To use deduction is to reason from the general to the specific, as in formulating a theory about who could be responsible, then finding specific facts or physical evidence to support the theory. Thus the detective induced the answer by relating specific clues to a theory of whodunit.

The inductive method, currently the only one employed by mutilation investigators (and most UFO buffs) has failed to produce any leads at all in solving the mystery. There have been some attempts at the deductive method, but all they have come up with are the three most popular theories about responsibility for the mutilations, but of course, no specifics. So far, no one has completed the deductive process of doing research to find correlating evidence to support any one theory. The three theories, from most-supported to least-supported, are:

—that UFOs and/or their occupants are responsible, for an unknown purpose, and the UFOs involved are presumably extra-terrestrial.

—that the U.S. government (or renegade researchers from some federal agency) are doing the mutilations for some nefarious purpose such as chemical or biological warfare experimentation.

—that members of a cult or cults are responsible and the mutilations are part of a satanic "religious" ceremony.

The once-popular predator-damage theories have now generally been discarded, as have tales of associated bigfoot creatures, giant pterodactyl-like birds, motorcycle gangs, time-travelers, invisible "energy rays" from inside the earth, and scientists looking for an eternal-youth serum. There is no need to debunk any of the theories which have been offered because they must stand or fall on the basis of supportive evidence. That there is little, if any, evidence to support any

one of these theories is indication enough that new ideas must be explored. And remember, simply because it is a fact that unidentified aerial phenomena have been sighted in proximity to the mutilations does not prove that the mutilations are caused by extra-terrestrial visitors.

Current investigations are being conducted on three levels. First, the vigilante effort, where ranchers struck by mutilators have formed patrols to attempt to catch the perpetrators in the act—a noble effort, but one doomed to frustrating failure due to the mobility and technology of the mutilators. Incidentally, the reaction of cattlemen's organizations ranges from indifference and disbelief (New Mexico) to hefty rewards for information (Alberta and Colorado).

The second investigation level is of the quasi-official kind, with the FBI alternating between investigating and declining to investigate mutilations as criminality on federal lands such as national forests and Indian preserves. Information about FBI "progress" in this direction is virtually nonexistent or unobtainable. Another quasi-official investigation, enabled by a grant of $50,000 from the Law Enforcement Assistance Administration (LEAA) to fund a probe in New Mexico, has been equally noninformative. The only recent progress report from this investigation came in a radio interview with the director, a former FBI man named Rommel. Since the summer of 1979, he said, he has looked at about 20 dead cows; none was mutilated. Rommel thinks that mutilation is an "inaccurate" term for the phenomenon. It cost us $50,000 for this?

Finally, there are about a dozen individuals or small groups in North America who have undertaken independent investigations of the mutilations. Their major accomplishment, so far, has been useful—the collection of data from across the continent by collating and recording reports from the field and various newspaper and magazine accounts. At least two investigators have made significant progress in their research but have not yet reached any formal conclusions. Tom Adams of Project Stigma in Paris, Texas, has amassed quite a bit of data linking the mutilations to sightings of unidentified helicopters. But he told me recently that he was no closer to solving the mystery than when he started, and sometimes he feels that a solution may never be found. David Perkins of Animal Mutilations Probe (AMP) in Farasita, Colorado, believes that there is a correlation between the mutilations and sites which are known for high radiation levels (uranium mines and milling facilities, reactors and waste-disposal sites) but cannot yet offer a theory as to *why* there may be a statistical link.

All of the mutilation investigators utilize the inductive method of attempting to solve the mystery by examining individual cases. But very little new information is gleaned from their recent reports. What we have are simply more classic mutilation cases, though with the summer and fall '79 cases in Alberta, the "mutilators" seem to have extended their range.

Like the UFO flaps of 1954, 1962 and 1966, the mutilations seem to "come in waves" formed whenever a large number of mutilations take place in a particular geographical area over a short period of time. New Mexico and Colorado have suffered through three or more waves dating since the early '70s, and other states such as Montana, Arkansas, Texas, Wyoming and Oklahoma have at one time or another experienced similar concentrations of mutilated cattle, horses, and sometimes other animals.

There is a discernible pattern to the waves in both the nature of the cases and public reaction to reports of them: A mutilated animal is found—usually a cow—dead in the field, usually fairly isolated from human habitation. There are no tracks or other animals around the body. Generally the sexual organs have been removed, often the tongue, tips of the ears and tail; the rectum and patches of skin are also missing. The carcass seems to have been drained of blood. The rancher knows that predators cannot perform such selective and delicate surgery, and wants to know who or what is butchering his cattle, regardless of the precise cause of death. The sheriff is called. "Yep, it's one of them mutilated cows," he says, and promises to investigate. A vet or brand inspector might take samples. The newspapers and radio and TV pick up the story and the mutilation is headline news, particularly when similar occurrences have been reported in the area. More mutilations are discovered over the next few days, often accompanied by reports of bright lights in the sky, mysterious helicopters or other UFO phenomena. A lab report concludes the first cow died of natural causes. Some organization offers rewards for information leading to arrest and conviction, when they should be funding research projects. The mutilations suddenly stop—after compiling a total of perhaps twelve in a two-county area. The press loses interest and soon the public forgets—until the next wave. And all the investigators look at each dead cow and say: "Yep, another classic mutilation." After looking at hundreds of cut-up cows, you'd think they'd get the message: The mutilations won't be solved by after-the-fact examinations of the carcasses. Because it's not what's left in the bodies that's the clue—it's what's been *removed* that is.

So the inductive approach has so far failed and we're left with the deductive method. This way initially requires an understandable, supportable theory of who or what is responsible. To propose an over-all theory we must first examine technology and motive. What person or group has the technology to perform thousands of systematic mutilations over about a million and a half square miles and escape undetected? And why bother? This is no small operation, and technology requires money and skill. The scope of the mutilations suggests instant deployment and rapid transportation, probably by aircraft. An excellent knowledge of surgical techniques would also be necessary, plus sophisticated mobile equipment to drain blood from the carcasses. How much would it cost to provide this technology? What does a mutilation cost? Could two of us run out and perform one for, say, a hundred dollars, if we used sophisticated aircraft? Very doubtful. A thousand dollars, if we rented a helicopter and all the surgical equipment? Hard to say, but just by using those figures, someone has spent at least $800,000 or $8 million to mutilate livestock over the past ten years, based on an estimate of 8,000 *known* mutilations. The only motives such expenditures (and bother) would justify are military, profit or politics.

Wait, the UFOlogists scream. What about possible extra-terrestrial involvement? Logically we must eliminate this consideration because the only evidence we possess is terrestrial in nature. Just because scientists have not solved the mystery of cancer, do we automatically attribute the disease to outer-space causes? Provide some extra-terrestrial evidence and we'll fall all over ourselves examining it. To repeat: UFOs are simply unexplained aerial phenomena—and no one has any proof that they come from any world other than Earth.

Back to motive and technology: Who has the money and equipment to plan and execute such operations? Governments, certainly. The U.S. government has many agencies which could be responsible, from the CIA to the Air Force, and Washington has been in trouble with dead livestock in times past. Remember the flap over the dead sheep in Utah killed in nerve gas experiments or "accidents?" But to underwrite this theory we need to include motive. Why would the U.S. government risk another Watergate with the clandestine butchering of thousands of cattle on ranches and grazing land all over the continent? Lots of possibilities have been advanced. Experiments with new weapons offer a possibility, including chemical and biological toxins and tests for dispersal in animal bodies. But hard to counter is the objection that the U.S. government can well-afford a hidden, top-secret test facility for this sort of thing rather than go about the countryside zapping cows. And the thought of a foreign government operating like that in this country and Canada is frightening and, I hope, far-fetched.

We'll return to the government later, but just for speculation's sake, what other groups have the money, access to the technology and a possible motive? Well, perhaps some sort of SPEKTOR-type operation or cult, but why not stick to the obvious? Big business now owns its own satellites. Large companies have the money and technology to perform operations on the scale of the mutilations, but what about motive?

Just for a moment, don't think about government conspiracies or extra-terrestrial mutilators. Think instead about such "values" as profit and greed. Would, say, some large company accept the risks and spend the money to mutilate cattle if there was a good profit in it? You bet they would! Many U.S. corporations have demonstrated to and beyond the point of criminal indictment, that they will do almost anything to make a profit, including poisoning the environment, manipulating foreign governments, conspiring with the CIA, contributing illegally to politicians, and using spying, subversion, stealing, lying, cheating and other felonies as business tools. Would a few thousand cattle stand in the way of profit? Hardly.

The theory from which I hope to deduce the culprits is this: The cattle and other livestock are being mutilated as part of an exploration system used to detect the presence of mineral deposits, and, the mutilators are probably scientists or technicians excising tissue samples to assist in the exploration process. It is important to note here that the majority of the mutilations have occurred in the general area of the richest mineral deposits in North America—the Rocky Mountain region of the U.S. and Canada. Minerals, like petroleum, are in short supply. World stockpiles of copper, zinc and other metals have dwindled as needs have increased; uranium demand is at an all-time high despite the strident cries of those who protest nuclear proliferation.

There is an intense search underway for new mineral deposits utilizing new techniques and hundreds of millions of dollars. In 1977 exploration expenditures for uranium alone were $258 million, up 50% from 1976. And who is spending this money? Over one hundred large corporations are, led by oil companies like Exxon, Arco, Gulf and Mobil, and power companies like Commonwealth Edison and Pennsylvania Power & Light. They *must* spend the money to find new sources for uranium and other minerals because traditional exploration methods are no longer efficient. *Mining Engineering* has observed:

> Uranium exploration in the U.S. is currently undergoing a fundamental change. As shallow deposits in sandstones become more difficult to find, new depositional models are envisioned and tested; remote sensing plays a larger role in exploration; pathfinder elements become more important; and innovative, low cost geophysical techniques are employed for deep, rapid and precise exploration.

So, to find uranium these days, the mining engineers must dig deeper, which is expensive. It is now critically important to have the best possible data before deciding where a test-drilling might justify putting all that front-money into the ground. "New depositional models" (translate as "deeper deposits") are found with new sciences and technologies like geophysics, geobotany and biogeochemistry. Geophysics is the science where techniques of physics are used to study the earth; geobotany is a technique of analyzing the siting of plant types, or plant families, as a guide to subsurface mineral presence. Biogeochemistry uses analysis of organic tissue samples to find evidence of metal content or the location of mineral deposits.

An important breakthrough in geophysics was the development of the airtrace system by Barringer Research, Ltd. It seems that minerals bound to rich organic topsoil migrate upward, into the atmosphere where the airtrace system, in a helicopter, plane or balloon, collects samples. In 1976 the system was helping to locate deposits of mercury, copper, zinc and silver. In uranium prospecting, airborne radiometric surveys are checked for radioactive anomalies which may provide clues to deposits. Both of these geophysical techniques begin the narrowing process in the minerals-search theory which involves our mutilated livestock.

Geobotanical evidence has led to impressive finds. By analyzing multiband photographs and luminescence factors of certain plants, scientists have discovered significant deposits of molybdenum, copper, gypsum and phosphate.

After airborne analysis and geobotany, the next step is biogeochemistry. Literally thousands of plant samples from specific indicator plants are analyzed for their mineral content, which is absorbed through subsurface water. Examples of indicator plants are locoweed and vetches for uranium, California poppy for copper, buckwheat for silver. Large numbers of samples are necessary because the area the survey covers is huge, so if the area for taking plant samples could be reduced there would be great savings of time and labor, not to mention money. This is the point where livestock enter the picture.

It is known from selenium poisoning incidents in cattle that many metals accumulate in the tissues of animals that feed on plants or drink water in proximity to areas of high mineral concentration. (Incidentally, selenium and uranium share many indicator plants.) In volume 59 of *Science Progress*, P. J. Peterson observed:

> A very large amount of work has been published on the analysis of mammalian tissues . . . It is now clear that the concept of "accumulator tissues" exists for many elements, for example the well known accumulation of iodine in the thyroid and arsenic in the hair and nails. Lesser known accumulators are, for example, tin in the

intestine, titanium and aluminum in the lung, vanadium in the hair and bone, zirconium in blood, and selenium in the retina of the eye.

It is also known that certain metals accumulate in the liver, various bodily extremities and the mucous membranes. The missing organs of mutilated livestock correspond closely to those used in biogeochemical procedures. In 1971 a researcher named Warren first used the livers of 96 trout in British Columbia to locate zinc-bearing deposits which ran off into the trout streams.

Hints of the continuing use of animal tissues in biogeochemical research surface occasionally. A textbook on such procedures (Reeves and Brooks, *Trace Element Analysis of Geological Materials*) contains instructions for gathering plant samples for analysis and then ends it with these tantalizing ideas:

> Animal material should be deep frozen upon return to the laboratory and kept in that condition until required for analysis. Samples may also be freeze dried and can then be stored at room temperatures for an indefinite period.

What animal material? we want to scream. But of course I didn't expect to find an article in the *Journal of Biogeochemistry* entitled "Clandestine Techniques for Acquiring Livestock Tissue Samples for Uranium Prospecting," but I did find the following eye-opener in Frederick Siegel's text *Applied Geochemistry* (1974):

> . . . research into unusual accumulations of elements by plants and animals under varying conditions must be continued. . . . There is an ample field of work open for innovative basic research such as the type of investigation made by Warren and his colleagues on trout livers. . . . One may consider the use of animals employed as food and having known and limited geographic ranges for prospecting, as perhaps the sheep of Patagonia or the cattle of the mountainous and difficultly accessible areas of Colombia, by the analysis of some anatomical part before or after the animal enters the slaughterhouse.

Obviously I have not yet accumulated enough evidence to call it proof, but here's a possible scenario:

Since the early '70s there has been rapid progress in biogeochemical techniques, but little has been published because such practices would offend animal lovers as well as cattle breeders. There is no question that the technology exists to enable scientists to test the tissues of animals that have come into contact with many elements through water consumption, skin absorbtion or the ingestion of indicator plants. From selenium poisoning incidents alone, we know that hooved animals are susceptible to high metal concentrations in their tissues. And the organs and tissues involved are the tongue, blood, lips, eyes, skin, sexual organs, liver and "selected" mucous membranes.

The mutilation of cattle can thus be viewed as the second step of an exploration process which begins with airborne surveys and concludes with a test drilling. The airborne survey locates a likely area where a certain mineral is suspected. Mobile laboratories are dispatched to acquire tissue samples of livestock, and because the cattle generally have a specific fenced range, it's relatively easy to pinpoint a specific area once a positive indication of the mineral has been found. But many tissue samples covering hundreds of square miles must be taken, perhaps causing the "waves" of mutilations previously described. Once a certain range is "bracketed," additional plant samples can be analyzed to narrow the specific area down to a recommended position for a test drilling. If the drilling is also positive, the prospectors must file a claim if the site is on federal or state lands (except national parks), or lease or buy the land if it is privately held.

In this scenario the cattle are simply research tools in a very complicated process designed to bring profit of some kind to the perpetrators. The "bizarre mutilations" are seen as just excellent surgery, perhaps utilizing laser technology, to remove certain organs and tissues for chemical analysis. The "ritual" is scientific method and the "UFOs" are part of the equipment deployed in the research study. But how far can this study reach? Are the mutilators from the research departments of oil companies or the mining industry? Are they part of an independent research group which sells its findings "on contract?" Are they protected or assisted by U.S. government agencies? To what extent are U.S. government personnel, civilian or military, directly involved? Is anybody rationalizing the expropriation of private property (i.e. cattle) with neither due process nor just compensation, on the perilous grounds that to do otherwise would somehow harm the national interest?

I have mentioned previously that the government would need to have sufficient motive to be involved; since the feds don't directly mine or refine valuable minerals, it does seem likely that the mutilators are receiving some kind of federal protection.

Jacques Vallee has noted in *Messengers of Deception* that a classically mutilated cow was discovered beside the entrance gate of a NORAD facility in Colorado, apparently dropped from the sky. This, and the audacity of "ghost copters" and other aerial phenomena, causes one to wonder about the U.S. air defense system, especially in the Rocky Mountain region where virtually everything in the air is tracked by radar. Private aircraft are often warned if they approach too close to prohibited airspace, and ignoring such warnings around the White Sands missile range in New Mexico will bring jets from Holloman Air Force Base to escort trespassers away. It is difficult to believe that helicopters or other aircraft can appear with the frequency they did in northern New Mexico during 1975 and then simply disappear. A headline of the time in the *Albuquerque Journal* reads "Ghost Copters in N. NM." One craft over New Mexico as recently as spring 1979 was tracked by radar from Colorado after two Jicarilla Apache policemen surprised it shining a bright light on cows near Dulce. New Mexico state policeman Gabe Valdez, who was on patrol south of the light-shining incident, said an unidentified craft, totally silent, passed over his head shortly after the Jicarilla police reported the incident over the radio. Radar confirmed his story that the craft was headed toward Albuquerque, but it soon disappeared from the radar screens. One cannot help speculating that if some agency was assisting the mutilators, or covering up, it could be construed as acting in the interest of national security, since new mineral deposits could be vital to the national defense effort.

This initial study cannot claim to have solved the mutilation mystery. We need more than circumstantial evidence. Likewise, even presuming the essential correctness of our scenario, it cannot account for all the bizarre cases. It cannot, for example, explain the death and mutilation of livestock such as prize show bulls and race horses in corrals close

The Trouble with Education . . .

by Ivan T. Sanderson

The real trouble of course is that we don't have an educational system in that we are still trying to *teach* rather than *educate*. Teaching is a technological process suitable only for imparting techniques; education is or should be a mental exercise, and not just to encourage learning but to foster understanding. It should be offered in three fundamental aspects—simultaneously—(1) the provision of factual information, (2) the principles and methodology of classification, and (3) and most important of all, the stimulus to cerebration. The last is defined by the dictionary as: "Action of the brain, conscious or unconscious" (please note)—in other words, how to *think*.

The primary duty of educators should therefore be to stimulate the pupil, of whatever age, to use whatever "brains" he or she has to comprehend reality. The best way to do this is manifestly to gain their interest by an appeal to their curiosity; and the best way to do this is to present them with enigmas and paradoxes, which is to say the unexplained. Parroting the explained is a pure waste of time. This can be looked up in textbooks. But our so-called system is today collapsing primarily because the second essential has been wholly ignored. This is taxonomy or the expertise of classification.

It is quite useless to try to come to a decision about anything unless you know the facts, and you can't gather these if you can't find them. What is more, no amount of technique that you may have been taught will help you if you have never been presented with an overall set of pigeon-holes into which you can put anything and everything, and the outer limits of which have been defined, and the division and subdivision of which have been laid for you. The Three 'Rs' are techniques. They do *not* constitute education, let alone knowledge.

The best teachers start each semester with a definitive course in taxonomy, then proceed to the main subject for the rest. Since competence in the three 'Rs' should be implied by a certain age, books to read and lab work to be done are listed on a blackboard, and the educator is then free to devote his or her entire time to stimulating the interest and inquisitiveness of the pupils. The collecting of credits is assinine, and defeats its purpose which is the assimilation of facts. Facts cannot be assimilated in lumps without reference to all other facts. All subjects should be taught simultaneously and continuously up to a certain level, and examinations be held in each and all at the end of each semester. Above this level only one specialty should be *taught*, and on the assumption that the pupil is by then educated. The one subject that should be added to the three 'Rs' is geography, and this should be continued until degrees are bestowed. This is the European system; and it *is* a system.

Excerpts from an editorial by SITU's founder in Pursuit, *Vol. 4, No. 1, 1971.*

to ranch houses. In fact, we may never track down the actual, individual perpetrators. That would take a lot of undercover work and a vast amount of funding. Rewards offered by various groups depend on "information leading to arrest and conviction," but there is no money available to finance an independent investigation to accumulate the necessary evidence required in civil as well as criminal proceedings.

My theory of the responsibility for most of the mutilations undoubtedly will be cooly received. The notion that it's the profit-mongers who are slicing the penises off of bulls instead of tripedal inhabitants of Rigel 2 looking for ingredients for an immortality serum, will not be a popular one for the true believers to swallow. Also, the prospecting theory has some holes, and raises some questions I will attempt to answer.

Q. How are the cattle killed, according to this theory?

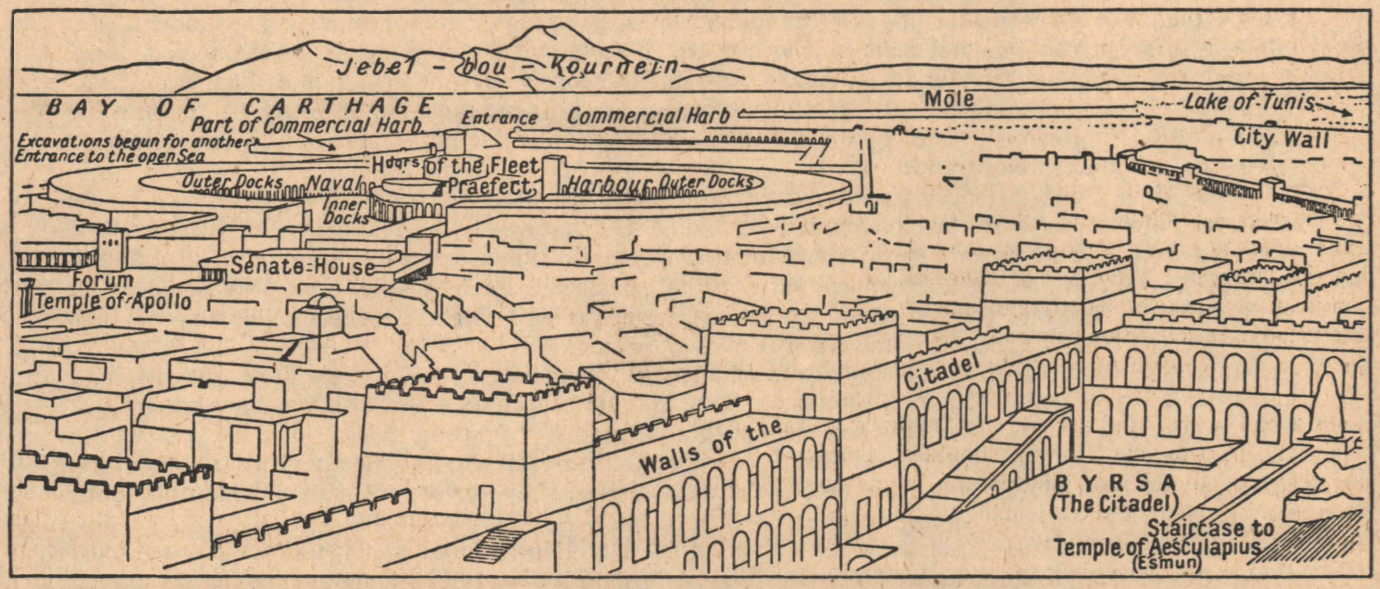
A. Many probably are not killed by the mutilators but die of natural causes. Tested samples from mutilated cattle reveal a number of causes of death—from tranquilizers to blackleg (Clostridium bacteria toxins) and other natural causes. I think most of the animals are found and mutilated after a natural death. This view would obviate the recurrent vision of silent helicopters chasing cattle all over the range in a kind of ghastly roundup and killing them from the air. Remember that the mineral traces are still present in decomposing flesh. And to those who would suggest that it would be easier and certainly safer to buy cows directly from the ranchers, consider this: The prospectors would prefer cows in the field, as close as possible to indicator plants and water sources. Once a cow has been located in the field the identification of its owner would require the services of a brand expert. Keep in mind, too, that in the West hundreds of thousands of cattle roam freely on federal grazing lands. Buying the cattle after roundup would render the animals useless for accurate scientific analysis; the researchers would have no idea of the exact place each cow grazed. It is also possible, and some small amount of evidence has been uncovered to suggest, that some of the animals may have had the blackleg toxins injected into them. Other sketchy evidence has been advanced to suggest that microwave technology in the form of masers may have been utilized to kill the animals. A prospector coming upon a dead cow would be several steps ahead in the process because the animal's death occurred in the very area it had been grazing and watering. And it's possible that some of the animals may have died from the accumulations of metals the prospectors were looking for.

Q. How can you explain the technology of silent helicopters, bright lights and cigar-shaped craft often reported near mutilation sites?

A. We have had the technology for quiet helicopters for many years. In the early '70s the Defense Department Advanced Research Projects agency tested the OH-6, a very quiet copter. In December 1975 the *Aeronautical Journal* published an article entitled "The Coming Era of the Quiet

[*Continued on page 174*]

ATLANTIS:
Lost and Found Again



Plan of Carthage reconstructed by archeologist Paul Aucler, showing circular harbor, sea-wall or "mole," and citadel. Reproduced by permission from *Atlantis Discovered* by Lewis Spence. © 1974 by Causeway Books.

Scholars have long noted many striking resemblances between the Atlantis described in two of Plato's dialogues and Carthage, the great city-state in North Africa near what is now Tunis. Carthage dominated the Mediterranean world of commerce and culture for hundreds of years until the Roman legions leveled it in 146 B.C.

Plato's dialogue, *The Timaeus*, was held in 600 B.C. It reported on many details of a thriving Atlantean city-state that existed until "nine thousand years ago" when a great cataclysm, probably of volcanic origin, caused it to sink to the ocean floor.

Carthage wasn't Atlantis—not in nine thousand years could it have been. By what quirk of history or coincidence did two super-city states come to share so many similarities of site and structure across a span of so many millenia?

by Jon Douglas Singer, M.A.

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PART I

THE LOST CONTINENT of Atlantis, which sank after a cataclysmic series of earthquakes and volcanic eruptions more than 11,000 years ago, has captured Western imagination ever since Plato first published his two dialogues that detailed its fabulous history.[1] From classical times to the present, hundreds of books and articles have been written about the authenticity and location of the sunken land.[2] I will not discuss the question whether such a large civilization and continent could have existed in fact, but I will be discussing one aspect of the controversy: The persistent series of *reports* of ruins that have been found from time to time underneath the sea or upon islands in the Atlantic, in the approximate location of the continent as given by Plato in his dialogues *Timaeus* and *Critias*.[3]

Some of the ruins have been reported found on the eastern side of the Atlantic, or under the sea in the region of the Atlantic islands such as the Canaries and the Azores. Recently, other groups of submerged stone structures have been reported from locations on the western side of the Atlantic. I am tempted to compare these reports to UFO reports. UFOs come and go, flitting through the night skies with hardly a trace of physical evidence accepted by the majority of scientists. Occasionally they are photographed. So it is with Atlantis. Only two groups of reports of stone structures have been verified by photography and by archeological study. The first group is in the Bahamas, and the second group of ruins is in the vicinity of the Ampere Seamount, 300 miles or so southwest of Lisbon.

So far, the Ampere Seamount site has not been studied extensively, but archeological expeditions are supposed to be under way to the area, and by the end of the year we may hear more about the most recent developments in Atlantis research.

Our story really begins in the Middle Ages. While Western Europe was temporarily cut off from sea-roving by piratical fleets of Viking dragon ships, the Arab rulers of Spain were, for the most part, spared the brunt of the brutal barbarian raiders. The Arabs maintained a flourishing trade with their brothers in northern Africa and with the mighty caliphate of Baghdad in the East. The Arabs had conquered Spain and Portugal from their Visigothic rulers in A.D. 711. Since then they had looked for even newer lands.

Occasionally ships left the great ports of Lisbon or Seville and searched for new lands in "the West," the legendary Fortunate Isles of Greek and Roman fable. *The Encyclopædia Britannica*[4] reported that on the Canary Islands Arab explorers found traces of great ruins. Were these the work of the Guanches, the native inhabitants prior to the European conquest in the fourteenth and fifteenth centuries? Without more details we can't be sure. How likely is it that these ruins were all that was left of a lost city of the Atlantean Empire?

The only clue to the mystery of the great ruins found by the early Arab voyagers is a curious photograph of a model of

huge stone structures of the Guanches in a book, *Timeless Earth*, by Peter Kolosimo.[5] No date for the great complex is given by Kolosimo, so we don't know its age, except that it is pre-Spanish. The complex, a vast network of round and rectangular stone enclosures, resembles Irish or Greek stonework of the Bronze Age, c. 2000 B.C. The name of the site isn't given in the text, nor are any details about it. We cannot, therefore, state with certainty that this site is the work of putative Atlanteans, although it certainly provides a clue to the nature of the ancient culture which once flourished on the Canary Islands.

Other peculiar stone structures on the Canary Islands are two cryptic stone statues that appear mysteriously in a photograph opposite page 170 in the modern hardcover edition of Ignatius Donnelly's *Atlantis: The Antediluvian World.*[6] These consist of two peculiar squatting mustached demons or deities uncritically labeled Atlantean gods. They squat inside small niches in finely constructed stone walls and look out at us with wide eyes as if they were surprised by our presence. One holds a ball in his hand and we are reminded of the Greek Atlas who held the earth on his shoulders. I haven't found any reference to this odd photograph in the text, and the source isn't given. The site is equally fascinating: no location is given, except that it is somewhere in the Canaries.

The Azores also have their share of enigmatic stone structures. Or rather, they *had* their share. Accounts written by the first settlers in the islands in modern times (in the sixteenth century, for example) spoke of the discovery of equestrian statues facing west. These are surveyed in some detail by the great British Atlantis researcher Egerton Sykes, in his book *The Azores and the Early Exploration of the Atlantic.*[7] Sykes wrote that the Arab scholar Edrisi who lived at the court of King Roger II of Sicily in the middle of the twelfth century described equestrian statues in the Islands of the Blest, which are now known as the Azores. These artifacts were probably found by Arab explorers and were either of Phoenician or Atlantean origin, but they have not survived.

Later, in 1575, a remarkable discovery was made by one Nicolas Thevet. He was told of a cave on the northern side of San Miguel Island in the Azores. In that cave early treasure-hunters came upon a pair of stone monuments, each 12½ feet long and 4½ feet high. A snake was carved around each monument, and Hebrew-like letters were carved thereon. The style of writing was so old that nobody could read the script, although a Moor of Jewish ancestry, who had come from Spain, copied them. Later, mysterious deaths and disappearances struck curious explorers who ventured in, so thirty years after the discovery the mouth of the cave was sealed shut. Sykes speculated that volcanic gases had poisoned the explorers and that the cave had been destroyed by many earthquakes which shook the isle during the sixteenth to eighteenth centuries. In 1934 a French scholar named Paul Le Cour was told that in the island's museum there was a photograph of a stela that had been found in a cave. This had a carving of a building on it, but Le Cour couldn't find the photograph, nor could Sykes, despite a search of thirty-four years.

An interesting phenomenon on San Miguel is the Lake of the Seven Cities—actually two lakes, one of which is green and the other, blue. The lakes are in a volcanic river bottom. Legend has it that this is the site of the seven cities founded by Christian Ibero-Roman and Visigothic refugees in A.D. 711 after the Moslem conquest of Spain.

On the Azores island of Terceira, in the main city of Angra, Sykes noted that there was a modern copy of the equestrian statue found by the ancient explorers. Another equestrian statue was found by the first Flemish settlers on the Azores island of Fayal. It had a letter *K* carved on its plinth. This statue also is missing.

Sykes then described the most famous of the equestrian statues, one found on the island of Corvo during the reign of King Manuel. The Portuguese writer Damiao de Goes wrote, according to Sykes, that in the time of King Manuel I a statue of a bareheaded horseman riding bareback was discovered atop a mountain. One of the man's hands held the reigns and the other pointed west. In A.D. 1500 King Manuel's court painter was sent to paint the statue, and it was also ordered that he bring the statue with him when he returned to Lisbon. Alas, workmen hauling the monument broke it, and such fragments as were brought to the king have long since disappeared. There is a fantastic spin-off from this tale. Sykes noted that the statue was named Cates or Gades. According to Sykes, Cates is an Inca-Indian word meaning *direction-pointer*. It is also the ancient name of Cadiz (i.e., Gades in Greek).

Sykes's booklet also noted the discovery of traces of Phoenician coins on the Azores, but it is the equestrian statues that are the most interesting to us. Plato wrote that the Atlanteans had domesticated the horse, and while the Phoenicians had a knowledge of horsemanship, ships provided their major mode of transportation and became the hallmark of their civilization. To be sure, Plato's Atlanteans were charioteers rather than horseback riders, but as the statues are no longer extant we cannot be certain whether they were sculpted by the Phoenicians or by Atlantean artists, if the latter even existed.

An even more intriguing report refers to the case of the steamship *Jesmond*. According to researcher William Corliss,[9] the *Jesmond* was a 1,500-ton vessel out of Messina, Italy, en route to New Orleans. The voyage in March, 1882 would have been uneventful except that in an area some 200 miles south of the Azores the crew sighted a strange island, apparently not long risen from the ocean because it was not marked on the charts.

Captain David Robson led a party of explorers to the island and found it to be mountainous, with some volcanic peaks still smoking. What else they found is even more interesting: artifacts and stone walls, the remnants of an ancient, unknown civilization. The artifacts included bronze swords and spearheads, bone fragments and clay vessels decorated with animal designs. This evidence was brought back to the ship which resumed its course toward Louisiana.

When the ship docked at New Orleans a newsman for the *Odebolt Reporter* interviewed the crew and published their story in the April 28, 1882 issue. Presumably the ship's log had a more complete account, but the book was lost in the blitz of World War II and the artifacts also disappeared.

Corliss noted that scientists called the *Jesmond* report a hoax because Donnelly's *Atlantis* was published at the time of the voyage, but Corliss himself seemed to believe the story on the grounds that the captain had nothing to gain except ridicule if the account was indeed false. Corliss added that the crew supported their captain's story, and the skipper went about his business, making many more typical merchant voyages and never even trying to capitalize on his discovery. The mysterious island was never "rediscovered" by anyone. Perhaps it sank again! Corliss finished his report of the *Jesmond* tale by adding that in 1954 a new "bank" or underwater plateau was reported in the same area as Robson's island, in 11 fathoms of water.

Before committing Robson's island mystery to the "unsolved file," I should add two observations: First, Corliss compared it to a UFO sighting, wherein an enigmatic object is described by persons thought to be reliable witnesses, but no physical evidence is available. The second observation is that the account is almost identical to H. P. Lovecraft's fictional tale "The Call of Cthulu," in which a similar discovery is made, but in the Pacific. One wonders if Lovecraft knew of the *Jesmond* incident.

Our tale now moves ahead in time to the 1920s. That era is best known in history's archives as the time of bootleg booze, flappers, the Charleston, Betty Boop, Al Capone, straw hats and silent movies. But Forteans know that in the 1920s there was also a revival of interest in the occult. *Pursuit* readers need no reminding that Charles Fort himself lived and wrote his books on strange phenomena during these years, while Houdini and Sir Arthur Conan Doyle investigated mediums such as the famous Mr. Piper. Heightened interest in the occult inspired a revival of interest in the subject of Atlantis. New searches began. Most of them were archeological, but some explorations plumbed the misty depths of the psychic dimension with results that are with us to this day.

In 1914 Mrs. Elena Whishaw founded the Anglo-Spanish School of Archaeology at Seville and later moved it to Niebla, on the Rio Tinto. Whishaw's excavations uncovered traces of very ancient megalithic walls at Huelva, and Bronze Age walls at Niebla. In 1923 floods ripped away a covering of mud and revealed to the astonished archeologist even older ruins at Niebla. She dated them to the pre-Bronze Age Azilian culture, named after Mas d'Azile in France where a late-paleolithic culture flourished. The ancient ruins included a stairway thirty feet wide, cut in rock and leading from the river to one of the medieval gate towers. Also, there was evidence that the river had been artificially widened to form a harbor. Mrs. Whishaw believed that the Azilians were a colony of Atlanteans, and so reported in her book *Atlantis in Andalucia.*[10]

Nobody has followed up Mrs. Whishaw's notable finds. Egerton Sykes, the British Atlantis expert, wrote that her artifacts are in storage in the offices of the Rio Tinto Mining Company, where they have been ever since Mrs. Whishaw's death.[11] Examination of the Niebla site by carbon-14 dating methods has not been made, as far as I know, so we cannot be sure of the age of these mysterious ruins.

A discovery of equal fascination was made by Professor Adolf Schulten of Erlangen, Germany. In the 1920s he and colleagues excavated the site of Tartessos at the swampy mouth of the Guadalquivir river in Spain. According to L. Sprague De Camp,[12] Schulten found a ring and a masonry block which he dated to two different civilizations, one from 1500 B.C. and the other from 3000 B.C. Schulten thought that Tartessos was related to Atlantis but couldn't find the city since it had apparently sunk beneath the marshy water table. Moreover, water from the marsh flooded the site so thoroughly that digging had to cease.

About the same time in America the famous psychic Edgar Cayce was consulted by a group of Florida entrepreneurs who wanted him to predict whether a proposed resort at Bimini in the Bahamas would be successful. In 1926 Cayce told them that among the things they might expect to find at Bimini were remnants of an ancient sunken civilization.[13] This "reading," as the psychic consultation was called, disconcerted the businessmen. All they had hoped for was a revelation of new oil deposits or at least, the location of some shipwrecked treasure. No submerged ruins were sighted that year, but Cayce-followers kept their eyes open for ruins of antiquity wherever they happened to be in the Bahamas.

A story that came out in 1933 seemed to be a dramatic confirmation of Cayce's prediction. Professor Nicola Russo of Italy, writing in the March, 1933 issue of *The Atlantis Quarterly,*[14] claimed that a French newspaper, *La Croix* of Strassbourg, had noted in its December 28, 1929 issue that merchantship captains sailing near Begame Island in the Lesser Antilles had found an island not marked on current or early charts. Landing parties set ashore there had discovered ruins of an ancient type. The U.S. Secretary of the Navy sent three destroyers to locate the island and verify the findings. The site was found and the ruins explored. Crumbling buildings and streets of an unknown city from a mysterious civilization of a type unknown to history were noted. Unfortunately neither Russo's article nor the newspaper story he summarized gave any details or illustrations. It was not stated whether artifacts were found or whether any were removed by the investigators. The report ended with a statement that a scientific expedition was being organized to study the city and island in detail. To Russo the site appeared to be very ancient and the home of a well-organized civilization at some pre-Columbian time.

The Russo account concerns the general area where Edgar Cayce said that remnants of Atlantean culture could be found. Also, Lewis Spence suggested that a land-mass called Antilia, after the legendary island of Iberian folklore, had existed in the same region.[15] Spence's book was published in 1926, just about the time that Cayce started his psychic readings on Atlantis.

In 1935 the Bahamas again figured in the Atlantis controversy. Zink, in *The Stones of Atlantis,*[16] quoted a prediction by Cayce dating back to the 1920s that "healing wells" could be found at Bimini. According to the anonymous author of a pamphlet, *Earth Changes,*[17] a socialite aviatrix went searching for the wells in 1935 and so she claimed, found a freshwater well walled around its rim with stones of a strange composition with odd symbols carved on them.

I have no details other than those which were reported in *Earth Changes.* Did the aviatrix really discover traces of an ancient civilization or simply stones carved with Arawakan petroglyphs? (For examples of the latter, see *History of the Bahamas.*[18]) It is not impossible that she stumbled upon the ruins of a monument of some sort which had been constructed by a "post-Atlantean" people, their ships having visited the New World after the sinking of Atlantis but before the time of Columbus. The site was destroyed by a series of hurricanes beginning in 1936.

Searchers continued to look elsewhere for a "submerged civilization." In the 1930s British adventurer F. A. Mitchell-Hedges began a quest for Atlantis, which he thought might have been somewhere in the Caribbean. In the Republic of Belize he found a large and ancient ruin—a city of many public buildings and plazas. The city, called Lubaantun, was dated by the Englishman to be between 25,000 and 15,000 B.C. However, Norman Hammond of the Centre of Latin American Studies at Cambridge University after two months of study updated Lubaantun to c. A.D. 700.[19]

The 1940s brought a series of discoveries that seemed to confirm some of the evidence supporting the "lost continent" theory about Atlantis. In his book *Secret of the Ages,*[20] Brinsley Le Poer Trench told a story that has all the ingredients of a scene from *The Maltese Falcon.* Egerton Sykes, the Atlantis researcher, was in the Turf Club in Cairo, Egypt, toward the

end of 1942. He overheard a couple of aviators talking about a remarkable sighting that came about during an otherwise routine mission of flying planes for the Allies to Dakar, in Senegal. A plane had left Brazil and was flying over the mid-Atlantic toward the coast of French West Africa. The pilot had chanced to look down at the sea for a moment and was startled by "an extraordinary sight." Sykes went up to the man and asked him to describe what he had seen. The pilot replied that he had seen a submerged mountain with a ruined city on its western slope; the sighting was possible, he said, because the rays of the sun happened to hit the water at such an angle that they could briefly penetrate the normally murky sea to great depths. The flyer left Cairo the next day on another mission and Sykes lost touch with him.

I tried to follow this story further and found it recurring phantasmagorically in several sources. For example, Charles Berlitz wrote a similar story,[21] of several air-ferry pilots who had sighted submerged buildings and a whole city just breaking the surface near the Azores in 1942. The city was located on the western slope of the Mid-Atlantic Ridge, an underwater mountain chain extending down the Atlantic from the Arctic toward the Antarctic. Berlitz also mentioned that the city was visible only when the sun was at a certain position in the sky so that its rays could illumine the dark waters when they were calm. Berlitz added that other sunken cities had been sighted by pilots flying over Fayal in the Azores and Boa Vista Island in the Cape Verde archipelago. He too noted that pilots had seen sunken cities while flying from Brazil to Dakar.[22]

Another author who mentioned sightings by World War II pilots was Colin Amery. He wrote in *The New Atlantean Journal*[23] that an air-ferry pilot taking a bomber from Brazil to Dakar in 1941 sighted the walls of a ruined building he thought lay about 500 feet below the surface of the sea near the islets that are called St. Paul's Rocks, far to the south of the Azores.

More sightings of submerged structures of apparently man-made origin have occurred in the Caribbean. According to Charles Berlitz, in *Mysteries from Forgotten Worlds,*[24] pilots flying over the Caribbean were searching for submarines when they saw something quite different and unexpected: from time to time there appeared straight lines or rectangular formations beneath the surface. The formations were seen most frequently near Yucatan and British Honduras (now Belize). But such sightings must be categorized as rumors until more detailed evidence can be elicited from these areas.

Varied reports of ancient ruins on the Atlantic islands, or underwater near them, have been circulating amongst researchers and explorers since the end of the Middle Ages. Some of the reports are obvious myths, others have a ring of truth to them, but the hard evidence of artifacts has been notably lacking—until now.

Part II of this article will discuss some of the recently discovered sunken ruins of unknown age. Some are linked to the Atlantis of Plato's fabulous account. The "new group" of stone structures is located primarily in the Bahamas and the Caribbean. Such ruins draw us closer to a solution of their mysteries, for they have been photographed and artifacts have been found at the sites by qualified archeologists. I myself have had the good fortune to visit one of these sites, the famous Bimini Road.

This is the first part of a four-part series on Atlantis written by Jon Douglas Singer. The second part will appear in the Winter issue of Pursuit.

REFERENCES

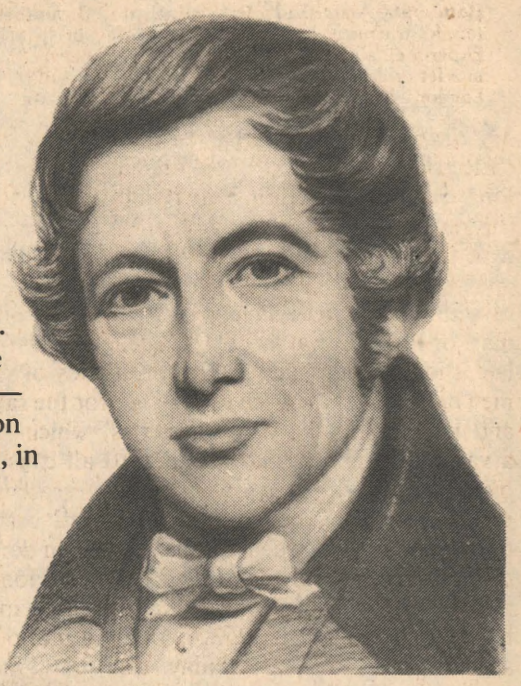
1) Singer, John Douglas, "The Egyptian Connection: Egyptian Sources of Plato's Atlantic Epic," in *Pursuit* No. 50, Spring 1980.
2) See, for example, a table on pages 170-1 in Charles Berlitz's *The Mystery of Atlantis,* New York, Avon, 1976.
3) For English translations of *Timaeus* and *Critias,* one of the best editions is the Loeb Classical Library's.
4) *Encyclopaedia Britannica,* Chicago, 1910, "Azores," "Canary Islands," and "Guanches."
5) New York, Bantam Books, 1973, photograph section.
6) Edited by Egerton Sykes, New York, Gramercy Publishing Company.
7) London, Markham House Press, 1968. Note: Markham House Press is now in Brighton, England.
8) Ibid., p. 21.
9) Corliss, William R., *Mysteries Beneath the Sea,* New York, Thomas Y. Crowell Company, 1970, pp. 101-102.
10) Whishaw, E. M., *Atlantis in Andalucia,* London, Rider, 1929.
11) Personal communication.
12) *Lost Continents,* L. Sprague De Camp, New York, Ballantine Books, 1975, pp. 203-4.
13) *Earth Changes,* Virginia Beach, Virginia, 1971, p. 68. The reading took place in August. I thank Ms. Gail Cayce for sending me this book, which was out of print for a while.
14) Vol. 1, No. 4, March 1933, "Classical Notes of Submerged Continents," p. 197.
15) Spence, Lewis, *Atlantis Discovered,* New York, University Books reprint edition, 1968, p. 62.
16) Prentice-Hall, Inc., New York, 1978, p. 8.
17) *Earth Changes,* op. cit., p. 79.
18) Craton, Michael, *History of the Bahamas,* London, Collins, 1962, p. 20. For example, in Hartford Cave on Rum Cay island, archeologists found crude petroglyphs of fish, human figures, and purely decorative designs.
19) Garvin, Richard, *The Crystal Skull,* New York, Pocket Books, 1974, pp. 41-77. Another British explorer, Col. H. P. Fawcett, had sought for ruined cities of Atlantis on dry land in the Amazon jungles of South America back in the early 1920s. He failed to bring back evidence of any such cities in the form of photographs or artifacts. He and his assistants (his son and another explorer) disappeared mysteriously in 1925. Probably they were killed by Indians, but the bodies were never found. See Col. Fawcett's book, *Lost Trail, Lost Cities,* ed. by Brian Fawcett, New York, Funk & Wagnalls, 1953.
20) New York, Pinnacle Books, pp. 14-15.
21) *The Mystery of Atlantis,* New York, Avon Books, 1975, p. 195.
22) Le Poer Trench, op. cit., pp. 14-15. Another sunken city was sighted off Boa Vista Island in the Cape Verde archipelago in 1929 by a Captain Andersen of Copenhagen. A Danish diver claimed to have found a "marketplace" there.
23) Summer, 1979, "New Atlantis Revisited" by Colin Amery, pp. 16-17.
24) New York, Dell, 1973, pp. 89-90.

ADDENDUM

According to Otto Muck's *The Secret of Atlantis,* trans. by Fred Bradley, New York, Pocket Books, 1979, p. 49, a link of copper chain was dredged up with the mud at Monaco Station, southwest of Santa Maria in the Azores. Muck did not date the find, and there is no data by which the age and origin of this artifact might be determined. It could be from a shipwreck. It remains a mystery.



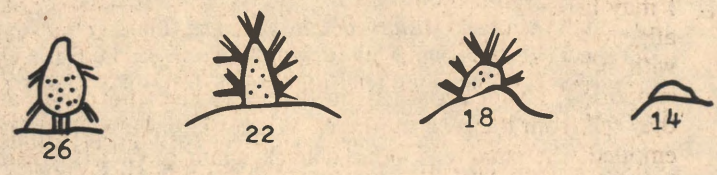
The Broomfield Experiments Of Andrew Crosse, Esq.

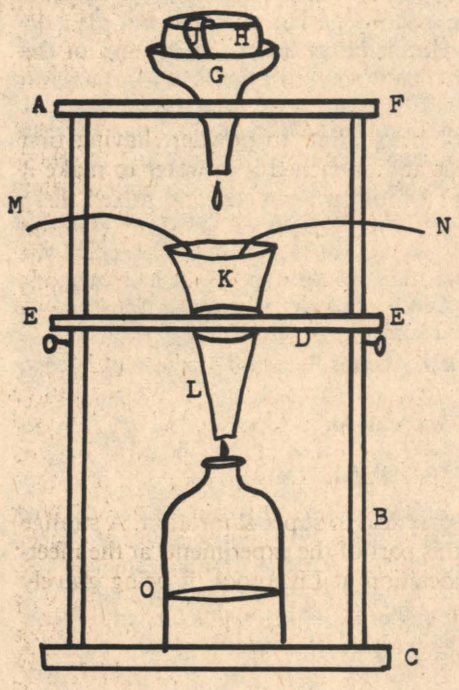


Edited and with Notes by Paul B. Thompson

FOR THE PAST four years or so I have been involved in researching the life and work of Andrew Crosse, the British scientist.

The following is a transcription of Crosse's major paper on those little creatures which have made his name live in the annals of Forteana—the acari. The paper was first printed in the *Transactions* of the London Electrical Society in 1838. It was reprinted in the United States in 1839, in Benjamin Silliman's *American Journal of Science,* Volume 35. I have transcribed the report in Silliman's journal exactly, preserving all the spelling, punctuation and syntax. Because of its age and Britishisms, the article is admittedly hard to follow through the long sentences and paragraphs so typical of the "literary" style of the 1830s. As you find your way through the semantic thickets you will be astonished, as I was, by the sophistication of experiments Crosse made almost 150 years ago, and you will be startled by their prophecy for our generation and for our future. The photograph of Andrew Crosse was found at the local history library in Taunton, Somerset, by the librarian, David Bromwich. It was taken from an original drawing owned by the Somerset Archaeological and Natural History Society. To my knowledge, no likeness of Andrew Crosse has ever been published in the U.S., and perhaps not in England for many years. —P.B.T.





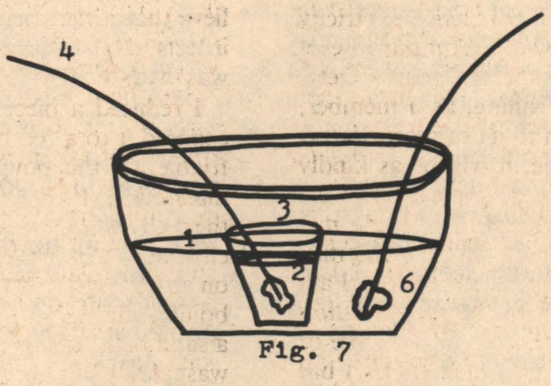


Fig. 7

Fig. 6

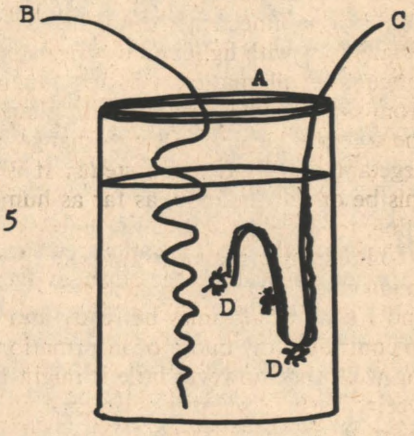
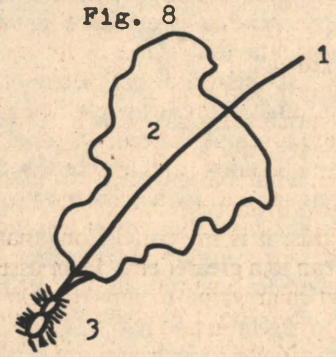


Fig. 8



Crosse's Figures (traced by P.B.T.)—The figures numbered 26, 22, 18 and 14 show the development of the acari at that number of days. The other figures and their features are explained in the text.

ART. X.—Description of some Experiments made with the Voltaic Battery; by ANDREW CROSSE, Esq. of Broomfield, near Taunton, for the purpose of producing Crystals; in the process of which Experiments certain Insects constantly appeared. Communicated in a letter dated Dec. 27, 1838, addressed to the Secretary of the London Electrical Society and read Jan. 20, 1838.

My dear Sir— I trust that the gentlemen who compose the "Electrical Society" will not imagine that because I have so long delayed answering their request, to furnish the Society through you, as its organ, with a full account of my electrical experiments, in which a certain insect[1] made its unexpected appearance, that such delay has been occasioned by any desire of witholding what I have to state, from the Society in particular, or the public at large. I am delighted to find that at last, late, though not the less called for, a body of scientific gentlemen have linked themselves together for the sake of exploring and making public those mysteries, which hitherto, under a variety of names, and ascribed to all causes but the true one, have eluded the grasp of men of research, and served to perplex, perhaps, rather than to afford sufficient data to theorize upon. It is true that much has been done in the course of a few years, and that which has been done only affords the strongest reason for believing that vastly more remains to be done. It would be presumptuous in me to enumerate the services of a Davy, a Faraday, and many other great men at home, or a Volta and an Ampere, with a host of others abroad. These distinguished men have laid the foundations, on which their successors ought to endeavor to erect a building worthy of the scale in which it has been commenced. Electricity is no longer the paltry confined science which it was once fancied to be, making its appearance only from the friction of glass or wax, employed in childish purposes, serving as a trick for the school-boy, or a nostrum for the quack. But it is, even now, though in its infancy, proved to be most intimately connected with all operations in chemistry, with magnetism, with light and caloric;[2] apparently a property belonging to all matter, perhaps ranging through all space, from sun to sun, from planet to planet, and not improbably the secondary cause of every change in the animal, mineral, vegetable, and gaseous systems. It is to determine whether this be or not the case, as far as human faculties can determine, to ascertain what rank in the tree of science electricity is to hold; to endeavor to find out to what useful purposes it might be applied, that I conceive is the object of your Society, and I shall at all times be ready and willing, as a member, to contribute my quota of information to its support, knowing well, that however little it might be, it will be as kindly received as it is humbly offered. It is most unpleasing to my feelings to glance at myself as an individual, but I have met with so much virulence and abuse, so much calumny and misrepresentation, in consequence of the experiments which I am about to detail, and which seems in this *nineteenth century* a crime to have made, that I must state, not for the sake of myself (for I utterly scorn all such misrepresentations,) but for the sake of truth and the science which I follow, that I am neither an "Atheist", nor a "Materialist", nor a "self imagined creator", but a humble and lowly reverencer of that Great Being,[3] whose laws my accusers seem wholly to have lost sight of. More than this, it is my conviction, that science is only valuable as a mean to a greater end. I can assure you, sir, that I attach no particular value to any experiment that I have made, and that my feelings and habits are much more retiring than obtruding character; and I care not if what I have done be entirely overthrown, if truth be elicited. The following is a plain and correct account of the experiments alluded to.

In the course of my endeavors to form artificial minerals by a long continued electric action on fluids holding in solution such substances as were necessary to my purpose, I had recourse to every variety of contrivance which I could think of, so that, on one hand, I might be enabled to keep up a never-failing electrical current of greater or lesser intensity or quantity, or both, as the case seemed to require; and on the other hand, that the solutions made use of should be exposed to the electric action in the manner best calculated to effect the object in view. Amongst other contrivances, I constructed a wooden frame [See "Crosse's Figures"—P.B.T.], of about two feet in height, consisting of four legs proceeding from a shelf at the bottom, supporting another at the top, and containing a third in the middle. Each of these shelves was about seven inches square. The upper one was pierced with an aperture, in which was fixed a funnel of Wedgwood ware, within which rested a quart basin on a circular piece of mahogany placed within the funnel. When this basin was filled with a fluid, a strip of flannel wetted with the same, was suspended over the edge of the basin and inside the funnel which, acting as a syphon, conveyed the fluid out of the basin, through the funnel, in successive drops. The middle shelf of the frame was likewise pierced with an aperture, in which was fixed a smaller funnel of glass, which supported a piece of somewhat porous red oxide of iron from Vesuvius, immediately under the dropping of the upper funnel. The stone was kept constantly electrified by means of two platina wires on either side of it, connected with the poles of a Voltaic battery of nineteen pairs of five-inch zinc and copper single plates, in two porcelain troughs, the cells of which were filled at first with water and 1/500 of hydrochloric acid, but afterwards with water alone. I may here state, that in all my subsequent experiments relative to these insects, I filled the cells of the batteries employed with nothing but common water. The lower shelf merely supported a wide-mouthed bottle, to receive the drops as they fell from the second funnel. When the basin was nearly emptied, the fluid was poured back again from the bottle below into the basin above, without disturbing the position of the stone. It was by mere chance that I selected this volcanic substance, choosing it from its partial porosity; nor do I believe that it had the slightest effect in the production of the insects to be described. The fluid with which I filled the basin was made as follows.

I reduced a piece of black flint[4] to powder, having first exposed it to a red heat and quenched it in water to make it friable. Of this powder I took two ounces, and mixed them intensely with six ounces of carbonate of potassa,[5] exposed them to a strong heat for fifteen minutes in a black lead crucible in an air furnace, and then poured the fused compound on an iron plate, reduced it to powder while still warm, poured boiling water on it, and kept it boiling for some minutes in a sand bath. The greater part of the soluble glass thus fused, was taken up by the water, together with a portion of alumina from the crucible. I should have used one of silver, but had none sufficiently large. To a portion of the silicate of potassa thus fused, I added some boiling water to dilute it, and then slowly added hydrochloric acid to super-saturation. A strange remark was made on this part of the experiment, at the meeting of the British Association at Liverpool, it being gravely stated, that it was impossible to add an acid to a silicate of potassa without precipitating the silica! This, of course, must be the case, unless the solution be diluted with water. My object in subjecting this fluid to a long-continued electric action, through the intervention of a porous stone, was to

form, if possible, crystals of silica at one of the poles of the battery, but failed in accomplishing this by those means. On the fourteenth[6] day from the commencement of the experiment, I observed, through a lens, a few small whitish excrescences or nipples projecting from about the middle of the electrified stone, and nearly under the dropping of the fluid above. On the eighteenth[7] day, these projections enlarged, and seven or eight filaments, each longer than the excrescence from which it grew, made their appearance on each of the nipples. On the twenty second[8] day, these appearances were more elevated and distinct, and on the twenty-sixth[9] day, each figure assumed the form of a perfect insect, standing erect on a few bristles which formed its tail. Till this period I had no notion that these appearances were any other than an incipient mineral formation; but it was not until the twenty eighth day, when I plainly perceived these little creatures move their legs, that I felt any surprise, and I must own that when this took place, I was not a little astonished. I endeavored to detach, with the point of a needle, one or two of them from its position on the stone, but they immediately died, and I was obliged to wait patiently for a few days longer, when they separated themselves from the stone, and moved about at pleasure, although they had been for some time after their birth apparently averse to motion. In the course of a few weeks, about a hundred[10] of them made their appearance on the stone. I observed that at first each of them fixed itself for a considerable time in one spot, appearing, as far as I could judge, to feed by suction; but when a ray of light from the sun was directed upon it, it seemed disturbed, and removed itself to the shaded part of the stone. Out of about a hundred insects, not above five or six were born on the south side of the stone. I examined some of them with the microscope, and observed that the smaller ones appeared to have only six legs, but the larger ones eight.[11] It would be superfluous to attempt a description of these little mites, when so excellent a one has been transmitted from Paris.[12] It seems that they are of the genus *Acarus,* but of a species not hitherto observed. I have had three separate formations of similar insects at different times, from fresh portions of the same fluid, with the same apparatus. As I considered the result of this experiment rather extraordinary, I made some of my friends acquainted with it, amongst whom were some highly scientific gentlemen, and they plainly perceived the insect in various states. I likewise transmitted some of them to one of our most distinguished physiologists in London,[13] and the opinion of this gentleman, as well as of other eminent persons to whom he showed them, coincided with that of the gentleman of the Academie des Sciences, as to their genus and species. *I have never ventured an opinion as to the cause of their birth,* and for a very good reason—I was unable to form one. The most simple solution of the problem which occurred to me, was, that they arose from ova deposited by insects floating in the atmosphere, and that they might possibly be hatched by the electric action. Still, I could not imagine that an ovum could shoot out filaments, and that those filaments would become bristles; and moreover, I could not detect, on the closest examination, any remains of a shell. Again, we have no right to assume that electric action is necessary to vitality, until such fact shall have been most distinctly proved. I next imagined, as others have done, that they might have originated from the water, and consequently made a close examination of several hundred vessels, filled with the same water as that which held in solution the silicate of potassa, in the same room, which vessels constituted the cells of a large Voltaic battery, used without acid. In none of these vessels could I perceive the trace of an insect of that description. I likewise closely examined the crevices and most dusty parts of the room with no better success. In the course of some months, indeed, these insects so increased, that when they were strong enough to leave their moistened birth-place, they issued out in different directions, I suppose, in quest of food; but they generally huddled together under a card or piece of paper in their neighborhood, as if to avoid light and disturbance. In the course of my experiments upon other matters, I filled a glass basin with a concentrated solution of silicate of potassa without acid, in the middle of which I placed a piece of brick, used in this neighborhood for domestic purposes, and consisting mostly of silica. Two wires of platina connected either end of the brick with the poles of a Voltaic battery of sixty three pairs of plates, each about two inches square. After many months' action, silica in a gelatinous state formed in some quantity round the bottom of the brick, and as the solution evaporated, I replaced it by fresh additions, so that the outside of the glass basin, being constantly wet by repeated overflowings, was, of course, constantly electrified. On this outside, as well as on the edge of the fluid within, I one day perceived the well known whitish excrescence, with its projecting filaments. In the course of time, they increased in number, and as they successively burst into life, the whole table on which the apparatus stood, at last was covered with similar insects, which hid themselves wherever they could find a shelter. Some of them were of different sizes, there being a considerable difference in this respect between the larger and the smaller; and they were plainly perceptible to the naked eye, as they nimbly crawled from one spot to another. I closely examined the table with a lens, but could perceive no such excrescences as that which marks their incipient state, on any part of it. While these effects were taking place in my electrical room, similar formations were making their appearance in another room, distant from the former. I had here placed on a table three Voltaic batteries, unconnected with each other. The first consisted of twenty pairs of two inch plates, between the poles of which I placed a glass cylinder, filled with a concentrated solution of silicate of potassa, in which was suspended a piece of clay slate by two platina wires connected with either pole of the battery. A piece of paper was placed on the top of the cylinder, to keep out the dust. After many months' action, gelatinous silica in various forms was electrically attracted to the slate, which it coated in rather a singular manner, unnecessary here to describe. In the course of time, I observed similar insects, in their incipient state, forming around the edge of the fluid within the jar, which, when perfect, crawled about the inner surface of the paper with great activity. The second battery consisted of twenty pairs of cylinders, each equal to a four inch plate. Between the poles of this, I interposed a series of seven glass cylinders, filled with the following concentrated solutions:—1. Nitrate of copper; 2. Subcarbonate of potassa; 3. Sulphate of copper; 4. Green sulphate of iron; 5. Sulphate of zinc; 6. Water acidified with a minute portion of hydrochloric acid; 7. Water poured on powdered metallic arsenic, resting on a copper cup, connected with the positive pole of the battery. All these cylinders were electrically united together by arcs of sheet copper, so that the same electric current passed through the whole of them.

After many months' action, and consequent formation of certain crystalline matters, which it is not my object here to notice, I observed similar excrescences with those before described at the edge of the fluid in every one of the cylinders,

excepting the two which contained the carbonate of potassa, and the metallic arsenic; and in due time a host of insects made their appearance. It was curious to observe the crystallized nitrate and sulphate of copper, which formed by slow evaporation at the edge of the respective solutions, dotted here and there with these hairy excrescences. At the foot of each of the cylinders, I had placed a paper ticket upon the table, and on lifting them up, I found a little colony of insects under each, but no appearance whatever of their having been born under their respective papers, or on any part of the table. The third battery consisted of twenty pairs of cylinders, each equal to a three inch plate. Between the poles of this I interposed likewise a series of six glass cylinders, filled with various solutions, in only one of which I obtained the insect. This contained a concentrated solution of silicate of potassa. A bent iron wire, one fifth of an inch in diameter, in the form of an inverted syphon, was plunged some inches into this solution, and connected it with the positive pole, whilst a small coil of fine silver wire joined it with the negative.

After some months' electrical action, gelatinous silica enveloped both wires, but in much greater quantity at the positive pole; and in about eight months from the commencement of the experiment, on examining these two wires very minutely, by means of a lens, having removed one of these incipient insects upon the gelatinous silica on the silver wire, and about half an inch below the surface of the fluid, when replaced in its original position. In the course of time, more insects made their appearance, till, at last, I counted at once three on the negative and twelve on the positive wire. Some of them were formed on the naked part of the wires, that.is, on that part which was partially bare of gelatinous silica; but they were mostly imbedded more or less in the silica, with eight or ten filaments projecting from each beyond the silica. It was perfectly impossible to mistake them, after having made one's self master of their different appearances; and an occasional motion in the filaments of those that had been the longest formed was very perceptible, and observed by many of my visitors, without my having previously noticed the fact to them. Most of these productions took place from half to three quarters of an inch under the surface of the fluid, which, as it evaporated very slowly, I kept to the same level by adding fresh portions. As some of these insects were formed on the inverted part of the syphon-shaped wire, I cannot imagine how they contrived to arrive at the surface, and to extricate themselves from the fluid: yet this they did repeatedly; their old places were vacated, and others were born in new ones.[14] Whether they were in an imperfect state (except just at the commencement of their formation), or in a perfect one, they had all the distinguishing characteristics of bristles projecting from their bodies, which occasioned the French *savans*[15] to remark that they resembled a microscopic porcupine. I must not omit to state, that the room in which these three batteries were acting was kept constantly darkened. It was not my intention to make known these observations until I myself should be better informed about the matter. Chance led to the publication of an erroneous account of them, which I was under the necessity of explaining. It is so difficult to arrive at the truth, that mankind would do better to lend their assistance to explore what may be worth investigating, than to endeavor to crush in its bud that which might otherwise expand into a flower. In giving this account, I have merely stated those circumstances regarding the appearance of insects, which I have noticed during my investigations into the formation of mineral matters; I have never studied physiology, and am not aware under what circumstances the birth of this class of insects is usually developed. In my first experiment I had made use of flannel, wood, and a volcanic stone; in the last, none of these substances were present. I never, for a moment, entertained the idea that the electric fluid had animated the organic remains of insects, or fossil eggs, previously existing in the stone or silica; and have formed no visionary theory which I would travel out of my way to support. I have since repeated these latter experiments in a third room, in which there are now two batteries at work. One consisting of eleven pairs of cylinders, made of four inch plates, between the poles of which is placed a glass cylinder, filled with silicate of potassa, in which is suspended a piece of slate between two wires of platina, as before, and covered loosely with paper. Here, again, is another crop of insects formed. The other battery consists of twenty pairs of cylinders, the electric current of which is passed through six different solutions in glass cylinders, in three of which only is the insect formed, viz. 1st, in nitrate of copper; 2d, in sulphate of copper, in each of which the insect is only produced at the edge of the fluid, as far as I can make out; and 3d, by the old apparatus of coiled silver and iron wire in silicate of potassa, as before. There are now forming on the bottom of this positively electrified wire similar insects, at the distance of fully two inches below the surface of the fluid. On examining these, I have lately noticed a peculiar quality they possess whilst in an incipient state. After being kept some minutes out of the solution, they contract their filaments, so as, in some cases, wholly, and in others partially, to disappear. I at first thought they were destroyed; but, on examining the same spots, on the next day, they were as perceptible as before. In this respect, they seem not unlike zoophytes, which adhere to the rocks on the seashore, and which contract on the approach of a finger. I may likewise remark, that I have not been able to detect their eyes, even when viewed under a powerful microscope, although I once fancied I perceived them. The extreme heat of summer and cold of winter do not appear favorable to their production, which succeeds best, I think, in spring and autumn. As in the above account I have occasionally made use of the word "formation", I beg that it might be understood that I do not mean creation, or any thing approaching to it. I am not aware that I have any thing more to add, except the few remarks I shall conclude with.

1st. I have not observed a formation of the insect, except on a moist and electrified surface, or under an electrified fluid. By this *I do not mean to assert that electricity has any thing to do with their birth,* as I have not made a sufficient number of experiments to prove or disprove it; and besides, I have not taken those necessary precautions which present themselves even to an unscientific view. These precautions are not so easy to observe as may at first sight appear. It is, however, my intention to repeat these experiments, by passing a stream of electricity through cylinders filled with various fluids under a glass receiver inverted over mercury, the greatest possible care being taken to shut out extraneous matter. Should there be those who blame me for not having done this before, to such I answer that, independent of a host of other hindrances, which it is not in my power to set aside, I have been closely pursuing a long train of experiments on the formation of crystalline matters by the electric agency, and now different modifications of the Voltaic battery; in which I am so interested, that none but the ardent can conceive what is not in my power to describe.

2dly. These insects do not appear to have originated from others similar to themselves, as they are formed in all cases with access to moisture, and in some cases two inches below the surface of the fluid in which they are born; and if a full grown and perfect insect be let fall into any fluid, it is infallibly drowned.

3dly. I believe they live for many weeks; occasionally I have found them dead in groups, apparently from want of food.

4thly. It has been frequently suggested to me to repeat these experiments without using the electric agency; but this would be by no means satisfactory, let the event be what it would.[16] It is well known that saline matters are easily crystallized without subjecting them to the electric action; but it by no means follows that, because artificial electricity is not applied, such crystals are formed without the electrical influence. I have made so many experiments on electrical crystallization, that I am firmly convinced in my own mind, that electric attraction is the cause of the formation of every crystal, whether artificial electricity be applied or not. I am, however, well aware of the difficulty of getting at the truth in these matters, and of separating cause from effect. It has often occurred to me, how it is that such numbers of animacules are produced in flour and water, in pepper and water? also, the insects which infest fruit trees after a blight?[17] Does not a chemical change take place in the water, and likewise in the sap of the tree *previous* to the appearance of these insects, and is or is not every chemical change produced by electric agency? In making these observations I seek to mislead no one. The book of nature is opened wide to our view by the Almighty power, and we must endeavor, as far as our feeble faculties will permit, to make a good use of it; always remembering, that however the timid may shrink from investigation, the more completely the secrets of nature are laid bare, the more effectually will the power of that Great Being be manifested, who seems to have ordained that

"Order is Heaven's first law."

I beg to remain, in the mean time, my dear sir,

Yours very sincerely,
ANDREW CROSSE

Broomfield, Dec. 27, 1837.

P.S. Since writing the above account, I have obtained the insects on a bare platina wire plunged into fluo-silicic acid, *one inch below* the surface of the fluid at the negative pole of a small battery of two inch plates in cells filled with water. This is a somewhat singular fluid for these insects to breed in, who seem to have a flinty taste, although they are by no means confined to siliceous fluids. This fluo-silicic acid was procured from London some time since, and consequently made of London water; so that the idea of their being natives of the Broomfield water is quite set aside by this result. The apparatus was arranged as follows: Fig. 7, a glass basin (a pint one) partly filled with fluo-silicic acid to the level 1. 2, a small porous pan, made of the same materials as a garden pot, partly filled with the same acid to the level 2, with an earthen cover. 3, placed upon it, to keep out the light, dust, &c. 4, a platina wire connected with the positive pole of the battery, with the other end plunged into the acid in the pan, and twisted round a piece of common quartz; on which quartz, after many months' action, are forming singularly beautiful and perfectly formed crystals of a transparent substance, not yet analyzed, as they are still growing. These crystals are of the modification of the cube, and are of twelve or fourteen sides. The platina wire passes under the cover of the pan. 5, a platina wire connected with the negative pole of the same battery, with the other end dipping into the basin, an inch or two below the fluid; and, as well as the other, twisted round a piece of quartz. By this arrangement it is evident that the electric fluid enters the porous pan by the wire 4, percolates the pan, and passes out by the wire 5. It is now upwards of six or eight months (I cannot at this moment put my hand on the memorandum of the date) since this apparatus has been in action, and though I have occasionally lifted out the wires to examine them by a lens, yet it was not till the other day that I perceived any insect, and there are now three of the same insects, in their incipient state, appearing on the naked platina wire at the bottom of the quartz *in the glass basin at the negative pole.* These insects are very perceptible and may be represented thus (magnified): fig. 8, 1 the platina wire, 2 the quartz, 3 the incipient insects. It should be observed that the glass basin, fig. 7, has always been loosely covered with paper. The incipient appearance of the insect has already been described. The filaments which project are in course of time seen to move, before the perfect insect detaches itself from its birth-place.

NOTES BY PAUL B. THOMPSON

(1) Throughout the acari controversy, Crosse and others always referred to the acari as "insects" although if they were in fact members of the species *Acarus,* they would be arachnids.

(2) "Caloric" is the old-fashioned word for heat. Up to the time of Lavoisier, caloric was considered an element.

(3) Crosse consistently refers to "the Almighty power" or the "Great Being" instead of saying God. It would appear that his beliefs on the subject were rather deistic.

(4) Flint is composed of silicon, with various metallic oxides that determine color.

(5) "Potassa" is potassium. Potassium carbonate is the technical name for potash.

(6) A small line drawing shows the acarus at this stage.

(7) Ibid.

(8) Ibid.

(9) Ibid.

(10) This was the most prolific experiment in producing acari. Most of the stricter ones made only a few.

(11) This is a characteristic of other acari, such as *A. sero.*

(12) A specimen was sent to the Academie des Sciences, preserved in alcohol.

(13) Apparently a "Mr. Owen" who might be Richard Owen, the inventor of the word dinosaur.

(14) This would seem to indicate they were in fact forming in the silica.

(15) Monsieur P. J. F. Turpin, a microscopist of note. His report on the acari was published in the *Comptes Rendus* Vol. 5, 1837.

(16) Crosse failed to see that this would decide whether or not electricity influenced the formation of the acari.

(17) Crosse cautiously advances the old theory of spontaneous generation, which persisted until Pasteur proved it false 30 years later.



SITUations

In this section mostly contemporary curious and unexplained events are reported. Members are urged to send in newsclippings and reports they deem responsible. Please be sure to include the source of reference (name of newspaper or periodical), city of publication, date of issue in which the article appeared, and your first initial and last name (or membership number only if you prefer to be credited in that way.)

Ice-Clad Iron . . . All Natural?

One day in May a fierce storm broke over Orange, New Jersey. It started at about 3:30 p.m. Hailstones "the size of golf balls" drummed on car roofs and, whipped by a stiff breeze, splattered against walls and windows of homes and business buildings.

The truck driveway in front of the Department of Public Works garage was almost blanketed with ice pellets during the 15-minute fall. As the storm moved over and out, city employees who had taken refuge inside came forth to marvel at the size and quantity of the hailstones, already beginning to melt on the pavement.

"Then one of the guys noticed that pebbles were falling out of the hailstones," said spokesman Frank Paladino. "We all grabbed some, to take home. I wanted to give them to the kids in my family for their show-and-tell sessions at school."

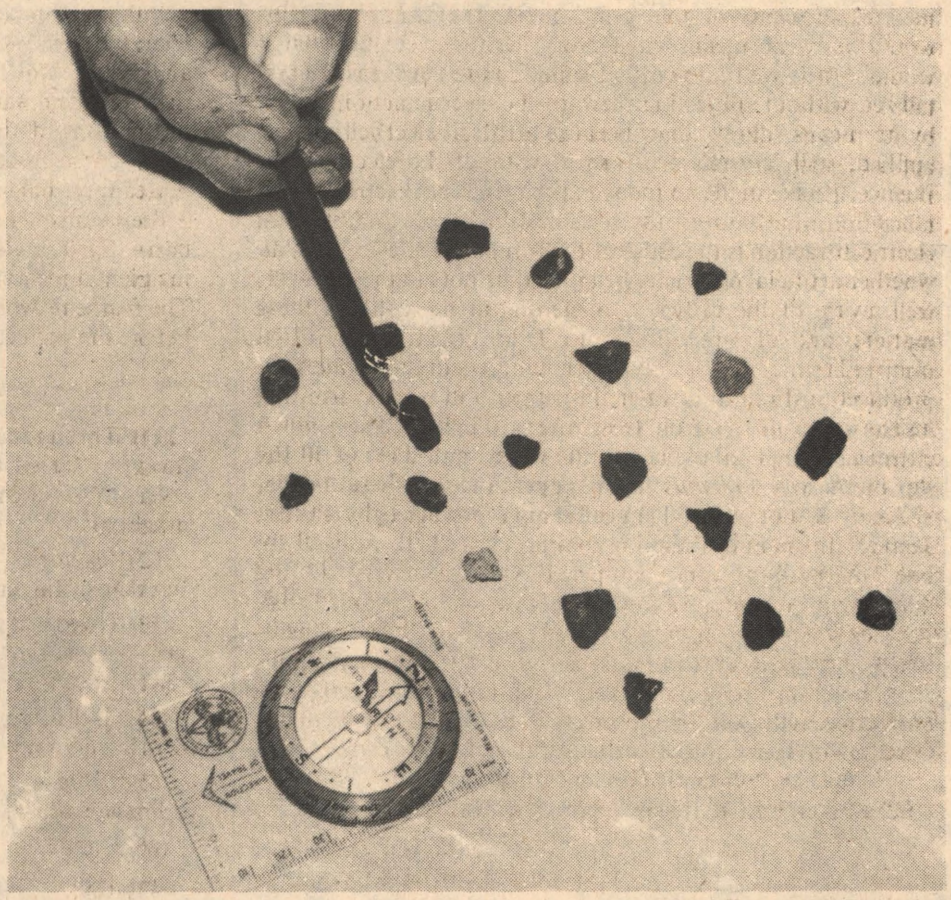
Joseph Minnitti, a co-worker, also filled his pockets with the pebbles, saying: "I've never seen anything like this. You're lucky to see something like this once in a lifetime."

What the two thought remarkable wasn't the surprise fall of the icy cocoons but the odd appearance of the contents. The pebbles were about the size of peas, all black, and they seemed heavier than chips of stone. The tiny surfaces bore no sign of glacial polishing but had the shape that bits of molten metal take when plunged into cold water.

Someone recalled that on May 18, less than a week before, there had been a major eruption of Mount St. Helens volcano in Washington state. Someone else saw a possible connection, whereupon collective curiosity stiffened to investigative resolution.

The pebbles never made it to show-and-tell. Instead, they were turned over to scientists with a request for answers to one of the year's farthest-out questions: Could the pebbles have been blasted by the volcano into the upper atmosphere, then carried more than 3,000 miles eastward by jet-stream winds, and somewhere along the line become nuclei of super-hailstones?

Dr. Charles Weschler, an environmental chemist at Bell Labs, found some of the pebbles so full of iron that he could lift them with a magnet, and they attracted a compass needle (*see photo*). "This to me indicates that they are possibly of volcanic origin," he said. "With the strong prevailing west-to-east winds in the stratosphere, which can range from 100 to 200 miles an hour in a jet stream, I think it's entirely possible that they may have come from Mount St. Helens.



Not much doubt that the "Jersey pebbles" attract the needle of an ordinary magnetic compass. What is doubtful is whether the tiny objects could have been spewed from Mount St. Helens volcano in Washington state and carried by jet stream winds clear across the continent. (Photo courtesy of Asbury Park (NJ) Press)

"One of the significant things about them, which seems important to me, is that they all weigh between 1.3 and 1.6 grams. The fact that they're all about the same weight seems to say that the heavier ones in the hailstone system dropped out while the lighter ones were blown away."

Weschler doesn't believe the pebbles are of meteorite origin; that sort of debris doesn't usually form the nucleus of hailstones, he explained. It is also "much more honeycombed in physical nature than these pebbles are."

But Dr. Kenneth Rahn, a researcher at the Graduate School of Oceanography at the University of Rhode Island in Kingston, doubts that objects as heavy as the pebbles could be borne any such distance on wind currents. Nor does he think they are of industrial origin. "They're just too big for that," he said. He mentioned plans for using a heavy-duty reactor at the university to analyze their physical and chemical composition but added, "it may be six months before we can get around to doing it."

Another skeptic is Dr. Lester Machta, an expert in air pollution and director of the air resources laboratory at the National Oceanic and Atmospheric Administration, Silver Spring, Maryland. "All of our experience would say it isn't possible," he declared. He theorized that heavy cinders could be caught in the strong updraft of a thunderstorm, carried aloft 50,000 feet, then dropped

[*Continued on page 176*]

The Cattle Mutilation SITUation

'. . . something which should be further investigated'

Watching a Mutilation in Progress

Herb Marshall is the sheriff of Washington County, Arkansas. If he hadn't gone into law enforcement he might well have made a career in science. He believes that physical effort solves more problems than languorous imaginings, that right-brain or left-brain conceptions are not half as good as two-eye perceptions, that jurors and judges, whether of law or the society at large, rightly have small regard for speculations and opinions but show considerable respect for the testimony of qualified witnesses and hard evidence gathered by trained investigators.

Until a couple of years ago Sheriff Marshall suffered the complaints of cattle-breeders and their employees, elected officials and "concerned citizens," not to mention anomaly buffs and psychics, about animals being killed and mutilated in his county. Upsetting the sheriff most of all was a threat, clearly implied in many calls and frankly expressed in others, that he, the sheriff, "had better do something." So in 1978, he did.

Marshall found a sickly yearling calf and with the owner's permission killed it in a field. He posted four deputies at some distance, to watch the dead animal with a night-viewing telescope and camera.

Examined after 19 hours, the carcass displayed usual signs of a "classic" mutilation, according to the sheriff. The eye on the calf's exposed side was missing, the tongue had been removed and the blood and genitals were gone.

"When an animal dies," the sheriff explained, "the rectum inverts and sticks out about three inches, and the tongue sticks out about four or five inches." Vultures, skunks and other predators are soon attracted and eat away these parts, and "as the body temperature drops, during ten hours or so after death, the muscles contract, pulling the rectum and tongue inward. Examination then seems to show that these parts were cut off rather than chewed off."

The sheriff blamed blowflies for other so-called mysteries. "Blowflies," he observed, "eat neatly along the edges of exposed tissue, as precisely as a surgeon's knife might cut, and they consume juices and blood to the point where the carcass looks and in fact is, drained."

To reassure himself that no UFO, aircraft, land vehicle, visible being or unidentified creature participated in the test, Sheriff Marshall kept his men on post an additional eleven hours, watching through the night-viewing 'scope with camera at the ready. Nothing suspicious was seen or heard during the total surveillance time of thirty hours.

Marshall, after presenting his findings to the county cattlemen's association, said the reports of mysterious mutilations stopped immediately and the case "closed itself."

* * *

'A UFO Hit My Best Bull'

Bill Heath, a rancher in Rio Hondo, Texas, reported finding his best bull, an 1,100-pound Charolais, lying dead next to a watering area with a hole seared through its heart and its tongue cut out "with surgical precision." According to Heath, it happened on Sunday, October 26, 1980, and he could think of only one explanation—UFO.

"That's what I believe," he declared. "Some people said it was persons from the occult—devil worshippers—but they would have had to be using a helicopter to get around out there. There were no tracks around the animal. It was like he was hit and fell over on his side.

"You don't just walk up to a bull like that one. He was wild! They cut a perfectly round hole above the left shoulder, through a muscle, and got to the heart. I have a degree in animal science and have had to do animal dissections. There's no way a person could do that with a scalpel."

* * *

Leave It to the Buzzards

Recalling the wave of reports of "mysteriously mutilated" cattle that two years ago left Texas and other states awash in rumors about "Martians, sex-cultists and who knows what," a leading veterinary diagnostician reiterates that he has found facts running counter to many fantasies about the so-called phenomena.

After examining a half-dozen carcasses brought to the Texas Veterinary Medicine Diagnostic Laboratory in College Station, Dr. Konrad Eugster, executive director, said death was in all

A New Approach [*Continued from page 163*]

Helicopters." No one seems to know, however, whether the technology exists for a totally silent helicopter. It may be belaboring the point, but no one should assume that aerial objects or UFO phenomena are extra-terrestrial. The question should be phrased: Can earthly technology duplicate the reported effects? The answer is an overwhelming *yes.* Aircraft that float, or hover easily, belong to three categories: helicopters, vertical take-off and landing craft, and dirigibles. By far the most nearly silent type is the dirigible, and a report from the Goodyear Aerospace Corporation recently described an amazing new craft. It is a blimp with attached helicopter engines and props which can maneuver the craft quickly in any direction. These airships are called "skyhooks" because they can lift and carry very large cargoes, and who knows what such a craft would look like at night, equipped with a powerful beacon to locate animals. From much physical evidence it seems likely that many of the mutilated animals have been dropped from great heights, suggesting some sort of mobile airborne laboratory for tissue recoveries. Blimps would fill the job requirements nicely, especially if helicopters, silent or not, were used as support craft. Also remember that for reasons of national security a relatively few military people and even fewer civilians are given much information about the "new toys" that research and development has advanced from drawing board to scale model to experimental production in just the last few years.

Q. How is the blood drained from the cows?

A. If there is an airborne laboratory involved, it may be equipped with machinery capable of draining a carcass of

cases due to natural causes. "We weren't even close to suspecting anything abnormal," he said.

One rancher said he had been "shocked" to find a calf with its insides eaten out and with only one small hole in the skin. But Dr. Eugster explained: "A hole as small as the size of a quarter can be used by buzzards to clean out a carcass. That's one reason the birds don't have neck feathers."

* * *

'Must Have Been a Laser'

An attorney who practices in San Antonio, Texas, and who farms 11 acres in east Bexar County, found his 50-pound white Yorkshire pig lying on its side in a pasture with the heart removed, apparently through a 24-inch incision begun at the animal's throat.

The attorney, W. B. Snell, said the cut was so precise that it could have been made only by a laser beam. "The odd thing is that there was no blood around the wound," he said. "The hole was smooth, and you couldn't see any bones or vital organs through the opening where the heart was removed."

He noted that vultures, which usually pick clean the carcass of any dead animal in the area, had steered clear of the pig's remains.

* * *

Really Mind-Boggling

Working under a state grant, Dr. Nancy Owen, a University of Arkansas anthropologist, studied 22 "classic" incidents of cattle mutilation reported in 1978 in Benton County, Arkansas, and said that the cases "begin to fall apart" and lose their mystery upon close examination.

For example, it seemed at first that all the cows had the left eye missing and all the steers were minus the right eye. But that theory became untenable when the complete pattern emerged to show that the missing eye in every case was the exposed eye, the one that predatory insects and animals could attack.

Pointing out that dead animals bloat, Dr. Owen surmised that a fine cut, made with "surgical precision," could be skin torn by the pressure of bloat beneath it. As for animal insides found "piled neatly" next to the carcass, these were intestines expelled through the vagina, a not unusual post-mortem occurrence.

Dr. Owen quoted a South Dakota sociologist's assessment: the phenomenon isn't the mutilations; it's the mass hysteria resulting from the publicity given them.

* * *

'But How Does One Explain . . .'

A lengthy promotional article in *The Sunday Denver Post* heralded the showing last May of a 90-minute documentary over Denver's KMGH-Channel 7. Produced by Linda Moulton Howe after eight months of field work with photographer Richard Lerner, the film "performed one of the most exhaustive studies yet done" of cattle mutilations, according to Clark Secrest, the *Post's* television and radio editor.

Beginning with the state's first well-documented mutilation case, that of Snippy the horse, found dead in 1967 with her entire skin missing, camera and narration described many characteristics in common among the more than 500 other mutilations reported to have taken place in Colorado during the last twelve years. Also studied was a long list, of "possible" perpetrators and their "possible" methods, compiled by sheriffs, district attorneys' investigators and the Colorado Bureau of Investigation.

A display ad run alongside the article coaxed readers to "witness the stories, then decide for yourself . . . who or what is causing *A Strange Harvest*" [main title of the film].

A headline on critic Secrest's article described the film as "well done," and at the conclusion he noted that it "offers no solutions, although it does embrace the UFO theory." Then, to summarize:

"These mutilations easily can be stricken from the mind, if only because there are no answers. They seem almost fantastic.

"But how does one explain those neatly cut-up carcasses off in the middle of nowhere? Somebody is up to something very strange."

After watching the show, a school psychologist sent the *Post* page to *Pursuit* with a letter adding his own impressions:

"One of the most interesting parts was when a physician-surgeon attempted to duplicate the fineness of the cuts with, first, surgical steel (he failed) and then a laser surgical instrument (he succeeded). The laser surgical instrument weighed 400 lbs. and took several technicians 20 minutes to set up for operation each time. The physician said it was unlikely that anyone would carry such an instrument to all 10,000* mutilation sites.

"Another part of the program dealt with the regressive hypnosis of several witnesses, primarily Wyoming ranchers, by Leo Sprinkle, director of counseling and testing at the University of Wyoming in Laramie. It is thought that persons 'can' lie when hypnotized and so this would not be considered as conclusive evidence by the scientific community. It is, however, indicative of something which should be further investigated."

SOURCES: *Austin American Statesman* (10/29/80) and *Dallas Morning News* (11/16/80) (Texas), and *The Denver Sunday Post* (5/25/80) (Colorado).
CREDIT: Palen and J. Vidmar.

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* More than 10,000 cases of "farm animal mutilations by unknown perpetrators" have been reported to law enforcement officials in the U.S. and Canada since 1967. —Ed.

blood. But there is a growing suspicion that many of the "blood-drained" carcasses may have been lying around for a few days, and the blood from the veins and arteries had been absorbed into the surrounding flesh so as to give the illusion of drained blood.

Q. Why are the carcasses left behind as evidence? Wouldn't your mutilating prospectors have the technology to remove the carcasses?

A. There has been no need to remove the carcasses. In addition to the fact that a carcass may weigh a half ton and is thus difficult to move or store, there is a simpler reason to leave it behind. So far, no carcass has presented evidence pointing to the identity of the culprits. All that a mutilated carcass shows is that the animal has been dissected by means other than accident or a predator. However, if mutilations continue to receive extensive attention from the media we may see fewer reports of mutilations but a corresponding rise in numbers of cattle reported missing. Should this happen, the job of tracking down the perpetrators will become even more difficult than it now is; cattle disappear—run away, get rustled, or simply die—by the tens of thousands each year. No longer could we tell where the prospectors were working and we'd be even further behind them.

No doubt I have overlooked some salient facts which other researchers will soon point out. But that is all to the good, for my theory or any other theory must be able to survive analysis or it is useless. As far as I'm concerned, a first step has been taken to solve the mutilation mystery, and I know of no other reasonable theory as detailed. Perhaps more steps will soon follow.



SITUations

[*Continued from page 173*]

back to earth enclosed in hailstones. "If there's a lot of industry in the Orange area,* it could have come from there, and some of that industrial debris can be magnetic."

However, an official of the National Meteorological Center, National Weather Service, Camp Springs, Maryland, sees the pebbles as quite possibly exiting the volcano and completing a cross-country flight. Robert Derouin, deputy chief of the forecast division, said: "I don't see any reason why they couldn't have . . . I've seen pieces of paper and wood carried 200 miles by tornado winds. The pebbles could have come across in the jet stream. Then over New Jersey they could have picked up moisture and ice, acting as nuclei for hailstones forming around 25,000 feet or lower, as they fell out of the sky."

Pursuit promises to keep its readers informed as to results, if any, that develop from further study of a phenomenon well-witnessed in northern New Jersey only last spring.

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* There is. —Ed.

SOURCE: *Asbury Park Press* (New Jersey) news feature by Colin Black (11/16/80). CREDIT: Member #432.

* * *

Forced Into Unretirement

Asan is an elephant, Efim Bobonets is his keeper. The two have been together since the elephant became a resident of the state zoo in the Ukrainian city of Kharkov ten years ago.

According to Tass, the Russian news agency, the animal was at first "hard to tame, but the man's patience, benevolence and affection made the elephant obedient." Upon Bobonets's command, for example, Asan would help clean up his cage or entertain school children visiting the zoo.

But when Bobonets at age 80 tried to retire from his 50 years of zoo work, Tass said, "Asan refused to take food, started trumpeting to the full capacity of his lungs, and crushed all equipment he came across in his open-air cage."

Comrade Bobonets was hastily recalled to active duty. "The elephant calmed down only when he saw his friend. The giant animal rushed to him and embraced him with his trunk," said Tass.

SOURCE: *Herald-News*, New Jersey. CREDIT: F. Wilson.

* * *

The First American 'Sighting'

More than 300 years ago, more than 100 years before there was a United States, a "great light" was seen near Boston in the winter of 1638 by three citizens of the Massachusetts Bay Colony. John Winthrop, the colony's first royal governor, was so impressed that he noted the report in his diary:

> In this year, one James Everell, a sober, discreet man, and two others saw a great light in the night at Muddy River. When it stood still, it flamed up and was about three yards square; when it ran, it was contracted into the figure of a swine.
>
> It ran as swift as an arrow towards Charlton, and so up and down about two to three hours.

Dr. J. Allen Hynek, a prominent investigator of UFO reports, was asked to interpret Winthrop's entry.

"Contracting into the figure of a swine implies something that was oval," said Dr. Hynek. As to what might be the legs of the swine, he suggested that they might be landing gear.

SOURCE: *Weekly World News* (7/15/80). CREDIT: J. Singer.

* * *

'Just Curious, Like We Are'

A "domino effect" among UFO sightings has long bothered investigators who want to know why, so often, a UFO report is followed by another more-or-less similar UFO report from the same area a few days later. A classic case of double phenomena in the same area was reported from Fowlersville, Livingston County, Michigan, last spring.

On the night of March 11 Joseph and Laurie White were driving home when they noticed a bright white light following them. A plane was taking off from the country airport nearby, but according to Mrs. White, it was no plane that was tracking them. It stopped when they stopped, and it changed direction when they did. By the time the couple arrived home the UFO had disappeared. Mrs. White was about to call the sheriff's office when her husband let out a shout. From a field across the highway he saw the same object drifting toward their windows.

"It was so huge I couldn't understand how it could stay in the air," Mrs. White said. "It had banks of red and green lights. It glided over us without a noise." She ran downstairs to get a better view. As she passed a chandelier in the apartment hallway the fixture shattered in its mounting. "It didn't fall. It just shattered," Mrs. White said. "We didn't believe in UFOs at all, not before this."

The next week, on the night of March 19, Linda Hough was at home watching TV when she heard a loud sound outside, "like a noisy car," she said. "I looked out and there was a huge light in the sky.

"I watched it cruise along," she continued. "I thought at first it was a plane, but there were three planes in the sky and one of them passed right over it, and the plane was so small."

The UFO had a "whole bunch of lights, maybe some red ones, but the white lights were brighter," said Linda. The noise she described as "really loud, louder than a jet, and it vibrated in the air."

"Do you really believe in UFOs?" Linda Hough was asked.

"Yes," she replied. "I think there is 'something' in outer space. I don't think they're threatening; they're just curious like we are. I think they're just curious about what is here on Earth, as we are curious about all the other planets."

SOURCE: *Fowlersville Review*, 3/12/80 and *Livingston County Press*, 3/20/80 (Michigan). CREDIT: Member #2692.

* * *

Way to Go Home

Two years ago last summer Jess, a German shepherd dog, headed west from his native Rhode Island in the company of his master, young Dexter Gardiner. Man and dog drove to Aspen, Colorado, a state whose waning socialite skiing areas experienced a rebirth of glory when former President Gerald Ford started vacationing there.

Notwithstanding the aura brought to the area by the Fords' frequent visits, Jess did not care for Aspen, dogs being not as much into skiing as people are. Besides, the folks who own those big chalets are very fussy, and the cops are all the time busting dogs for violating leash laws.

One day about six months after their arrival in Aspen, Dexter went outside to check on the dog and found only a length of broken leash. Jess was gone.

All the standard search procedures were set in motion: notification of the authorities, sweeps along highways and byways, alerting of the media and posting of modest rewards. No one was found who could remember having seen a dog that looked anything like the missing Jess.

On a rainy night 18 months later Dexter's father, Darrell, heard a once-familiar bark outside his house in the Rhode Island village where Dexter and his dog had grown up together. The elder Gardiner opened the door and in bolted Jess, yelping and tail-wagging with delight at being home again after apparently sniffing his way all 2,200 miles from Aspen, Col.

"I never saw anything like it," said Darrell Gardiner. "He pushed his head into my stomach and almost knocked me down."

"I think he's still looking for Dexter," Gardiner's wife, Dorothy, noted after a time.

At last reports Jess hadn't finalized his plans, nor had the Gardiners. A family argument was brewing. Dexter continues to prefer the Aspen life and has said he might come east to fetch back his dog. The senior Gardiners are equally determined that Jess must not have walked all those miles in vain. He proved his preference, didn't he, and besides, "we have this nice big house and lot . . ."

SOURCE: UPI dispatch in *The Tennessean* (7/28/80). CREDIT: H. Holland.

Getting His Hair Back, Too

Edwin E. Robinson of Falmouth, Maine, is the blinded man who regained his sight when he was struck by lightning last June. (See *Pursuit* No. 51, Summer 1980, page 119.) Now he reports another remarkable development: Hair is growing out of his formerly bald scalp.

"It's amazing—it's true," said Robinson's family physician, Dr. William F. Taylor. "All on top there's hair coming in. This is a first, that's for sure."

Robinson, 62, a former truck driver, gradually went blind and deaf as the result of a head injury he suffered when his truck jacknifed on an icy bridge in 1971. He learned Braille and wore a hearing aid.

During a thunderstorm on June 4, as he went looking in his backyard for a pet chicken, he was knocked unconscious by a lightning bolt. Afterward his vision and hearing gradually returned, as verified (but not explained) by his ophthalmologist.

Later in the month he came to New York City for a guest appearance on ABC's "Good Morning, America." That day his scalp "began to feel funny . . . I felt like I had whiskers on my head," he said. "It's still coming in," he added in an interview a week later as he ran his hand over the visible fuzz.

Robinson says the lightning bolt has him "charged for the next 50 years."

SOURCE: AP dispatch in *The Star-Ledger*, New Jersey (7/4/80). CREDIT: Member #2692.

* * *

Phenomena in Focus

'People often see strange things, but they try to put them into conventional frameworks because the unknown is scary. They should look out: The Bridgewater area is one of focused phenomena. It's likely that things are going to happen here . . .'

The area thus described by longtime SITU member Loren Coleman is sufficiently geometric to inspire sidelong glances at Charles Berlitz and his Bermuda analogy. They're still at it, producing more offspring than anyone would have prophesied back in 1974 when a "roughly three-sided" piece of the Atlantic was born into the Noble Order of Fortean Things.

Unlike some other celebrated but not necessarily geometric strange places, Loren Coleman's Bridgewater Triangle isn't a jungle oasis at the end of a 20-mile animal trail, nor is it perched atop a lofty peak accessible only with Sherpa guides, helicopters and largesse from a well-heeled foundation.

The Bridgewater Triangle lies athwart one of the first-settled and now most heavily civilized areas in the nation: south of Boston, north of New Bedford, west of Plymouth and centered near Taunton (1980 pop. 44,675)—all in Massachusetts. You can drive into, through and around it with nary a problem except for traffic. But the triangle,



The Bridgewater (Massachusetts) Triangle.

particularly the Hockomock Swamp part of it, has yielded reports of four notable and recent happenings:

1) Glowing balls of light, visible only in each January, over the dog track at Raynham, north of Taunton.

2) Screeches from an unidentified source near the track which frightened the dogs within.

3) "Creature footprints" bigger than a man's, found in the snow and reported by officials in Taunton and Raynham.

4) A "giant bird" allegedly seen by a police officer who estimated its height at six feet and its wingspread at twice that when it rose into the night near Mansfield and flapped away, not to be seen since.

Coleman and an associate, Peter Rodman, described these and other anomalies to an overflow audience at an October 23 lecture sponsored by the Friends of the Library in Bridgewater. The two speakers showed a number of slides and backgrounded their compiled reports with references to classical myths, conjectures about New England's earliest civilizations, and legendary Indian lore handed down by elders of tribes known to have camped in the Hockomock region for centuries.

Leaving no doubt that his listeners were expected to act responsibly, should any be confronted by an apparent anomaly, Coleman recommended these steps: Get corroborating witnesses; look for physical evidence such as broken brush or tracks; take photographs and make sketches; telephone or send for the police; talk to newspapers and radio and TV stations that handle news from the region, and tell them as clearly as possible what was seen and/or heard.

SOURCE: *Brockton Daily Enterprise*, Mass. (10/24/80). CREDIT: L. Coleman.

* * *

If Not SHC, What?

A 1974 Pontiac Firebird was moving briskly along Seaboard Avenue in Jacksonville, Florida, with Leslie Scott at the wheel. Her passenger was Jeanna Winchester, an E-3 enlisted member of the Navy's air arm, stationed in Jacksonville. The girls were

roommates and they were out riding on the night of October 9 "just to get some fresh air."

Violently, brutally, the calm of the night and the ride was shattered by a human scream—not down the road or outside the car, but from the right-hand seat where Jeanna Winchester was riding. What driver Scott saw, in the split second it took for a quarter-turn of the head, caused her to jerk her hands from the wheel and beat wildly at yellow flames that erupted all around the passenger's struggling body. Her own arms flailed about as Jeanna kept screaming: "Get me out of here, get me out of here."

The car skidded sidewise out of control, slammed into a telephone pole, cut it in two, and in seconds crumpled into a total wreck.

Ambulance attendants arriving at the scene noted that Scott's hands were severely burned, but that was nothing compared to the seared flesh of Winchester's entire right arm and shoulder, half of the right of her back and side, her abdomen, right breast, and neck and ear. The T-shirt she had been wearing had burned completely off.

Examination of the car presented a puzzle to authorities, especially to Officer T. G. Hendrix of the Jacksonville Sheriff's Department who made the initial on-the-scene investigation. He found minimal fire damage inside the car. "The white leather seat she was sitting on was a little browned and the door panel had a little black on it. Otherwise there was no fire damage," he reported. "I've never seen anything like it in 12 years on the force." He was careful to mention also that he found no spilled gasoline, or downed powerlines nearby.

Could this be a rebirth of the Spontaneous Human Combustion (SHC) phenomenon? In the early 19th century medical practitioners recognized SHC as a common cause of death, especially in Europe.

Today's forensic science workers hold SHC theories in low esteem. The head of the world-famous burn unit at Brooke Army Medical Center in Texas, to which Jeanna was transferred for extended treatment, says SHC is "a bunch of rot." In Jacksonville, officials consider the case closed. The accident report in its final version didn't even mention a fire, Officer Hendrix and his superiors having agreed that an exploding cigarette lighter could have diverted the driver's attention and caused the car to crash.

What of the victim Jeanna Winchester? She recalls being driven along the road, and vividly remembers waking up the next day in the Naval Air Station hospital with burns over much of her body. But she has no memory of the interim, and no knowledge of the accident except what Leslie Scott told her a few days after it happened.

"At first I thought there had to be a logical explanation, but I couldn't find any," she said in a telephone interview with Patrick Boulay, a writer on health matters for *The Light* newspaper in San Antonio. "I wasn't smoking anything. The window was up, so somebody couldn't have thrown anything in. The car didn't burn. I finally thought about spontaneous human combustion when I couldn't find anything else."

Jeanna recalled a story she had heard about an old lady who had not been seen by neighbors for a few days, and when they entered her house to see if she might be ill, they found only a pile of ashes in her rocking chair.

Alex Bienkowski, a reference librarian at the University of Texas Medical Center in Galveston, collects SHC stories as a hobby. He said the Winchester report fits the classic SHC description established in scientific and not-so-scientific literature over hundreds of years: Victims are totally consumed within a few minutes but the surroundings remain intact and rarely appear scorched or even discolored. However, Bienkowski pointed out one important difference in the case of Jeanna Winchester: It may be the first where there was a witness, and where the victim escaped death.

After weeks of hospitalization and the end not in sight, Jeanna doesn't know what to believe. "When I get out of here I'm going to undergo hypnosis and find out if I can recall the whole thing," she promises, because "spontaneous human combustion seems to be the only explanation left."

SOURCE: *The Light*, San Antonio, Texas (11/16/80). CREDIT: K. Neidigh.

* * *

Italian Lake Disappears

At 5 p.m. the waters of the lake at Comelice Supiriore in the Italian Dolomites were peacefully lazy in the summer sun. A couple of small boys were fishing, an old man was snoozing in his rowboat, and along the shore little children were paddling about.

Five minutes later there was the sound of rushing water followed by a column of water rising out of the center of the lake, and a gigantic gurgling as the waters of the lake completely vanished.

"It was the most amazing sight," said Lidio Teriguzzi, whose house is near the shore. "There was this great gurgling sound and the water drained away as if it were going down a sink, until there was none left, just fish and a couple of boats lying in the mud."

Investigations by two water engineers and three geologists have been unable to account for the lake's disappearance. Mayor Flavio Gongolon said: "We haven't even got a theory. The lake has been there for hundreds of years. Yet one minute it's there and the next minute it's gone, just like some huge conjuring trick."

SOURCE: *Sunday Express*, London, England (7/27/80). CREDIT: D. Mace.

* * *

Homo (NOT QUITE) *Sapiens*

A primitive being of diminutive stature with ape-like features, appearing to be more than a century old, its origin altogether unknown, has been discovered in the province of Mato Grasso Do Sul, Brazil. All signs indicate that Tomaz, as he is called by his adoptive family, belongs to a species very different from the human race.

This being, who has been living on the ranch of Jose and Aida Tales for three years, has a constitution that allows him to eat spoiled fish without risk to his health, and he has never been sick since the couple first came upon him in a semi-primitive area.

Tomaz has a habit of crying inconsolably every night when the moonlight is bright, and he always sleeps crouched down among the animals in the feed-lot.

According to statements Jose Tales made to the newspapers, old settlers in the region told him that Tomaz was seen every once in a while fishing in the nude from the river banks, but once he sensed the presence of human beings, he always ran away. After a considerable time the settlers succeeded in approaching the strange being, who then showed himself to be friendly, emitting a few grunts but unable to articulate words. Tomaz now manages to say "papa" and "mama," is natural in his actions, walks like a monkey, tears off whatever clothes his "parents" put on him, and otherwise goes about paying little attention to those around him.

Jose and Aida Tales say they do not wish to have a scientific study made of Tomaz: "Although he is a natural phenomenon of an origin we cannot explain, we do not want him to be exploited like an object."

SOURCE: *El Universal*, Caracas, Venezuela (11/1/79). CREDIT: S. Lorenzoni.

* * *

'Just Inhale Naturally'

Cherokee Indians may have inhaled pulverized toad skins for the same reasons people nowadays get high on booze, pills and pot. That's the theory recently advanced by a researcher digging at an archeological site in North Carolina.

The numerous remains of toads piled up near ancient Indian encampments have long bothered archeologists. Some guessed that the native Americans may have hunted toads for food. But Jeannette Runquist, a biology instructor at Winthrop College, recalls that "a certain tribe of Indians in Mexico dried, pulverized and inhaled toad skins." The active ingredient is a little-known toxic hallucinogen called bufotenine, she said.

The excavations near Asheville produced a bumper crop of toad remains, and the size of the find "leads us to believe that toad-hunting in America and the use of the skins as a hallucinogen was almost exclusively a Cherokee ritual," Ms. Runquist explained.

She added: "It was unlikely that the Indians would have hunted them for food, because toads, unlike frogs, have very little meat on them and historically have not been used for food."

SOURCE: AP dispatch in the Burlington, Vt. *Free Press* (7/15/80). CREDIT: J. Zarzynski.

Books, Records & Tapes

POLE SHIFT: PREDICTIONS AND PROPHECIES OF THE ULTIMATE DISASTER, by John White, Doubleday & Company, Inc., Garden City, NY, 1980, 410 pp. with drawings, maps, photos, references and index, $14.

For the benefit of those who have been immured for the last twenty years or so, pole shift can be either a cataclysmic inversion of the planet's axis of rotation, up to 180°, or a sudden slippage of the planet's solid crust around the molten core.

John White has done an excellent job of bringing together evidence both for and against pole shift from a wide variety of sources, and has navigated neatly between, in his words, "the rocks of blind belief and the shoals of blind disbelief," providing a very balanced exposition of the problem. Unfortunately, the publisher saw fit to eliminate Appendix Three, mentioned in the text, which presented in concise form the case against pole shift. Even so, the careful reader will finish the book without developing any firm convictions either for or against the possibility that the earth's axis of rotation has shifted in the past and may do so again.

The first section of the book deals with material that constitutes circumstantial evidence of pole shifts in the past, including frozen mammoths and ancient maps that show things they "ought not" to show. None of this constitutes proof, but it is certainly suggestive.

The major part of the book is devoted to a detailed study of the mechanics of pole shift and predictions that the poles will shift within the next twenty years. The three sources of information are the "scientists," modern psychics, and prophets both ancient and modern. The dividing line between the last two is perhaps a bit arbitrary, a fact which White acknowledges. Both use precognition, but their motives in speaking out *may* be different, in that a prophet wants only to report the word of God while a psychic may have power, prestige, or just plain money in mind.

White reports the work of many pole-shift theorists, with a careful and, I believe, very fair evaluation of their work, noting that it is possible for someone to be right about some things and wrong about others and that even the most unscientific researcher may make a valid contribution to the solution of the problem. The material is of necessity fairly technical, but White has managed to avoid being either too technical or too simplistic in presenting each man's work—quite a feat when the theorists range from the meticulous Charles Hapgood to Adam Barber whose description of events during a pole shift provides the only comic relief in the book (White charitably describes him as naive). Though the theorists tend to borrow from one another, none really agree on much of anything except the "fact" of pole shift.

It is very difficult to appraise the statements of psychics and prophets. They can be right in some cases and wrong in others, or there can be a problem in interpreting what they say. White again includes all the pole-shift predictions he could find, and again carefully evaluates the track record of each psychic and prophet. The credibility of these witnesses, if one may so call them, varies considerably. Some I found interesting but completely unconvincing; others, and notably Nostradamus and the Hopi Indians, made me rather nervous.

Perhaps the only real weakness in the book (though hardly a fatal flaw) is John White's failure to consider a factor that strikes me as rather odd and which becomes glaringly obvious when one studies his very helpful table "Pole Shift at a Glance." This is the predilection among the psychics and prophets for the year 2000 (or 1999-2000) as the date of the next pole shift. It is a Western, and in fact Christian, date, and I cannot help wondering whether the choice is occasioned by a psychological end-of-the-millenium syndrome, particularly as none of the psychics and prophets agree on what is going to trigger the shift. (I am particularly suspicious of anyone who pins it down to May 5, 2000. One is inevitably reminded of end-of-the-worlders who have climbed mountains to await the end and then have had to climb down again.) On the other hand, of course, one can interpret this to mean that they are all tapping the same source of information.

In the final section White turns to orthodox science and examines data and theories related to the possible trigger mechanisms, both natural and human, suggested by pole-shift theorists. On the basis of some of the material presented, orthodox science is not wise to dismiss the idea of pole shift as impossible. Indeed, there are scientists who state that it is theoretically possible for the pole to shift 180°, and a number of ancient records state flatly that the earth has "flipped over." In this case, some evidence that seems to rule out a pole shift in fact does no such thing: e.g., the Antarctic ice cap may be more than 20 million years old and the equatorial region has been in approximately the same place for 60 million years. If the earth flips 180°, the poles simply change places and the equatorial region stays in relatively the same place.

John White is not himself convinced that a pole shift will occur (and certainly one hopes it won't—it will almost certainly end civilization as we know it). Nor am I convinced, one way or the other, but I agree that "Here is a subject worthy, truly worthy, of the most concerted and full-scale investigation by the entire scientific and scholarly community. It represents a potential revolution in the earth sciences . . . a revolution in the biological sciences, in archaeology and in intellectual history. Last of all, it represents what may be the key to humanity's survival in the face of imminent cataclysm. For if there is the slightest bit of truth to it, we may be standing at the edge of the ultimate disaster. If we avoid or ignore the possibility of a pole shift, we will have only ourselves to blame should there be a cataclysmic repeat of the 'myth' of Atlantis."

Last of all, I suggest that all of us pray that if the poles do shift, only Charles Hapgood is right. Though he believes the shift may be underway, he also believes that it will not shift very far and will take several thousand years to do so. Edgar Cayce also gives us some chance of survival with a shift taking several years. All the others plunk for the shift taking place in one day. In which case, it's been nice knowing you.

—Sabina Warren Sanderson

GUARDIANS OF THE UNIVERSE? by Ronald Story (St. Martin's Press, New York, 1980, 207 pp., illust., index, biblio., $8.95)

This is a sequel to Story's earlier book, *The Space Gods Revealed,* wherein he attacked claims of Erich von Daniken

that "ancient astronauts" built the Pyramids, the Easter Island statues, various other "mysterious" constructs found around the world, drew the Nazca lines, and even created humankind by genetically manipulating protohuman ape-creatures.

Guardians continues Story's refutation of "von Danikenism" and identifies clearly the earlier writers of similar speculations on whose shaky foundations von Daniken subsequently built the pseudo-archeological fantasies of his books.

Story clearly demonstrates the "pick-and-choose" and "quotes-out-of-context" methodology used by von Daniken and his precursors in contriving their theories. "I have found," writes Story, "that if you take von Daniken's 'indicators' or 'proofs,' as he alternately calls them, and subject them to the normal rules of evidence—and generally accepted canons of logic—they fall apart. From the standpoint of 'proof,' or even from the standpoint of reasoned argument, von Daniken does not have a case."

Story examines, for example, the Tassili rock paintings "discovered by French archeologist Henri Lhote in the Tassili N'Ajjer mountains of the Central Sahara, in 1956 . . ." Where von Daniken professes to get "the impression that the great god Mars is depicted in a space- or diving-suit." Story points out that the "martian god" is but one of "several thousand other early examples of negroid art" which depict "hunting and fishing scenes . . . accompanied by renderings of the more mundane aspects of everyday life" including women carrying baskets on their heads. But in von Daniken's eyes (which seem to ignore the 'mundane aspects' surrounding the women) the baskets are transformed into space helmets festooned with antennae. Interestingly enough, and Story fails to mention it, the helmets used by our "primitive" astronauts and cosmonauts are *not* encumbered by antennae.

Though he missed that chance to score, Story goes on, page after page, patiently, even ploddingly, documenting his interpretation of ancient astrononsense.

In a closing chapter, Story examines, and calls specious, the claims of Robert Temple in *The Sirius Mystery,* that an African tribe, the Dogon, obtained (apparently from extra-terrestrial sources) astronomical information about the star Sirius long before earthly astronomers did.

Temple, for his part, has been remarkably slow to respond, but in *Fate* magazine for October 1980 he counterattacked, replying specifically to an earlier (November 1978) *Fate* article by saucer-skeptic James Oberg. Both Oberg and Story claim that Dogon knowledge of the existence of various Sirian stars is clearly traceable to missionary influence in the 1920s when interest in Sirius was widespread in the Western world.

In reply, Temple writes that "Dr. Germaine Dieterlen, the world's authority on the Dogon" publicly displayed "an ancient Dogon statue portraying Sirius A, Sirius B, and Sirius C together. The statue, she said, is at least 400 years old."

However, keep in mind that even should the Dogon case be the result of an extra-terrestrial visitation, it does *not* necessarily support the ancient astronaut theory in all its gaudy extremes as put forth by von Daniken, Charroux, Drake, Tomas, and a host of other writers. It still seems to me that, taken overall, those ne'er-do-wells who have been sitting around on their hands while awaiting the appearance of saucer-riding demi-gods who will build them an earthly paradise, will be as unhappy with *Guardians of the Universe?* as they were with Story's first book.

—George W. Earley

THE ROAD TO THE STARS by Iain Nicolson (The New American Library, 1979, 230 pp., $2.75 paperback)

When we consider the complexities of space exploration, it's nice to have a book like this which sums it up in three parts and puts it all in orderly perspective. Nicolson begins with primitive rocketry and ends with speculations on space colonies, interstellar travel, and aliens.

Part One provides background on the solar system and its parent galaxy. Nicolson describes the conditions necessary for the formation of life and concludes that our galaxy may contain at least 100 million life-bearing planets.

Part Two begins with the history of space exploration. After a cursory look at literary excursions from Lucian to Verne, the author gives us an even briefer history of modern rocketry. Only a few pages are devoted to the period from Robert Goddard to the moon landing. Any reader with a serious interest in the history of space flight will be disappointed. Of greater depth are his explanations of the technology behind rocket propulsion, orbits, launch windows, etc.

Various possible methods of interstellar travel are examined next. Nicolson discusses the fusion rocket, the nuclear-pulse rocket, the interstellar ramjet, the laser-photon sail, anti-matter propulsion, and the photon rocket. He believes that all these methods deserve continuing study.

Part Three is the most interesting to xenologists. Here are discussed the author's views on suspended animation, relativity effects, and extraterrestrial life.

Although Nicolson believes that UFOs merit serious investigation, he sees no evidence that we have ever been visited by aliens—which is not to say that we won't be!

As a survey, this book belongs next to John Macvey's *Interstellar Travel.* Both touch the edges of a very broad spectrum of astronomy and engineering, and the net result is that one is left hungry for more.

—Kim L. Neidigh

THE ROSWELL INCIDENT by Charles Berlitz and William L. Moore (Grosset & Dunlap, New York, 1980, 168 pp., $10.00)

"According to UFO legend," states the introduction of this current Berlitz-Moore book, "an extraterrestrial spaceship crashed in New Mexico in the early days of July 1947 . . . What is different about this case . . . is the vitality of this one single incident and its continuing developments in scientific, government, and legal circles."

Was there a crashed spaceship in Roswell, N.M.? Did the U.S. government retrieve small, dead alien bodies at the site, a fact carefully guarded by the military to this day? The Roswell rumors have made UFO researchers curious for 33 years, for at least part of the story has a known, factual basis. Regrettably, the late writer Frank Scully wrote a hastily developed and poorly documented effort entitled *Behind the Flying Saucers,* which loosely dealt with the New Mexico rumors, in 1950, and truth became about as valuable as fool's gold.

Thirty years later, however, Berlitz and Moore have given us a better example of investigative journalism in *Incident.* In the tradition of researcher Leonard Stringfield, who currently finds himself in hot pursuit of perhaps genuine UFO crash-and-retrieval cases of years past, the authors reveal that evidence of the alleged Roswell mystery is piling up as former military personnel and other witnesses slowly come forth to confirm its reality.

The Roswell incident's genesis occurred in 1947, when an

Army Air Force information officer issued a brief press release stating that a "flying disc" had landed on a Roswell ranch, and that it was recovered by military personnel. Before long, but not before national and world interest had grown in the possibility of visitors from outer space, high-ranking military officials rushed forth to report that a weather balloon, not a disc, was the culprit. At this point, *Incident* leaves confirmed history behind and delves into new evidence which suggests otherwise . . . that, in fact, a real alien craft crashed.

The authors share portions of interviews with several people whose integrity and involvement with the case seem genuine. For example, the son of the rancher on whose property the UFO supposedly crashed recounts how the military confiscated pieces of the craft he had gathered as a curious youngster; and Maj. Jesse A. Marcel, a retired military officer who helped recover pieces of the object, tells how a member of his team, having failed to break or burn fragments of the bizarre metal-like pieces at the scene, "even tried making a dent in it with a sixteen-pound sledgehammer, and there was still no dent in it."

There are dead alien bodies to contend with as well, and as the Roswell legend progresses, its intrigue touches officials ranging from the FBI of J. Edgar Hoover days to President Eisenhower.

Wisely, the authors admit that rumor is often "our best source of evidence," and a couple of the secondary sources they mention, whose names are well-known in the UFO field, may be something less than worthy of serious attention. But, in general, the fact that so many names *are* named is all to *Incident's* credit. If this book helps to encourage other "hidden" witnesses to UFO crashes-and-retrievals so that they, too, come forth to tell their stories, then its publication will have made an important contribution indeed.

"This occurrence, if true," speculate the authors in regard to the Roswell mystery, "would be at least comparable to Columbus's encounter with the startled natives on his first visit to the New World.

"Except for one thing. In this case, *we* would be the startled natives."

—Robert Barrow

SEARCHING FOR HIDDEN ANIMALS by Roy P. Mackal (Doubleday, 294 pp., $12.95)

Cryptozoology, the study of unidentified living animals, has been a much-neglected science. The general public is sufficiently aware of the Loch Ness Monster, of Sasquatch and of the Yeti as a result of the disproportionately large number of books that have appeared devoted to them to the exclusion of other, equally mysterious unknown animals. Aside from Bernard Heuvelmans' *On The Track of Unknown Animals,* which saw print over twenty years ago, there has not been one book that attempted to bring together reports on hidden animals from the seven continents. Professor Mackal's second cryptozoological book attempts to educate the layman concerning about a dozen zoological mysteries.

I'm sorry to report that this book is a disappointment. There is no shortage of reports of bizarre creatures, and there certainly are enough "established" animal enigmas to preclude the use of filler material for two chapters. One of these, a discussion of "living trilobites," concludes that no living trilobites having been reported or have left visible traces, there probably are no living trilobites. The other, the final chapter on man-eating plants, is wholly out of place. I would have liked to read updated information on the African cat, the mngwa, or the Nandi bear. The careful reader will also have to overcome the annoyance of several dependent clauses passed off as sentences.

But there are some good points to the book, enough to balance but not efface its shortcomings. Information on the Himalayan Buru and the sea ape was most welcome as I had previously known nothing of these mystery creatures. As an introduction to the general subject of strange animals the treatment is adequate; too bad it wasn't better conceived. No doubt it should be purchased by readers interested in the subject's many manifestations.

—Lenny Picker

PROCEEDINGS OF THE FIRST INTERNATIONAL UFO CONGRESS, ed. by Curtis G. Fuller and the editors of* Fate *(Warner Books, New York, 1980, 440 pp., indexed, illust., $2.75)

When *Fate* sponsored the International UFO Congress in Chicago in 1977, the originators wisely collaborated with Liberty Audio & Film Service and produced a series of 25 sound cassettes filled with most of the best that this classic weekend gathering had to offer. The trouble is, more than three years have passed and, according to *Fate* managing editor Betty Lou White, the tapes are no longer available.

Fortunately, the editors successfully followed up on another idea they considered in 1977—to offer printed proceedings. And what an admirable result! The thoughts and work of some of the best-known scientists, researchers, and witnesses pursuing UFO studies in the U.S. are reflected upon in this nicely priced paperback, faithfully transcribed by Congress associate Kathleen Van Duch. A small handful of speakers' presentations which were recorded in cassette-form were not transcribed, but the omissions are indeed minor. Among the contents:

Kenneth Arnold recalls his original sighting and the Maury Island case; James Harder presents UFO evidence; Ted Phillips tracks landing traces; Frank B. Salisbury lays down some guidelines for science's role in studying the origin and nature of the UFO phenomenon; Stanton Friedman does his usual good lecture work with a section on UFO propulsion possibilities; David M. Jacobs deals with debunkers; Jerome Clark speaks with Jacques Vallee; J. Allen Hynek discloses his UFO views. Other prominent speakers, featured individually or in special symposiums, include Ted Bloecher, James and Coral Lorenzen, Betty Hill, Alvin J. Lawson, Curtis Fuller, R. Leo Sprinkle, Berthold Eric Schwarz, J. Gordon Melton, and David Stupple.

Although a few years have passed since the Congress, the book's contents are no less current or important, and are surely no less interesting to read. Here we have not only history but an example of intellectual culture at work.

—Robert Barrow

UFO SIGHTINGS, LANDINGS AND ABDUCTIONS by Yurko Bondarchuk (Methuen Publications, 2330 Midland Ave., Agincourt, Ontario, Canada M1S 1P7. 1979, 207 pp., indexed, $7.95 paperback)

The most visibly appealing charm of this Canadian book is its use of original and seldom-seen artwork and photos. And, while most books that are fun to read, as this one is, are usually amazing in their inaccuracies, Bondarchuk's volume is a fact-

seeker's delight. Yes, the author throws in a wild speculation every now and then (e.g., regarding the Bermuda Triangle and the future of humanity's contact with UFOs), but his concern for truth is overwhelming.

This is an important book, for it offers non-Canadian UFO researchers a number of intriguing UFO cases from Canada and other countries. Newspaper and journal references are top-rate and, even if the reader is inexperienced in UFO-reading, *UFO Sightings* provides a clear, pleasing primer. Appropriately, the contents are presented in steps, rather than in a confusing potpourri. After first dealing with UFO photographs, always of dubious value to "authorities," we are introduced to other substantial evidence, such as landing traces and reactions of living things to UFO encounters. UFO occupants and abductions are then detailed, still within the realm of respectable cases. Of particular significance to researchers, Bondarchuk next discusses UFOs observed over military installations, pilot-sightings, UFOs near energy-generating sites, power blackouts perhaps caused by UFOs, and strange objects which affect radar. These chapters are excellent.

An exploration of civilian pilot sightings and an historically valuable chronology of Canadian government and military involvement with UFOs since 1947 are also worthwhile. The chronology is relevant for U.S. researchers because it shows that Canadian government and military officials have the ability to handle the UFO enigma just as ineptly as U.S. authorities, at least publicly.

Contents aside, however, the best asset this publication offers is further proof that UFO encounters are indeed an international phenomenon. May it long remain in print.

—Robert Barrow

FACTUAL EYEWITNESS TESTIMONY OF UFO ENCOUNTERS, a double LP album available from Investigative Research Associates, Inc., Suite W, 430 W. Diversey Parkway, Chicago, IL 60614, 1978, record $9.95 postpaid, cassette $11.95 postpaid

UFO '79, San Diego Convention of November, 1979. Write to Hal Starr, 312 W. Frier Drive, Pheonix, AZ 85021 for information on audio cassettes

Record reviews are beginning to give book reviews a run for their money in the UFO field. The LP album is a double entry and a versatile "talking book" elaborating on some of UFO history's shining moments.

From start to finish *UFO Encounters* is a professional, well-engineered production, comparable in quality to 1975's excellent Columbia House LP, *UFOs: The Credibility Factor.* From foo-fighters to Zeta Reticuli, from the U.S. Air Force to the CIA (and beyond?), from calculating alien entities to dead alien bodies, here lies UFO evidence for every taste. The LPs contain a balanced mix of UFO witnesses, UFO investigators, police officers and other people whose lives have been touched by the UFO phenomenon. I was pleased to hear the voices of important people not widely recorded in the past, e.g. Col Robert Friend (USAF ret.), Ted Phillips, Kenneth Arnold, Travis Walton, Father William Gill, Louise Smith, Dr. Leo Sprinkle, Marjorie Fish, Dr. Jacques Vallee and Bill Pecha. Other participants, and there are many, are also generally well-known and essential to the album.

Although the album cover states "First time ever recorded," some of those interviewed merely repeat things they've said on previous broadcasts or LPs. For example, Dr. J. Allen Hynek, Maj. Paul Dutch (USAF ret.), Herbert Schirmer, Betty Hill, Stanton Friedman, Col. Gordon Cooper (USAF-ret.), and Dr. David Saunders did not digress all that much from the comments they made on the previously mentioned 1975 production, *Credibility Factor.*

Recorded interviews with alleged UFO abductees Travis Walton and Louise Smith are absolutely top-rate, especially where tapes of their hypnosis sessions are introduced (all too briefly, in my opinion).

On the negative side, I was surprised to find that *UFO Encounters* seems to be something of a hype for the Center for UFO Studies. I suspected this as soon as I opened the box from I.R.A., Inc., and watched—as described on the album cover—"your own UFO report form" fall out. The reverse side of it sported a description of CUFOS *and* provided a subscription form for the CUFOS *International UFO Reporter.* Oh, *please!*

With so much of Dr. Hynek and CUFOS "this and that" on the LPs, I almost became convinced, even after being in UFO research for 18 years, that nobody except CUFOS & Co. ever did any UFO investigations (for instance, APRO certainly should receive *some* credit for its monumental work with the Walton case and the encounter described by Louise Smith).

Future UFO research might benefit from recordings that include *complete* sessions with hypnotized alleged abductees. Meanwhile *UFO Encounters* is informative and worthwhile for veteran researchers as well as the general audience for which the presentation is intended. Just don't let the irritating little segments get you! Like the one near the end when the narrator, like Flash Gordon in the process of saving the world, promises that Investigative Research Associates and CUFOS will continue searching for the UFO solution. Who needs to pay $9.95 (or $11.95) for a recording of commercials?

There are lots of other UFO organizations and researchers out there. Most of them are working, not hyping.

* * *

Veteran broadcaster and newsman Hal Starr and R. H. Peck arranged a valuable cassette collection from the convention held in San Diego in November 1979. The convention experienced some of those last-minute speaker-cancellations that seem to dog live symposiums wherever they are held, but this and other management problems detract little from the significance of the reports or their synthesis before such a distinguished assemblage of investigators.

Included are discourses by Walt Andrus, MUFON director, on UFO entities; Dr. James Harder, UC professor, on the potential for alien communication with humanity; Dr. R. Leo Sprinkle, psychologist at Wyoming U. with a review of prophetic writings on UFOs; nuclear physicist Stanton Friedman on UFO propulsion; Alan Holt, NASA astrophysicist, on the application of hydromagnetics to space travel and UFOs; James Lorenzen, APRO director, on cattle mutilations and UFOs; and Cleve Backster, polygraph authority, on the rleation of his field to UFO investigations.

It's too bad that slide presentations given by various lecturers can't be seen by tape listeners, and there are a few "slow spots" here and there, but the excellent Dolby sound-quality of each cassette certainly makes up for this. Whether for one's personal collection, the library, or school, these tapes deserve their place in history.

—Robert Barrow

Report on the Press

THE SMITHSONIAN SYMPOSIUM ON UFOs—SEPTEMBER 6, 1980 ACCORDING TO *THE WASHINGTON POST*

Tempest in a Saucer: The UFO Identity Crisis

By Stuart Rohrer

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"How many of you have had a UFO experience?" the panelists in Baird Auditorium asked their symposium audience of 300.

About 75 raised their hands.

How many thought what they saw might have a simple, earthly explanation? Only a dozen hands went up.

These were the hard core—the believers and the uncertain skeptics—who cared enough to spend $25 and a sunny day off seriously exploring a subject usually treated in screaming headlines at the checkout counter.

It was a day devoted to the unidentified and the inexplicable—an all-day UFO symposium Saturday sponsored by the Smithsonian Resident Associates. Under the firm hand of moderator Frederick Durant, former special assistant to the Air & Space Museum director and once involved in a major government UFO study, three ranking UFO investigators met three confirmed skeptics in a sometimes searing verbal encounter.

"I love a good mystery," said gray-bearded J. Allen Hynek, the scientific director of the Center for UFO Studies, emeritus professor of astronomy at Northwestern and former Air Force UFO consultant, who led off the day's presentations. "Reading a good UFO report is like reading Agatha Christie—except there is no last page to turn to."

Hynek, in cream-colored jacket and sky-blue tie dotted with planets, his head bowed over the lectern, hastily recounted the facts of "the UFO phenomenon" that led him to more than three decades of investigation: the existence of thousands of UFO reports, the persistence of those reports, their global distribution and the strikingly high calibre of many witnesses.

"There *is* something unusual going on here," insisted Navy physicist Bruce Maccabbee, the earnest chairman of the Fund for UFO Research, who pressed the significance of sightings by highly qualified observers such as military pilots, astronomers and the Gemini II astronauts.

"UFO Handbook" author Allan Hendry, whose more than 2,000 investigations for the Center for UFO Studies have included "CE-IIIs" (close encounters of the third kind, a term that pre-dates the movie) with "UFO-nauts," outlined in his radio-announcer voice what he considered one of his most reliable reports—a 30-second daylight encounter with a speeding silver hat-shaped object by two families on an Illinois freeway.

But the skeptics kept their opponents on the defensive through most of the day. Countered Philip Klass, gray-suited senior editor at Aviation Week and Space Technology magazine and author of "UFOs Explained": "UFO promoters have not been able to come up with anything but unexplained cases. There is no scientifically credible evidence." It's time for UFO proponents to "put up or shut up," he said.

"UFOs seem to behave like fairies and ghosts," sniped author-investigator Robert Scheaffer of the Committee for the Scientific Investigation of Claims of the Paranormal, who termed UFOlogy a "failed science." "They always escape just before you can get any evidence."

"A triumph of hope over experience," suggested James Oberg, a 6-foot-8 NASA engineer and UFO columnist for Omni magazine. With a NASA film, he demonstrated how a reflection in the Apollo 11 window became "ALIENS ON MOON WHEN WE LANDED" in a National Enquirer headline.

And so it went through the five-hour session. At one point Hendry dramatically tossed a paper off the lectern to make his point about the worth of conflicting lie-detector tests. During the most biting attacks on his work, Hynek slumped quietly in his chair, a hand on his chin.

Douglas Climenson, a mail clerk at NOAA who brought along his knapsack stuffed with newspaper clippings and UFO books, echoed the sentiment of some in the audience. Though he'd never seen a UFO himself, he said, "I definitely believe they exist. The question is what they are."

When the skeptics and scholars finally crowded a table for the concluding panel discussion, a fire-fight was raging between Hendry and Klass over their methods of investigating a particularly controversial UFO abduction case in Mississippi. "I'm prepared to take a polygraph test on everything," Klass said expansively before Durant ended the argument.

When pinned down by a written question from the audience, no panelist was willing to say he believed a human had ever been abducted by an alien craft.

Nor did any panelist have any evidence that the U.S. government was holding anything back, such as the remains of alien creatures or their craft, as has been suggested by some UFO buffs. Hynek, however, citing possible informants who feared violating government secrecy laws, called for the president to offer immunity to anyone in the government or the military who came forward.

At symposium's end the question of alien creatures, like other topics of the day, remained unresolved. But as the panelists packed up and the audience filed out, moderator Durant, who retired from the Smithsonian just last week, said, "We don't have any in *our* collection."

Confessions of a Newsletter Groupie: A Case Study in UFO Manipu ation

by Thomas B. Burch

UFOlogy's reaction to *Messengers of Deception* has been so widespread that Jacques Vallee's newest novel has become must reading for all UFO enthusiasts. In his book, Vallee suggests to us that a shadow-like organization known as the "manipulators" is using segments of UFOlogy to promote and produce radical social change and/or to prevent the nuclear holocaust of a World War III.

Messengers of Deception is fascinating reading, without question. Unfortunately, it asks more questions than it answers. After completing Vallee's novel, the real identity and actual motives of these "manipulators" are as unknown to the reader as they were when the novel was purchased at the bookstore. What is clearly needed is a sequel to Vallee's work which might be titled "Messengers of Deception—Part II."

As thought-provoking as Vallee's suspicions may be, he has failed, nevertheless, to acknowledge the existence of other types of UFO manipulators who possess motives far more basic than the desire for world peace or large-scale improvements to the world social order. These motives are greed and personal profit. Schooling in the cloak-and-dagger arts of intelligence collection and counterespionage are not necessary to discover that yesteryear's carpetbaggers, scalawags and snake-oil salesmen are alive and well today and prosper in quite socially acceptable forms. Many of these contemporary profiteers are known to us as "Doctor," "Reverend" or "The Director of_____." Their chicanery is subtly and cleverly concealed behind the trappings of white lab coats, religious vestments and three-piece Pierre Cardin suits.

Of particular interest to me are these other types of UFO manipulators which, regrettably, Vallee has overlooked. These manipulators are not intelligence operatives who have successfully infiltrated UFO groups but are, in all too many instances, the actual founders and the directors of these very UFO organizations. Their objectives are personal financial gain in the form of direct corporate salaries and income-tax writeoffs. The financial base at their disposal comes from annual dues and newsletter subscription payments provided to them, in advance, by their organization's members. A popular source of additional income to these "directors" comes from the sale of novels written by them while salaried to manage and perform the organization's research and investigative programs.

The criticisms provided herein should not be misconstrued as a complete indictment of all segments of organized UFOlogy. Most UFO groups are legally operated and many rigorously maintain the highest degree of professional standards. However, some UFO groups are legitimately founded with the best of intentions and only later succumb to the temptations of personal gain. I will classify such an instance as a type IIA case of manipulation.

For example, a hypothetical organization called "The Alien Brotherhood Council" (ABC) is enthusiastically formed by individuals intending to specialize in close-encounter case studies. A board of governors is established, officers are elected, investigative and research committees are formed and the formal data-collection process begins. ABC newsletters are prepared with scientific objectivity and are distributed on a regular basis. ABC prospers. Almost historically however, after credibility is established, public visibility is attained and membership lists have grown, the director hits the road for TV and radio engagements and the college lecture tour. Soon after this the director starts to work on his novel. Expenses for this UFO road-show are subsidized by newsletter subscription income, and no one is left back at the ranch to perform the actual research or to provide inputs to the newsletter. Not surprisingly, the newsletter is prepared and distributed less frequently, and the members, who see very little in return for their subscription money, become alienated and suspicious. Renewal memberships decline as does the solicitation of new members. Slowly but surely ABC starts fading into obscurity. Later the organization is temporarily revived and then totally reformed, under a new name (and acronym) by several diehard staff members. And the cycle begins again. . . .

You cannot be a UFO newsletter subscriber for long before you become all too familiar with a scenario such as this. As a member/subscriber you feel short-changed. After all, you have paid from $15 to $25 for an annual subscription. You therefore may assume that because there are twelve months in a year you should have received one newsletter per month for a year. Don't count on it. You have been manipulated. However, your individual financial loss is minimal and is largely attributable to poor management as opposed to an intent to defraud.

A type IIB case of manipulation is clearly another matter. In a type IIB manipulation the "director" devises his ploy with obvious malice of forethought. Classifying all UFO enthusiasts as gullible and naive, the director initiates a con game which seems almost too good to be true. He views UFOlogy as a non-discipline, eschewed by organized scinece, populated by kooks and cultists who rarely validate any claim or theory suggested to them by "certified" experts.

With clear intent to defraud, these directors establish

and operate UFO research organizations for the primary purpose of personal financial advantage. While I have never claimed any clairvoyant abilities, I would not be at all surprised to learn that some director is currently documenting his ongoing fraud to demonstrate the gullibility of the UFO community. Such documentation could then be prepared in novel form for further personal profit. A suitable title for this expose might be "The Great UFO Con Game." After its publication the author will waste little time in hitting the TV talk-show circuit to promote the sale of his book. "The Great UFO Con Game" is inevitable unless the UFO community learns to defend itself against the frauds and con artists who call themselves "directors." Like the seers of the tabloid newspapers I cannot predict when "The Great UFO Con Game" might hit the market. I only predict that it will.

Let us now pursue the planning and implementation requirements of a hypothetical type IIB manipulation case. A self-proclaimed director founds "The Federation to Research Anomalies and Unconventional Data" (FRAUD). He solicits for members in UFO periodicals and supermarket sensation-sheets by running low-cost advertisements. With any luck the director can acquire one, or more, UFO-group mailing lists and can conduct a mass solicitation of an already existing market. Combining a small amount of tax-deductible capital with the best PR and puffery, it is possible to create the nucleus of what would appear to be a viable new UFO organization. If our self-proclaimed director is lacking in either relatable experience or academic certification, this can be overcome by the creation of bogus biographical data and by the misrepresentation of his factual academic accomplishments. Falsified academic certificates can be acquired and conspicuously displayed on the walls of the FRAUD headquarters (usually this is in the director's private residence). The cost of these falsified certificates is not prohibitive, and their availability is widespread. It is unlikely that any members will take the time to investigate the director's alleged academic achievements. And if the falsehood is ever uncovered, the damage will have already been done.

Prior to the mass solicitation of members a small board of directors is established and officers are elected. Not surprisingly the founder is selected as the chairman of the board and the president/director of the corporation (which has filed for tax-exempt status as a non-profit organization). Solicitation letters are carefully prepared outlining FRAUD's scientific objectives of UFO data collection, sighting investigation and research analysis. The letter will state quite specifically that FRAUD will be the first UFO organization to conduct a scholarly and scientific study of the UFO phenomena. The solicitation will also promise a membership certificate (suitable for framing), a membership card (to assist you in actual sighting investigations) and a subscription to the monthly newsletter, in return for annual membership dues.

The purchase of $50 worth of UFO materials available at any bookstore will provide a wealth of information on the classic UFO cases. Within days our director will have programmed himself sufficiently to speak at great lengths about Betty and Barney Hill, Pascagoula, the incidents at Exeter, Kenneth Arnold, Lonnie Zamora, Travis Walton, Project Blue Book and the Condon Committee Report. This superficial expertise, combined with the title of "Director of_____", provides our suspect with all the necessary prerequisites for participation in radio talk-show interviews. Such media coverage adds to FRAUD's apparent credibility and provides free access to the solicitation of additional members.

If, by following this scenario, FRAUD successfully recruits 5,000 dues-paying members (at $15 per annum) a total of $75,000 could be accumulated in the first year alone. During this first year of operation the newsletter will be distributed on a somewhat regular basis. Of course the development and distribution of the newsletter will not cost anything near $75,000. FRAUD will subscribe to a UFO newsclipping service (less than $100 per year) which will provide the raw data on UFO sighting reports to be republished in the FRAUD newsletter. Also included in the newsletter will be a letter-to-the-editor section, a "classic case revisited" feature, and several UFO book reviews. The director will occasionally prepare a self-serving editorial comment detailing the organization's meteoric rise within the UFO research community and will pointedly inform members about the many inquiries received at headquarters since his last talk-show interview. In short, the newsletter will contain little information reflecting the "scholarly and scientific study of the UFO phenomena" originally promised.

In the second year of operation the newsletter frequency can be reduced even further. Complaining members can be told (via editorial) that FRAUD cannot compromise the conduct of ongoing research programs just to satisfy membership demand for a timely newsletter delivery. Somehow members can be convinced that by being way overdue in newsletter distribution FRAUD is, in fact, very busy performing actual research. (This phenomenon, which I call "The Emperor's New Clothes Syndrome," is deserving of its very own scholarly and scientific study.)

Unchallenged by its members the manipulator(s) at FRAUD can continue this scam almost indefinitely. An occasional newsletter would have to be published but very little creative effort need be expended in its development. With no one to account to, the FRAUD director is free to dedicate his time to other lucrative endeavors, like writing his novel.

Benefits to be derived from this manipulation should now become somewhat obvious. Status as a non-profit, tax-exempt entity ensures that all acquired income can be kept within the FRAUD organization. This income, in the form of annual dues or subscription payments, is received in advance for the receipt of monthly newsletters which, in reality, will be published irregularly and infrequently. The location of the headquarters facility within his personal residence allows the director

to write off a substantial portion of his home mortgage payments as a legitimate business expense. Or, at his option, the director may prefer to bill the organization directly for the leasing of office space. Similarly, a significant portion of the director's auto expenses, gas, oil, insurance and maintenance, can be subsidized, directly or indirectly, as mentioned above. Other direct or indirect subsidies include airline tickets, meals, hotel accommodations and rental cars. Not to be overlooked is the fact that, in addition to these considerable financial benefits, the director is also paid a salary in return for his directorship of the organization.

The total value of these benefits, when combined, can be quite substantial indeed. And the director is held accountable to virtually no one. The director's greatest fear is that someone within the organization's select inner circle will eventually realize the lucrative rewards of a UFO directorship and will steal the FRAUD membership list in order to start his own organization for personal profit.

There are approximately 100 American-based UFO groups in existence today. The size of these groups ranges from one-man entities to organizations claiming up to 10,000 members. In the 27 years since the founding of APRO* many other UFO groups have come and gone. How many of these hundreds of organizations have been legitimately operated for research purposes and how many have been established contrary to the public interest would be an exercise in speculation. It would be next to impossible for any individual to gather the necessary information on all existing UFO organizations to properly evaluate their motives. However, the misuse of public funds, as depicted in the foregoing scenarios, has become so prevalent that clearly the time has come for a wholesale purge of UFOlogy. This purge should take place before "The Great UFO Con Game" hits the market. To do so later would only be closing the barn door after the horse has gone.

* Aerial Phenomena Research Organization. Founded in 1952 by Mr. and Mrs. L. J. Lorenzen. APRO was the first privately funded, civilian operated UFO research organization in the U.S. APRO is in operation today and is headquartered in Tucson, Arizona.

What's Next in *Pursuit*

In the Winter 1981 issue you'll read about

—**UFOs and Earthquakes: The New Madrid Test.** Dr. Michael A. Persinger, professor of psychology at Canada's Laurentian University, reports on the statistical relationships between unidentified flying object reports, odd force events (poltergeists, animal mutilations), and unusual animals (big cats, bipeds) on the one hand—and earthquake reports on the other. Persinger carries investigation of phenomena well forward to exploration of the inter-phenomenal.

—**Maurice Chatelain Interviewed by Charles Berlitz.** Chatelain, a French-born American citizen, was involved for more than 20 years as a space communications specialist in the Mercury and Gemini and other space programs. Author of several books on the "UFO problem," he has some fascinating answers to Berlitz's probing questions.

—**The Mississauga Blob.** Photographs show, and Dwight Whalen tells, about a flaming "blob" mysteriously dropped from the sky onto a backyard picnic table on a quiet Sunday afternoon.

—Plus, of course, reports on other strange SITU*ations*, reviews of books you'll find worth reading, and brief and extended reports of investigations ongoing in many parts of the world.

* * *

Correction

Pursuit regrets the typesetting error in Morgan D. Eads' article on teleportation in the Summer 1980 issue (Vol. 13, No. 3). On page 104, right-hand column, next-to-last paragraph, the second sentence should read: "In general, the associated wavelengths of macroscopic matter would need to be relatively small things to prevent such annoying phenomena from occurring."

* * *

Where We Are

Pursuit's editorial office is now located in Paramus, New Jersey. Articles, book reviews, letters to the editor, photographs, newsclips for SITU*ations* and all other material to be considered for publication in this journal should be mailed to:

Fred Wilson
601 Bergen Mall, Suite 28
Paramus, NJ 07652 USA

Correspondence having to do with membership, changes of address, SITU business and corporate affairs, donations and bequests, and requests for research service, should continue to be directed to:

SITU/PURSUIT
P.O. Box 265
Little Silver, NJ 07739 USA

* * *

Membership Directory Update

Additional coding of members' interests:

Anomalies (General) GA
Archeoastronomy (Ancients' knowledge of the heavens, calendars, etc.) AS
Marine (micro)biology MB

Additions, changes of address, and errata:

Memb. No.	State	ZIP	Interests
2610	AZ	86327	U,T,E
3039	CA	90504	U,L
755	CA	91601	TG,G
1261	CA	91747	G
32	IL	60659	U,M,L,BC,W,LP
2817	IN	46202	AN,CZ,N
3329	MA	02139	AN,D,G,GA,GN,U
2625	NJ	07202	X
2229	NJ	08027	N,R
2912	TX	77098	A,APS,T,Q
3442		Quebec, Canada	AR,AS,MB,MM

Please address all correspondence regarding the Membership Directory to:

Martin Wiegler
694 Stuyvesant Avenue
Irvington, NJ 07111 USA

Letters

Bill Banks reviewed a book entitled *Alternative Three* by Leslie Watkins, David Ambrose, and Christopher Mills (Avon Books, N. Y. 1979) in *Pursuit* No. 51, Summer 1980.

Banks cites numerous faults of documentation and also mentions that the British television network that originally produced *Alternative Three* as one of its "Science Reports" series denounced the show as fraudulent. He does not directly say that the show is a hoax, but there are excellent grounds for stating this directly.

The best evidence is provided by the producer of dramatic programming for the network in question, John Rosenberg of Anglia Television, as reported by James Delson in the September 1979 issue of *Omni* (Vol. 1, No. 12, page 24). Rosenberg reviews, for Delson, some of his accomplishments with Anglia Television. At one point in the interview he says, ". . . the film that stands out most was a 'fictionalized documentary' called *Alternative Three.* It was about the conspiracy of several governments on Earth to plant survival colonies on Mars." He gives a brief outline of the means used to lend an air of reality to the premise, then concludes with the remarks, "The Americans were going to buy it, but then didn't, fearing, I would think, another Orson Welles/*War of the Worlds* incident." In other words, *Alternative Three* was simply meant as a video-hoax, which the regular viewers of "Science Reports" might find interesting, in an April Fool's sort of way, the same kind of dramatized fiction in a documentary format which made Welles' *War of the Worlds* so infamously successful.

When reading *Alternative Three,* the opening snippets from various journals may lull the reader into verisimilitude, but on page 24 you might get suspicious over a remark by one of the main characters of the story, a non-existent Apollo jockey named Bob Grodin, who is lamenting the publicity of the Apollo-Soyuz mission of 1975, while he, who had performed the very same mission in April 1969 had to do it covertly, without honors. Grodin says at this point, "How they've got the bloody neck!" How many American astronauts, who are usually given to Midwestern or Appalachian slang, use distinctly British colloquialisms like "bloody neck?"

Another question about Grodin's 1969 orbital link-up: How does one launch a Saturn V *covertly?*

—Peter Murphy

Enclosed is my check for ten dollars ($10.00) membership.

I firmly believe in ESP, having had a powerful experience. My older sister (a doubting Thomas) was my witness. My sister believed in nothing she could not pinch, but this time she was won over.

I am eighty-six and may get my wings any day now. I am not reluctant to leave this wicked world. Mr. Sanderson was fortunate to take off so quickly and so young. Later when I think it over I'll send for back issues of *Pursuit.*

God bless you and your work.

—Member #3380

To answer Mr. Mongold's letter of specific criticisms *(Pursuit* No. 50, Spring 1980, page 95), I do not refer to texts because I use no texts. All of my facts are derived from inspection of graphic representations and working models. If Mr. Mongold wants a reference he must follow directions to construct the model; the model *is* the reference.

I have not made measurements of the Plate Flutter model. It would be of little scientific value for me to do so because I do not have the training needed to express the data in mathematical terms. If Mr. Mongold would look at the experiment instead of searching through authoritative texts he would see immediately that the compression of the standing wave as a function of velocity is determined by an exponent.

The researcher seriously looking for a tangible model to illustrate the equations of relativity will use this observation as a starting point to calculate the field acceleration necessary to generate a precession of phase corresponding to the equations of relativity, rather than make assumptions. My reference to the Young Twin-Slit Experiment is derived from the model used by Tom Bearden to illustrate the "photonic reaction."

—T. B. Pawlicki

A woman with whom I have had acquaintance for some 25 years had an experience which appeared to be a genuine UFO sighting. She has no particular interest in "flying saucers," has never read any books about them, and her only contact has been occasional newspaper or magazine items—until last night. She described her experience under guaranty of anonymity, to which I of course agreed.

At 9 p.m. August 6, 1980, she went out onto her front porch. (Her house faces a 100-yard gentle upward slope of ground to the south, with numerous tall trees at its crest.) This night there were unusual lights in the sky. She has no idea how far away they were, or how high, or how large. Apparently they were moving very slowly away, toward the west. At first she thought she was seeing the lights of an airplane, but soon realized they were totally different from conventional aircraft lights. She listened but heard no sound, not even a whisper, that she could associate with a prop or jet plane or the "chop" of a helicopter.

Whatever it was, it flew in silence but with three lights apparently rotating or revolving or flashing in a regular sequence. One light she described as similar to a fluorescent light but very much brighter—so bright that it pained her eyes. Another light she described as "a beautiful apple green" and the third as "bright blue." Only one light could be seen at a time, but each appeared in rapid succession. All the lights seemed to throw a beam for short distances, the beam from the white or fluorescent light being the longest and brightest.

After viewing the lights for about ten minutes she phoned me at my home which is some three miles to the north of hers. I looked, but could not see the object which was somewhere southeast of her location and therefore further from me. The tall trees around my house also blocked out the lower part of the sky. The night was clear, with every star visible and recognizable.

After telling me what she had seen the lady returned to her "observation post" for another 15 minutes. During this time the lights continued flashing but appeared to be slowly moving further away. At one point, she noted, the object "bobbed around," the words she used to describe a sudden drop followed by a sudden rise to about the same level as before. The

object was in sight for a total of 25 or 30 minutes and eventually passed from her view behind treetops on the skyline.

So impressed was my friend with her first sighting that she watched the same area of sky the next night and spotted the same green, blue and white lights, visible one at a time but rotating or flashing in sequence. This time the sighting was abbreviated: The lights moved westward slowly for three or four minutes, then accelerated and vanished within seconds (which precludes the possibility there was a balloon involved). She compared the departure with that of a "shooting star." But this night, too, the sky was completely clear, all the stars appeared to be in place, and she was most emphatic that the tri-lighted object was *not* a star.

—Harold Holland

A year or so ago I sent you a clipping about a "monster" bothering the residents of the Mount Vernon district of Fairfax County [Virginia] and suggested that it might be a puma. Today's local newspaper carries a new story about it, which indicates that "something" is being heard. I am inclined to believe, however, that most likely this is a wildcat. They occur in the county. I have seen their droppings on several occasions at Burke Lake and in Bull Run Regional Park, and I have a suspicion that one was near our home last year. They can make a terrific noise, and to a city dweller it might be frightening.

I have also sent you clippings about another reported creature, "Chessie," which is said to reside in Chesapeake Bay, near the mouth of the Potomac River. The descriptions seem to vary, some describing a snake-like animal, others a more chunky, blunt-headed animal. The latest speculation proposes this is an anaconda escaped from some vessel years ago, which seems rather unlikely to me. I am more inclined to accept the idea of the latter description and suggest it might be a manatee. I saw what looked very like a manatee in the Potomac at Washington some years ago, and I have read that the animal did range north of Cape Hatteras in colonial times. A third possibility is that it is a surviving sturgeon, which used to be frequent in the Potomac. A boating friend of mine, who has extensive scuba experience, told me he saw a very large one in the river several weeks ago and that people have told him they too have seen one occasionally.

—Fred M. Packard

The article by Williamson and that by Forshufvud* seem to reveal a breakthrough in the UFO problem. Perhaps UFOs are "cells of oscillating electromagnetic energy," and sometimes interfere with the perceptions of human beings to the point where a new balance is struck between the influences of the brain hemisphere.

Actually there is a misconception about creativity. One is in his most creative state when he considers a situation in a cursory fashion, passing over its details in favor of the overall view, *and* includes in his purview some different but significantly related subects. The same superficial approach that causes misinterpretations, shoddy thinking, and (on the other hand) useful general grasp can, in lucky moments, bring new insights. The most effective thinking is a use of several levels of observation, but it should include detailed examination as one of these, and it should draw on information not obvious in the immediate circumstance.

A person who becomes known as a creative thinker, then, is one who sees a problem in both the large and the small. He can get useful new impressions from the former but must check on them by careful consideration. The more ideas he has from various fields of thought or from various aspects of the same situation, the more likelihood there is for his general impression to result in novel hypotheses. But, as Williamson says, not everything created is worthwhile. For example, all our malapropisms, Spoonerisms, and Gracie Allen-like comments are creative, but who needs them?

It follows that one of the differences between left and right hemispheres of the brain is simply that the right half is used less often and has fewer interconnections between neurons. This does not, however, negate Williamson's idea. It may be that the right hemisphere is useful for creative thinking because of a tendency to link rather distant thoughts together in a general view. In any case, the recognition that perceptions are disturbed in the presence of UFOs is probably a vital part of a complete theory regarding them.

—Harry E. Mongold

* See pages 51-56, *Pursuit* No. 50, Spring 1980.

Barbara Jordison, in the Summer 1980 *Pursuit* (No. 51) seemed to almost take affront to my observations (*Pursuit* No. 50, Spring 1980) on her article "The Synchro Channel" which appeared in *Pursuit* for Summer 1979 (Vol. 12, No. 3).

I meant no sarcasm in reaction to her work, nor humorous derogation of it. I appreciate her elucidation of the inputs used in her experiments, as well as the graph of frequency distribution over the time of day for the occurrence of synchronous data. I have been pestered and baffled by synchronistic events for most of my life, and I find Ms. Jordison's work in rendering the mechanism of the phenomenon amenable to statistical analysis of experimental data extremely interesting. Such work may have more valid or disturbing conclusions than analysis of anecdotal accounts such as those related by Alan Vaughan in his book, *Incredible Coincidence: The Baffling World of Synchronicity* (Lippincott and Crowell, New York 1979). I eagerly await the comprehensive publication of Ms. Jordison's exhaustive studies on the phenomenon, if the tantalizing excerpts appearing in *Pursuit* are indicative of the time and effort she has put into it.

To her other remarks I must respond that I neither "understand numerology" nor is it my "hobby." What interests me about numerology, which I distinguish from normal arithmetic addition by calling it "numerological integration," seems to be different from normal addition in some quizzical way. The difference seems to be in the operator's brain, a point emphasized by Kerry Thornley's Law of Fives and Robert Wilson's Law of Twenty-threes, and the synchronistic manner in which those two numerals seem to occur with increasing frequency once the observer is cued to think of them as somehow different from their usage as mere numerals in arithmetic operations. The overall relationship of numbers to reality is hinted at in the following statement by Dr. Jules Eisenbud, which appears in the *Proceedings of the First International UFO Congress* (Warner Books, 1980), page 408:

> Relativity physicist John Wheeler, of black hole fame, has shown in terms of his own and others' computations that even the fundamental constants and numbers of the world picture do not make sense apart from the consciousness that both creates and evaluates the universe.

Or, as my brother once put it, "this proves what I suspected all along: *mathematics doesn't exist!*"

Numerological integration seems to be an alternative way of handling numbers, but I lack the sufficient background in number theory to discuss what that difference precisely is.

A vague, intuitive sensing of this difference can perhaps be dimly obtained by paradox. (This is numerological integration isolated from synchronistic events.)

Consider the following paradox which can be found in *How to Torture Your Mind* by Ralph Woods (Funk & Wagnalls, 1969), page 128:

> 2 and 3 are even and odd.
> 2 and 3 are 5.
> Therefore, 5 is even and odd.

That is a paradox by normal arithmetic, in which "even" or "odd" have very specific meanings when applied to some number, regardless of what factors may be said to generate that number. In numerological integration, however, the statement is not a paradox, since, in this strange form of addition, any number represents the organic or even synergistic fusion or combination of its factors. It is an almost biological way to handle numbers; by analogy, a *population* of organisms displays aspects of behavior as a single entity, but that behavior cannot be adequately evaluated without considering the behavior of the individual organisms comprising the population. Consider this related paradox (by Mary Murphy, unpublished living-room conversations, April 1979):

> 1 and 3 are both odd.
> 1 and 3 are 4.
> Therefore, 4 is odd.

You can't say something like that in normal arithmetic logic, but again, in numerological integration, the statement is correct and non-paradoxical. In fact, this particular paradox suggests that there are no even numbers at all; any number you can write (whole numbers, at least) are mere shorthand representations of a combined series of 1s, which is defined as an odd number. $4 = 2 + 2$, but $2 = 1 + 1$, etc. It wildly speculates that human-brain arithmetic operations are in fact performed on binary numbers, which is perfectly supported by the known mechanism of neurological signal transfer. Either a neuron fires or it doesn't fire, this on/off, yes/no function being dependent on the electric potential built up within the signaling neuron, which is further dependent on the combined potentials or signals sent into the signaling neuron by the several neurons "upstream" from it.

Human mathematical information processing, quite aside from the base-10, base-12 or base-60 shorthand representations imposed upon it by the operator's mode of ancestral finger-counting, might be a mere artifact of human neurophysiology. Thus it cannot be said to have any absolute relation to the description of Universe behavior whatsoever, insofar as those electro-chemical neural reactions are macroscopic-level events of quantum-electronic derivation, and those quantum events are increasingly becoming vacuous question marks. (See *The Dancing Wu Li Masters,* Gary Zukav, Morrow Quill, 1979.)

The whole morass of physical quantities and the often tedious inter-conversions necessary to place them in a form by which Universe behavior can be confusingly described may be caused by this arbitrary overlay of numerical forms on physical basic units. For example, Robert Milliken determined that the basic unit of electrical charge, the electrical charge of a single electron, is 0.16×10^{-18} coulombs. It is not this basic charge that is used in electronics, but rather the coulomb itself, which is defined as a charge equivalent to 6.25×10^{-18} electrons. Since macroscopic-level electronics uses the coulomb as a basic unit, no problem. But in the expression of particle-level behavior, descriptions of behavior of a typical electron must be rendered in terms of small fractions of a coulomb. Why not just call the charge of an electron *1 Milliken* and go from there? Such whole-number units of basic physical quantities would thus be amenable to numerological integration, which might produce interestingly simplified descriptions of macroscopic-level events.

This is the way in which numerology interests me, not the way in which it pseudo-scientifically describes or predicts personality traits, karmic manifestation tendencies, or relative degrees of Divine intervention in the Universe, which Ms. Jordison perhaps suspects occupies my interest.

Just to demonstrate that I am as prone to inadvertently manifest the Laws of Five and Twenty-three as anyone, I present, by way of satisfying Ms. Jordison's honor, the following account:

I first read Robert Wilson's *Cosmic Trigger* in June of 1978. Momentarily placing myself in the belief structure of accepting the occurrence of 5 and 23 as signals from the dog-headed fish-people of Sirius by means of consciously manipulating an individual's reality-hologram, I noticed the following data bits:

1) The license plate for my '67 Mustang (for the year 1978) was GE M 235 (a 23 and a 5) 5
2) According to the "Chaldean Numerological Alphabet" of Gerun Moore (*Numbers Will Tell,* Ace Books, 1977), my name, Peter Murphy, reduces and integrates to 5 5
3) By the same system, my birthdate, Feb. 14, reduces and integrates to 5 5
4) By the same system, my "zodiac number" (for the month of Aquarius) is 4. The combined cabalistic designations of name, birthdate, and zodiac number integrates to $(5 + 5 + 4) = (14) = (5)$ 5
5) My first street address in Emporia was 1112 Sylvan, and, of course, 1112 reduces and integrates to 5 5

So I found, quite in accordance with Thornley's Law of Fives, five 5s in my reality hologram, or 5^2, and a 23 to emphasize that the Sirians were behind it. The raising of 5 to the second power was a clear indication by the Sirians that the Law of Fives is not only *true,* it is *truly true,* and not just *observably true,* as is indicated by single occurrences of numerologically integrated 5s.

Having thus committed intellectual *seppuku,* I now await in my "quaint way," the results of Ms. Jordison's research, and shall never again "worry" about whatever synchronistic patterns her work on synchronicity may display.

—Peter Murphy

Letters to *Pursuit's* editors should be addressed to Frederick S. Wilson, 601 Bergen Mall, Suite 28, Paramus, NJ 07652. All letters must carry writer's name, mailing address and membership number. When letter is published, either "Name Withheld" or "Member #_____" may be printed in place of name if writer so instructs. Because of space limitations letters are subject to abridgement.

THE NOTES OF CHARLES FORT
Deciphered by Carl J. Pabst

ABBREVIATIONS

ab.	about
ac to	according to
(Al)	[?Almanac?]
Am J. Sci	*American Journal of Science*
An. de Chimie	*Annales de Chimie*
Annals of Phil, N.S.	*Annals of Philosophy,* new series
An Reg	*Annual Register*
An. Sci Disc	*Annals of Scientific Discovery*
An. Soc Met de France	*Annales de la Societe Meteorologique de France*
ap	appeared
attrib	attributed
B	[?]
BA	*Report of the British Association for the Advancement of Science*
B.D.	*The Book of the Damned*
B Eagle	*Brooklyn Eagle*
bet	between
Bib. Univ.	*Bibliographie Universelle*
BO	"It is clear from the arrangement of the notes that he [Fort] was searching his chronological arrangement and plucking out specific notes for a future book in which he would refer to these data as opprobrious to the Scientists for their *odor,* 'O'," (*The Fortean,* #3, p. 14, c.1)
B. Rain	Black Rain
C	[?]
Chester Co., Pa	Chester County, Pennsylvania
Co. Mayo	County Mayo
C.R.	*Comptes Rendus*
(Cut)	illustrated
(D)	[?]
D-42	*The Book of the Damned,* page 42
Det. met	Detonating meteor
d fog	dry fog
disap	disappeared
Edin Phil Jour	*Edinburgh Philosophical Journal*
E Mec	*English Mechanic*
e.N-e.	east-northeast
Eng	England
Ext	Extraordinary
(F)	*Fletcher's List*
Finley's Rept	*Finley's Report*
(Fr)	France
Gent's Mag.	*Gentleman's Magazine*
h	hours
Hist Astro	*History of Astronomy*
(Hu)	Hungary
Inf. conjunction	Inferior conjunction
(It)	Italy
J. F. Inst	*Journal of the Franklin Institute*
Ky.	Kentucky
Linnean Soc.	Linnean Society
(Liv)	Living
London Mag	*London Magazine*
LT	London *Times*
Mag Nat Hist	*Magazine of Natural History*
Mag of Sci.	*Magazine of Science*
Mag Pop Sci	*Magazine of Popular Science*
Mass.	Massachusetts
Mem. R. A. S.	*Memoirs of the Royal Astronomical Society*
met	meteor
M.W.R.	*Monthly Weather Review*
N	North
N. Hampshire	New Hampshire
N. Eng	New England
N.M.	No More
Nor. Car.	North Carolina
n.w.	northwest
N.Y. Ev Post	*New York Evening Post*
obj	object
Op. Mars	Opposition Mars
p.	page
phe	phenomena
Ph. Mag	*Philosophical Magazine*
Polt	Poltergeist
q	earthquake
q. J. Roy Inst	*Quarterly Journal of the Royal Institute*
R	Reference
S.	South
Sci Amer	*Scientific American*
th. storm	thunderstorm
trans. Lit Soc Bombay	*Transactions of the Literary Society of Bombay*
Va.	Virginia
volc	volcano
Vt.	Vermont
W. Indies	West Indies

1819

Jan 4 / [London *Times*], 2-d / Vesuvius.

Jan 29 / q / Caucasia / I / [light / BA 1911].

Feb. 2 / Canterbury / Fireball / BA '60.

March 12 /Vera Cruz, Mexico / q / I / [Light / BA 1911].

March 18 / q / Oran and Mascara, in Morocco / "A great number of the inhabitants disappeared beneath the ruins. / B Assoc 1854/122 / [Reverse side] Whole district of Cutch was ravaged. / "Many meteors or falling stars were observed on the night after. / B Assoc 1854/122.

March 26 / Berne / Fireball / BA '60.

April / Metite / Salerno, Italy / at Massa-Lubrense / Stonefall / BA '60.

Ap 3, 4, 11 / Copiapo, Chile / qs / III / [violent / BA 1911].

Ap. 3, 4, 11 / Great q. / Chili / [BA] '11.

Ap. 17 / Vesuvius.

May 3 / Oaxaca, Mexico / q / II / [medium / BA 1911].

May 5 / 12:30 *p.m.* / Great met, Aberdeen and other places, exploded with a [Reverse side] sound that terrified cattle / Q. J. Roy Inst 7-395 / See BA 67.

May 26 / Italy (Latium) / q / I / [Light / BA 1911].

May 26 / Etna / BA 54.

May 27-29 / Eruption of Vesuvius / Q. Jour Roy Inst 19-227.

May 27-28 / ab. midnight / Etna begins. / Bib. Univ. 11/191.

June 9, 10, 11, 18, 24 / Detonations like cannon fire from Vesuvius / Q J Roy Inst 19-229.

June 11 / A few days before—coast Mass—wave 10 feet high—several persons drowned. / [Reverse side] Niles Weekly Register, June 19.

June 13 / 6 a.m. / Jonsac / " contains no iron / BA 60.

June 13 / 6:15 a.m. / Jonzac / Stones fell like hail after 3 detonations. / Bib. Univ. 15/311 / Charente-Inferiure / (F).

June 14 / Larvae / At Riga, Russia, during a strong n.w. wind, fell caterpillars. People swept [them] into [Reverse side] heaps and dug ditches to bury them. Destroyed in every way think of without seeming to diminish the numbers. / Niles Weekly Register, Sept 4, 1819.

ab. middle of June / Berwick-upon-Tweed / about noon / met or met train / at first like a ball of fire and then like a flaming sword / visible 5 minutes / LT, June 18-3-a.

June 16 (q) / Cutch, India / preceded by a violent wind and "noise like that of a large flight of birds" / [Reverse side] B Assoc 1854/122.

June 16 / Time of the great q. / At Masulipatam, India, a tremendous th. storm.
[Reverse side] And a fireball burst, doing damage. / BA 54-98.

June 16 / q of Cutch / 1150 persons buried in the ruins of Bhooj. Said that from a hill was thrown
[Reverse side] a ball of fire that then fell to the ground, scorching vegetation. Rain fell in torrents. / Trans. Lit Soc Bombay, 3/90.

June 16 / 1st shock at Kutch / Am J. Sci, 4-316 / also at Ahmedabad / another, 23rd, midnight. /
[Reverse side] Volcano opened 30 miles from Bhooj.

June 18 / Auxerre, France / "Waterspout" and large hail fell. Destroyed the harvest in 19 communes. /
[Reverse side] Q J Roy Inst 6-162.

June 26 / "Passage of earth through tail of comet / Clerke, Hist Astro, appendix.

June 26 / [S]ee July 26. / 5 solar spots by Gruithuisen cited with "Vulcans" / An. Sci Disc, 1860/411.

June 26 / Time of a comet, Pastorff saw dark spot with a luminous center cross the
[Reverse side] sun. Astronomers, among them Olbers, said could not have been the comet. / Webb, Celestial Objects, p. 40.

[BCF, p. 393:
Five unknown bodies that were seen, upon June 26, 1819, crossing the sun, according to Gruithuisen (*An. Sci. Disc.*, 1860-411). Also, upon this day, Pastorff saw something that he thought was a comet, which was then somewhere near the sun, but which, according to Olbers, could not have been the comet (Webb, *Celestial Objects*, p. 40).]

summer / Large numbers of butterflies—the Camberwell Beauty—seen floating off the coast of Durham. This butterfly so rare in Gt. Britain
[Reverse side] that from 1911 to 1921, only about 20 recorded captures in Eng and Scotland. / The Field, Nov. 5, 1921.

July 1 / See July 3.

July 2 / [London *Times*], 2-b / Etna.

July 3 / Ab 2 hours after sunset in England, new comet, not far from Beta Auriga, nearly in a line with Beta and Capella. To north and not far from horizon when first seen. / [London *Times*] 5-3-c /
[Reverse side] 5-3-c / [Ha]d been seen at Leeds, at 10 and 11 p.m., July 1. Declination ab 40° N. Supposed longitude 10 or 15° of Cancer. / [London *Times*, July] 7-3-a—Aberdeen on the 1st. / This comet had a tail.

July 3 / Sudden appearance of a comet / Paris / Clerke, Hist Astro/103.

July 14 / Terrific detonations from Vesuvius / Q. J. Roy Inst 19-232.

July 24 / Detonating meteor / Youngstown, Ohio / A. J. Sci 6/316.

July 26 / Remarkable storm / Catskill / A. J. Sci 4-124.

[BCF, p. 201:
The disregarded:
Observation, of July 26, 1819, by Gruthinson—but that was of two bodies that crossed the sun together—]

Aug 1 / London / Fireball / BA 60.

Aug 2 / Kioto, Japan / q / III / [violent / BA 1911].

Aug 6 / Moravia / Fireball / BA 60.

Aug / Perseids / A. J. Sci 37-335.

Aug 13 / Amherst / D-42.

[BCF, pp. 41-44:
Annual Register, 1821-687:
That, upon the 13th of August, 1819, something had fallen from the sky at Amherst, Mass. It had been examined and described by Prof. Graves, formerly lecturer at Dartmouth College. It was an object that had upon it a nap, similar to that of milled cloth. Upon removing this nap, a buff-colored, pulpy substance was found. It had an offensive odor, and, upon exposure to the air, turned to a vivid red. This thing was said to have fallen with a brilliant light.

Also see the *Edinburgh Philosophical Journal*, 5-295. In the *Annales de Chimie*, 1821-67, M. Arago accepts the datum, and gives four instances of similar objects or substances said to have fallen from the sky, two of which we shall have with our data of gelatinous, or viscous matter, and two of which I omit, because it seems to me that the dates given are too far back.

In the *American Journal of Science*, 1-2-335, is Professor Graves' account, communicated by Professor Dewey:

That, upon the evening of August 13, 1819, a light was seen in Amherst—a falling object—sound as if of an explosion.

In the home of Prof. Dewey, this light was reflected upon a wall of a room in which were several members of Prof. Dewey's family.

The next morning, in Prof. Dewey's front yard, in what is said to have been the only position from which the light that had been seen in the room, the night before, could have been reflected, was found a substance "unlike anything before observed by anyone who saw it." It was a bowl-shaped object, about 8 inches in diameter, and one inch thick. Bright buff-colored, and having upon it a "fine nap." Upon removing this covering, a buff-colored, pulpy substance of the consistency of soft-soap, was found—"of an offensive, suffocating smell."

A few minutes of exposure to the air changed the buff color to "a livid color resembling venous blood." It absorbed moisture quickly from the air and liquified. For some of the chemic reactions, see the *Journal*.

There's another lost quasi-soul of a datum that seems to me to belong here:

London *Times*, April 19, 1836:

Fall of fish that had occurred in the neighborhood of Allahabad, India. It is said that the fish were of the chalwa species, about a span in length and a seer in weight—you know.

They were dead and dry.

Or they had been such a long time out of water that we can't accept that they had been scooped out of a pond, by a whirlwind—even though they were so definitely identified as of a known local species—

Or, they were not fish at all.

I incline, myself, to the acceptance that they were not fish, but slender, fish-shaped objects of the same substance as that which fell at Amherst—it is said that, whatever they were, they could not be eaten: that "in the pan, they turned to blood."

For details of this story see the *Journal of the Asiatic Society of Bengal*, 1834-307. May 16 or 17, 1834. is the date given in the *Journal*.

In the *American Journal of Science*, 1-25-362, occurs the inevitable damnation of the Amherst object:

Prof. Edward Hitchcock went to live in Amherst. He says that years later, another object, like the one said to have fallen in 1819, had been found at "nearly the same place." Prof. Hitchcock was invited by Prof. Graves to examine it. Exactly like the first one. Corresponded in size and color and consistency. The chemic reactions were the same.

Prof. Hitchcock recognized it in a moment.

It was a gelatinous fungus.

He did not satisfy himself as to just the exact species it belonged to, but he predicted that similar fungi might spring up within twenty-four hours—

But, before evening, two others sprang up.

Or we've arrived at one of the oldest of the exclusionists' conventions—or nostoc. We shall have many data of gelatinous substance said to have fallen from the sky: almost always the exclusionists argue that it was only nostoc, an Alga, or, in some respects, a fungous growth. The rival convention is "spawn of frogs or of fishes." These two conventions have made a strong combination. In instances where testimony was not convincing that gelatinous matter had been seen to fall, it was said that the gelatinous substance was nostoc, and had been upon the ground in the first place: when the testimony was too good that it had fallen, it was said to be spawn that had been carried from one place to another in a whirlwind.

Now, I can't say that nostoc is always greenish, any more than I can say that blackbirds are always black, having seen a white one: we shall quote a scientist who knew of flesh-colored nostoc, when so to know was convenient. When we come to reported falls of gelatinous substances, I'd like it to be noticed how often they are described as whitish or grayish. In looking up the subject, myself, I have read only of greenish nostoc. Said to be greenish, in Webster's Dictionary—said to be "blue-green" in the New International Encyclopedia—"from bright green to olive-green" (*Science Gossip*, 10-114); "green" (*Science Gossip*, 7-260); "greenish" (*Notes and Queries*, 1-11-219). It would seem acceptable that, if many reports of white birds should occur, the birds are not blackbirds, even though there have been white blackbirds. Or that, if often reported, grayish or whitish gelatinous substance is not nostoc, and is not spawn if occurring in times unseasonable for spawn.]

Aug 15 / Q and sound like cannon fire, St Andrews, Lower Canada.

Aug 18 / Shocks / Voss, Sweden / BA 54.

Aug 20 / Rotwell [Rottweil?] / Fireball / BA 60.

Aug 23 / [London *Times*], 11-16 / 2 different deaths, Matterhorn, ab. same time / (not found).

[BCF, p. 393 / See March 25, 1805.]

Aug 31 / Norway / Lunroe series begins. / BA 54.

Sept 2 / bet 2 and 3 *a.m.* / and 16, bet 10 and 11 p.m. / Shocks / New Madrid region / Columbian Centinel, Oct 30.

Sept 5 / Red rain / Studein, in Moravia / R -- May 26, '46.

Sept 5 / Small pieces of earth from a cloud / Annals of Phil, N.S., 22/95.

Oct 1 / England / Fireball / [BA 60].

Oct 2 before / Worms / Bristol / Nothing in Bristol Observer.

Oct. 2 / BO / Larvae / Niles Register of / During a thunderstorm in Bristol, England,
[Reverse side] a mass of larvae fell from the sky and carried away in bushels.

[BCF, p. 200 / See Oct. 10, 1802.]

Oct 13 / (F) / Politz, S. Prussia / 3 stones fell. / Ph. Mag 4/8/459.
[Reverse side] 8 a.m. / BA '60.

Oct 24 / Antwerp / Fireball / BA 60.

Oct 28 / morning / Earthquake in Montreal / 29th—"a storm of thunder and lightning" for hour and a half

of unusual violence /
[Reverse side] Quebec Mercury, Nov. 16 / Violent shocks, 7:25 a.m., on 29th—Mercury, Nov. 2.

Nov 2 / In the afternoon at Blankenburg and Dixmude, Flanders / at night in Scheveningen /
[Reverse side] Edin Phil Jour 2/381.

Nov 2-3 / night / D-40 / red rain / Scheweningen, Holland / Quar Jour Roy Inst 9-202.

[BCF, p. 39:

Annals of Philosophy, 16-226:

That, Nov. 2, 1819—week before the black rain and earthquake of Canada—there fell, at Blankenberge, Holland, a red rain. As to sand, two chemists of Bruges concentrated 144 ounces of the rain to 4 ounces—"no precipitate fell." But the color was so marked that had there been sand, it would have been deposited, if the substance had been diluted instead of concentrated. Experiments were made, and various reagents did cast precipitates, but other than sand. The chemists concluded that the rain-water contained muriate of cobalt—which is not very enlightening: that could be said of many substances carried in vessels upon the Atlantic Ocean. Whatever it may have been, in the *Annals de Chimie,* 2-12-432, its color is said to have been red-violet. For various chemic reactions, see *Quar. Jour. Roy. Inst.,* 9-202, and *Edin. Phil. Jour.,* 2-381.]

Nov 2 / In the Quebec Mercury, Nov. 23, taken from a Salem newspaper dated Nov 9, which takes from a Newburyport paper of Nov 5. That on the Tuesday before [the] 5th,
[Reverse side] or the 2nd. That—intense darkness and thunder and rain that was colored "with some dingy substance."

Nov 2 / Boston / Intense darkness—little or no rain/ Columbian Centinel, Nov. 6 /
[Reverse side] Here, too, the account of rain, Nov. 2, at Newburyport, Mass.

Nov 8 before / Norfolk, Va., in the Quebec Mercury, Nov. 23 (dated Norfolk, Nov. 8) / "In consequence of the fire somewhere (it is said in the Dismal Swamp) our atmosphere is so beclouded and has been so for several days, that no object
[Reverse side] at any considerable distance can be discerned. The James River Steam Boats have neither of them arrived yet (9 o'clock), and no doubt the delay proceeds from a difficulty in finding the way along."

Nov 9 / In the Northern Whig (Hudson, NY), Nov. 23—that ac to a Buffalo
[Reverse side] paper, rain had fallen "lately", "deeply tinged with some sooty substance."

Nov 9 / (Plan) / Tell that volc or etc., but admit the forest fires.
[Reverse side] See Sci Amer, that was fores[t] fires—still the phe—but can't clear this up till Sept., 1881.

Nov 16 / B. Rain / Broughton, USA / Oeuvres, Arago, 12/46.

Nov. 10 / Montreal, Canada / slight shock followed by great storm—black rain / B Assoc 1854-125 / D-33.

[BCF, p. 31:

Or the black rain of Canada, Nov. 9, 1819. This time it is orthodoxy to attribute the black precipitate to smoke of forest fires south of the Ohio River—

Zurcher, *Meteors,* p. 238:

That this black rain was accompanied by "shocks like those of an earthquake."

Edinburgh Philosophical Journal, 2-381:

That the earthquake had occurred at the climax of intense darkness and the fall of black rain.]

Nov 6 to 10 / N. Eng and Canada / Dark Day / Sc Am 112-229.

Nov 7 / See Nov. 9.

Nov. 10 / Montreal / Listed as a q in Mallets Catalog.

[November] / (+) / Darkness, etc. / Montreal to Bermuda / M.W.R. 1904/23 /
[Reverse side] Vividly set forth in N.Y. *Times,* Ap. 23/2/7, 1881.

Nov 9 / At Albany, N.Y.—8 a.m. / darkness and fall of hail—wind was from the south.
[Reverse side] Candles lighted at 3 p.m.—atmosphere thick, hazy, yellowish / Quebec Mercury, Nov. 23.

Nov 8 / Niles Weekly Register, Nov. 27 / Said that in West Indies, difficult for
[Reverse side] navigators to make their observations on account of the smoke. /
[Front side] No special date mentioned.

Nov 9 / That in several showers in N.Y. State *recently,* ashes had fallen in rain. /
[Reverse side] Niles Weekly Register, Dec. 4.

Nov. 9 / Similar darkness at Quebec / Oct. 17, 1834 - Oct 14, 1835 - Oct. 18, 1839 /
[Reverse side] Niles National Register, Nov. 16, 1839, p. 192.

Nov 7 and 9 / See Oct. 28, 29. / Quebec Mercury of Nov. 16—Same account as Burlington paper. "The blackened color of the air viewed through a luminous substratum presented a spectacle awful and grand in the extreme." Said that after thunder and lightning had subsided,
[Reverse side] the darkness continued, and seemed to increase until ab. 4 p.m.

Nov 8, etc. / Account by Mr J. H. Dorian, to the Montreal Star, in Sci Amer 44/329 / Sun (8th) rose upon a cloudy sky, greenish in places, inky in places. Soon intense darkness and heavy shower of rain like soap suds, which after settling, deposited
[Reverse side] a substance like soot. Late in afternoon, sky cleared. The next day fine. Morning of the 10th, again the clouds and intense darkness. Then a great body of clouds that seemed to rush upon the city and darkness—flash and detonation and shaking city. Then rain with soapy, sooty substance. / Should be 7th and 9th.

Nov 7 / Described in N.Y. *Times,* 1881, Ap. 23-2-7.

Nov 7 / b. rain / Montreal / Oct 17, 1834.

Nov. 7 / See Montreal, May 21 - 22, 1871.

Nov. 7 / Montreal series / See May 20, 24, 1848.

Nov / Dark day in Canada / described NY *Times,* 1881, Ap. 23-2-7.
Nov. 7 / Dark day and meteor / May 21, 1877.

Nov 9 / See Feb. 24/1868.

Nov. 7 / See Fires like Sept., 1881, and Siberia, 1896?

Nov 7 / In Col. Cent., Nov 24, said that at Louisville the smoke had been attrib to
[Reverse side] forest fires in Ky. In Nor. Car., to forest fires in that state.

Nov 7 / Columbia Centinel, Nov 24 / That the smoke and darkness had appeared about the
[Reverse side] same time, attended by colored rain at sea, Canada, Eastern, Western and Southern states.

Nov 9 / In Columbia Centinel (Nov 17), said that the smoke at sea had delayed navigation since the first of the month—that smoke had been attributed to forest fires in New Jersey but that this
[Reverse side] smoke had appeared well to the windward of New Jersey.

Nov 9 / d fog and q. / See Sept 1, 1841.

Nov / C / In M.W.R., 1904/23, from the Columbian Centinel (sic), Nov 24—that "The late smoky atmosphere was experienced at nearly the same time far at sea, in the Canadas, and in
[Reverse side] the Eastern, Western, and Southern States, attended with colored rain." Said that many terrified inhabitants of Montreal had fled from the city. "The Montreal papers contain whole columns of accounts of the 'astonishing appearances', and it
[Second page] was conjectured that they were occasion[ed] by eruptions of some neighboring volcano.
[Reverse side] And it was assured that during the darkness there were three shocks of earthquakes." / Said that there was a great forest fire in Kentucky, in North Carolina, and in Canada. /
[Front side] Issue of Dec 8th—that ac to Bermuda papers, dated Nov 6—"They complain much of the
[Third page] smoky appearance and scent of the smoky atmosphere which some
[Reverse side] conjectur[e] to have been occasioned by a great fire on the American continent or to exhalations of the Gulph Stream.

Nov. / Montreal / slight q and noise like distant thunder at 3 p.m. / the flash and peal and shake at 3:20.

Nov 7 / See Dark day and met, Madagascar, May 21, 1877.

Nov / See effects of Vesuvius, Ap. to 27th, 1906.

Nov 9 / See Nov 8, 1842.

Nov 9 / right date // In the Northern Sentinel (Burlington, Vt.) / Astonishing appearances in the heavens at Montreal—a series of awful events, equally impressive to the minds of the
[Reverse side] illiterate and the learned. Said that the first unusual appearance to attract attention was upon the 7th. A remarkably dark morning—about 8 a.m., appeared a thick cloud or
[Second page] haze of a dingy orange color. About three quarters of an hour later, rain like ink fell, impregnated with a fine substance like ink or ashes. "It was conjectured that a volcano had broken out in some distant quarter and
[Reverse side] the ashes of the eruption floating in the cloud giving it its unusual color." The weather then cleared and the afternoon was pleasant. Nothing noted the next day. Upon the 9th, darkened in the morning. By noon,
[Third page] candles lighted in all the public offices "and even in the butchers' stalls." The darkness increased and so did a general dread. About 3 o'clock in afternoon, a slight shock of earthquake and sound like distant gunfire.
[Reverse side] 20 minutes later, when darkness at its greatest intensity, the whole city suddenly illuminated by "one of the most vivid flashes of lightning ever witnessed in Montreal and an awful peal of thunder so loud and near as to
[Fourth page] shake the strongest buildings to their foundations." Said that the concussion was so violent that it was supposed by many persons to be a second earthquake. There were other such detonations and
[Reverse side] then fell rain darker than that of the 7th—"apparently more charged with sooty matter."

This is the sixth installment of "The Notes of Charles Fort Deciphered by Carl J. Pabst" since the series began in Pursuit's *Winter 1979 issue. A seventh installment will appear in the forthcoming Winter issue of 1981.*

THE SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

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ORIGINS OF SITU/PURSUIT

Zoologist, biologist, botanist and geologist Ivan T. Sanderson, F.L.S., F.R.G.S., F.Z.S., in association with a number of other distinguished authors, established in 1965 a "foundation" for the exposition and research of the paranormal—those "disquieting mysteries of the natural world" to which they had devoted much of their investigative lifetimes.

As a means of persuading other professionals, and non-professionals having interests similar to their own, to enlist in an uncommon cause, the steering group decided to publish a newsletter. The first issue came out in May 1967. The response, though not overwhelming, was sufficient to reassure the founding fathers that public interest in the what, why and where of their work would indeed survive them.

Newsletter No. 2, dated March 1968, announced new plans for the Sanderson foundation: a structure larger than its architects had first envisioned was to be built upon it, the whole to be called the Society for the Investigation of The Unexplained, as set forth in documents filed with the New Jersey Secretary of State. The choice of name was prophetic, for Dr. Sanderson titled one of the last of his two-dozen books "Investigating the Unexplained," published in 1972 and dedicated to the Society.

Another publication was issued in June 1968, but "newsletter" was now a subtitle; above it the name *Pursuit* was displayed for the first time. Vol. 1, No. 4 in September 1968 ("incorporating the fourth Society newsletter") noted that "the abbreviation SITU has now been formally adopted as the designation of our Society." Issue number 4 moreover introduced the Scientific Advisory Board, listing the names and affiliations of the advisors. Administrative matters no longer dominated the contents; these were relegated to the last four of the twenty pages. Most of the issue was given over to investigative reporting on phenomena such as "a great armadillo (6 feet long, 3 feet high) said to have been captured in Argentina"—the instant transportation of solid objects "from one place to another and even through solids"—the attack on the famed University of Colorado UFO Project headed by Dr. Edward U. Condon—and some updated information about "ringing rocks" and "stone spheres."

Thus SITU was born, and thus *Pursuit* began to chronicle our Investigation of The Unexplained.

Printed in U.S.A. ISSN 0033-4685

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