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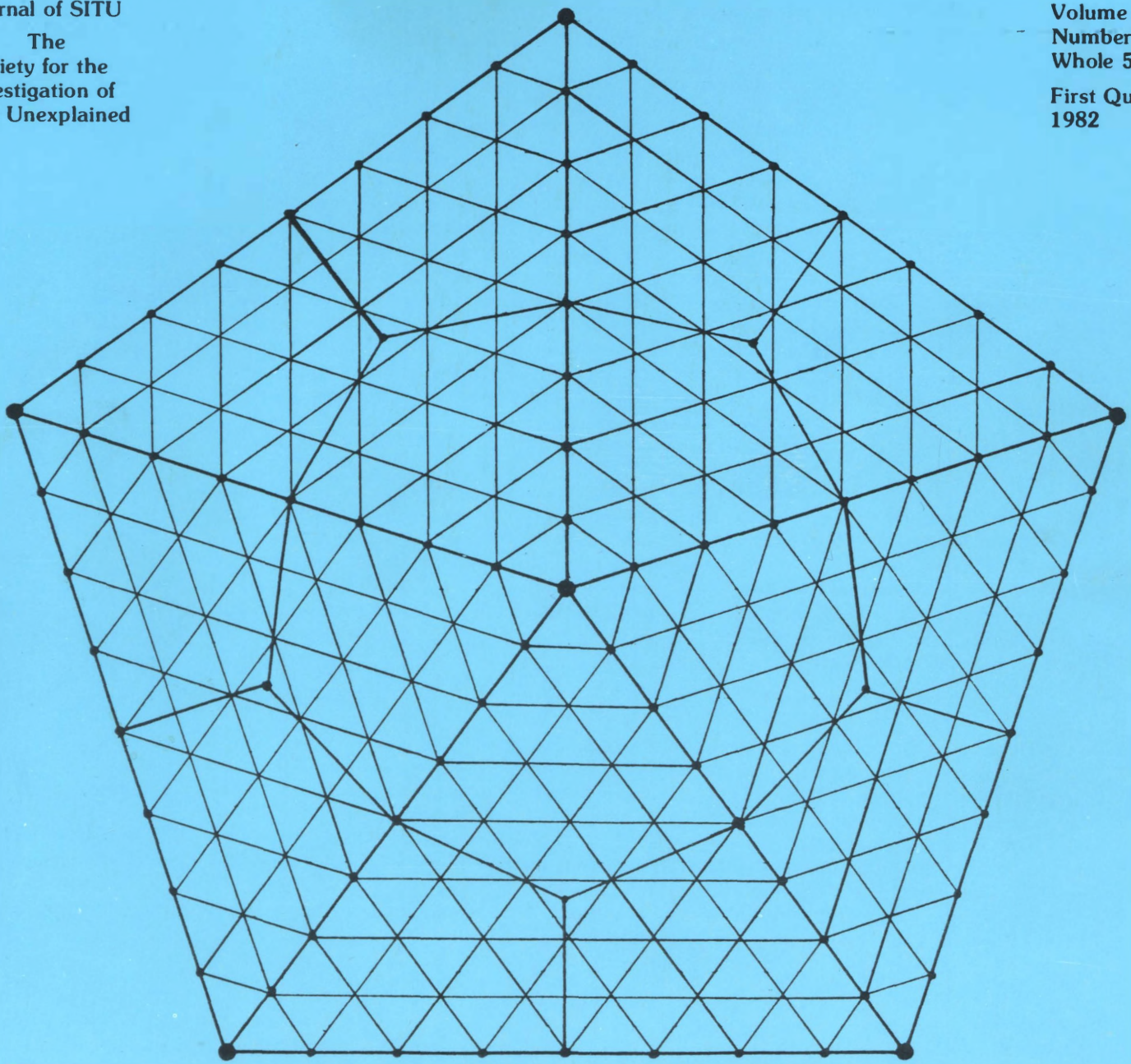
'Science is the Pursuit of the Unexplained'

Journal of SITU

The
Society for the
Investigation of
The Unexplained

Volume 15
Number 1
Whole 57

First Quarter
1982



WORLD ENERGY WEB—4th DENSITY LEVEL

(See 'The Planetary Grid', Page 6)

THE SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

Mail: SITU/PURSUIT, P.O. Box 265, Little Silver, NJ 07739 USA Telephone: (201) 842-5229

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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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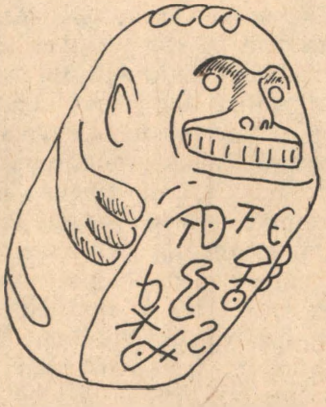
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Front and back cover drawings by John Sinkiewicz illustrate his concept of the "World Energy Web" at progressive density levels. See his article, page 6.

Above: Portrait of Charles Fort (c. 1920) courtesy of Aaron Sussman. Tracing of Granby, Colorado sculpture courtesy of Donal B. Buchanan.





The two gentlemen pictured above join with the author of our cover story in demonstrating, each in his own way, the importance of a good data base to the process of de-mystifying "things unexplained."

Charles Fort created one of the first and most comprehensive data bases in history. He noted on more than 40,000 slips of paper, occurrences of phenomena all over the world as reported in major periodicals published more than 100 years ago. The small fraction of his notes thus far published has provided the raw material for some highly significant studies of recurring phenomena.

The gentleman on the left has something else to tell us. The letters carved on his belly are highlighted in this tracing from the page 28 photograph of an important artifact. Only years after this object was discovered did scholars recognize the language as ancient Iberian script, and no one yet knows what it all says; other artifacts bearing the same script have yet to be found in the minimum quantity necessary to allow study and comparison to proceed. Meanwhile, its grimacing presence reminds us of what happens when we don't have a data base: nothing.

Pages 6 to 15 demonstrate how strong a structure of logic can be built on a good data base. John Sinkiewicz drew on expertise he acquired while working for one of the giant U.S. computer manufacturers, but the data base for, and the resultant study of the Planetary Grid and what it means, are his own doing. Whether you agree or disagree with his conclusions, you'll doubtless share our admiration for the disciplined method he follows.

Other important data bases have been gathering over long periods of time. Perhaps we should get started classifying and comparing and interpreting them with the new tools now available, so that bits and pieces of data can be connected to support whole new structures of useful information. In the next issue, a well-known advocate of computer-assisted investigation will preview some of the exciting possibilities. —The editors

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The Cox-Richards PK Experiments

by Prof. Walter H. Uphoff

ROLLA, Missouri is an average American community which, until recently, had little basis for attracting international attention. Now, a series of psychokinetic events which have occurred there and which have been recorded on movie film, under controlled conditions, will cause parapsychologists—although perhaps not all—and others to examine the limitations of the scientific community's view of reality. What we report here, we are confident, will someday be regarded as one of the most significant breakthroughs for psychic research in this century.

We have witnessed the PK feats of Geller, M. Kiyota, H. Yamashita, Mike Edwards and others; the sketches of deceased persons done by Coral Ploge, the British psychic artist, so characteristic that relatives and friends in her audiences can identify them; we have observed Kiyota, the Veillaux family, Ted Serios and Willi Schwanholz produce astonishing unexplainable effects on film; we have witnessed, filmed and experienced psychic surgery in the Philippines; experienced mental mediumship at its best with Ena Twigg in London; seen genuine and fraudulent materializations; acquired at least sixty tapes of the impressive "direct voice" sittings recorded by S. G. Woods and Betty Greene with Leslie Flint, London; spent many hours with Dr. Konstantin Raudive in the early 1970s, and followed the EVP experiments of others in Germany, England and the U.S.

All of these are significant phenomena which undergird the view that life is ongoing—a view held by many through the centuries (largely on faith alone), and questioned or rejected by others because it conflicted with the materialistic paradigms promulgated by most of science and academia during the last century or so. Now science and religion are being confronted with so much evidence for dimensions of reality behind the five senses that eventually their view of life and the universe will be expanded. We cannot change the facts. We can only explore, or refuse to explore, the psi phenomena reported from all corners of the world.

With no intention of detracting from the excellent evidential material produced by the psychics I have mentioned, and that of many others, the experiments at Rolla provide still more evidence of the paranormal. It should be added, as Prof. Walter Frank of Bonn University states, that the prefix "para" is becoming obsolete as these events move more and more toward the center of the stage.

The Cox-Richards PK experiments can easily be dismissed only by those who refuse to see or are afraid to look. The evidence now on reels of movie film should eventually lead to a redefinition and a broadening of concepts of physics, biology and other natural sciences, as well as wider views of life and the doctrines of religion. This, I realize, is a broad statement, but I begin with the premise that neither I, nor anyone else, can alter the facts. We can only examine them or refuse to look at them. Only to the extent that we can be intellectually free and uninhibited in seeking the truth—whatever that may be—can progress be made toward understanding what life is all about.

I ask you to excuse the length of this prelude to the story, but I thought it only fair to let the reader know about my experiences and approach so that they may be taken into account in evaluating this report on the Cox-Richards experiments.

Rolla, located about 100 miles southwest of St. Louis, is where Dr. John Thomas Richards and his wife, Elaine, are the central figures in PK experiments which have created excitement, controversy and disbelief. During the 1960s and early 1970s, Prof. John G. Neihardt, literary critic, psychic and poet-in-residence at the University of Missouri, and his wife Mona, a talented sculptress, invited students to their home at Skyrim Farm for study and experimentation in psychic phenomena. Neihardt's interest had been sparked by his acquaintance with and study of the famous American Indian medicine man, Black Elk, and by Mona Neihardt's research in parapsychology. Between 1961 and 1973, when Dr. Neihardt died, more than a dozen persons had witnessed levitation and other phenomena at Skyrim, and several of the participants developed or enhanced their psychic sensitivities. The group called itself the Society for Research into Rapport and Telekinesis (SORRAT). Dr. Richards has written an account of these experiments in a recently published book, *SORRAT: A History of the Neihardt PK Experiments.** The Richards, who were longtime participants in the experiments, now live in Rolla and apparently serve as the "lightning rod" (antenna) which attracts or enhances the energies which have produced incredible phenomena on movie film and on paper.

William Edward Cox, a longtime associate of the late Dr. Joseph B. Rhine, moved to Rolla in 1977 so that he could set up and monitor experiments which would demonstrate, even to honest critics, that PK phenomena are real. The focus of the PK activity has been a "miniature laboratory" (mini-lab) designed at the suggestion of Dr. Rhine, which is an inverted aquarium fastened to a base with metal bands which can be locked and sealed to prevent entry by anyone but Cox who had the key to the locks. The photographs show the mini-lab that was constructed by Cox and Steve Calvin. Microswitches installed inside the mini-lab turn on lights and activate the 8mm movie camera whenever any movement occurs behind the glass.

The following are some of the activities recorded on 29 reels of film during the course of the experiments:

—Balloons inflating and deflating and pushing objects which were in the way;

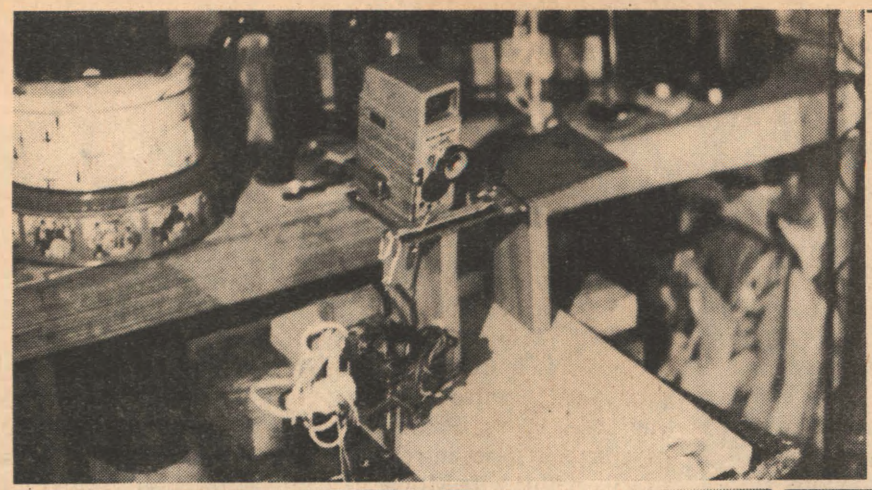
—Leather, plastic and paper rings linking (interpenetration of matter) and separating, often repeating this activity several times in succession;

—Spontaneous but controlled burning of paper;

—Pens entering the locked mini-lab and writing answers to questions in several styles of "hand" writing;

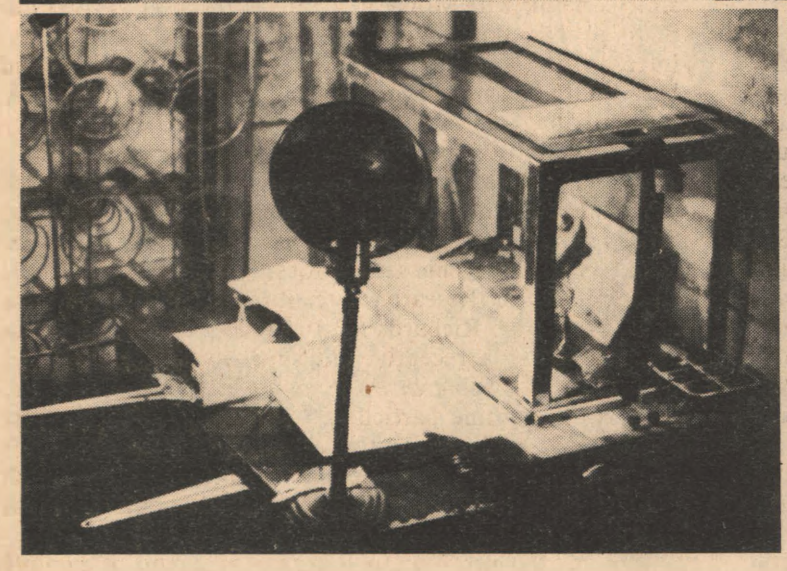
—Zener cards flying out of a sealed packet, quickly sorting into symbol stacks and re-entering the packet without breaking the seal;

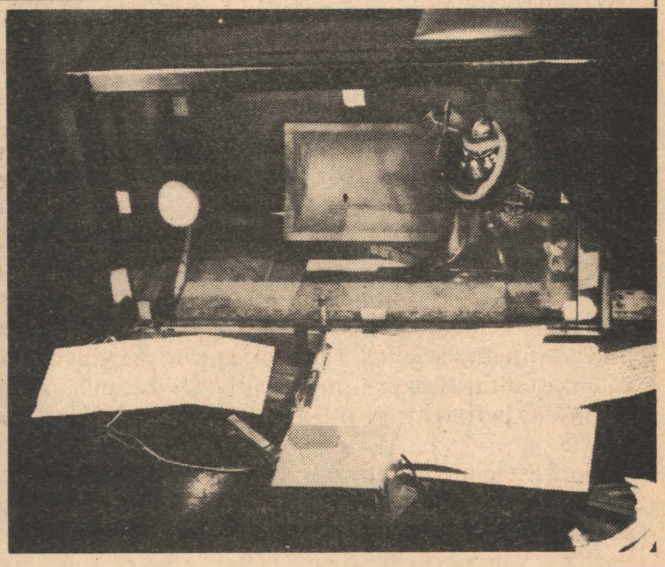
*Scarecrow Press, 52 Liberty Street, P.O. Box 656, Metuchen, New Jersey 08840.



'When we investigate phenomena, the first thing we try to do is learn all we can about the integrity and the competence of the experimenters. If the evidence is positive, we proceed; if there is any serious question, we drop the case and let someone else investigate it if they want to.' —Walter Uphoff

Front and side views (below) of the 'mini-lab' in which the Cox-Richards experiments were conducted, and (at left) the movie camera used to record the events.





—A pinwheel spinning rapidly inside the mini-lab while other light objects such as paper and balloons remain motionless, with no known way of producing a breeze inside the mini-lab.

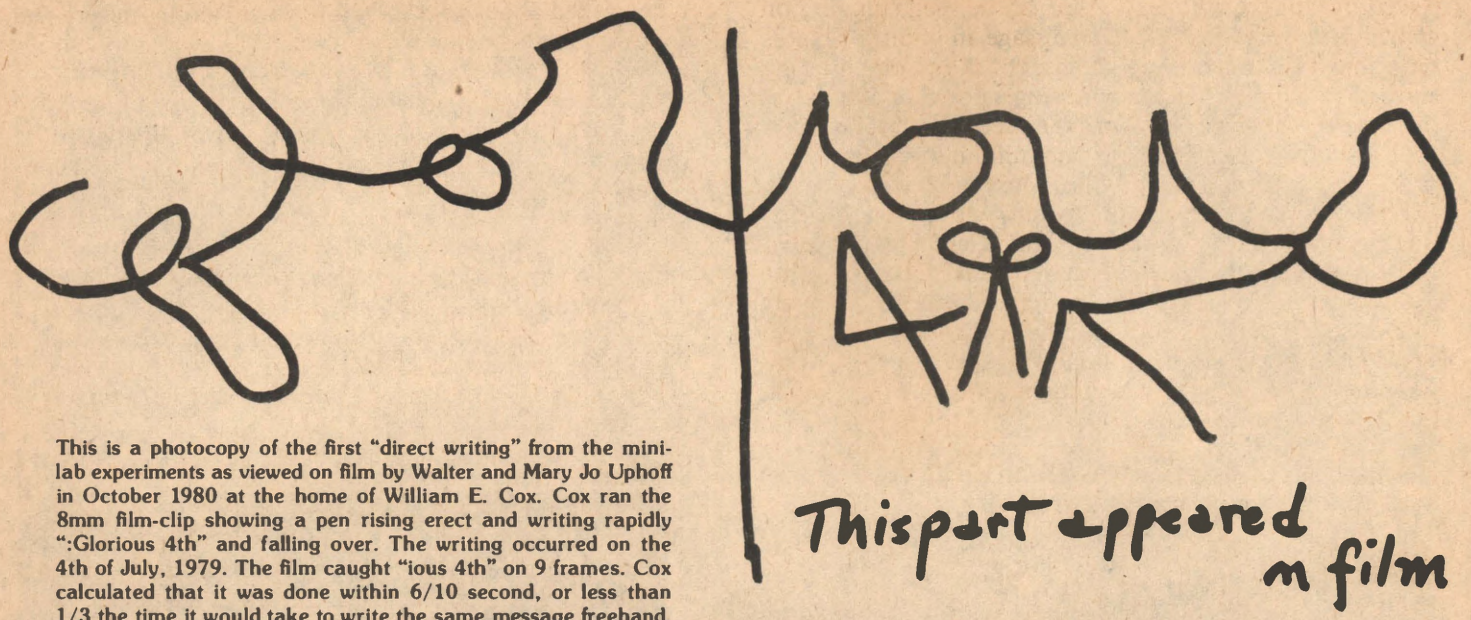
Some relevant details will help the reader understand how these events occurred and were filmed. The site of the experiments was a small storage room in the basement of the Richards' home. A collection of small objects (changed from time to time) was placed inside, and the mini-lab was then locked up and set on a small table. Focused on the mini-lab was an old-fashioned 8mm movie camera which had to be wound by hand and would run 30 to 40 seconds after a winding. Thus, when a PK event activated the lights, the movement was so fast that only part of the activity was caught on film. For example, the first film segment we saw was of a pen standing upright and writing very fast. The paper inside the mini-lab bore the message "Glorious 4th." This took place on July 4, 1979, the anniversary of U.S. Independence. The film which recorded the activity caught only ". . . ious 4th" on nine frames, or for about 6/10 of a second, which Cox estimated was at least three times as fast as he could have written the same phrase.

Although many PK events were experienced at Skyrim Farm by the SORRAT group, it was not until Cox designed the mini-lab that the evidence could be recorded for others to see and examine. Cox and Richards designated us at the New Frontiers Center* to get the films copyrighted and make them available to those television producers who would agree to present the story objectively rather than slightingly or in a negative manner. The 29 reels of film containing paranormal effects were obtained between January 1979 and September 1981. Dr. Richards has stored the original films in safekeeping, for the record and for serious investigators to examine. Duplicate prints of the films in super-8mm and some in 16mm have been made. Brazilian television has presented the experiments; Austrian television has the films under review. A Dutch TV producer has expressed interest, and a U.S. TV network is considering the films for a future program.

Although the Richards seem to be the most effective psychic force or channel for these manifestations, the phenomena have occurred in three other places in Rolla; and since September 1981 Dr. Peter Phillips, a physicist at Washington University, St. Louis, has installed equipment more elaborate than that at Rolla, including a 16mm camera. He has duplicated some of the PK effects despite more malfunctioning of the equipment than had been expected.

Julian Isaacs, a research parapsychologist at the University of Aston, Birmingham, England, who visited Cox and

*A non-profit foundation established to explore and disseminate evidence related to the broad dimensions of holistic health, psychic phenomena and survival of death.



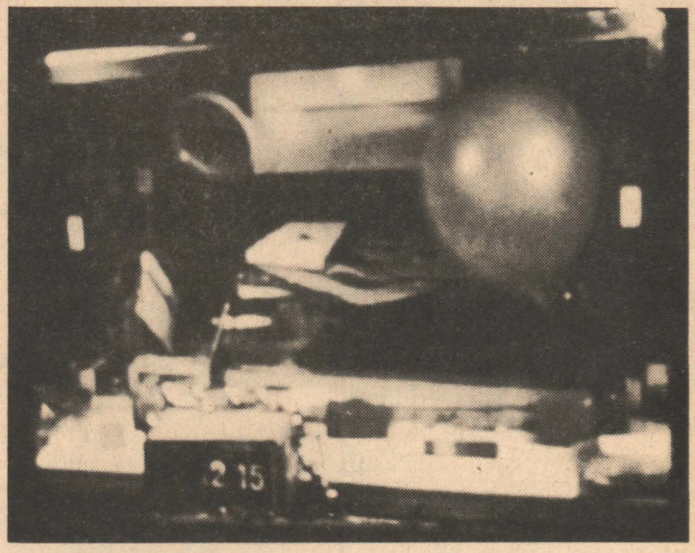
This is a photocopy of the first "direct writing" from the mini-lab experiments as viewed on film by Walter and Mary Jo Uphoff in October 1980 at the home of William E. Cox. Cox ran the 8mm film-clip showing a pen rising erect and writing rapidly ":Glorious 4th" and falling over. The writing occurred on the 4th of July, 1979. The film caught "ious 4th" on 9 frames. Cox calculated that it was done within 6/10 second, or less than 1/3 the time it would take to write the same message freehand.

Richards at Rolla, has also constructed mini-labs at his university and obtained severely bent metal, writing, and other effects inside them, which adds further support for the genuineness of the phenomenon.

Someone who had many thousands of dollars might be able to simulate some, but not all, of the effects on these films. It should be noted that Cox and Richards had very limited resources and equipment. It would be impossible to simulate by normal means, the paranormal effect of balloons inflating and deflating inside a locked mini-lab. According to Cox, taking apart and again closing, locking and sealing the mini-lab *even once* takes about 15 minutes. To simulate that effect on film would require a camera which could take single-frame pictures, and the mini-lab would have to be opened and closed 16 times for one second of film, or 960 times per minute, or 80 hours, to produce just *one minute* of film that would show the balloon inflating or deflating. How could one inflate or deflate a balloon by exactly the right amount so that each succeeding frame would show so gradual and consistent an increase or decrease in size that it would not be detected when individual frames of the film were examined? Then, to suspend the balloon in precisely the same position so that the films would not appear "jerky" would be as difficult, if not impossible. There is more than half an hour of paranormal effects on about 100 minutes of film. It would require not 80 but several thousand hours to replicate even a portion of the effects by normal means. Who would have the patience and motivation to undertake such a wholesale attempt at deception?

When we investigate phenomena, the first thing we try to do is learn all we can about the integrity and the competence of the experimenters. If the evidence is positive, we proceed; if there is any serious question, we drop the case and let someone else investigate it if they want to.

In one of the early films, a steel bar which was originally propped up against the back wall inside the mini-lab, can be seen to exit through the glass and drop in front of the mini-lab—all in the blink of an eye. The next photo, which I took with my camera while viewing some of the movie film, shows a balloon suspended in midair inside the mini-lab:



The next photo shows a misshapen plastic thermometer which was paranormally melted by heat (?). Beside it is a small package. This was a sealed packet of Zener cards which vanished from *inside* the mini-lab and arrived in Valley City, North Dakota, about a thousand miles away. When the packet was returned to Cox, in addition to the U.S. postage stamps, there was also on it a 30-pfennig German stamp:

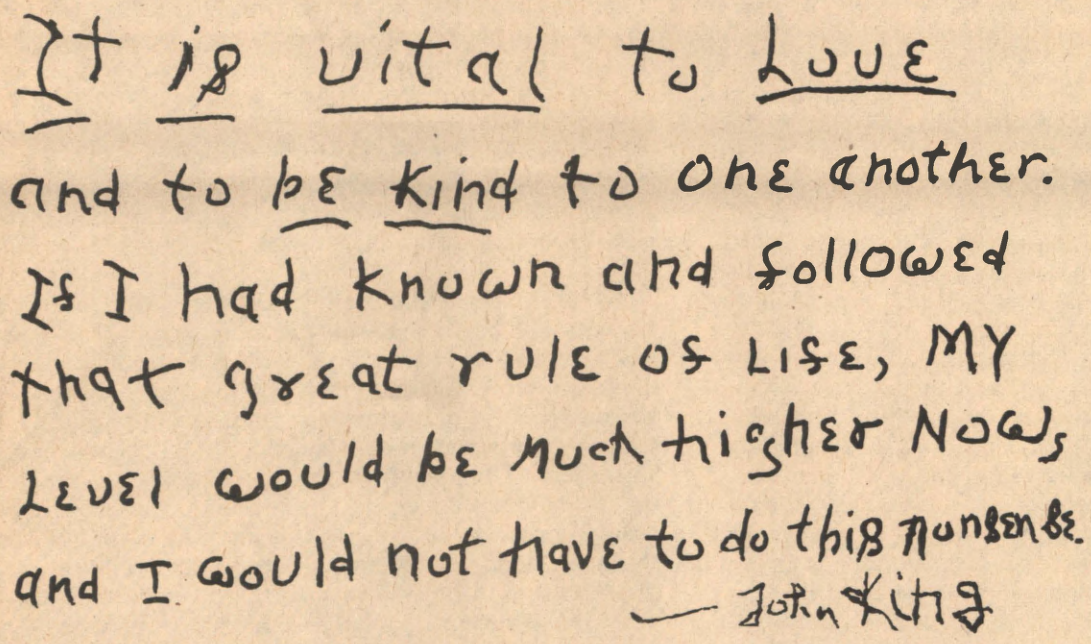


The physical effects shown on the film are very impressive, but equally challenging is the content of messages re-

ceived by "direct writing." Pens can be seen standing on end and moving rapidly, the message in some instances reflecting wit and humor on the part of the communicating entities; in other examples expressing a deep concern about the future of mankind because they see us embarked on a course leading to nuclear war and annihilation.

James McClenon, Hyattsville, Maryland, who recently completed his Ph.D. thesis "Deviant Science: the Case of Parapsychology," spent weeks at the Richards' home, investigating the experimental design and sleeping in the basement. He apparently has established excellent rapport with the communicating entities; he has gotten more direct writing than anyone else. Following are excerpts from some of the many pages of writing in varieties of styles that McClenon has received:

An entity identifying itself as "John King," a pirate who lived during the 17th century, wrote:



In October 1981 "John King" wrote:

"Dear Jim. It is hard *not* to follow political processes when much of our energy must go to averting war. We have not had the energy available of late—and you know what happened in Cairo. [The assassination of Sadat]"

This message came at a time when there was not much activity in the mini-lab in Rolla.

Earlier in 1981 (June 3) McClenon and three friends had written a note which began:

"Dear Spirit Friends, . . . Why didn't you make raps for us here in Hyattsville, Maryland? . . .

They replied:

"Dear 'Flesh-friends'

It takes "time"—as you think of duration—to build a psi circle. You may not get any PK activity for a long while. As we wrote to you c/o George Hansen, *persevere*! By the way, what difference does it make to you whether your friends, or acquaintances, or any "body" else for that [matter] . . . have their skins on or not. You are "spirits" too, you know."

When asked about pain, heartbreak, suffering, misery and depression, the communicators wrote:

"HELP OTHERS

Of necessity, if you live in a body and are subject to the chances, frailties and wearing out of the carcass you must lug about, you will often suffer. So long as you care deeply, you will experience joy and grief. That goes with being human. If you concentrate on *helping others* you will be too busy for the petty concerns of the self to whine down your finer self. Realize that we on our side of the change you consider death are *also* human/sentient and often feel just as you do, morally and psychologically. Pity abides. Try to do all you can and then you feel no guilt for omissive harms."

Asked why it was difficult to produce psi effects when someone was watching, this answer came:

"Psi is curious; there is a whole melding of constructs when physical and non-physical factors are mixed like tripe in a pail. It does seem very hard for us to use PSI when the alpha state and the beta state predominate in your mind. The energy is inhibited—but exactly *how* I am uncertain. I will put a higher level to quiz about what precisely happens and then try to tell you."

It is inevitable that people draw different conclusions and interpret differently the phenomena occurring in the mini-labs of Cox and Richards and Professors Phillips and Isaacs. Based on our familiarity with the experimenters and the films, we think the most plausible explanation is that entities from other times and other dimensions are demonstrating their continued existence and showing a continuing concern about what happens to us and to Planet Earth. Dr. Richards also holds that viewpoint. Mr. Cox, until now, has chosen to speak of the active force as "the Agency" rather than "entity"—leaving open the possibility that PK effects could be caused by the energy of a living *or* a dead person. Others seek to attribute the energy to the "subconscious" of the individuals involved.

In any case, the evidence on film and the messages in writing should initiate an important and lively dialogue among those in the field of parapsychology and other scientific fields as well.

Prof. Uphoff's article was written for the March 1982 issue of Allgemeine Zeitschrift fur Parapsychologie *(Journal of Parapsychology) based in Hamburg, West Germany.* Pursuit's *editors express thanks to Prof. Uphoff for his courtesy in providing the English translation and the accompanying illustrations.*

THE PLANETARY GRID

Cornerstone of Science and Evolution

by John T. Sinkiewicz

Much has been written about the possibility of there being a World Grid, or Web. Many writers on this subject have gone to great lengths to show their particular theory and supporting data for such a grid's existence. Usually one theory would show how their particular scheme for a grid was the correct one, while all other claims for different theories were incomplete.

This article will, I believe, provide the necessary data to (1) show that there is in fact a World Grid, and (2) show how most other theories about the subject will fit rather nicely into the actual grid.

THE ACTUAL basic grid structure, I believe, was first uncovered by Ivan T. Sanderson and his Society for the Investigation of The Unexplained, back in the 1960s. The Sanderson findings were followed by those of a group of Russians who, working as a team of multi-disciplined scientists, proposed a world-grid system that formed a spherical icosa-dodecahedron. (Fig. 1) Their research was written-up in the United States by Christopher Bird, and has since become known as the Russian Grid.

The problem in trying to validate any grid is one of correct positioning on the Earth, and also predicting the locations of ancient structures situated within the grid matrix. Captain Bruce L. Cathie of Auckland, New Zealand, realized this need, and in his books on a world grid has tried to satisfy that need. But the problem is one of accuracy; if the grid does exist, it must be a highly accurate structure with very predictable junction locations. One cannot use maps, for instance, to plot locations or alignments, due to the inevitable distortions in making both large- and small-scale maps. All that can result from such efforts are near approximations (usually with a few miles of radius for an error factor). Actually, the most sophisticated computer-plotting available provides an accuracy of one one-quarter mile of radius; that is, at best. The problem of military target-plotting by computer is much different than world-grid plotting.

In target-plotting, all of the major irregularities of the Earth must be taken into account since the task is to locate places on a rather irregular surface. But, in plotting the world grid, the irregularities of surface are disregarded. The grid, being a non-physical thing, can take its form through mountains or above planes. The grid itself is the master pattern (or mold) for the Earth, and is a perfect sphere about the center of the Earth. All grid junctions can be mathematically projected to surface locations on a straight line from the grid junction to the Earth's center. Where this line contacts the Earth's surface, that is the grid junction (or power point) for that energy. The mathematics for this job is, of course, spherical trigonometry.

The other problem of world-grid location is that of determining the exact match of the grid's north and south poles to the Earth's geographic north and south poles. This problem is not easy to solve. One first has to study the many ancient structures to find how they might fit into a grid system. For example: a pyramid structure might be meaningful to us, but of minor significance to the grid structure. In this study, one must also ignore all seemingly ideal Earth coordinates. Man's longitude/latitude grid has nothing to do with a world energy grid. But, if the searcher is diligent, match-ups can be found. Again, we have a small accuracy problem. The location, longitude/latitude, of a given structure is typically rounded-off in publications describing that structure, resulting in small initial errors of a few seconds. A match-up halfway around the world can thus be "off" one or more miles, leaving only a hint of the possibilities there. In order to eliminate this problem, I choose to carry all of my angles to four decimal parts of a second of arc: (° 00 ′ 00.0000 ″).

The spherical icosa-dodecahedron form (Fig. 1) is a basic structure for the Earth grid which, in itself, is ever the same throughout the life of the planet. The grid portion of this basic form does change in density at certain periods of Earth life.

As for the north and south poles of the basic form, they are naturally coincident with the axial poles of the planet, that is, if all is in proper harmony. In the case of Earth, for the past several thousand years, harmony has not prevailed. Discord resulted and caused a significant misalignment of the grid's north and south poles with the Earth's axial poles. The effect of this misalignment is manifold, but the most significant effect, for the race of mankind, was that of drastically shortening the natural life-span of humans. The foreshortened condition became so severe that supplementary measures had to be implemented to attenuate the effect of polar misalignment. It is because of this artificial reattunement that the life-span of man is plus seventy years instead of thirty-five to forty years without it. I will return to this matter later on, to explain the corrective measures in greater detail.

In the Beginning Was Energy

In the beginning, prior to there being a physical planet Earth, there was a globe of energy. This globe of energy had a structure to it. The structure was in the form of a spherical icosa-hedron (Fig. 2): twenty equal-angle triangles joined together by twelve junctions. This energy structure caused the spherical form to act much like a soap-bubble, except that it was an energy bubble. The energy bubble moved through many regions of space that consist of large densities of matter. This matter, or space dust, accumulated upon the bubble and a solid shape began to build. After sufficient material structure accumulated, the next stage in planet Earth's development commenced. Another energy structure was superimposed upon the original icosa-hedron structure. It took the form of a spherical dodeca-hedron (Fig. 3). The function of the new energy structure was to develop twelve different parts of the new material globe:

(Continued on page 10)

Illustrations by the author

'The spherical icosa-dodecahedron form is a basic structure for the Earth grid which, in itself, is ever the same throughout the life of the planet.'

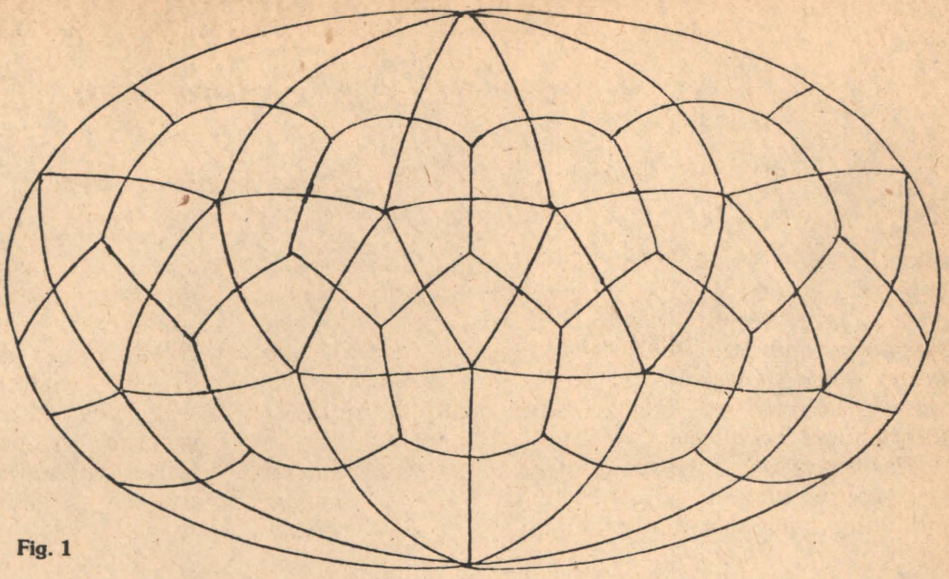


Fig. 1

'In the beginning, prior to there being a physical planet Earth, there was a globe of energy. This globe of energy was in the form of a spherical icosahedron: twenty equal-angle triangles joined together by twelve junctions.'

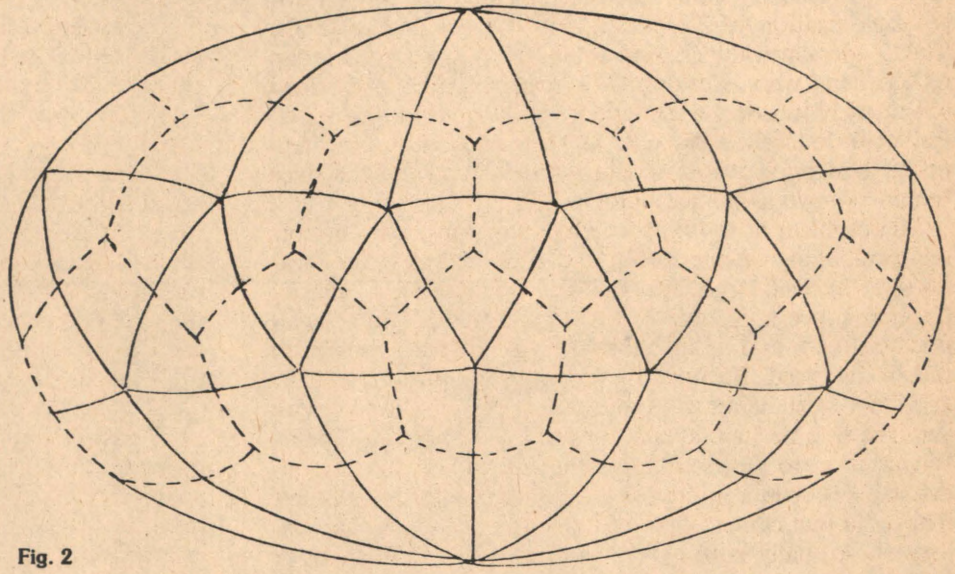


Fig. 2

'Another energy structure was superimposed upon the original icosa-hedron structure. It took the form of a spherical dodecahedron.'

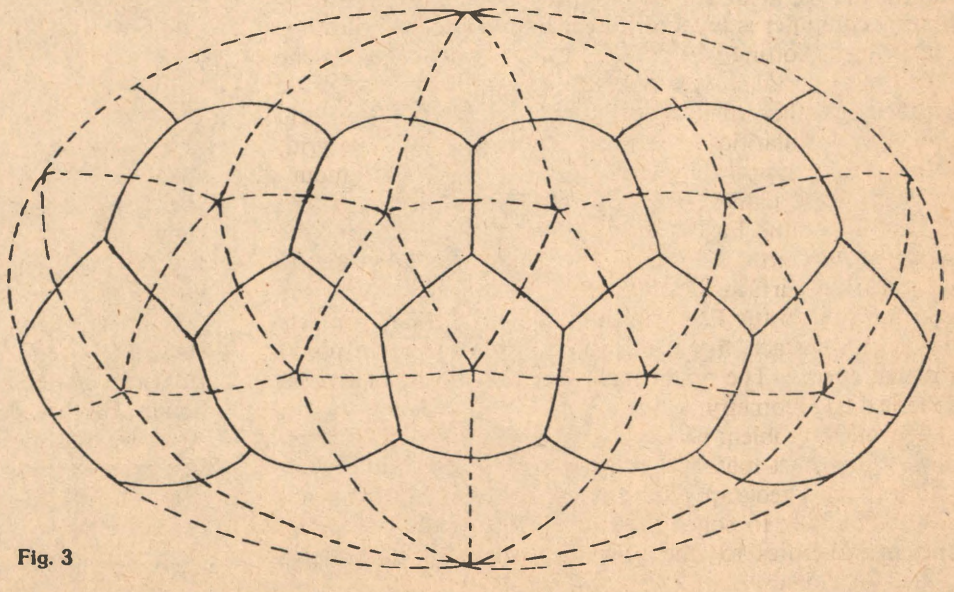


Fig. 3

WORLD ENERGY WEB
1st DENSITY LEVEL

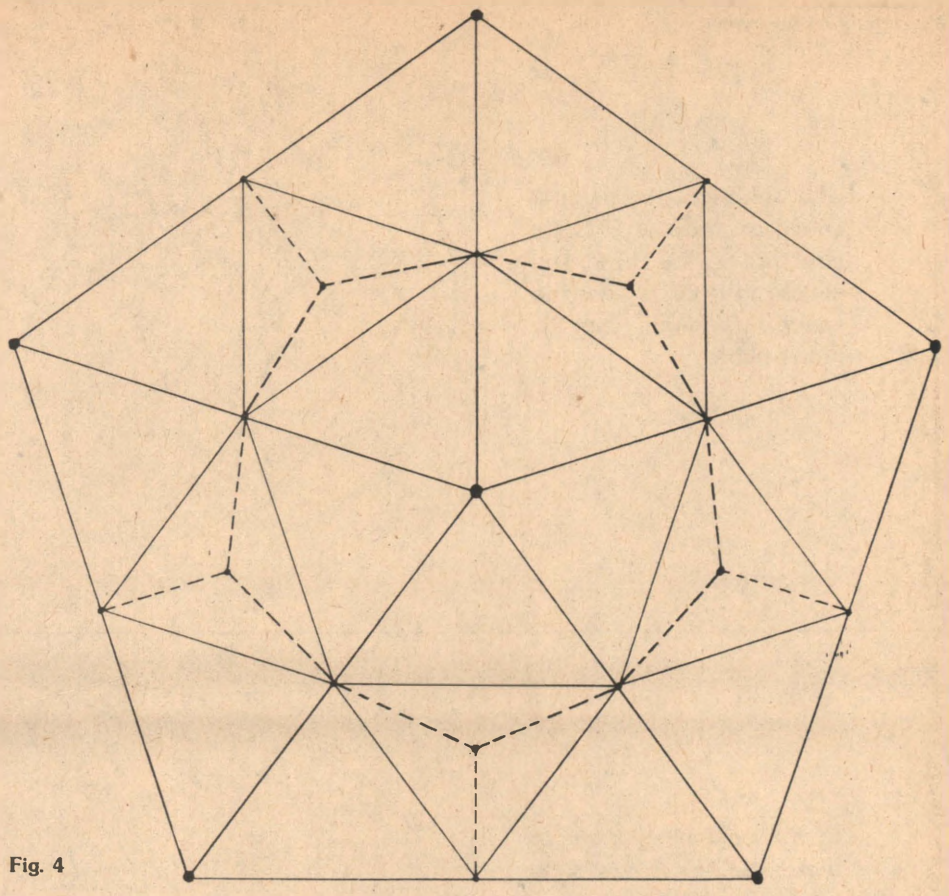


Fig. 4

WORLD ENERGY WEB
2nd DENSITY LEVEL

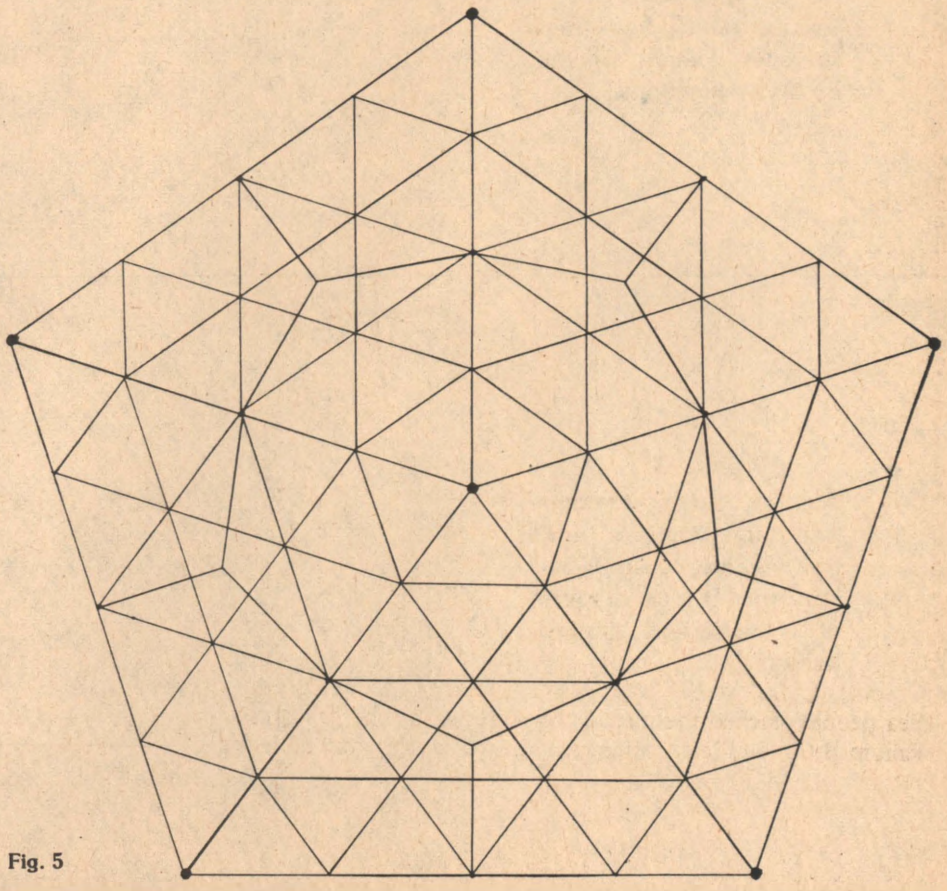
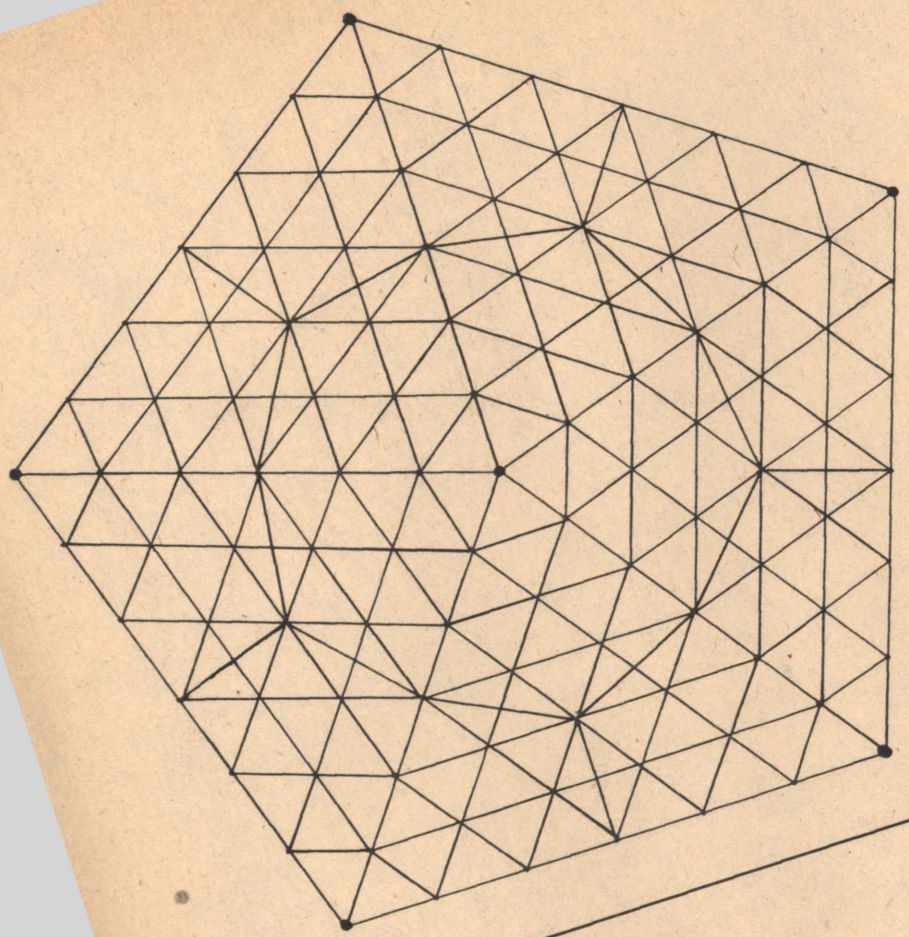
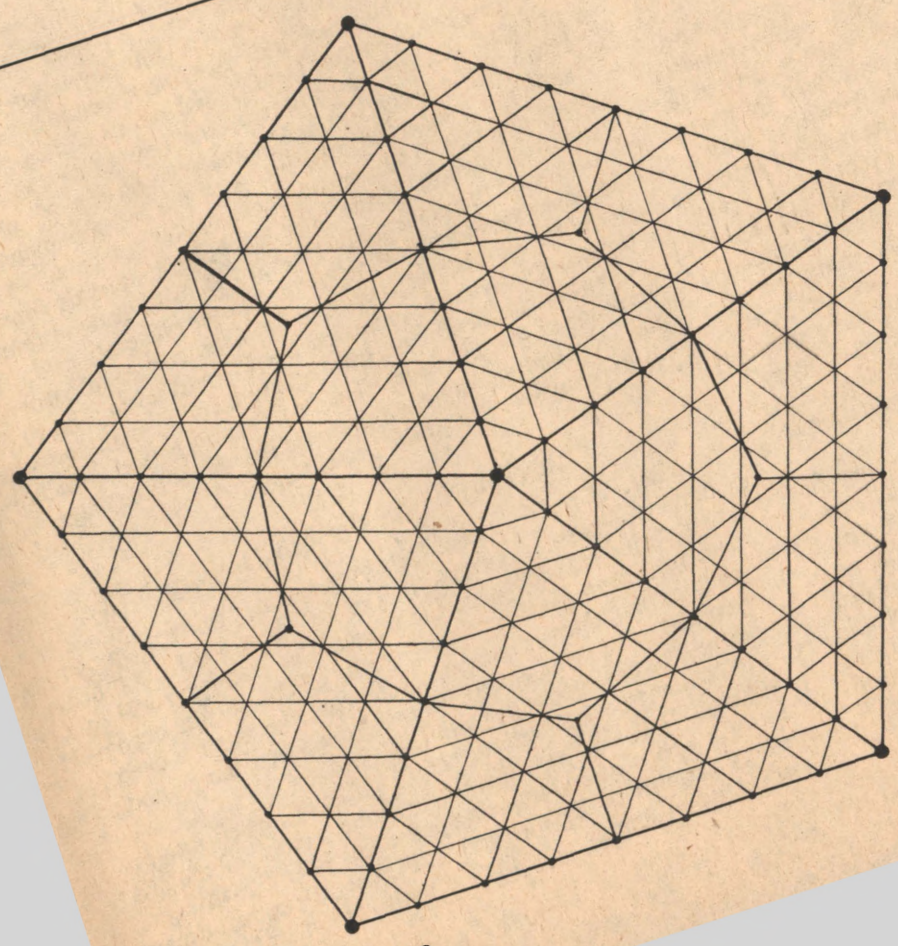


Fig. 5



WORLD ENERGY WEB
3rd DENSITY LEVEL

Fig. 6



WORLD ENERGY WEB
4th DENSITY LEVEL

Fig. 7

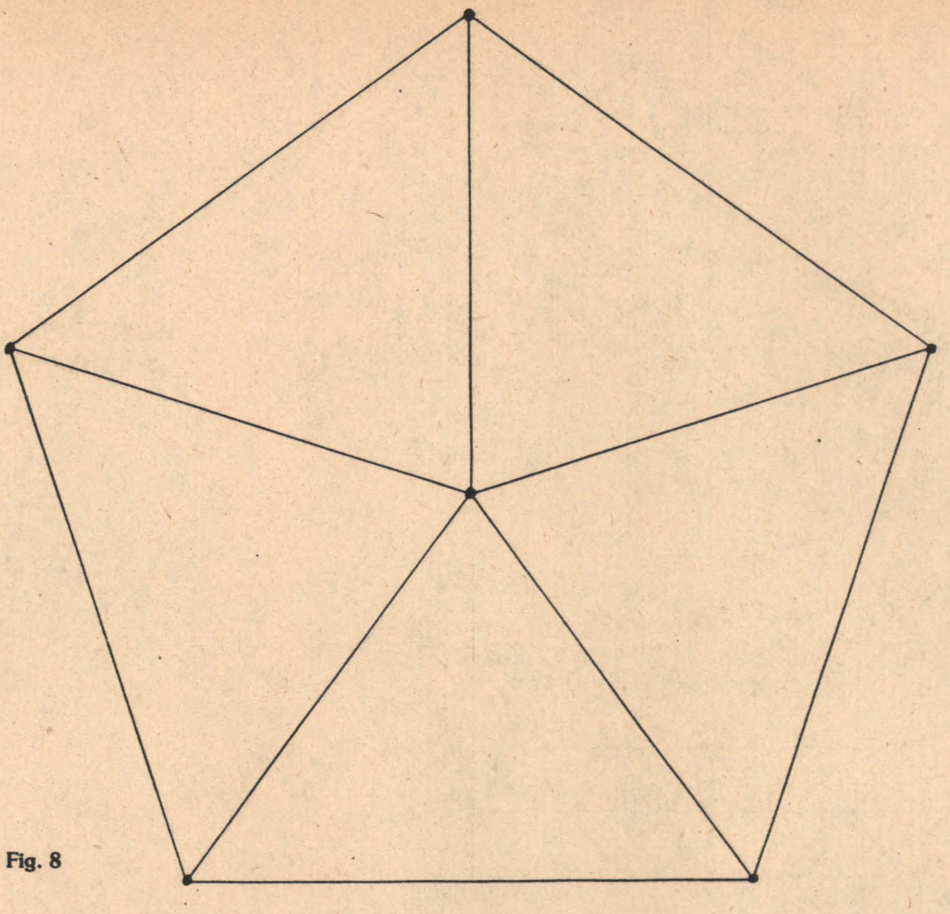


Fig. 8

twelve "islands" were formed along the lines of the dodeca-hedron structure (twelve pentagons). At this point, there was no interlinking of the icosa-hedron/dodeca-hedron structural forms. The linking took place in the next stage of the planet's development.

The new development was the result of the energy spectrum of the planet being tuned to a higher energy density. A new attunement, resulting in each side of the twenty basic triangles (icosa-hedron) being divided in half (Fig. 4), as one might divide a tight wire in half and tie down its middle portion, thus doubling the frequency of the original length. This halfway juncture was the crossing point of the two basic structures (icosa-/dodeca-hedron), also resulting in the development of secondary lines of force. The secondary pattern of force, when inter-connected to the midpoint of each triangle side, formed a second smaller triangle inside each of the twenty icosa-hedron triangles. The three stages of planetary development just outlined, (1) the basic icosa-hedron, (2) the added dodeca-hedron, (3) the dividing of the icosa-hedron triangles, all go into making up the 1st Density or basic life stage of planet Earth's development.

It was after this 1st Density stage had run its course but prior to the next (2nd Density) level of Earth growth, that Earth went through its first major adjustment, including a total shift in axial pole positions, after which a whole new set of conditions existed for the developing life of the planet. The 2nd Density period also changed the energy level and the former grid pattern. Now, instead of there being three energy nodes from corner to corner on each icosa-hedral triangle, there would be five energy nodes (Fig. 5), viz., two nodes added. This increase in planet energy density provided the proper conditions for the development of pre-human life (the animal and vegetable kingdoms).

Likewise, when 2nd Density had run its course, but again prior to the full activation of the next (3rd) Density, the Earth again went through a major adjustment, again including a total axial pole-shift with the accompanying land-mass changes. This period, incidentally, coincided with the removal of most of the huge, prehistoric animals from the surface of the planet. The new 3rd Density likewise resulted in an energy densification of the master planetary grid. This time, the number of energy nodes from corner to corner in the triangle structure increased from five to seven (Fig. 6).

Within the period of 3rd Density activity, mankind was introduced to this planet. The 3rd Density period, which is just now ending, saw man progress through all the stages of his development, up to the present day.

Entering Upon the 4th Density

There is today a new Density upon us: Earth is at the border of passing into its 4th Density stage. Like the other two major transitions of the planet, this transition will result in a total axial pole-shift, with, of course, the accompanying land-mass upheavals. Likewise, the Earth's energy web will increase its energy density from seven energy nodes per unit to nine nodes per unit (Fig. 7).

Actually, the 3rd Density energy grid has passed into inactivity. That is to say, the energy node pattern of the 3rd Density web is no longer being activated. But, like all high-energy systems of Earth, there still exists a residual-decay period when energy is still detectable within 3rd Density

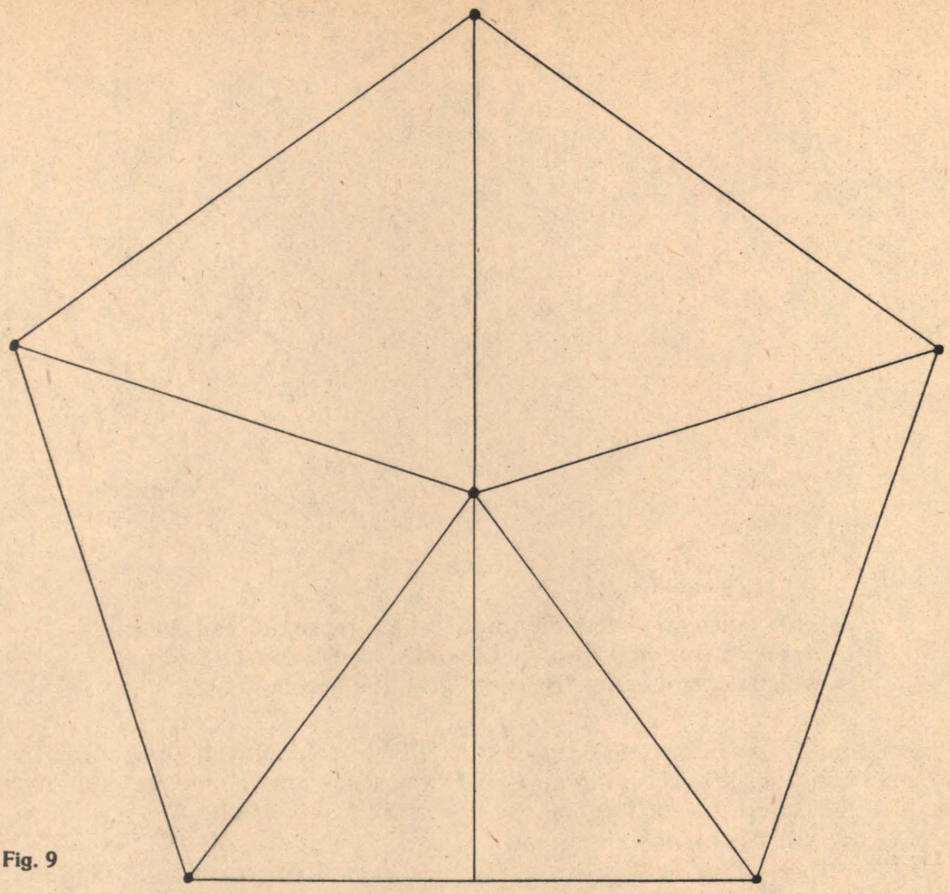


Fig. 9

alignments. This means that the new 4th Density Earth grid has been activated; and the new grid system will continue to increase its energy level for the duration of the Earth's 4th Density period. Future Densities can be projected, but with little usefulness, for the duration of a Density's reign is lengthy indeed.

Now that we have seen something of the purpose, use and history of the Earth energy grid, we can examine some of the detailed specifics of the grid structure.

If we take any one of the twelve triangle junction nodes and make a flattened layout, with that node as the center, we see a pentagon with five radial arms, making five equal-angle triangles joined together (Fig. 8). Looking at the actual numbers that go into forming this shape within the grid, we find that all radial arms (5) and each enclosing base are exactly the same dimension, i.e., 63° 26′ 05.8159″ (in spherical trigonometry all values are given in angles). The three included angles (corners) of each triangle are 72°. If we draw an imaginary line from the center of our diagram straight down to a point exactly halfway along the base of one of the triangles, this height (Fig. 9) would be 58° 16′ 57.0922″. Thus we have established all of the basic angles for the grid. You will also notice that to go 180° from grid north pole to grid south pole, two heights plus one side are required (58° 16′ 57.0922 × 2 + 63° 26′ 05.8159″ = 180°). To superimpose the dodeca-hedral portion of the grid onto our diagram, we would draw a dashed line up from the mid-way point in the base of a triangle, a distance of 20° 54′ 18.5668″. We would then connect a dashed line of the same length from each side of each triangle. The result within a triangle would look like a "Y" (Fig. 4). The result for the whole diagram would be a smaller pentagon with a radiating arm going from each of the five points to the base of each triangle. The now-completed diagram, when repeated and interlaced, forms the two polyhedrals (icosa-dodeca-hedron) which constitute the basic "Russian" grid (Fig. 10), the true basic grid.

We must improve our basic grid by adding the supplementary energy lines of the 1st Density form. To do this, we simply interconnect the center point of each triangle's side with a line 36° long; the result is four smaller triangles within each of the original, larger ones (Fig. 4). At this point we have recreated all three stages of the 1st Density Earth grid. (Note: The equator of our grid consists of ten of these 36° mid-point lines in succession.)

The next step is to divide each half of each large triangle's side into half again, then connect these points with interior lines—all of which results in sixteen smaller triangles within each larger triangle (Fig. 5). This is the basic grid diagram for the 2nd Density (basic because in each case all of the smaller triangles are similarly divided, producing even smaller triangles).

There does not seem to be any limit to the dividing process, at least on this side of the atomic structure, perhaps even to the matrix of sub-atomic particles. We are now, and have been for some while, at the juncture point of the 3rd and 4th Densities. This structure might give clues to help explain some of the confusion in the atomic physics of our times.

To continue with the 3rd Density, we now divide our basic triangle into six equal lengths per side. Again, connect the points into criss-cross patterns which result in thirty-

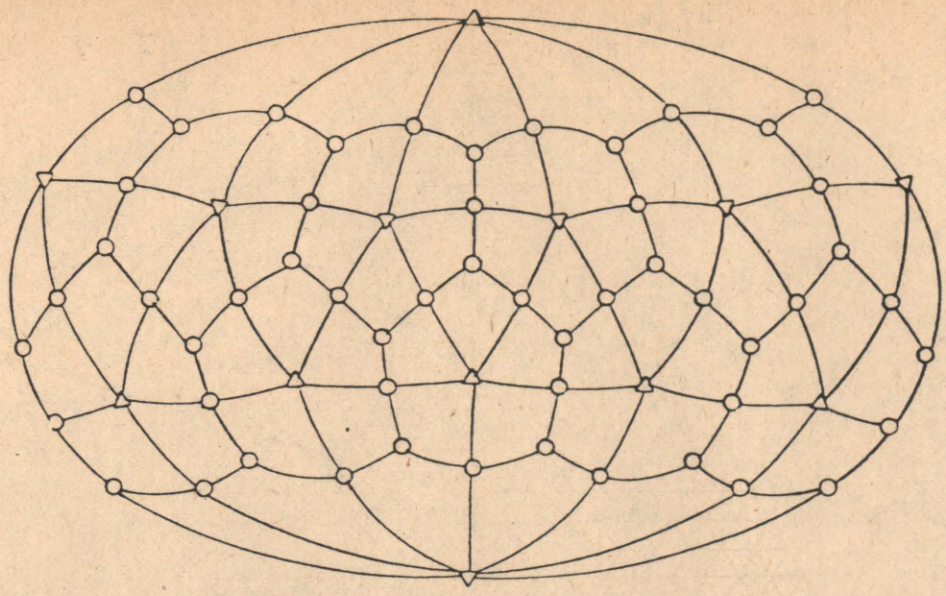


Fig. 10

'The now-completed diagram, when repeated and interlaced, forms the two polyhedrals (icosa-dodeca-hedron) which constitute the "Russian" grid, the true basic grid.'

six smaller basic triangles (Fig. 5). These are once again divided and re-divided on and on (Fig. 11). This diagram is the structure which provided the pattern for the location of almost all of the ancient structures. Almost, because some could be so old as to have been built upon the 2nd Density grid. We will now be able to locate all mysterious structures, circles, holy mountains, etc., within the pattern of this 3rd Density grid system. We can even locate some hidden structures (pyramids, etc.) through the proper study of this grid pattern. For example: such places as Findhorn, in Scotland, have strong power-points on both the old 3rd Density grid and the new 4th Density grid.

This new grid/old grid situation is one which has given such researchers as Bruce Cathy great difficulty. He and others have put together arguments for a grid theory that predicates both new and old mysterious places being located on the same theoretical grid. As a matter of fact, very few ancient structures are located on both the old (3rd Density) grid and the new (4th Density) grid. Those that are, of which one is the Great Pyramid of Cheops, in Egypt, result from their initial location being on one of the never-changing junctions of the basic grid structure, i.e., the mid-point on each basic triangle side, the twelve master node points, or the twenty dodeca-hedron junctions.

To give some idea of the true density effect of the grid-difference between the 3rd Density grid and the 4th Density grid, let us compare the dividing of each grid sevenfold, the 3rd Density being divided by six each time. This would be:

1st division = 10° 34′ 20.9693″
2nd division = 1° 45′ 43.4949″
3rd division = 0° 17′ 37.2491″
4th division = 0° 02′ 56.2082″
5th division = 0° 00′ 29.368″
6th division = 0° 00′ 04.8947″
7th division = 0° 00′ 00.8158″

The last division means that a junction node will be located at every 81.58 nautical feet along all basic triangle sides. The spacing is somewhat different for the interior portions, due to the differing sizes and angles.

If we continue our comparison for the 4th Density grid, which has nine nodes per basic triangle side, thus having eight equal parts (Fig. 7):

1st division = 7° 55′ 45.727″
2nd division = 0° 59′ 28.2159″
4th division = 0° 00′ 55.7534″
5th division = 0° 00′ 06.9692″
6th division = 0° 00′ 00.8711″
7th division = 0° 00′ 00.1089″

The last division means that a junction node will be located every 10.89 nautical feet along all sides of the basic triangles.

Thus, by only changing the grid density from seven nodes (six spaces) per side to nine nodes (eight spaces) per side, we have increased the grid's energy density at only this shallow level, almost eightfold. The potential impact of such enormous energy increases can have on our physical planet and life forms can hardly be imagined.

In this situation, all forms of energy and matter within this planet must absorb and balance the new energy level. Included, of course, are all non-physical environs within the influence of the planet Earth.

If we were to carry this comparison down to the atomic level, the increase would be hundredsfold. To illustrate further, we will look at the 11th division comparisons for each grid density. For the 3rd Density grid, the 11th division = 0° 00′ 00.00063″ or a node juncture at every 0.063 nautical feet. By comparison, the 4th Density grid's 11th division = 0° 00′ 00.000027″ or a node juncture at every 0.0027 nautical feet, which is greater than a twenty-threefold increase in the energy density. I think the point is made as to the kinds of transition that lie ahead (or are already here) for all that resides within the sphere called Earth.

Returning once again to the question of the proper positioning of the World Grid relative to man's longitude/latitude grid, the obvious once again became understandable after years of research; the obvious being that the Great Pyramid of Giza was located on an important juncture of the basic grid. Realization that this never-changing juncture is mid-way between two corners of a basic triangle solved

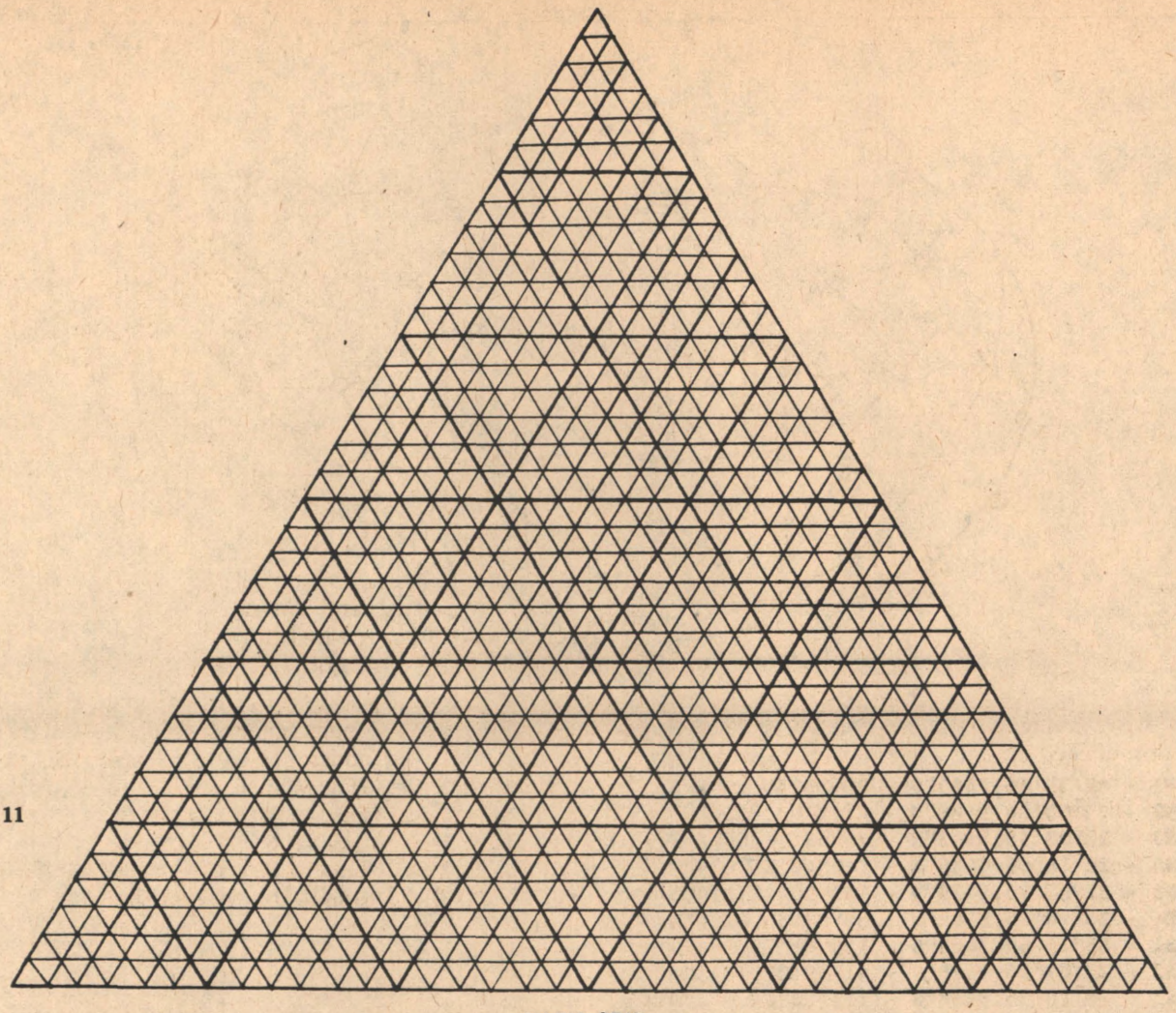


Fig. 11

BASIC GRID

Either 1°45'43.495" / DIV – 10°34'20.969" / SEG or 0°02'56.20819" / DIV – 0°17'37.249" / SEG

only the north-south portion of the grid-location problem (assuming that the exact surveyed position of the Great Pyramid was published and available). The question of the grid's easterly or westerly slant was still to be answered, especially since the pyramid location to the northern triangle node was either short of geographic north, or beyond geographic north, depending on whether the side-angle-length or center-height-length was used in the calculation, i.e., 63° 26' 05.8159" or 58° 16' 57.0922". Finally, through much trial and error, it was determined that the Great Pyramid aligned precisely north and south with the two grid axial poles. This particular alignment satisfied the necessity of locating certain chosen edifices on the high-energy grid juncture: places like Coral Castle in Homestead, Florida, which also had to be on a direct energy line from a large Egypt-type pyramid. (This alignment even provided for spotting the original site chosen for Coral Castle.)

The results of this positioning give the true grid north as 88° 15' 46.7663" N - 29° 58' 50.2195" E, based on the Great Pyramid location 29° 58' 51" N - 31° 09' 00" E with a north-south alignment of 0° 02' 30" west of north. The exact location for each of the sixty-two non-changing junctions of the basic grid are shown in Fig. 12.

We can now go into the details of the special energy stabilizers needed for Earth. As can be seen from the above data, there is a difference of some 1° 44' 13.2337" or approximately 104¼ nautical miles between the Earth axial poles and the grid axial poles. This is quite a difference when one realizes that the proper functioning of the planet requires a perfect overlap of these two poles to achieve harmonic balance. The consequences of an inharmonic alignment are manyfold, but the one we are dealing with here is the resulting foreshortened life-span of the human species. In an attempt to offset this effect and provide us with a more favorable (learning) life span, those entities whom we refer to as extraterrestrials, formed six large Giza-type pyramids at specific points on the World Energy Grid. These six energy synthesizer/amplifiers cause a re-flow of intensified energies between them and the grid north pole. This energy was then blended with the natural inflow of cosmic energies for that point, all of which resulted in a higher energy level circulating throughout the planet. The exact location of each of the balancing pyramids (though no longer in effect due to the new grid infusions):

(1) the Pyramid of Giza, as given
(2) 30° 11' 51.4428" N - 27° 34' 47.2794" W
(3) 30° 10' 33.3989" N - 87° 30' 01.8512" W
(4) 28° 18' 06.0463" N - 148° 48' 35.079" W
(5) 30° 14' 21.3726" N - 149° 51' 44.373" E
(6) 30° 15' 33.574" N - 89° 53' 58.6197" E

It is interesting to note that if you take points 1, 3, 5, and

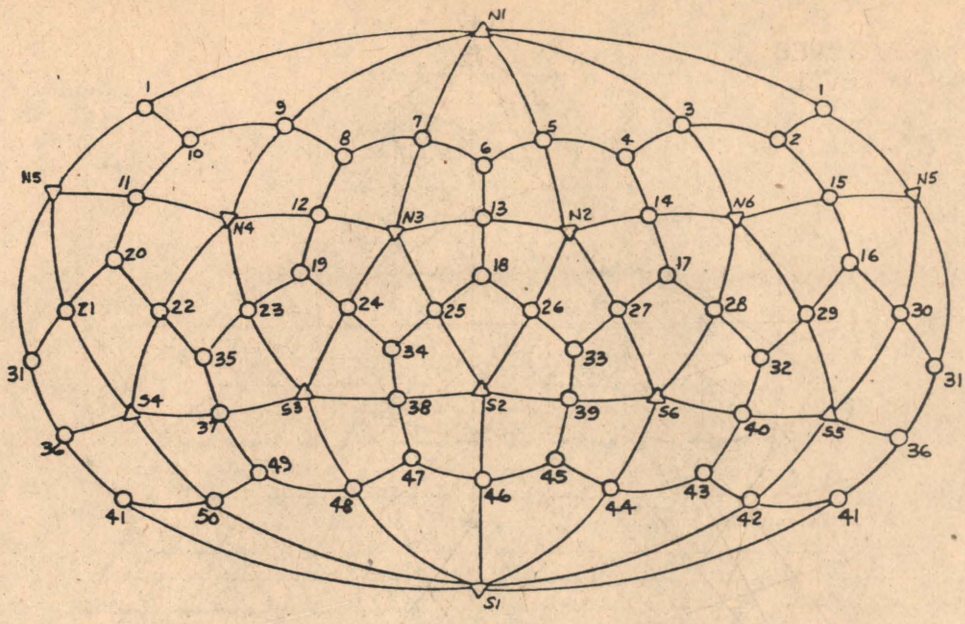


Fig. 12

N1 - 88°15'46.7663"N - 29°58'50.2195"E
N2 - 25°08'04.9188"N - 4°21'03.8556"W
N3 - 27°03'18.6613"N - 75°59'11.0812"W
N4 - 28°18'06.0436"N - 148°48'35.079"W
N5 - 27°07'26.9478"N - 138°20'20.216"E
N6 - 25°10'35.8488"N - 66°39'54.4286"E
S1 - 88°15'46.7663"S - 150°01'09.799"W
S2 - 27°07'26.9478"S - 41°39'39.7843"W
S3 - 25°10'35.8488"S - 113°20'05.572"W
S4 - 25°08'04.9188"S - 175°38'56.144"E
S5 - 27°03'18.6613"S - 104°00'48.918"E
S6 - 28°18'06.0463"S - 31°11'24.921"E
1 - 58°48'53.3758"N - 136°28'02.986"E
2 - 52°05'21.0073"N - 101°01'40.412"E
3 - 56°53'01.933"N - 65°32'55.649"E
4 - 50°53'09.5399"N - 31°07'35.1586"E
5 - 56°50'35.0337"N - 3°17'54.0924"W
6 - 51°37'49.3245"N - 39°05'38.3754"W
7 - 58°44'42.7052"N - 74°05'40.0732"W
8 - 53°59'35.8669"N - 111°23'46.795"W
9 - 60°01'08.9054"N - 148°45'59.823"W
10 - 54°02'13.6744"N - 173°49'01.024"E
11 - 33°08'17.5182"N - 174°32'10.906"E
12 - 33°05'42.3903"N - 112°09'25.005"W
13 - 31°07'55.7334"N - 39°49'45.4538"W
14 - 29°58'51"N - 31°09'00"E
15 - 31°12'01.4234"N - 102°09'24.18"E
16 - 4°51'52.2504"S - 118°20'08.689"E
17 - 6°28'48.7204"S - 46°14'12.3885"E
18 - 5°47'14.4624"S - 25°56'40.5856"W
19 - 3°44'48.1646"S - 97°54'49.9989"W
20 - 3°10'40.0644"S - 169°46'12.698"W
21 - 1°02'59.5279"N - 157°09'31.277"E
22 - 1°39'45.9741"N - 166°50'09.324"W
23 - 1°38'25.6401"N - 130°49'13.638"W
24 - 0°59'29.2654"S - 94°48'58.6443"W
25 - 0°02'09.9289"S - 58°49'45.0437"W
26 - 1°02'59.5279"S - 22°50'28.7225"W
27 - 1°39'45.9742"S - 13°09'50.6766"E
28 - 1°38'25.6401"S - 49°10'46.3623"E
29 - 0°59'29.2654"S - 85°11'01.356"E
30 - 0°02'09.9289"N - 121°10'14.956"E
31 - 10°14'12.979"S - 139°28'33.182"E
32 - 12°11'38.912"S - 67°23'08.1291"E
33 - 12°14'12.417"S - 5°01'52.8242"W
34 - 10°18'19.684"S - 77°08'18.0602"W
35 - 9°04'32.4504"S - 148°50'05.798"W
36 - 31°07'55.733"S - 140°10'14.546"E
37 - 29°58'51"S - 148°51'00"W
38 - 31°12'01.423"S - 77°50'35.8201"W
39 - 33°08'17.518"S - 5°27'49.0937"W
40 - 33°05'42.39"S - 67°50'34.9946"E
41 - 52°01'17.0186"S - 141°16'54.823"E
42 - 58°44'42.705"S - 105°54'19.924"E
43 - 53°59'35.867"S - 68°36'13.2056"E
44 - 60°01'08.9054"S - 28°43'40.214"E
45 - 54°02'13.6755"S - 6°10'58.9748"W
46 - 58°48'53.3758"S - 43°31'57.017"W
47 - 52°05'21.0073"S - 78°58'19.59"W
48 - 56°53'01.9331"S - 114°27'04.353"W
49 - 50°53'09.5399"S - 148°52'24.843"W
50 - 56°50'35.0337"S - 176°42'05.894"E

connect them in a triangle pattern, then do the same with points 2, 4, 6, you will have the ancient symbol called the Seal of Solomon (Fig. 13).

Residents of the Gulf Coast area will be especially interested in the location of balance pyramid (3): just off the Mississippi delta, in the Gulf of Mexico. Satellite readings show that a center of very high energy exists in that area, although the satellite could not accurately plot it.

The statement that an Earth axial pole-shift was a natural part of the change from 3rd Density to 4th Density needs

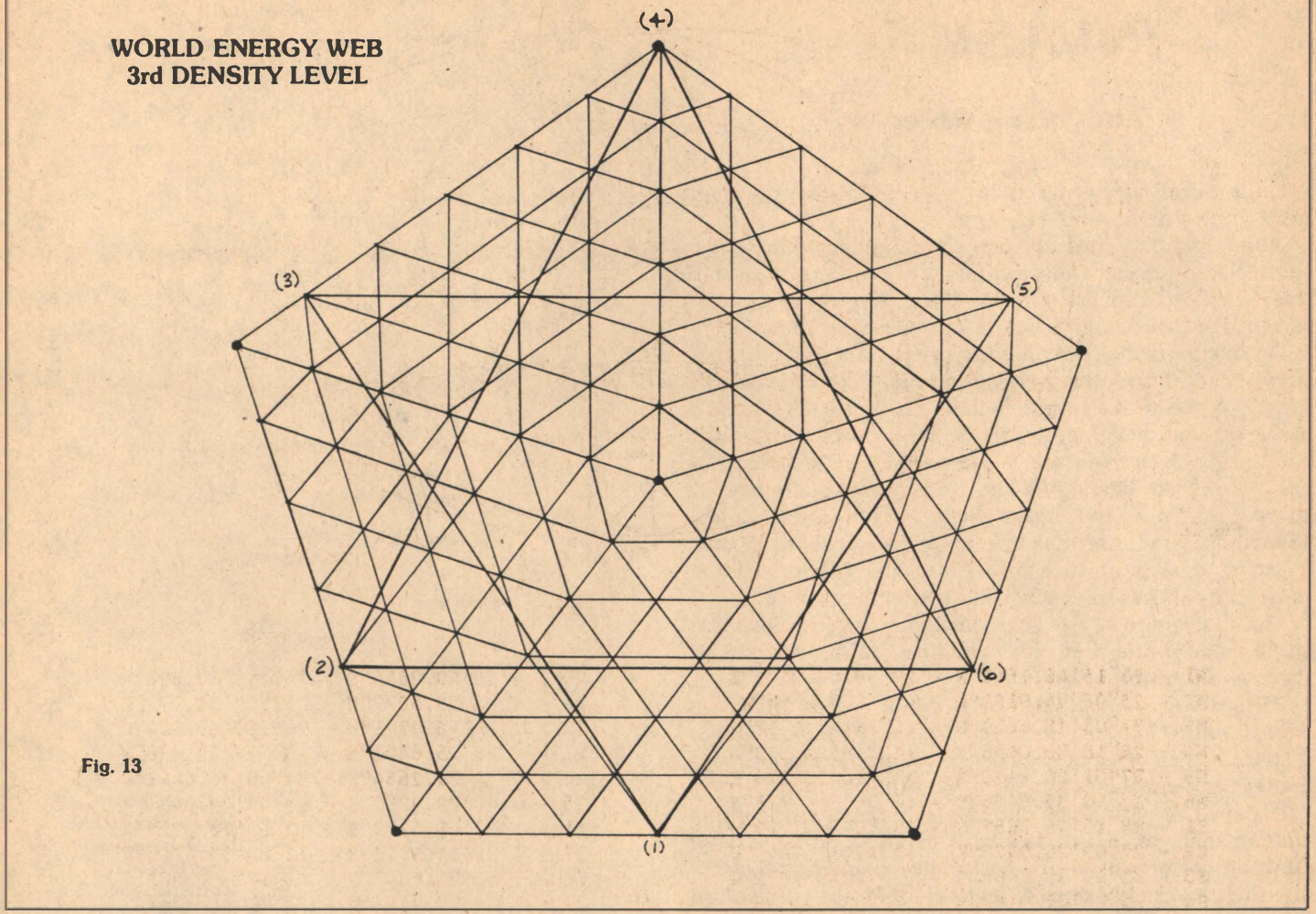


Fig. 13

further clarification. The natural situation for a planet and its grid is to be in unison, the grid poles with the planet's axial poles (the magnetic poles being effects of certain grid relationships also). Therefore, if an axial pole-shift is to take place, the two axial poles which result from this shift will be two of the energy grid's master nodes (N1 through N6 and S1 through S6) that lie 180° apart.

Several published articles refer to the coming axial shift. A number of these, plus my own evaluations, state that the shift will be about 45°. There is also belief that when the shift is completed (fixed), all that was frigid will be tropic and all that is tropic will be frigid. This seems reasonable in light of past findings on the subject, but such statements should not be taken as more than an approximation of the resulting conditions. With all of the above taken into consideration, the new axial poles look to end up at node N4 for the north pole and S6 for the south pole. This arrangement comes the closest to satisfying all expected conditions.

There is, of course, much more that could be written about the World Energy Grid, but I will leave it to each reader to discover for himself or herself what kind of relationships are the most meaningful. All of the data necessary to construct any or all portions of The Grid are spelled out above. Just remember one basic rule: the closer that a junction is to the basic grid breakdown, the more potent is its available energy.

Readers who are knowledgeable in the science of astronomy will find that many interesting relationships can be developed between the position of the stars (not planets) and grid junctures. Not only do the grid junctures relate to the energies feeding the planet as a whole, but certain (if not all) junction points are tied into and matched with a particular star. In such case, the star's relative position with the celestial sphere is in the same exact position of that grid juncture in Earth coordinates. For example, the Great Pyramid, with Earth coordinates 29° 58′ 51″ N - 31° 09′ 00″ E is harmonically linked to the star having relative position in the celestial sphere of right ascension 2 hrs. 4 min. 36 sec. and declination of 29° 58′ 51″. Only the star/grid relationships of the old 3rd Density grid can be related in this way since, with the new pole locations and alignments, we cannot calculate the new 4th Density grid relationships. In star/grid calculations, do not forget to include the Earth axial grid misalignment in your mathematical models.

For the benefit of those who have not yet surmised as much, I note that the so-called Bermuda Triangle is position N3, and the Devil's Triangle is N5. Each of these twelve master nodes represent the same kind of energy; they are highly energized in a kind of flashing-light sequence.

Finally, it takes only a little imagination to develop almost any form of geometric arrangement, i.e., squares, diamonds, etc., out of the actual grid(s), simply by tying certain grid junction nodes together in the desired form.

VERMONT'S UFO INVASION

by Susan Green

On a recent frosty March day, Cedric Morse could not help waking up around 4:30 a.m.

Although he has been retired since January, Morse has roosterlike instincts from a lifetime of working the same East Richford mountain farm where he was born and raised. He invariably rises and shines before the sun.

On this particular morning, however, Morse found that he was not the only thing shining in the predawn gloom of West Jay Road. As Morse looked down the hill, he saw three stationary lights, spaced three or four feet apart, about 200 yards from the house. Although they did not cast beams like headlights and seemed unusually bright, Morse assumed the lights belonged to automobiles. Thinking it odd for anyone else to be up and about in such a secluded area at such an extraordinary hour, Morse jumped in his car to check out the situation.

The spot where he had seen the lights was just beyond a slight ridge in the road, but when he reached the ridge, there was nothing in sight.

"What bugs me is that there were no tracks anywhere except mine," Morse reflected with a bemused smile. "There was an icy shale over everything that morning but my tracks were the only ones to be seen."

Did such an eerie early morning experience make him a sudden believer in the existence of Unidentified Flying Objects? After all, he is not alone in claims of UFO sightings; there has been a flurry of sightings in Richford and other towns around Vermont.

"I've believed in them for almost 20 years," Morse declared emphatically. "But they told us not to say anything about it."

They?

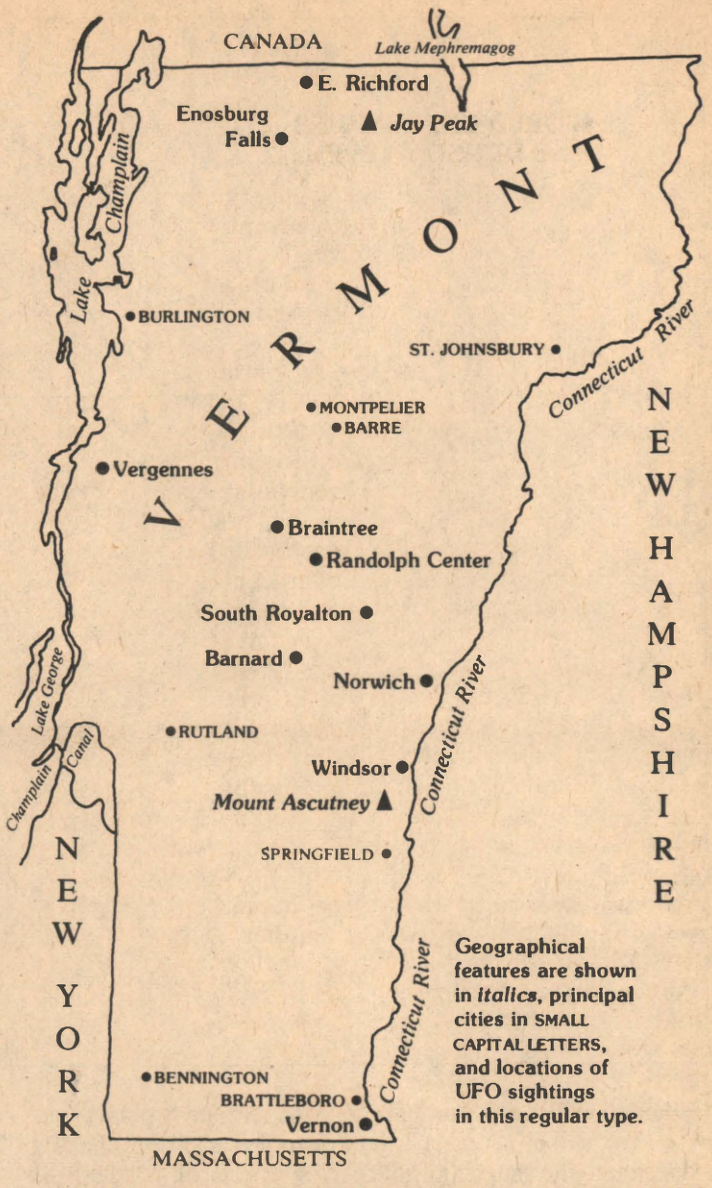
Morse recalled the day—Sept. 26, 1962—that he and his wife, Doris, got an excited phone call from their neighbors, Phyllis and Robert Waterhouse, reporting that something awfully strange was hovering over their milkshed.

It was late afternoon, some time after 5. The Morses drove the short distance down the road to the Waterhouse farm, looked up and there were "two big, rounded, metallic, domelike objects in the sky."

Morse said the objects were moving east to west. Moments later, another pair was spotted coming out of the south in a northeasterly direction. "They looked like shallow oatmeal dishes," Morse said. "Bottom side up."

The Morses walked over to the Waterhouses who were standing in front of their gray barn and, with assorted young children gawking upward, stood and watched the UFOs for several minutes.

Phyllis Waterhouse remembers the sightings this way: "My son Mark, who was 4 or 5 years old then, was out playing in the barnyard and he saw this object hovering. He hollered for me and then I called my husband, who was inside the barn. What I saw was a dull, gray thing, shaped like a football.



"It just kind of hung there over the corner of the milkhouse, then moved silently away at an awful speed. But the whole time there was no noise."

Her husband, Robert, saw the object, which by that time seemed "about 2,000 feet away, hovering over our meadow." He thinks he saw "a little vapor coming from it as it moved out. It moved with a speed you wouldn't believe, but no sound."

While the Morses tried to chase the UFOs along the mountain road, somebody thought to call the U.S. Border Patrol's Richford office. By the time an officer arrived, the objects were gone.

A short time later the Morses and the Waterhouses were interviewed by someone they identified as a government investigator, although no one bothered to ask what branch of government the investigator represented.

"He told us not to say anything to anyone," Morse said. "That it would stir up a panic."

"We had young kids in school then," Doris Morse added. "We were afraid they'd get teased. So, at the time, we didn't care to talk about these things either."

That reluctance never prevented the Morses from feeling sure they had had a close encounter, in the days before the term was a movie title or a household word.

"They can't make you believe you didn't see what you saw in broad daylight," Morse insisted.

The sheer numbers of Vermonters who are seeing what they see these days is a bit astounding. In both the Richford and Windsor areas, in particular, dozens of citizens have witnessed strange lights and/or objects in the skies for several weeks now, bolstering more sporadic reports of encounters close and distant over the years.

The National UFO Reporting Center in Seattle, Washington, a clearing house for information on sightings since 1973, confirmed that the current rush of UFOs over Yankee territory is unrivaled.

"Based on information we are getting," said center director Robert Gribble, "it's very quiet around the country now, except the Vermont-New Hampshire area."

The sightings are occurring predominantly in Richford and Windsor and, curiously, a great number of the reports are from police and firemen.

"Why a policeman sees these things," suggested Richford Police Chief Homer Combs, now a veteran UFO witness, "is because we're always looking for the unusual. This is the job of a policeman. You take less notice of ordinary things."

In November, Combs, as well as others in town, saw "two huge, real big, orange-colored lights" moving across the same Jay Peak valley that is overlooked by the Morse property. Combs was patrolling Richford's Golf Course Road at the time—approximately 7:30 p.m.—and had an unobstructed view of the entire Richford-East Richford area.

In early March, a St. Albans nurse, who wishes to remain anonymous, was visiting her mother in East Richford. At dusk, they went out on the porch to investigate the cause of a loud roar over the house. It was "black, like cast iron, the size of a normal plane but with a bug-shaped body, flying at treetop level." It had wings that pointed upward and many blinking red lights all over the wings and bottom, and was heading toward the town of East Richford.

Many people who spot UFOs are normally publicity-shy, but Combs said that, during the early part of March, it seemed as if he was getting almost daily reports from townspeople. "They are all over the place," he claimed.

More than 100 miles southeast of Richford, the town of Windsor, on the Connecticut River, has been busy with UFOs this winter. Police Sgt. Richard Polland, officers William Hines, Dave LaPlante and Ronald Walker; Fire Chief Bruce Stearns, firefighters Raymond Seeley, Ralph Burnham and Dave Kibling are among the growing legions of Windsor County people who have seen inexplicable things in the starry skies of southern Vermont.

A year ago, two women working at Vermont Public Radio—Lynda Kingsbury and Lucy Slothower—had an early evening experience with something flashing yellow, blue, red and white lights, about 3,000 feet in the air directly over the supermarket they had just left in the center of Windsor.

But not until the 1982 season have the generally triangular-shaped objects begun making frequent appearances there.

It started Feb. 2, with Polland, a 14-year veteran of the town's police force. Polland sighted what he thought was a UFO from his hilltop house about 6 p.m. and called the department to tell fellow officers to gaze heavenward. By the time he reached the center of town, Polland observed "that there wasn't one, there were two of these things, not even 1,000 feet in the air."

As the police watched from a parking lot, Stearns and some of his men observed the objects as they stood in front of the fire station. Both groups report they saw red and blue lights, seemingly in a triangular pattern when viewed through high-powered binoculars, moving southeast, then suddenly turning and speeding off toward Mount Ascutney, just southwest of the town center. There was no noise.

Just then, two jets, with flashing lights and much noise, came over Windsor from the northwest, apparently in pursuit of the objects. As the planes got closer to the UFOs, Stearns and Polland recalled, the lights on the UFOs disappeared. "They just vanished," Polland claimed.

Calls by a reporter to virtually every Air Force base and Air National Guard outpost in New England produced no account of any military planes intercepting UFOs near Windsor that night.

Two weeks ago there was another sighting. March 22, firefighters Burnham and Kibling, along with police Sgt. Gordon Gillen, looked up about 11:30 p.m. to see red, blue, green and white lights in a triangular pattern. They watched the object hovering on the western horizon from the parking lot of the Grand Union supermarket which provides a comprehensive vista of eastern and western skylines.

When Gillen flashed the blue lights of his police car, the UFOs lights became brighter, according to Burnham, who then flashed the red light of his Fire Department vehicle. "The UFO lights got brighter again," he said incredulously. "It seemed to be answering us."

An attempt at communication with a UFO was less successful for John and Sue Pritt a few years ago. The Enosburg Falls residents were driving home late one night when they saw some unusual lights at about treetop level that seemed to be following their car.

Suspecting it was a small airplane in trouble, the Pritts stopped the car. The object stopped directly in front of and over them.

In the belief that it was actually a helicopter, John—an electrical engineer and ham radio operator—began blinking the car headlights in Morse code, spelling out: "Where are you?"

"Suddenly, there was a loud roar," remembered Sue Pritt. "And the thing zipped out of sight."

Another highway encounter took place a year ago on U.S. 7, just north of Vergennes. John and Denise LaCroix were heading back to Burlington about 10 p.m. on a Sunday when they saw lights "kind of hopping around strangely" off to their right. They could not see much, but moments later a large, domed object appeared directly over the road.

The LaCroixes both described it as being as big as an airplane. "It had square windows or something all around the bottom," Mrs. LaCroix said, "and one larger window in the center. There was a bright white light that seemed to be flashing in sequence from window to window all around the bottom and one steady white light coming from the central window."

The craft hovered over the road at treetop level, no more

than a football field's length from the LaCroix car. Even with the windows rolled down, the couple could hear no noise from the UFO, even when, a minute or two later, it sped away with a velocity that astounded them.

A Vermont Transit bus had been traveling the same road just in front of them.

"When this thing appeared," LaCroix said, "the bus brake lights came on. We had to step on our brakes. We followed the bus into town and ran over to the driver. I started to say: 'Excuse me, but just past Vergennes . . .' and he cut me off: 'Yeah, I know what you mean. I saw it too.' " The driver then described the same object the LaCroixes had seen.

"He told us that at first he thought it was a plane, until he noticed the lights chasing each other at the bottom," Mrs. LaCroix said. "He said he didn't want to mention it to anyone to protect his reputation, but advised us to call the airport to find out if they had anything flying in the vicinity of Vergennes that night. They didn't."

The LaCroixes cannot remember the exact date or the bus driver's name. A Vermont Transit spokesman said that, without a date, the company could not pinpoint which driver had that route.

The bus driver may have feared for his reputation, but Paul Hodes, a New Hampshire assistant attorney general of the criminal division, does not.

The way Hodes tells it, he was driving on Interstate 91 near the Norwich exit in late January when he spied a "vaguely triangular-shaped object" with red and white lights on the eastern horizon. Hodes said he pulled his car over to the side of the road and opened his windows, hoping to hear what a UFO sounds like. He heard only silence.

"The whole affair seemed to be moving north at a stately pace," he said of his not-so-close encounter.

Much the same thing occurred several weeks later on the same road. Al Semple, a foreman with the New England Power Co. of New Hampshire, was driving near Windsor February 19 when, he said, he saw two sets of lights on the eastern horizon. He and his two-man crew stopped and watched. It was an overcast night and the cloud ceiling was about 1,500 feet, Semple said. The intensity of the lights kept changing and then one object—which through binoculars appeared to have windows—proceeded southwest and the other northeast.

When Semple started to turn on the utility truck's spotlight one of his crew members blurted, "Put that out. They might see us." So Semple did not try to signal the strange aircraft.

"I was thinking friendly thoughts, I'll tell you," Semple recalled, laughing.

Semple has since heard several reports of sightings by other power company personnel, over power stations or high-power lines in New Hampshire and Massachusetts. His theory is that the Windsor UFOs were not really over Vermont, but rather just across the river where his company maintains a "115-KV line."

One of the most recent series of UFO reports—taking place on the same night that Windsor police and firefighters were entertaining possible intergalactic visitors—is somewhat of a departure from the rest. In five Vermont towns, families called state police just after 9 p.m. to say they had seen something flying through the air and possibly crashing to the earth nearby.

Victor and Rita Salls said they and their son, Douglas, were sitting at the dinner table in their Randolph Center home when a bright greenish-yellow light streaked across their line of vision as they looked out.

As the family watched in amazement, the object swooped down from above treetop level and seemed to crash by the town's water tower in the center of town, about a mile from the Salls house.

"There was no noise that we could hear and suddenly we saw no more light," Salls said. "It burned out or whatever."

When state troopers checked the spot where the Salls believed the object had landed, there was no evidence of anything unusual, according to Bethel dispatcher Phil Colby.

About the same time, Pamela and Deborah Carrier and their brother Rick were driving into South Royalton on Vermont 14 when "a big, greenish, very bright round light with a yellowish tail" came into view, moving northeast, according to Rick Carrier. It appeared to crash behind Happy Hollow Hill but when the young people drove around the hill to investigate, they found nothing untoward.

Nancy Hunt of West Braintree was driving home along Thresher Road around 9 p.m. She said she witnessed a green, basketball-shaped light cruising at a 20-degree angle with the earth." It, too, seemed to hit ground in the nearby woods.

Priscilla Oakland tells a similar story. She said she was sitting in a living room chair in her home in Barnard looking out the window. Suddenly, a greenish-white light on what appeared to be an "oblong object" whizzed past her line of vision, moving due north, parallel with the ground at slightly higher than treetop level. "It was going right over our hayfield," Mrs. Oakland said. "I jumped out of my chair. It seemed to be making a straight line for the Randolph Center water tower, which we can see from Barnard, 20 miles away, on a clear day."

"I've never seen anything like it in my life," swore Lorraine Alexander of Vernon, about 85 miles southeast of Randolph. "I saw it fly by my window, a great, big, red ball of fire. It was too big to be a falling star. It was moving northwest over the atomic plant (Vermont Yankee) and I expected to see a big crash, but nothing else happened."

Can people in five towns—one at least 85 miles from the others—have each seen the same thing appearing to crash almost in their back yards? Can flying triangles participate in a light show with police and firemen?

Are people of the Green Mountain State undergoing some sort of mass, hallucinogenic psychosis? Are they seeing Russian spy ships or secret American military technology? Northern lights? Southern Comfort?

Or are we indeed not alone? Could it be that Vermonters are getting together with extraterrestrial flatlanders, so to speak?

In the words of Windsor Police Sgt. Richard Polland: "They're there, whatever they are. You figure it out."



This article originally appeared in the April 4, 1982 issue of Vermonter, *Sunday magazine of* The Burlington Free Press, *Burlington, Vt., and is reprinted by permission.*

The Politics of Water

by Christopher Bird

Chapter 9 of *The Divining Hand* by Christopher Bird (E. P. Dutton, New York)
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Our Fourth Quarter 1981 issue (*Pursuit* No. 56) excerpted Chapter 8 of SITU member Chris Bird's book *The Divining Hand* which recounted the amazing achievements of engineer Stephan Reiss: he found "new water" where no one else could, to satisfy the ever-growing, ever-thirsty population of the U.S. West. Reiss' story continues in the following Chapter 9 from Bird's book.

Three Wells Worth a Million

REISS decided that what he had accomplished at Nelson, Nevada, could be duplicated almost anywhere. To test his theory at his own expense, he purchased a barren plot half the size of a football field in Black Canyon, an arid rocky cleft in the Susana Knolls above Simi Valley between Ventura and Los Angeles, where all signs indicated to him an excellent chance of tapping "primary water," as he called it.

When pumped, the very first well he put down caused a brook to cascade down the hill and inundate the railroad track in the valley below. Two more wells combined with the first to produce 3,000 gpm of water, enough to supply the daily needs of 10,000 people. Visiting neighbors stared open-mouthed at his lush garden, complete with pool and an aviary filled with macaws, cockatoos, and other tropical parrots, one of which, whenever Reiss started up his pump, would shriek: "Oh, boy, water, water, water!" Reiss was glad to allow some of his neighbors, in dire straights for water, to pipe it free of charge from his copious supply.

News of the mining engineer's success spread throughout Ventura County and elicited increasing demands for his knowledge. The owner of the new Sinaloa Ranch was able to subdivide his property after Reiss found him a source of water big enough for a housing development. When Hans Wilhelm Rohl, a multimillionaire contractor who had helped to build the strategic Alaska Highway, acquired the 5,000-acre *Rancho Dos Vientos* at the western end of Portrero Valley, Reiss multiplied its worth from $100,000 to $500,000 by bringing in two wells abundant enough to create a small lake.

Two wells drilled during an extended drought on a wilting lemon orchard owned by San Francisco dentist, Dr. John C. Campbell, produced what their owner called the "best, sweetest water in the whole valley." Another citrus operation owned by the chief pathologist at the Santa Monica Hospital was saved when Reiss bored him two wells each producing more than 400 gallons per minute.

None of Reiss's wells was as appreciated as the one sunk for Candido Ivaro near Camarillo. A worker on the ranch of a descendant of one of the original holders of a California land grant issued by the Spanish king—for whom the town of Camarillo is named today—Ivaro had been given twenty-six acres of land by his boss for years of faithful service. On his new holding, Ivaro spent his savings—and five years of his life—to establish a nursery of 30,000 lemon seedlings. Just as they were about ready for grafting and sale, they began dying from lack of water. The two wells on his property, drilled to 224 and 473 feet, had gone dry.

When, in 1955, Reiss's wife Thelma heard of Ivaro's plight at a garden club meeting, she asked her husband to see if he could help the nurseryman, who was rumored to be so depressed at his potential ruin that he was on the verge of suicide. In the middle of Ivaro's small holding, less than fifty yards from one of the dry wells, Reiss drilled to 234 feet to produce 550 gpm, an amount limited only by the capacity of the pump. By coincidence, the day following the first pumping of the well fell on *Cinco de Mayo,* the popular festival commemorating the Mexican victory over superior French forces at Puebla in 1862.

"I never knew there were so many Mexicans in the county until then," remembers Reiss. "They all heard over the grapevine about Ivaro's new well and swarmed to his property for a celebration. By that time, water was filling up huge depressions on his land with kids frolicking and swimming in it. There were cases of Mexican beer, baskets of tacos, and bowls of guacamole, laughter and guitar-playing and singing."

Ivaro was ecstatic. "The pump goes night and day," he later told friends and neighbors, "and the water always stays at about eighty-five feet in the pipe. Around here, in July and August, when everyone is pumping, the wells always drop. But not mine. It's always the same."

Reiss's activities in the dry region west of Los Angeles began to irritate hydrogeologic experts at the California Water Resources Division (WRD) who were receiving reports and queries about Reiss's method for water location that were as welcome to them as Willey's queries on dowsing had been to the U.S. Geological Survey. To this was added public confusion stemming from a basic question: If water was available locally in the amounts suggested by Reiss's work, why were southern California politicians insisting that future supplies were *only* developable through more systems such as those that had already been engineered to transport water from faraway Lake Crowley high above Bishop on the east side of the Sierra Nevada, and from the equally distant reservoir impounded behind Parker Dam on the Colorado River?

Fanning the flames of the controversy was a two-part article in the 1953 issue of *Fortnight,* a southern California magazine: "Revolution in Water Seeking: Steve Reiss Has a New Idea of How to Look for Water and 69 Wells to Support His Theory." If results mean anything to scientists, challenged the magazine, Reiss's theories of water's origin ought to be investigated. It added that though they had been borne out in practice, they had all the deadweight of hydrologic dogma against them.

Fortnight diagnosed what really was at issue: the money being made in the vast water transport schemes so irresistible to California's financial and political leadership. Greed was blocking methods for locating wells which,

if generally adopted and used on a large scale, would amount to the discovery of a new continent.

The article so aroused the ire of WRD officials that they at once initiated an investigation of the wells brought in by Reiss. That it relied more on hearsay than on solid fact-finding was evidenced by its admission that WRD agents addressed questions to persons "living in or having knowledge of" the water situation in areas where Reiss had developed wells—rather than to those property owners who were amply profiting from the wells' output. Thus, the report characterized the wells sunk for Dr. Campbell as only "apparently satisfactory according to a neighbor," though "no production data were available." The same wells continue to irrigate lemon groves today.

The WRD report characterized Reiss's own wells at Simi as being placed "to pump rain and runoff water underlying the hillside." He was only mining water which had been collecting for past centuries, they added, and ultimately his wells would run dry. When he read the report to his friends, Reiss laughed wryly and told them: "I have pumped 100 million cubic feet of water from those wells, a volume equal to the hill itself. If this is *contained* water, there is now 100 million cubic feet of *void* under that hill, and I don't know what's holding it up."

If the WRD experts had taken the trouble to ask, Reiss could have furnished them with a tape-recording of the water flowing underground made by lowering a microphone down one of the well shafts to a point some 200 feet below the earth's surface. The water rushing through rock sounded to most ears like a bubbling cauldron accompanied by distant kettledrums and reminded one minister of the church of the passage of Genesis that referred to "subterranean waters bursting forth upon the earth."

The question of productivity was finally settled, not by the biased report of the government investigators, but by Clint Murchison, Texas oil and gas tycoon who, attracted by press accounts of the Reiss wells, offered to buy them. Before the sale was completed, Murchison sent his own engineers from Texas to the Black Canyon site where over a period of *eighteen months* they tested the wells to prove their worth as an endurable water supply for large housing tracts Murchison wished to develop in Simi Valley. Murchison was obviously satisfied with the tests. In September 1955, the Ventura County *Star-Free Press* reported that he had agreed to purchase the three wells for one million dollars in a deal that made the small plot of land into which they had been drilled one of the most expensive pieces of real estate in California.

From Lakeside to Eilat

When he learned of the transaction, Burton Arnds, president of Sparklett's Drinking Water, a firm supplying fresh water in five-gallon bottles all over southern California, decided to take action. Arnds had put a lot of money into a plant at Lakeside in San Diego County where at the advice of WRD specialists he had drilled three wells, each of which initially supplied 100 gpm. Within six months, the bottler was dismayed to observe that his water supply was not only becoming progressively more mineralized—or, in folk parlance, "harder" —but was in fact beginning to run out. The water officials told him the water table below the valley was getting lower and that continued pumping might exhaust his wells. After driving all the way to Simi to have a look at what Murchison had purchased, Arnds offered Reiss a contract to find him a well that could save his Lakeside bottling plant from disaster. Reiss's careful study of the surface geology of the surrounding region and petrographic analysis of various rock types, led him to begin drilling, not in a brand new spot, but at the bottom of a 400-foot well that had gone dry.

When the diamond-core drill bit twisted down some 500 feet lower, it encountered a large crevice in the rock and water burst up out of the hole to spray the drillers before settling back to twenty feet below the surface of the ground. Finished in 1955, the same well continues, in 1979, to furnish 300 gpm of high-grade water. In case of emergency Reiss located another equally productive well not fifty yards from the first. The second well has never been used.

"With two babies like these," Reiss told visitors to the Sparklett's Lakeside plant in 1977, "we could supply all water needs for a large community. The one you see pumping is a sample of thousands we could drill in the United States and other countries, to provide water at much lower cost than normal."

Arnds's good fortune, far from serving to inspire WRD officials to investigate Reiss's methods, goaded them into enlisting the aid of academic geologists in their effort to discredit him. First to attack was Dr. Ulysses S. Grant, IV, professor at the University of California at Los Angeles who asked publicly why, if Reiss's methods were so good, he had not published something about them in a scientific journal. Next came University of California ground water geologist, Dr. John F. Mann, Jr., who warned his television audience that Reiss's ideas about a source of what he now called "primary water" were delusional.

The altercation came to the attention of Kimmis Hendrick, Chief of the Pacific News Bureau of the *Christian Science Monitor,* who investigated its background. He found that Mann had recommended a well site on a large farm newly purchased in the Anza Valley by specialty crop farmer Harry Pursche, who had already fruitlessly expended $40,000 to drill for irrigation water. Called in as a consultant, Mann told Pursche that his only chance was to probe a sand fill where "water might have collected." Five hundred and ninety-three feet and another $12,000 later, Pursche had only 4 gallons per minute, wholly insufficient for his needs.

Told of the farmer's plight by Hendrick, Reiss had Pursche bulldoze a road up a 350-foot-high granite hillock and clear a flat space for a water-drilling rig. News of this undertaking spread through the valley and attracted the attention of state geologists working in the area who informed their home office in Sacramento about the development. The next day six members of the WRD arrived at the Pursche spread to warn its owner that his new attempt to locate irrigation water would only add a preposterous sequel to his lengthy saga of hard luck. One of them personally guaranteed to drink every drop of water that came out of the hard rock underlying Reiss's site.

Reiss's answer was to *predict before any drilling commenced* that he would strike water at 300-310 feet in a volume ranging from 300-1,000 gpm. The first water

came in at 302 feet. The following morning the drill stem would not turn. Something in the hole was blocking its normal rotation. A bailer put down the well to retrieve whatever might be causing the blockage dredged up fistfuls of steel ball bearings. Within two days, three large bucketfuls of bearings had been removed. In an effort to prove the well worthless, someone had thrown them down the hole under cover of night to prevent further drilling.

When the well was finally finished and cased, a 500-gallon capacity pump was lowered into the hole. Powered by one of Pursche's tractors, it pumped steadily for sixty hours. Neighbors for miles around who had gathered at the well were no less dumbfounded by the find than Professor Mann who nevertheless continued to insist that Reiss had "just been lucky." In spite of this belittlement, the WRD had no choice but to report that "initial production of the well compares very favorably with the best previous wells in the area. For limited periods it has pumped as much as 1,030 gallons per minute, and it has pumped an estimated 400 gpm 'nearly continuously' for over thirty days."

By 1958 Reiss's exploits came to the attention of the Israeli government, which invited the mining engineer to find water for the new city of Eilat on the Red Sea's Gulf of Aqaba. After a flight to Tel Aviv, he met with then Prime Minister David Ben-Gurion and his advisors who urged him to go ahead with his search as soon as possible. Less enthusiastic were a group of leading Israeli geologists who, like their American counterparts, vigorously opposed Reiss's theory of water development. "Only after a protracted session during which I explained it," Reiss later said, "did they agree that my proposal had merit." This was confirmed by Israel's chief water geologist who is occupied with water research in arid zones. "I am fully aware of the limitations of our orthodox methods in geohydrological prospecting and am much impressed by the glimpse I got of the new methods offered by Mr. Reiss, recognizing the unfathomed possibilities which may be opening up before us while applying these methods. I decided, encouraged by my superiors, to cooperate with Mr. Reiss's research for primary waters in our arid zones."

High in the mountainous country along the Israel-Jordan border, Reiss located a well about a mile and a half from Eilat itself. "The site chosen," wrote Meir Ben-Dov in the *Jerusalem Post,* "is where a five-meter-wide cleft, running vertically through the mountain, is crossed at right angles by a similar cleft, hardly twenty centimeters across. The bowels of the earth in erupting have filled these clefts with an igneous intrusion of a soft, soapy-feeling, mottled brown rock called gabbro. The drill slowly worked its way downward, alternately in igneous intrusion and again in granite as the cleft in the rock snaked its way downward."

During the work, problems linked to cave-ins and the jamming of drill pieces beyond the Israeli drilling team's experience were finally solved when Reiss's associate, James Scott, who had worked with him on many wells over the years, was sent to Israel to supervise operations.

On May 29, 1959, the *Jerusalem Post* estimated that the amount of water struck in the Reiss-located well was enough to supply a city of more than 100,000 persons including industry, air-conditioning, parks, gardens, and a dozen outlying villages. Analysis of the water, stated the newspaper, revealed that the Eilatis, used to drinking water with 3,000 parts per million of dissolved mineral salts, now had a supply with only 1/6 that amount. For his work in Israel, Ben-Gurion presented Reiss with a medal and his wife with a silver-bound copy of the Talmud in English.

The astounding find was not lost on Arab leaders. Invited to Cairo by Egypt's Gamal Abdel Nasser, Reiss became the only exception to a rigid years-long stricture prohibiting Americans who had visited Israel from setting foot in Arab lands. Along the Nile he located several water wells in rock for prominent Egyptians before flying on to the Sudan where a revolution disrupted his planned exploration.

On a homeward-bound visit to Cyprus, Reiss was interviewed in Nicosia by an English-language newspaper reporter investigating new approaches to finding water. The reporter had read a long letter written by Henry Gross, a dowser living in Maine who achieved fame when, working over a map of Bermuda on his kitchen table in Portland, he accurately dowsed fresh water in the British Island colony which ever since its settlement had depended on captured rain or imports for its needs. Gross's confirmed predictions had so impressed the celebrated American historical novelist, Kenneth Roberts, that he wrote not one, but three books on Gross's dowsing finds that are now dowsing classics.*

The Purest of Waters

In his letter Gross maintained that his dowsing rod indicated no less than fourteen "primary domes" of fresh water in the hills and mountains of Cyprus. Without telling Reiss about the dowser's report, the investigative journalist asked the mining engineer what he thought of the possibility of finding badly needed supplies of water on the island. Reiss replied: "I am convinced that abundant supplies of water are available to the people of Cyprus, right below their feet and flowing in deep-seated solid rock fissures that could be scientifically located. Man has overlooked 'primary water' that has never been seen on the face of the earth. Even more importantly, it cannot be contaminated by nuclear fallout or surface pollution as can reservoirs aboveground."

To test his theory, Reiss sank a series of deep wells in the desert country stretching from far up the Owens River Valley all the way to the Salton Sea out of which water exploded in geysers that shot into the air sometimes higher than the towers of the drill rigs. One of them was drilled on a plot of land he himself had purchased for a song. When it produced plentiful water, he resold at a $139,000 profit. Near an anomalous hemisphere-shaped hillock on the otherwise flat desert southeast of the hamlet of Randsburg he sunk two wells which, together with a third drilled a few miles distant, today supply all the water for California City, as the settlement pioneered by the developers was christened.

Reiss's findings were supplemented by a quarter-of-a-million-dollar study which concluded that water travelling in the fault system under the desert had nothing in common with any water in "alluvium sedimentary aquifers," *i.e.,* the water table. The chief coordinator of the

**Henry Gross and His Dowsing Rod*, 1951; *The Seventh Sense*, 1953; *Water Unlimited*, 1957; all Doubleday & Company, Garden City, N.Y.

study, Olindo Romulus Angelillo, a registered civil engineer, told the *Christian Science Monitor* that more than a million acre-feet flowed under the desert. "A million acre-feet," the *Monitor* commented, "is a staggering amount of water. It is enough to meet the annual needs of five million people. It is three times as much as the Los Angeles Metropolitan Water District gets from the Owens River, which for nearly half a century has been the city's main source of water supply. It is twice as much as the eighty-three cities in the Los Angeles Metropolitan area draw annually from the Colorado River. It is more than half as much as southern California hopes to get someday from the Feather River."

The Feather River Project to which the newspaper referred was at the time provoking one of the most acerbic debates in California history. It proposed to dam the river at a junction with one of its forks near Oroville, some sixty miles north of Sacramento and channel part of the impounded water hundreds of miles to the arid southland. The projected transportation system was to be the biggest water supply scheme ever undertaken in human history. Estimated in 1959 to cost at least $14 billion, it has since proved to be many billions more expensive.

Every man, woman, and child in California, and unborn generations as well, were to be saddled with water taxes to pay off bonds financing the scheme. The announcement that a huge supply of water might be tappable under the Mojave seemed to pose a threat to California's Governor Edmund G. "Pat" Brown, who had politically committed himself to the project and to the groups supporting it—bonding companies, banks, construction firms, materials suppliers, and others—who stood to make sizable profits.

450 Miles or 450 Feet?

Back home in California Reiss was approached by a group of developers contemplating the establishment of a brand new city in the Mojave Desert to provide the public with an option of living in a noncongested area. What they badly needed was a supply of water. This was all Reiss needed to prove another theory he had developed—that a supply of water ran under the Mojave large enough to supply the needs of all of southern California. He knew that the agricultural empire in California's Central Valley had been brought into being by water flowing in a dozen or more rivers down the west slopes of the Sierra Nevada. On the eastern side of the divide, however, hardly any surface water flow could be observed, in spite of the fact that a massive 50 million acre-feet of water had been estimated by the U.S. Forest Service, the Bureau of Land Management, and other government agencies to collect there in winter as in the snow pack.

In the Owens River Valley along the road to Lone Pine and Big Pine east of Sequoia National Park, Reiss discovered that if he walked three or four miles up into dozens of bone-dry deep gash canyons, he would encounter streams full of fish, which disappeared into the earth. He came to the conclusion that a large part of the snowmelt flowed only part way down the eastern side of the Sierra before disappearing into the crushed and fractured rocky system. If this were so, an enormous river network should be flowing underground to exit into the ocean.

As the *Monitor* summed up the enormous implications: "The find could change the whole character of the western quest for water. It conceivably could make pointless the longstanding fight between the western states over the water of the Colorado River. It could make equally pointless the divisive bickering between northern and southern California over the destiny of the Feather River."

In the midst of a heated campaign to put across to the California public the urgent need to vote for the Feather River Project, Reiss contracted with the San Bernadino Municipal Water District (SBMWD) to drill wells sufficient to supply the needs of huge San Bernadino County *in perpetuo* for a sum infinitesimally smaller than that to be levied against the district as its share of the Feather River Project. Reiss's first well for the SBMWD, brought in a Yucaipa, delivered 900 gpm in 600 feet of solid granite. A movie of the well pumping water was screened by excited county officials to prove that county residents did not necessarily have to bear the yoke of an expensive bond issue. When the well was on the point of being accepted by the SBMWD, Reiss was summoned to a private meeting with its manager who shamefacedly told him that he had been asked by Governor Brown to shut down the well. Flabbergasted, Reiss asked why. "Because," admitted the SBMWD manager, "he felt that if you couldn't be stopped from running around the country bringing in maverick water wells, the whole bonding issue was in jeopardy."

Having no choice but to defend himself against political skulduggery, Reiss went to court to collect some $200,000 in costs that he had personally incurred in the SBMWD drilling. The court accepted evidence from State Water Division engineers who, as Reiss puts it, "had just left school," that the well he had put down would not produce the water claimed for it. Reiss lost his case both in the lower and the appeals courts but finally won when the decision was reversed in the Supreme Court of California. Not wishing to add to the tax burden of ordinary citizens, he declined to sue for the full $7 million amount of his contract.

Angry and hurt, Reiss carried his case to the public by testifying before a Select Committee on National Water Resources of the United States Senate in Los Angeles in October 1959. He began by pointing out that conventional solutions to an ever-increasing need for pure water differed but little from ancient methods of transporting water on mule back or through such aqueduct systems as those built in classical Roman times. Prophetically, Reiss told the committeemen that not only were safe areas for dam building fast running out in the United States, but that dams represented no long-term solution because, in the end, silt collecting behind them would eventually create mudlfats for beavers and waterfalls, if the dams themselves did not burst beforehand.

As an alternative, Reiss proposed serious study of water flowing in rock fissures. "Why should huge sums be spent to build pipe lines over great distances when Mother Nature has created her own pipe lines?" he asked the committee. "It is certainly far more economical to pump water vertically up 450 feet than to pump it and transport it laterally for 450 miles!"

To counter the force of Reiss's arguments, the California Director of Water Resources rushed into print with

(Continued on page 34)



The Chinese Connection

EVIDENCE OF TRANS-PACIFIC VOYAGES IN PRE-COLUMBIAN TIMES

by Diane E. Wirth

Olmec terra-cotta head with Chinese features. After photograph from *Ancient Egyptians and Chinese in America* by R. A. Jairazbhoy, Rowman & Littlefield (1974).

ACCORDING TO ancient records,[1] Chinese Buddhist monks visited the land of Fusang in the year 458 of our era. Fusang was described as being 20,000 li, or about 6,500 miles from China, and the breadth of the strange land was said to be 10,000 li, or approximately 3,250 miles. The records also mention a wide sea beyond the land-mass.[2]

Is this an historical account of Chinese travelers who reached America a thousand years before Columbus? Let us examine the account, along with other possible Eastern-Western similarities, to see what evidence we gather. . . .

The narrative states that, during the reign of China's Emperor Yung Yuan, a Buddhist monk named Hui Shen returned from a strange land in 499 A.D. Hui Shen is said to have arrived in Fusang in 458 A.D. in company with other Buddhist monks; however, the records show that only Hui Shen returned to China. As part of their priestly duties, the monks taught principles of Buddhism to the natives through the use of religious books and images. Hui Shen wrote up their mission as a success in his report.[3]

It may have been because the monks were so impressed by the many uses of the fusang tree that they named the land Fusang. Fusang trees had leaves resembling bamboo shoots; the red, pear-shaped fruit was edible; and the bark was used to make cloth and paper. Scholars have searched long and hard for the fusang tree to help identify the location of the land called Fusang, for no such tree grew in or around China. In recent times, two lines of thought have developed, and both lead to the American continent.

In her book *Pale Ink*, Henriette Mertz theorizes that the pear-shaped, red fruit of the fusang must be corn. Her reasoning: the fruit of the fusang was said to last a year without spoilage, and the husk growing over an ear of corn and the green stalks in a cornfield bear close resemblance to young bamboo. As for the color red, Mertz notes that wild corn comes naturally in a variety of colors, including red.[4]

Deng Tuo, a contemporary Chinese historian, takes a different view. He identifies the fusang tree as the cactus-like century plant of Mexico.[5] This *agave* was used by the Indians for hundreds of years for paper, food, drink and clothing.

Hui Shen's account of the enigmatic land across the sea draws many parallels with pre-Columbian cultures, such as the customs and traditions of the people, portions of religious beliefs, types of food and clothing, procedures of government and conduct of the military, construction of living quarters, and layout of villages.

George F. Carter, a professor of geography at Texas A&M University, has studied the theory of diffusion (i.e., transoceanic voyages). He notes that both the American variety of peanut and the American hibiscus reached China before the time of Christ.[6] Thus we are given a nice bit of living evidence that the Chinese not only crossed to America but also returned home, much as the account of Fusang relates.

A Difference of 9,000 Years

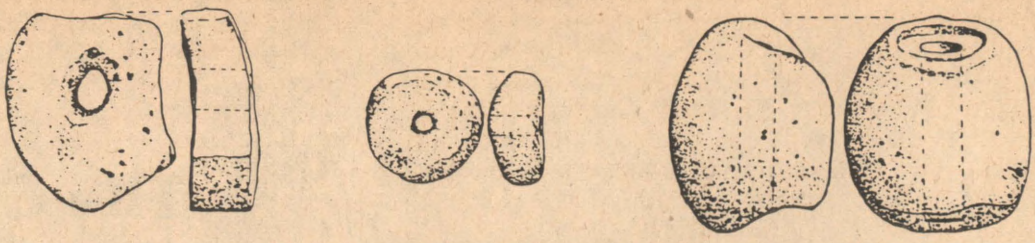
Do scientists today readily accept ancient voyages to the Americas from the East? In the words of Betty J. Meggers of the Smithsonian Institution, "Aside from cultural evolution, no theory has provoked more violent dissension among anthropologists than trans-Pacific contact."[7] Wherein does the principal controversy lie?

Fig. 1

(left) Weight anchor, Palos Verdes

(center) Line weight, Patton Escarpment

(right) Boom-hoist counterweight, Palos Verdes



From "Stone Anchors: Asiatic Shipwrecks Off the California Coast" by Larry Pierson and James Moriarty, *Anthropological Journal of Canada*, Vol. 18, No. 3, 1980.

Thomas Jefferson was among the first to put forward the Bering Strait concept, suggesting that man arrived in North America by way of Asia, across a "land-bridge" which connected the two continents about 10,000 years ago. From Jefferson's times onward, even to the present, this theory has enjoyed wide acceptance despite the scarcity of supporting evidence. A large-scale migration from Asia 10,000 years ago would not account for the numerous cultural similarities between the Far East and the New World that by proof date to about 1,000 years ago. The artifacts suggest the influence of a rather *small* number of Asians—way below any number that could have produced the large populace which existed.

If man didn't come solely over the Bering landbridge, where else could he have come from? Archeologists are looking in many directions for answers. A great deal of information has been published which seems to connect land masses across the Atlantic with early America, and lands to the west (i.e., the Far East) are not being overlooked, but a number of problems remain. For example:

Blood types of the American Indian do not correspond to the Mongoloid but seem to bear a closer relationship to European and Near Eastern types. Among Asians, blood types A and B are most common; among American Indians, type O predominates. Except for the Eskimos, blood group B is virtually nonexistent among American Indians.[8] Also bothersome: ". . . a rare gene in the so-called Diego blood-group series is found almost exclusively among Asians and American Indians and is almost entirely absent among Europeans and Africans."[9]

Since it may be years before science gets around to a comprehensive study of the blood-chemistry relationship between ancestral races, let us turn now to the tangible evidence of a China Connection. There is much to examine, many questions to be answered, and some new questions are likely to be raised.

James Robert Moriarty, an archeologist at the University of San Diego, has been investigating recently discovered Chinese-type stone cylinders and circular stone anchors found off the coast of California (Fig. 1). After analyzing an accumulation of manganese on a donut-shaped stone from southern California, Dr. Moriarty claimed it was about 3,000 years old and of Asiatic origin.[10] He believes that the 3mm-thick coating of managanese and other physical evidence indicates an artifact of great antiquity which, in his opinion, strongly supports the hypothesis that Asiatic vessels reached the Americas in pre-Columbian times.[11]

Stone anchors, such as those researched by the San Diego scientist, were once used in China and were referred to as "stone pillars" dropped into water. From a description in *Records of Buddhist Countries*, written by a monk named Faxian (A.D. 317-420), the objects used at this early date appear similar to those found off the California coast.[12] Besides the stone weights that prompted Dr. Moriarty's investigation, eight readily identifiable objects—various types of anchors and ballasts made of feldspathic sandstone—have been brought up by divers from the vicinity of Palos Verdes, California. Geologists who have examined the stone say that it could not have come from North America; they note, however, a close match to samples taken from quarries near the southern coast of China.[13]

Some historians speculate that if and when a trans-Pacific link is finally put in place, the eastern end will be tied to a location in South America, perhaps along the coast of Peru; they discount the possibility that primitive seafarers could have made passage through the storm-tossed northern reaches of the Pacific. However, the artifactual evidence presently located combines with some knowledge of early navigational practices to suggest that the route taken by ancient mariners was the Kuro Shiwo, the name given by the Japanese to their "Black Current" which flows eastward from their islands, passes along the south shores of the Aleutians, and finally reaches the coasts of America. Many junks have been known to head into the Pacific, to be propelled by fitful currents or blown helplessly across the ocean, to end up as splintered wrecks on American shores.[14] Prof. Carter strengthens this view: "As experts in primitive watercraft tell us, the problem is not navigation, but *survival*; anyone adrift at sea is bound to hit a continent."[15]

Gordon F. Ekholm, curator of Mexican archeology at the American Museum of Natural History, has noted in his work on the subject that Chinese literary accounts contain more than one example of extensive shipping, around A.D. 400.[16] Another expert, Walter Krickeberg, has determined from ancient writings that the ships, with crews of at least 200, were larger than those used by Columbus a thousand years later.[17]

Visual Aids for Ancient Mariners

Chinese sailors were as skilled as any primitive seafarers in estimating position, course and direction from careful study of the stars by night. Another navigational aid, the magnetic compass, was known in principle to the Chinese from very early times, and it is possible that compass bearings might have helped more than one ship set course toward the strange land to the east, as long ago as the 1st century.

We don't know how the Chinese got here, or whether it was by planned voyage or accident, but the evidence accumulated thus far suggests that the tale of the Buddhist monk, Hui Shen, may one day be accepted as an historical account of accurate perception and much truth. Meanwhile, our investigation will be advanced by a look for evidence of early Chinese presence in America. We need to know what kind of impression, if any, it made on pre-Columbian civilization in this hemisphere.

An age-old argument against the diffusion theory is the lack of prominent tools, art styles and archeological forms brought to the New World by Old World people. Agreement that certain artifacts originated in a distant region does not satisfy a thirst for specifics, and these are seldom easy to come by. Such things as wheeled vehicles (Fig. 2) are not necessarily evidence of Chinese contact. Small wheeled objects were also anciently used in Europe, the Near East, India and Japan, as well as China. What we have to look for, in order to be specific, are those artistic styles *peculiar to China* that are also found in the cultures of pre-Columbian America.

Dr. Ekholm and others say there is evidence of several trips from Asia to America:

—During the Shang dynasty (16th century B.C. to 1027 B.C.), which corresponds to the early portion of the Olmec culture in Mexico and the Chavin culture in South America, and

—During the Mesoamerican "classic period" which correponds to the Han dynasty (206 B.C. to A.D. 24).[18]

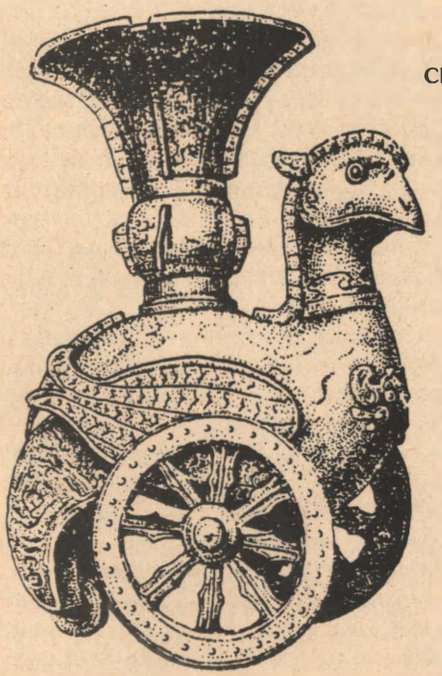
If Buddhist monks crossed the Pacific to America as the Fusang epic relates, we could count yet another successful voyage. And Henriette Mertz suggests that an even earlier trip was completed about 2250 B.C. She cites an account of that expedition which was compiled for the Emperor Sun by Yu, his minister of public works. A monumental history, it bore the title "Shan hai Jing," (translated as "Classic of Mountains and Seas") and described lands which Mertz believes could only be portions of western North America.[19] Using the Ekholm and Mertz time-guidelines, we are led to our first clues to similarity between Chinese and American early cultures. The locale is the southern portion of the state of Veracruz and the state of Tabasco, along the Gulf Coast of Mexico, where the Olmec civilization flourished for many centuries before the dawn of the Christian era.

Testimony of Jade, Cats, and Pottery

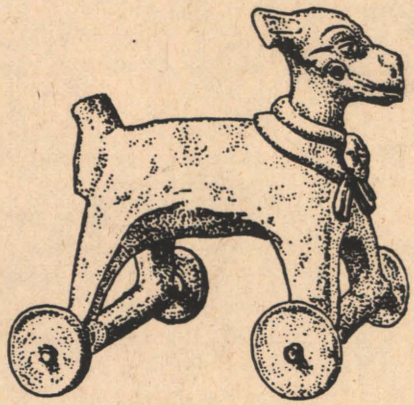
An unexplained aspect of Olmec society is the way it managed to arrive on the scene with an integrated culture by 1200 B.C. The Olmecs seem to have skipped the usual developmental stages between early food-gathering and organized village life. How any peoples could have arrived anywhere in the New World with ways and means so far in advance of their time can be understood only in the light of the diffusion theory. The use of jade objects among the early Olmecs is a beginning argument in pleading the Case of the China Connection.

C. Balser, in his extensive study of jade, concludes that there are significant parallels in technique between Olmec and Chinese jade-carving: cutting with wooden slats, perforating with pressure drills, and polishing with abrasives.[20] In both cultures, east and west, jade was considered to be a most precious mineral, superior to gold. A custom common to both cultures decreed the placing of a piece of jade in the mouth of the deceased, symbolizing the quitclaim of mother earth, fertility, and life.

Fig. 2 Miniature wheeled vehicles

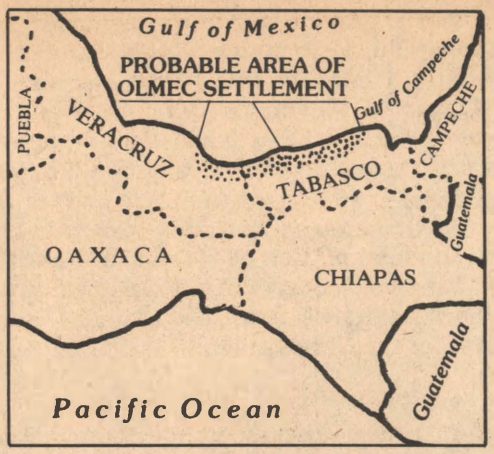


China, attributable to the Han Dynasty



Tres Zapotes, Veracruz, Mexico

Reprinted from "Transpacific Contacts" by Gordon F. Ekholm, *Prehistoric Man in the New World*, by permission of the University of Chicago Press for Rice University (1964)



Southern Mexico was the home of the Olmecs

As long ago as the middle and late 1800s, scholars were saying that jade found in Mexico and dated to pre-Columbian times, was *imported* Asiatic jade.[21] On view at a meeting of the American Antiquarian Society was a collection of tools and ornaments brought from Costa Rica. Members learned that the jadeite and chloromelanite from which the objects were fashioned were minerals found mostly in Asia. In his report on chemical testing of the items, a Harvard professor declared them to be "unquestionably Chinese jade."[22]

Another interesting link between the Olmecs and the Chinese was their association with the feline; in the case of the Olmecs, it was the jaguar, whereas the tiger reigned supreme in ancient China. The feline became the symbol of an obsessive cult, memorialized with equal fervor on both sides of the Pacific. The two cultures stylized the subject almost to the point of confusion, yet continuity of design was always manifest.[23] Parallel treatment of the feline design is clearly seen in a comparison of artifacts from Chinese and American cultures of about the same period (Fig. 3).

Fig. 3 Jaguar designs



From *In Quest of the White God* by Pierre Honore, G. P. Putnam's Sons, New York (1964)

A talent for pottery making enriched the two cultures, and each attained a high level of similar craftsmanship. Dr. Ekholm believes this demanding craft could not have become so well-developed in America without influence from Asia. He cites evidence that the skills which produced the cord-making pottery of northwestern North America and the early pottery of Ecuador came from the same Asiatic source.[24] Similarity of style and design is also apparent in tripod vessels from both China and Guatemala (Fig. 4).

Many more parallels have been found in two-dimensional patterns, especially those on bas-relief panels. Some Mesoamerican panels which portray human figures holding the stem of a lotus plant are quite like those portrayed in southern India; they lack any semblance of connection to China. Other examples reflect a likeness so close as to deny the possibility of coincidence (Fig. 5). For example, the panel from the Chou dynasty in China and the panel from Veracruz, Mexico, feature interlaced bands with double outlines, and both portray dragon-like masks.[25] Some scholars question such evidence and call attention to the dating problem: the Chou dynasty ended in 256 B.C. and the Tajin style at Veracruz did not develop until about six centuries later. But Dr. Ekholm rebuts with a reminder that transplanted arts and crafts may need much time to flower in a new homeland. He urges special caution in cases where most of the evidence, along with the race that produced it, has long since disappeared. Of the dating problem he writes:

> There are various possible explanations. Contacts could have occurred closer to the time of the full development of the style in Asia, and it could have been maintained in wood-carving for hundreds of years before it appeared in stone in Veracruz. . . .[26]

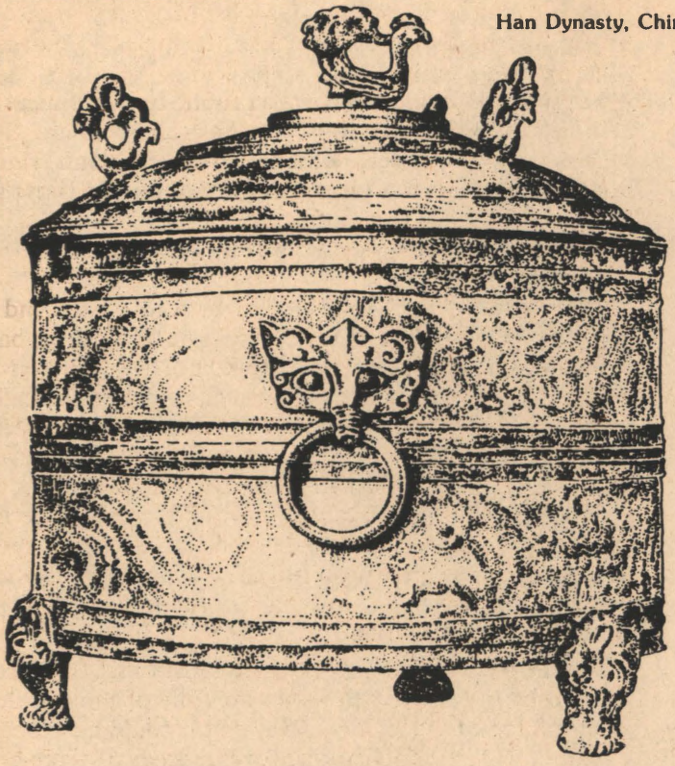
Most remains of the past have come down to us as stone, mineral and clay objects. Such things as cloth, wood and other materials that deteriorate with time were also of primary importance. Since absent artifacts have no standing in the courts of academic or public opinion, the most we can say about the panel designs is that they offer reasonable but inconclusive evidence in favor of the Chinese Connection.

Favorable evidence may also be adduced from a comparison of the batons and celts* used to denote rank and position of officers in the two governments, the one in the land of the Olmecs, the other in ancient China. The celts are identical in style[27] and the batons are close look-alikes. Sovereigns of the Shang dynasty used jade batons while receiving officials, and batons were carried as symbols of authority by Chinese feudal lords. Olmec illustrations show dignitaries holding batons in an apparent ceremony of greeting foreigners.[28]

What about evidence of similar racial characteristics? We do not know which blood type was predominant among the Olmecs because they are long gone as a race, but we do have terra-cotta portraits and bas-reliefs which are authenticated by location and dating. These tell us that the Olmec people were a diversified conglomerate of many races, including Caucasian, Mongoloid, Semitic, Negroid, and what Alexander von Wuthenau has called the "real Chinese."[29] Extensive study of pre-Columbian terra-cotta pottery was the basis for von Wuthenau's reference to Chinese influence, and in the facial lines of a terra-cotta head at the Museum of Diego Rivera in Mexico City (see frontispiece) is noteworthy evidence that at least one Olmec had Chinese features.

*Ancient celts were chisel-like batons.

Fig. 4 Cylindrical tripod vessels from Asia and America



Han Dynasty, China, bronze



Tikal, Guatemala

Reprinted from "Transpacific Contacts" by Gordon F. Ekholm, *Prehistoric Man in the New World*, by permission of the University of Chicago Press

On Earth as It Was in Heaven

The unseen cosmos was of great importance to most ancient civilizations. To the mind's eye of Mesoamerica it brought visions of "reality." Structures were planned and laid out toward the cardinal directions, with emphasis on the north-south axis. We find an identical practice among the Shang, in China. Both cultures envisioned four seas in the four directions, four colors, four deities, and four elements; the map of the heavens was divided into four parts, each assigned a cardinal point.[30]

Since cosmology was a vital part of both Mesoamerica and ancient Chinese philosophy, it comes as no surprise that the Maya and other pre-Columbians had calendars comparable to those of the Far East; both used a pattern of cyclical repetition and worked through two periods of different length. Several coinciding figures of the zodiac are also worth noting:

China	*Mexico*
Red bird	Vulture
White tiger (but in early times, dog)	Dog
Black warrior on a tortoise	Death's head
Green dragon	Crocodile
Four cosmic beings	Masks of four regents[31]

Fig. 5 Jaguar panel designs

China, Chou Dynasty





El Tajin, Veracruz, Mexico

From *Mexico South* by Miguel Covarrubias, Alfred A. Knopf (1964)

These calendrical calculations were recorded in frescos and stone, and in codices (i.e., books). The Chinese and the Aztec-Mayan people were papermakers. Both cultures bound their writings into codex form with the pages folded fan-like between board covers. The writing went from right to left and from top to bottom. The two systems are identical; the Chinese continue to write from right to left, from top to bottom, and in a circuit opposite the course of the sun. Aztec-Mayan scribes used the same codex format, similar paper, and a brush.[32]

Fig. 7 Granite inscribed sculpture, Granby, Colorado



From "Ancient Chinese Sojourns in the Beautiful Continent" by Cyclone Covey, *The Wake Forest Magazine*, March 1972.

Assuming that more than one voyage brought ancient Chinese to American shores, we might expect that some of them, or their progeny, would sooner or later trek to the interior and establish inland settlements; such has been the pattern of migration in every age. Are there any clues to the penetration by Chinese of areas considerably distant from Pacific shores?

In 1920, a most remarkable artifact (Fig. 6) was unearthed from a depth of six feet at a location eight miles northeast of Granby, Colorado, by William L. Chalmers, a rancher. Fourteen inches high and weighing 66 pounds, the hard-granite object contains a Chinese inscription in a style older than the Shang oracle bone script of 1000 B.C. and before.[33] A retired CIA cryptanalyst, Donal B. Buchanan, has attempted an interpretation of the script. In a preliminary report, he gives this reading: *By the mountain pass* [or *at the mountain pass*] *I arrived 10 days ago (safe and sound?)* Buchanan has yet to identify a character in the upper left corner of the inscription.

Cryptanalysis, however, is always difficult and in the case of ancient or "lost" languages may prove impossible unless enough samples are available to determine "frequency" and find the pattern in which letters, words or symbolic forms are used repetitively to convey similar meaning. Buchanan hopes to better his translation, but he may have to wait until more stone messages are unearthed before he will know exactly what was written, and perhaps also gain a clue to the identity of the writer.

The weight of evidence comes down in favor of the Chinese Connection. To what extent the Asiatics influenced the culture of early America has yet to be determined. Not only must history accept the actual physical presence of the Chinese; it must also acknowledge that many ideas in cosmology, religion and government were shared through a common symbolism. We see it in the feline, the jade, the four directions, and elsewhere. As time progresses, so does our knowledge. New-World archeology was in its infancy 100 years ago and is just now approaching adolescence. One day we shall have the answers to our questions, and all the links of the China Connection will be in place.

FOOTNOTES

1. Brought to light by Joseph de Guines, 18th-century French Orientalist in his *Chinese Voyages to the American Coast*, based on his studies of the *Liang Shu*, or the *History of the Liang Dynasty*, written by Yao Silian (A.D. 557-637).

2. John Fryer, "The Buddhist Discovery of America a Thousand Years Before Columbus," *Harper's Monthly Magazine*, 103: 251-258, (1901).

3. *Ibid.*

4. Henriette Mertz, *Pale Ink*, The Swallow Press, Inc., Chicago (1953) pp. 55-56.

5. Fang Zhongpu, "Did Chinese Buddhists Reach America 1,000 Years Before Columbus?", *China Reconstructs*, August 1980, p. 65.

6. George F. Carter, "Invention, Diffusion, and Racism," *Anthropological Journal of Canada*, Vol. 19, No. 1, 1981, p. 10.

7. Betty J. Meggers, "The Transpacific Origin of Mesoamerican Civilization: A Preliminary Review of the Evidence and Its Theoretical Implications," *American Anthropologist*, Vol. 77:1, March 1975, p. 1.

8. Francois Eustache, "North American Genesis," *Frontiers of Science*, Vol. III, No. 3 (March-April 1981), Center for UFO Studies, Washington, D.C., p. 19.

9. Walter Karp, "How Did Human Races Originate?", *Mysteries of the Past*, by Lionel Casson, et al., American Heritage Publishing Co., New York (1977), p. 219.

10. Fang Zhongpu, *op. cit.*,p. 66.

11. Larry J. Pierson and James R. Moriarty, "Stone Anchors: Asiatic Shipwrecks Off the California Coast," *Anthropological Journal of Canada*, Vol. 18, No. 3 (1980).

12. Fang Zhongpu, *op. cit.*

13. Jay Mathews, "Goodbye, Columbus," *The Washington Post*, Monday, October 12, 1981, pp. A1, A20.

14. James Wickersham, *Whence Came the Indians?*, Tacoma, Washington (1899), pp. 6,7.

15. George F. Carter, "On Pre-Columbian Discoveries of America," *Anthropological Journal of Canada*, Vol. 19. No. 2 (1981), p. 15.

16. Gordon F. Ekholm, "Transpacific Contacts," *Prehistoric Man in the New World*, Univ. of Chicago Press for Rice University (1964), p.507.

17. Pierre Honore, *In Quest of the White God*, G. P. Putnam's Sons, New York (1964), p. 112.

18. Ekholm, *ibid.*., p. 504.

19. Mertz, *ibid.*, pp. 1,8,157-159.

20. C. Balser, "Metal and Jade in Lower Central America," *XXXVII Congresso Internacional de Americanistas*, Buenos Aires, IV, p. 61.

21. Wickersham, *ibid.*, p. 26.

22. J. Butler, "Roman Coin Found in Oshkosh," *American Antiquarian*, 8:372 (1886).

23. R. A. Jairazbhoy, *Ancient Egyptians and Chinese in America*, Rowman and Littlefield, Totowa, New Jersey (1974), p. 108.

24. Ekholm, *ibid.*, pp. 495,496.

25. Gordon F. Ekholm, "Is American Indian Culture Asiatic?", *Natural History* (October 1950), p. 345.

26. Ekholm, *ibid.*, "Transpacific Contacts," pp. 498,499.

27. Jairazbhoy, *ibid.*, pp. 106,107.

28. Meggers, *ibid.*, pp. 12,13.

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The Origins of Lemuria

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Part I

LEMURIA was first named by nineteenth-century scientists who were studying ancient life-forms and geological structures in South Africa, Madagascar, the Seychelle Islands, southern India, and Southeast Asia. In the 1860s, William Blandford wrote that Permian rock formations which existed in those areas from 180 million years ago were the remains of a sunken land-bridge. A German biologist, Ernst Haeckel, believed that the land-bridge was the route followed by lemurs, those primitive mammals which now live in South Africa, the Seychelles, and Madagascar. Phillip Sclater, a British zoologist, suggested that this land-bridge should be called Lemuria, after the lemurs. Earlier scientists named the submerged land Gondwana, after a primitive tribe, the Gonds of southern India.[1] The land of Gondwana contained rock formations which appeared to be traces of the ancient land-bridge. There were, of course, no human inhabitants in archaic Gondwana hundreds of millions of years ago.[2]

Another nineteenth-century scholar, Louis Jacolliot, a Frenchman, proposed that the huge area had been inhabited in its later stages, during the time of the earliest human cultures. Jacolliot thought that the lost land's people had developed into an advanced civilization which then spread across the ancient world. He called this civilization Rutas, a name he attributed to ancient Hindu texts. A perusal of the Hindu *Vishnu Purana* and other old sacred books of India failed to reveal the precise source of the name Rutas. Moreover, doubt about the origin of the name melted to insignificance in the heat of the controversy that followed the Frenchman's pronouncement.[3]

Jacolliot's theory was expanded upon and popularized by the theosophists, a religious group founded by Helena P. Blavatsky, a Russian noblewoman and mystic of the 1880s. In her book, *The Secret Doctrine*,[4] Blavatsky cited as one of her sources a fabulously ancient text known as *The Stanzas of Dzyan*. But that text was torpedoed by critics such as William Coleman and L. Sprague DeCamp who charged it was a forgery compiled from the H. H. Wilson translation of the *Vishnu Purana* plus Alexander Winchell's *World Life* geological study, and Blavatsky's own imagination.[5] DeCamp said that the theosophical account of creation was derived from the *Hymn of Creation* in the Hindu holy book, the *Rig-Veda*.

Nevertheless, Blavatsky and her followers expanded the original concept of Lemuria from an already large land-bridge to a fantastic supercontinent that girdled almost the entire southern hemisphere. Blavatsky's Lemuria became a world-ruling empire, complete with dinosaur-herding giants and mighty cities.[6]

Blavatsky was not entirely original, as the example of Jacolliot's Rutas demonstrates. A Portuguese navigator, Pedro de Quiros, had suggested that the Pacific Islands were the remnants of a sunken, inhabited continent whose survivors were the ancestors of the present South Sea Islanders, the Polynesians, Micronesians, and Melanesians. In the first half of the nineteenth century, French writers and explorers Dumont d'Urville and Moerenhout evolved a similar idea, as did Alfred Wallace in 1865 and Thomas Huxley shortly afterward. In 1923, J. MacMillan Brown, in his book *The Riddle of the Pacific*, proposed that the Polynesians were heirs of a lost continent.[7]

The concept of a mid-Pacific continent called Lemuria was further developed in 1931 when two books on the subject were published almost simultaneously. Both were so popular that they remain in print today and form the basis of many widely held notions about the lost civilization. The two fifty-year-old works are Colonel James Churchward's *The Lost Continent of Mu*[8] and Wishar S. Cerve's *Lemuria: The Lost Continent of the Pacific*.[9] Churchward's later book, *The Children of Mu*, developed the theory of world-spanning Lemurian colonies which bore a resemblance to the British Empire of the nineteenth century.[10]

Early theories of Lemuria suggested that the vanished civilization was the source of several ancient Oriental, Middle Eastern, and Meso-American cultures. The old "deluge legends" of the Polynesians, Melanesians, and Micronesians of the Pacific were compared to American Indian legends which were cited as evidence of Lemuria's existence. Churchward even derived Atlantis from Mu, as had Blavatsky.

To these books should be added one by Lewis Spence, the Scottish journalist and mythologist,[11] and a work by the British historian Egerton Sykes, a foremost scholar and supporter of the Atlantis legend.[12] These writers suggested that there had not been one large Lemuria, but an array of "mini-Lemurias." They used the same evidence as the earlier authors: a series of ancient legends from the Pacific Ocean peoples, archeological evidence such as the ruins on Easter Island, and geological evidence such as Pacific Ocean floor-features that could resemble sunken islands.

Geological Evidence

What geological evidence is there for Lemuria? Lewis Spence, for one, cited sunken islands as clues to the probable existence of a former continent. Tuanaki, south of the Cook Islands in Polynesia, sank in 1836. Reefs around the Sala-y-Gomez Rock, 300 miles east of Easter Island, are supposed to be the site of another sunken island.[13] Tuanaki was an inhabited island whose people were known to the Mangaians, the Polynesians from the island of Mangaia. Sala-y-Gomez was supposedly the remnant of an inhabited sunken land, a kingdom called Motu Motiro Hiva.[14] Another sunken island was recently revealed in a news report in *The New York Times* issue of November 19, 1980, page A19. An undersea volcano, which had been above water in the 1950s and subsequently submerged, was erupting once more; the

volcano, situated about 219 miles south of Tokyo, was being studied by Japanese scientists.

Sunken islands are legion due to the fact that the Pacific is one of the most violently volcanic areas in the world. But sunken continents are harder to find; continents rest atop granite bases while islands rest atop basalt bases. Most of the Pacific islands are of volcanic origin, having risen straight from the ocean floor, and lack evidence of granite bases.

Certain geologists have claimed discovery of at least two sunken continents, although they date to many millions of years ago, long before the time of man. One example is Pacifica, so-named by Dr. Amos Nur of Stanford University and Dr. Zvi Ben-Avraham of the Weizman Institute of Science in Israel.[15] They suggested that Pacifica broke into large fragments which gradually drifted away and after millions of years, collided with Alaska, eastern Siberia, California, and the western coast of South America.

Another lost continent was located by a team of scientists from the United States Geological Survey research facility at Menlo Park, California. Dr. David L. Jones and his colleagues argued that there wasn't much evidence for Pacifica but there was evidence for several continental "blocks."[16] Other scientists, Dr. Augustin K. Armstrong, for example, explored the Wrangell mountain range of southern Alaska and hypothesized that the mountains were the remains of a continent called Wrangellia. From Vancouver Island it extended over the Queen Charlotte Islands off the west coast of Canada and included southern Alaska from Chichagof Island to the Wrangell range. Wrangellia supposedly existed in the Triassic period, 220 million years ago. Remnants of fossil plants and animals taken from dry-land portions of Wrangellia were found to be of tropical origin.[17]

Part of Wrangellia did not sink but joined what is now North America. It left traces in Hell's Canyon in the states of Washington, Idaho and Oregon. Wrangellia broke up in a dramatic manner, after volcanic eruptions. It is interesting to note that Mt. St. Helens is right in the heart of this area.

Russian scientists also found an extremely ancient "lost continent" in the far western Pacific. Supposedly, it extended from Australia across the waters of southeast Asia to Africa. Oceanographers aboard the Soviet ship *Vityaz* reported finding traces of the sunken land mass in 1961 but gave no estimate of its age.[18]

The New York Times announced on March 19, 1979 (Section D, page 11) that sunken islands, many millions of years old, had been found by the famous oceanography ship *Glomar Challenger*. Scientists aboard her were studying the Emperor Seamounts, a chain of underwater volcanos north of the Hawaiian Islands. The volcanic islands are now a mile below the ocean surface and sank about 60 million years ago, as did other sunken land found 100 miles east of the Japanese home-island of Honshu.

While there is evidence for sunken islands, there seems to be no evidence for recently submerged inhabited continents in the mid-Pacific. From a strictly geologic point of view, then, continental Lemuria is but a myth.

Archeological Evidence

Turning to archeology, what does it tell us about a lost civilization called Lemuria, or Mu? The name Lemuria is of modern origin; the alternative name, Mu, is derived from old legends and was first mentioned in modern literature by the French scholar Brasseur de Bourbourg. In 1864 he undertook translation of Mayan books by using the writings of the notorious Spanish missionary, Archbishop Landa. This brutal proselyte had burned thousands of Mayan books as "works of the Devil," but later changed his mind and compiled a Mayan alphabet. This provided the key to Mayan writing, or so de Bourbourg thought. Perhaps in the hope of becoming a second Champollion, de Bourbourg published his "translation" which alleged the sinking of a land called Mu. The name was derived from the symbols for M and U in the Mayan book, *Troano Codex*. Writer L. Sprague De-Camp argued that de Bourbourg's translation was erroneous; and the *Troano Codex* was denigrated as a text on astrology.

A few years ago, without much publicity, Prof. Floyd Lounsbury of Yale University and his colleagues achieved a breakthrough by actually deciphering Mayan writing. Prior to that time, only numbers and a few words could be read, but now sentences and genealogies as well as lengthy inscriptions on monuments could be deciphered. Ancient Mayan is an archaic form that partially survives, even today, in the speech of Mayan Indians in Yucatan and elsewhere in Central America. There are no similar traces of ancient Egyptian, Hebrew, Old Norse, or other Old World languages which, in the view of nineteenth-century theorists, might have influenced Mayan.[19]

While evidence for Mu may be lacking among the Mayans, legends of lost continents and a prehistoric tribe called "the Mu" seem to abound among the Polynesians, those native inhabitants of the central and eastern Pacific. Lewis Spence mentions the Mu[20] as a supernatural tribe of Hawaiian legend; they lived on a supposedly mythical island called Kuehelani that floated and moved about at night. Alongside the Mu lived another, more famous tribe, the Menehune dwarfs. The Menehunes are now regarded as the leprechauns of Hawaii, pixie figures of fun; but in ancient times they were held in awe. They were reputed to have built stone-lined fish ponds and Mayan-style flat-topped pyramids of lava or coral. I have myself walked atop one of these pyramids which stands outside Kailua, a suburb of Honolulu.[21]

Another Hawaiian myth tells about the Kenamu and the Kenawa, also dwarf tribes. They were pygmy people who had come from a lost continent called Kahiki.

As fascinating as the ruins and legends of Hawaii are, they do not stand up as evidence in favor or Lemuria. The Hawaiian Islands weren't settled until about the twelfth century A.D.[22] Thus their ruins are too recent to be claimed for Lemuria.

From Hawaii we move on to Easter Island, whose giant statues, so greatly admired by tourists, have been cited as evidence for Mu by writers Spence, Churchward, and Scott-Elliot. It was Scott-Elliot who described a Lemurian city 30 miles out to sea from the present shoreline of Easter Island; but its ruins have never been found by divers. Thor Heyerdal searched for sunken roads and sunken cities off the coast of Easter Island and found none.[23] He also learned that the ruins there were not much older than A.D. 380.[24] Still on the shelf for want of evidence is the puzzling legend which asserts that Easter Island was settled by a king named Hotu Matua who came there from a sunken island called Marae Ronga.[25]

Other Pacific peoples have old legends and strange ruins which have been cited as evidence for Mu. Most famous of these is Nan Matol (also spelled Nan Madol), a huge complex of stone ruins set on a cluster of islets off the coast of Ponape. The jungle-clad island of Ponape lies within the vast series of archipelagos to the west of Polynesia that we call

Micronesia. (The people of Micronesia are not from the same race as the Polynesians.) It was once thought that Nan Matol was a ruined city of Mu, as writers Churchward and Egerton Sykes suggested. Nan Matol was indeed the religious and political capital of a mighty kingdom, but the realm was not Lemurian. It was built by several dynasties over a long period of time, the dynasties having originated on Ponape or on other islands of Micronesia. DeCamp wrote that the Micronesian archipelago became inhabited c. 1500 B.C., much earlier than Polynesia. However, the ruins at Nan Matol do not date much before A.D. 1400.[26]

We have surveyed only a few of the sites and legends of the central Pacific islands where Mu was supposedly situated. For each major example used as "proof" by pro-Lemurian writers, orthodox archeologists and oceanographers counter that there is no evidence for Lemuria. We are left only with legends, two more of which should be mentioned. The first is from Norse mythology.

Norse sagas tell us that "in the beginning" there was a great land in the south of the world called Muspelheim. It was a hot, tropical country where the giant Muspel ruled. The name Muspel is obscure, but it implied doom or destruction. Was Muspelheim the Norse recollection of Mu?[27]

The Polynesians believed that a legendary race of blond-haired white people once inhabited their isles.[28] The tribe's deeds were recounted by the Maori of New Zealand; and the Maori had a sunken island of their own which they called Mataaho.[29]

Where else may we look for evidence of a lost Pacific-island civilization? Clues on the edge of the Pacific are tantalizing. One was found in the French colony of New Caledonia in Melanesia, a group of islands northwest of New Zealand. The Melanesians are a different ethnic group from the Polynesians; they are darker and almost "twin brothers" of the black Africans.

The clue in question consists of hundred of peculiar tumuli (mounds) discovered by French archeologists on New Caledonia in the district of Paita and on the nearby Isle of Pines. The tumuli have been dated by the carbon-14 method to between 5120 and 10,950 B.C. The mounds have cylinders buried in them. The cylinders are upright, formed of cement and range from 40 to 75 inches in diameter. In height they vary from 40 to 100 inches. The mounds are 8 to 9 feet high and 300 feet in diameter.[30]

Historian Andrew Rochovius didn't believe that these mounds were Lemurian, although he noted that they were 3,000 years older than the time during which man is supposed to have migrated to Melanesia from Indonesia. UFO fanciers have conjectured that the mounds were landing-pads for ancient astronautical "scout crafts," so classified because the upright cylinders were seen as too small and light to support the weight of a full-size space vehicle. No human remains or artifacts were found inside the mounds when they were methodically excavated by L. Chevalier of the Museum of New Caledonia in Moumea. A less vivid but more likely explanation is that the mounds are remnants of construction by members of an unidentified ancient civilization. Whether Mu can be linked to New Caledonia remains to be seen, but the mounds provide primary evidence that an advanced culture of some kind was flourishing in the Pacific area at the time of Mu's supposed existence. No less than *400* of the mysterious mounds have been found on the Isle of Pines; and in New Caledonia 17 were counted.

One of history's most significant underwater discoveries was made in 1966 and came about quite by accident. It produced strong evidence for Mu which even the most orthodox oceanographers have found difficult to discredit. *The New York Times* of April 17, 1966 reported that during a routine exploration of the Milne-Edward Trench (an underwater canyon near Callao, Peru), a long-hidden secret was startlingly revealed to scientists aboard the *Anton Bruun*.

Dr. Robert J. Menzies of Duke University, an oceanographer of impeccable reputation, headed a team that was searching for specimens of a nickel-size mollusk called neopilina and believed to be 350 million years old.[31] One of their camera-sweeps found the mollusk they'd been looking for; another found something they hadn't been looking for: a row of upright pillars, half buried in the bottom muck at 6,000 feet subsurface. Clearly visible on one of the pillars was a peculiar symbol, or hieroglyph.

According to oceanographer Gardiner Soole,[32] the site is 20 miles from the little island of Hormigas de Afuera. The columns were first detected by sonar. The sonar readings suggested the presence of objects which shouldn't have been there. When the cameras were lowered to investigate, the columns appeared as if by magic. One of the photographs showed columns standing upright, reaching a height of four feet above the ocean floor. Other film showed jointed rocks and pillars that had fallen.

Soole was aware that an ancient Inca ruin lay near Callao, but he firmly asserted that no trace of sunken cities was known or suspected in the region at that time. He theorized that the land either subsided slowly, or else it sank violently when earthquakes struck or volcanic eruptions took place. Obviously, he was as perplexed as anyone would be by the extraordinary nature of the discovery. Perhaps a mini-sub may one day explore this mysterious city, but to date there have been no reports of plans for a follow-up expedition.

An alternative theory concerning the origin of the pillars was proposed by author Charles Berlitz.[33] He suggested that the columns may have been ballast or cargo from a sunken Spanish galleon. However, some of the photographs taken by the Menzies expedition tend to invalidate that suggestion; they show what appear to be the ruins of buildings adjacent to the pillars.

Mu, Japan, and China

It is possible that China and Japan may hold significant clues to the lost civilization of Mu. Churchward was one of the early advocates who thought so.[34] Before dismissing the idea as utterly fantastic, we ought to review some facts that may provide the basis of evidence in favor of a "Lemurian connection" with the Orient.

There is geological evidence that large areas of land sank near Japan as recently as 10,000 B.C. This is precisely the time in which Lemuria supposedly existed. Pleistocene fauna (e.g., mammoths) reached Japan by means of the land-bridges.[35] China and Japan were certainly joined during Stone-Age times. Although reports are lacking of sunken cities in Japanese waters, there is an abundance of poems and legends of underwater palaces and cities of the Dragon Kings. Japanese mythology tells of fabulous islands such as Onogorojima, where mankind was created, and Horaisan, a paradise located far to the east in the Pacific.[36]

Chinese folklore and mythology tell similar tales of sunken islands, and there is at least one story about a city destroyed by a deluge: According to Major W. Perceval Yetts' English

translation, the five Isles of the Blest were situated far to the east of China. These "islands" were thousands of miles in width and were actually continents. White people called *ku-she* lived there and flew on dragons.[37] We are reminded of Churchward's accounts of white Lemurians who flew *vimanas* or airships.[38] The paradisical islands boasted beautiful terraces and tall towers. In "the beginning," the isles drifted, so the inhabitants begged the gods to secure them, lest they drift to the west, which in Chinese symbolism was the land of the barbarians. The Supreme Ruler of the Universe anchored the islands on giant turtles which bore the weight of the enormous archipelago by rotating in shifts every 60,000 years. (Could the old Chinese sages have had the modern theory of continental drift in their foresight?) When a giant from the Lung-po country fished up some of the turtles, two of the islands drifted off to the north and were lost. The Lung-po giants were punished by "shrinking": the gods shrank both the giants and their land.[39]

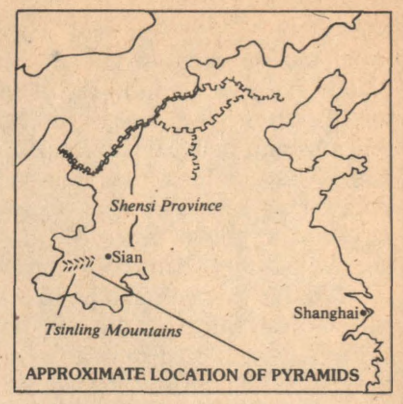
From Taiwan comes another legend of island-disappearance. On an island called Maurigasma, King Peiroun was warned by the gods Awun and Infoniwoo that his island was going to be destroyed. The king fled and the island sank. (The names Peiroun and Maurigasma may well be of aboriginal rather than Chinese origin.)[40]

I have found only one Chinese tale about a sunken city. In ancient times a wandering Buddhist saint or *arhat* visited the city of Holaolakia. He asked for food and a night's lodging. His plea was ignored by all except one man who gave him food; and only the compassionate giver was spared when the angry gods destroyed the city.[41]

There is an unsurprising dearth of archeological reports and news stories about sunken cities in the Far East. The "keep off" signs have been up along the shores of the Orient for many centuries; exclusion or severe restriction of non-nationals seems to be the one policy that all governments in that part of the world have ever shared. Whether the coastal waters of China or Japan, or Siberia or Korea, have been seriously explored in recent times for ruins of sunken cities, and whether exploration turned up any evidence of lost civilization, is not known. Only a few pyramids found in the interior of China suggest that an ancient indigenous culture probably existed there.

The first description by a western observer of pyramids in China was written in 1902 by Francis Nichols. He found them while traveling in Shensi, a province of the northwest. At a site near Sian, ancient capital of the Chinese Empire, a "whole group" of pyramids of packed clay was located between the city and the Wei Ho River.[42] The pyramids were four-sided; they averaged 80 feet in height, and each base was 300 feet long. The structures had been sited on a north-south line on each side of the road from Sian to San Yuan. The Sianese thought that emperors were buried inside, but Chinese emperors' tombs were usually marked by inscriptions and were oval in shape.

The story of the Chinese pyramids was revived in 1947. A mysterious stone structure was discovered in that year by Colonel Maurice Sheahan who was at that time Far Eastern director for Trans World Airlines. He was flying over the Tsing-ling Mountains 40 miles west of Sian. As he glanced out a window he saw, to his amazement, a tremendous pyramid standing up from the floor of a remote valley. Sheahan described it as 1,000 feet tall. Its width was 1,500 feet at the base. Such an immense structure easily dwarfed the Great Pyramid of Giza, Egypt, which is "only" 470 feet high by 765 feet at base. Near the titanic pyramid was a smaller one, and at the end of the valley where the Lung-Hai Railroad runs, smaller burial mounds were visible from the tracks.



Shensi, among the most remote of China's provinces, was one of the least accessible to Western visitors when Francis Nichols discovered pyramids there in 1902. Eighty years later it is still a "forbidden land" because of distance (Sian is more than 700 miles west of Shanghai on the coast), mountainous terrain, and severe travel restrictions.

Two days after Sheahan reported his find to the *New York Times*, the Associated Press distributed a story debunking the pyramid. However, *Pursuit*'s editors suggested that the Chinese government had "planted" the denial in an effort to discourage foreign visitors.

Some theorists have linked the pyramids in Shensi to the Hsia Dynasty, the first dynasty of the Chinese Empire. Few archeological remains of the Hsia have been found. The Hsia were formerly regarded as almost mythical, but are now accepted as historically demonstrable. Chinese traditional chronology dates them to 2205-1766 B.C.; modern scholars put the dates a bit later, 1944-1525 B.C.

Until we solve the mystery of the Chinese pyramids we cannot be sure if they are Chinese at all, or if they might be the remains of an as-yet-unknown earlier civilization, perhaps even a "Lemurian" civilization. Without excavation or study of the enigmatic pyramids, we can only wonder about them.

Let us summarize the results of our quest for Lemuria thus far. There is almost no geological evidence for large sunken lands in the traditional location of Mu—the Central Pacific. Instead, we have some legends, the archeological discoveries of the cylinders of New Caledonia, and the Menzies photos of the remarkable sunken city on the eastern rim of the Pacific.

There is one other place to which we should turn if our search for Lemuria is to prove fruitful. The west coast of America from Alaska to South America is replete with evidence of sunken islands, legends of sunken lands, and even cryptic reports of ruined cities in remote wilderness areas on dry land—ruined cities of civilizations which are, at the moment, apparently unknown to archeologists. There are even a few reports of sunken cities, and some of them have been linked to the legend of Mu. Finally, there is the Bering Land-bridge—1,000 miles wide from north to south. It was a warm, fertile land when ancient tribes began their migration to America. Was it also Lemuria?

Jon Singer's inquiry into the origins of Lemuria is in three parts. The second part will be published in the next issue.

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The Politics of Water

(Continued from page 22)

an *Information Bulletin* labeling the whole Mojave Desert study worthless and attacking Reiss' ideas about primary water as unfounded. The newest reprise on the earlier 1954 report on the Reiss wells sarcastically referred to the "purported documentary evidence" in the quarter-of-a-million dollar study and its "specious and utterly speculative" arguments. Reiss himself was termed a "purported scientist, geologist, geochemist, and philosopher," an epithet that could just as easily have characterized many of the WRD's own staffers.

The WRD's stultified approach toward an idea that merited at least a portion of its investigatory time was exemplified in the bulletin by its statement that the concept of "primary water" was not even listed in "any standard glossary of geological or hydrological nomenclature." The same could have been said for the word "blitzkrieg," which became acceptable to French generals, who could not find it in any of their standard military glossaries, only when they were overwhelmed by the reality the word represented.

The bulletin was sent to thirty-three California State Offices including those dealing with agriculture, water pollution, architecture, public works, mining, soil conservation, beaches and parks, veterans' affairs, public utilities, farm and home purchases, public health, natural resources, small craft harbors, and fish and game. More ominously, copies were received by the State Director of Finance, the State Board of Registration for Civil and Professional Engineers, the State Attorney General, and the Assistant Chief of the State Bureau of Criminal Identification and Investigation—the clear implication being that Reiss was not only a maverick and a possible crackpot but a potential criminal meriting prosecution. The dissemination did not stop with state officialdom. Copies were sent to eleven federal officials in California, to water authorities in sixteen western states, and to twenty-eight "requesters" of information ranging from professors, engineers, consulting geologists, and newspaper editors to bankers, investment companies, and lawyers.

The vitriolic bulletin also attacked a remarkable book, *New Water for a Thirsty World,* dedicated to Stephan Reiss by its author, Michael Salzman, then a professor at the University of California's School of Commerce who had served as engineer with the U.S. Navy's Hydrographic Office and became Director of the Los Angeles City Housing Authority.

During five years of research into Reiss's theory of primary water, Salzman, first to translate Nordenskiold's essay into English, came across evidence for rock-produced water in connection with one of the strangest episodes ever to appear in the annals of construction engineering. It took place in the middle of Manhattan when, in 1955, the engineering firm of Psaty and Furman, under contract to New York City's Department of Public Works, began the excavation for the foundation of an addition to the Harlem Hospital at the intersection of Fifth Avenue and 136th Street.

While removing a layer of hard rock only twelve feet below ground on Saint Valentine's day, workers were suddenly confronted with an enormous outrush of water, seemingly from nowhere, which rapidly began to fill the vast hole being opened in Gotham's body. Pumps hurried to the site labored at the rate of 2,200 gpm for an entire year to keep the working area free of water. Particularly puzzling to engineers was the fact that during cold winter months the water maintained a constant temperature of 68 degrees Fahrenheit and was so pure that hospital chemists certified it could be drunk without chlorination or any other chemical treatment. A billion and a quarter gallons were pumped out of the hole day and night until twelve stories of structural steel had been erected and several lower floors decked with concrete slabs to provide enough weight to hold down the foundation of the new building against hydrostatic pressure.

In June, the *Engineering News-Record* ran a story that ended with the baffling note that neither the origin nor the constant elevated temperature of water could be explained. Of the article's readers, only Salzman responded to the challenging enigma by offering an explanation based on Reiss's theory of water made in rocks. When it printed Salzman's conclusions, the journal editorialized that, despite the efforts of many agencies, the source of water flowing under the Harlem Hospital had never been determined. No hydrologist, it added, had come up with any thoughts as to its origin.

Nor has there been any comment about the anomaly in geologic or hydrologic literature in the succeeding twenty-three years. [i.e., to 1979 when this was published.—Ed.]

In a foreword to the Salzman book, Aldous Huxley, the English philosopher and writer who had only recently finished his ground-breaking study of psychedelic drugs, *The Doors to Perception,* about which he was lecturing at the Menninger Clinic in Kansas, pointedly commented: "It remains to be seen whether those who are now regarded as experts in the field of hydrology and the politicians whom they advise will also agree that a good case has been made and that *large-scale experimentation is in order."* Since then, eighteen years have witnessed no such experimentation, large-scale or small, on the part of hydrologic officials, state or federal.

Huxley's unequivocal recommendation seemed, at least, indirectly, to have won the partial sympathy of a professional hydrologist, William C. Ackerman, vice-president of the American Geophysical Union (AGU) and chief of the Illinois Water Survey Division. In an address to his colleagues at a regional meeting of the AGU in Moscow, Idaho, in October 1960, Ackerman expressed his disappointment that, for years, papers on hydrology submitted to the AGU's *Transactions* had been so recondite that most of them had been refused for publication. AGU officials had told Ackerman that, in a world expanding into space, hydrologic contributions evidenced an outworn parochialism in outlook and urged him to persuade his associates to look beyond the hydrologic cycle of the earth—which seemed to be their sole concern.

The heart of the problem, concluded Ackerman, was that hydrology had been riding for too long on the coattails of a few of its greatest exponents, whose work had been performed a quarter of a century previous, with nothing of consequence having been added in the interim.



In a previous issue of this journal (*Pursuit* No. 52, Fall 1980, Vol. 13, No. 4, pp. 151-154) Edgar D. R. Wilson presented Evidence for the Stability of the Solar System since c. 2700 B.C. Such evidence, he asserted, "is found in a group of pyramids known as the Giza group." Thomas McCreery, author of the following article, sees the Giza Pyramids in a different perspective. His point-by-point rebuttal of arguments which he says are based on "pyramidology," comes to a conclusion the opposite of Wilson's:

Giza's Pyramids DO NOT Show Evidence for the Stability of the Solar System since c. 2700 B.C.

by Thomas McCreery

EDGAR WILSON'S[1] article is a trenchant, ingenious addition to the annals of pyramidology. Like those of previous enthusiasts, his theses depend implicitly on the unproven premise that the Ancient Egyptians had recourse to the most sophisticated scientific knowledge; and that instead of recording this knowledge in writing, for reasons known only to themselves, they incorporated it onto the structure of the Pyramids. It is the task of the pyramidologist to decipher the structural dimensions in order to account for such diverse, yet entertaining, hypotheses. However, there is one important problem to be resolved before such speculations can be taken seriously: The contention that the Ancient Egyptians did possess advanced knowledge is altogether at variance with mainstream thought, which admits simply to the view that any such arguments are lacking in foundation.

I propose to evaluate Wilson's ideas primarily on this point. The most authoritative sources have been investigated as to the exact nature of the achievements of the Ancient Egyptians in science and astronomy.[2] Since Wilson regards himself as a custodian of scientific authority (witness his attempt to discredit Velikovsky), he can hardly complain if orthodoxy vitiates his hypotheses by rejecting his claim that the Ancient Egyptians were scientifically advanced.

I have also subjected the more salient features of his detailed scenario to detailed review. To comply with space restrictions, I have limited my analysis to evaluating the proposals relating the base areas to the volumes or masses of the planets Earth, Venus and Mercury; and the association of the Queen's Chamber with the Moon.

The reader should bear in mind, however, that all this is relatively unimportant in comparison to the debate on the existence of an Ancient Egyptian scientific culture. Such is the wealth of competing ideas, each generally characterized by remarkable manipulations of dimensions or ancient units of measure (real or imagined) and scientific data, that almost any kind of theory, no matter how abstruse or unbelievable, can be conjured out of the Pyramids.

A necessary prerequisite for development of scientific erudition is mathematical skill. Few documents have survived to guide our efforts to determine the limits of Ancient Egyptian mathematical knowledge. Of only sixteen written before 1000 B.C., the Rhind and Moscow Papyri overshadow the others by virtue of their length and completeness. The evidence from these two positively precludes any awareness of advanced mathematics, though they demonstrate the existence of considerable *numerical* skill. It could be argued that other documents containing the advanced knowledge claimed for the Pyramids may be lost or lie undiscovered, and that the available papyri are little better than elementary sources. This argument is explicitly refuted by the opening paragraph of the Rhind Papyrus:

> Rules for enquiring into nature, and for knowing all that exists, (every) mystery . . . every secret. Behold this role was written in Year 33, Month 4 of the inundation season . . . (under the majesty of the Kings of Upper) and Lower Egypt Aauserre, endowed with life, in the likeness of a writing of antiquity made in the time of the King of Upper and Lower Egypt Namare. It was the scribe Ahmose who wrote this copy.[3]

This papyrus is a most important document. Sarton notes that Ahmose "was actually writing a treatise that is a systematic account of available knowledge in his field. To be sure, his treatise is not by any means as systematic as one written today, but as much method as it contains is tremendously impressive."[4] The manuscript gives a comprehensive insight into Ancient Egyptian arithmetical computations:

With the exception of 2/3, they used only fractions with numerator 1, i.e., 1/2, 1/3, 1/4, etc.; it was possible to multiply or divide directly by only 2, 10, 1/2, or 2/3. Other multiplications or divisions were performed by identical operations of repeated doublings. On the positive side, they used the decimal system for all powers of 10 up to a million, but lacked a zero symbol. In spite of these formidable obstacles, they could perform (as the Rhind Papyrus shows), complex numerical calculations to determine the apportioning of material or goods, for example:

> Divide 100 loaves among 5 men in such a way that 1/7 of the sum of the largest shares shall be equal to the sum of the smallest 2. (Rhind Papyrus, Problem 40)

The Ancient Egyptians were also familiar with simple geometrical forms and progressions—the corner obviously deduced from considerations of the diagonal of a square. Successful derivation of square root was also accomplished, but whether by method or by trial and error is unclear. According to the Moscow Papyrus, their formula for the volume of a truncated pyramid was derived from arithmetic rather than geometry. Sarton notes:

> It is typical of Egyptian precocity and of the limitations of their genius that that solution was found by them as early as the nineteenth century, if not earlier, and that they never found anything better though they continued to work for three or more millenia.[5]

Though its precepts were primitve, Ancient Egyptian mathematics was a stalwart discipline when compared to the Ancient Egyptians' sketchy astronomy as we know it. Perhaps their failure to produce the appropriate mathematical tools led to an attitude of indifference toward accurate astronomical measurements, for none has appeared in the vast record of inscriptions and papyri left from all periods of Egyptian history.[6] Ancient Egyptian astronomy consisted of using the heavenly motions as rough measures of time, probably to secure some regularity of schedule for the temple services.[7] The earliest scheme, graven on coffin lids of c. 2000 B.C. relates the rising of groups of stars to the passage of the nighttime hours. The results thus obtained were so unreliable as to suggest there had to be a better way, and one was found. Based upon star-transits, the revised method could have led to an accurate definition of sidereal time had it not been so crudely applied; the transits were observed with reference to the head, shoulders and ears of a sitting man![8]

For daytime measurements, the Ancient Egyptians initially employed shadow clocks; these were later replaced by water clocks and sundials—which also proved grossly inaccurate for chronological purposes.[9] They believed, wrongly, that the level of water in their water clocks (called *clepsydra* because of the truncated conical shape) sank equal amounts in constant time. The angle of slope in their clepsydra was 110°; if the angle had been reduced to 103°, the water clock would have approximated very closely the required shape, and another demonstration of scientific shortfall would have been obviated.[10]

A similar paucity of sophistication is apparent in the limited range of astronomical instruments available to the Ancient Egyptians. Their most sophisticated tool was the merkhet, a very simple sighting device.[11]

Wilson's particular claims that the Ancient Egyptians had access to precise data on the speed of light and the orbital elements of Earth, Venus, Mercury and the Moon have no basis in reality because there is no conceivable method by which they could have arrived at a sensible value for the speed of light, given that they understood it to move with finite velocity. That sophisticated mechanical and electrical equipment is prerequisite to accurate determination is evident in the failures of Galileo, Roemer and Bradley.[12] Even Foucault,[13] who improved on the first mechanical experiments of Fizeau, was in error by over 5%, and the first precise value was obtained only in this century by the supremely gifted experimental physicist Michelson,[14] after decades of work.

There is a serious lack of independent evidence to support Wilson's speculations that Ancient Egypt possessed a superlative scientific genius, and much historical testimony to reinforce traditional opinion that the Ancient Egyptians, though gifted in many respects, were quite limited in their scientific knowledge. It isn't easy, but it is possible, to soar beyond that conclusion into the mists of exotic speculation. A choice of two hypotheses will expedite the trip:

a) The Pyramids were the product of some highly advanced ancient culture of whose achievements no trace has been left except the Giza Pyramids, or

b) The Giza complex was constructed by a von Daniken-type extraterrestrial intelligence which left the monuments as a superb puzzle for future pyramidologists to interpret.

It is surprising that Wilson failed to see pyramidology as a futile exercise unless this supposed "ancient wisdom" can be accounted for. Even John Taylor, considered to be the first "scientific" pyramid theorist, was aware of the problem; he sought a solution through recourse to Divine Intervention:

> It is probable that to some human beings (the Pyramid Builders) in the earliest ages of society, a degree of intellectual power was given by the Creator, which raised them far above the level of those succeeding inhabitants of the earth.[15]

It does seem much easier for academia, Wilson's arguments notwithstanding, to accommodate Velikovsky's theories than fanciful pyramidology implicitly based on advanced ancient cultures, either indigenous or divinely inspired, or on any von Daniken nonsense.

Apart from the problem of the "vanished master race," two other associations offered by Wilson do not have substance even in the context of pyramidology. Before examining these associations it may be useful to recall the context. Following is a short review of pyramidology, gleaned chiefly from Peter Tompkins' *Secrets of the Great Pyramids*. Although his aim is misguided, Tompkins does give a comprehensive survey of pyramidology until the mid-1950s.

From John Taylor onward, the Giza Pyramids have attracted many enthusiasts who, by assigning arbitrary values to ancient units of measure (the cubit has manifested itself in a remarkable variety of lengths depending on the whim of the particular investigator), or by creating ficititious units such as the pyramid-inch, have demonstrated to their own satisfaction at least, exact analogies

between the internal and external dimensions of the Pyramids and certain geophysical and astronomical data that pertain to the Earth. A divine message has also been perceived in the Great Pyramid: Robert Menzies claimed that the passage system, as a chronological representation of prophecy, was built on a scale of one pyramid-inch per year. Ironically, the man whose theories appear to be the very embodiment of pyramidology was one who set out initially to destroy Menzies' ideas. Originally an agnostic, David Davidson was converted to Menzies' views and became convinced that the Great Pyramid was "an expression of the truth in structural form," and that it established "the Bible as the inspired word of God."[16]

Although Davidson wrote encyclopedically on the subject, his books are now forgotten and generally inaccessible. By sheer chance I came across his magnum opus,[17] in which Davidson with considerable ingenuity purports to show that Cheops' Pyramid incorporates a calendric scheme denoting the solar, sidereal, and anomalistic years, the rate of the precession of the equinoxes, and the distance between the Earth and the Sun. Given the sidereal year, the rate at which the Earth was falling toward the Sun was deduced; the specific gravities of the Earth, Moon and Sun, the solar parallax and the speed of light could then be derived. Davidson also claims that the ancients even had prior knowledge of Einstein's special and general theories of relativity!

If one is inclined to view pyramidology as others view astrology or von Danikenism, and accept it as a serious discipline (though it be regarded objectively as misplaced erudition), then Davidson employs consistent methods of arriving at his conclusions: he uses units of measure which are much less arbitrary than Wilson's units; and he sees a physical meaning in virtually every dimension. In contrast, Wilson uses only those particular measures that fit his particular theory; other standards seem equally important but are ignored; and his treatment of source material is certainly ambiguous.

In considering the claim that the base areas of the three Giza Pyramids represent the volumes of the masses of the planets Earth, Venus and Mercury, we find little textual evidence to uphold Wilson's theory that the original dimensions of Mycerinus's Pyramid were exactly half the final values. Wilson turns to Edwards and Petrie for support; but the former states that "Internally, at least one and probably two changes of plan are apparent. . . . The only reason for this change in plan seems to have been a decision to enlarge the superstructure of the Pyramid."[18] Petrie states: "From all these details it seems plain that the first pyramid was begun as no larger than some of the small pyramids on the same hill . . . the builders for some reason determined on enlarging the pyramid before it was cased,"[19] and, "the pyramid has certainly been altered from its first design, and also, perhaps, on the outside."[20] The only help for Wilson's idea is Petrie's conjecture that the Mycerinus Pyramid was designed to be 200 Royal Cubits long,[21] and if that be the case, "The first design of the pyramid, before its expansion, appears to have been a base of 100 cubits, like some of the small pyramids."[22] So if the design of the original had been to linear half-sizes, it would have conformed to a standard length, based on geometrical as well as arithmetical considerations, with no astronomical considerations in mind. It should be emphasized that many of the other features of the Giza complex were designed compatibly with the Royal Cubit—thus adding to the evidence that their architects and engineers followed only the earthly guidelines usual to their times.

The theory about the use of the Queen's Chamber fails on a number of separate counts. One would suppose, given the importance attributed to it, that the chamber would have been planned in great detail, would have been finished to very high standards of workmanship and accuracy, and that no important dimensions would be redundant; each dimension should be expected to replicate some important lunar parameter. Wilson's hypotheses on all these matters are unacceptable; a much simpler, more reasonable proposition regarding the size of the Queen's Chamber can be postulated.

Edwards notes "many indications that work on the Queen's Chamber was abandoned before it had been completed."[23] Evidence for this comes from various excavations. Shafts running out of the chamber have no outlet to the outer surface of the Pyramid:

> These apertures were not cut at the time when the chamber was built—an omission which can only be explained on the hypothesis that the chamber was never finished . . . the absence of such an outlet provides further evidence of an alteration in the original plan.[24]

The workmanship of the chamber is much inferior to many other components of the Giza complex. Petrie notes:

> The general floor is hopelessly irregular, consisting plainly of rough core masonry, and furthermore it has been built over with similar rough masonry, which was afterwards stripped down to insert the chamber walls. . . . All around the chamber and the lower part of the passage leading to it, is a footing of fine stone, at the rough floor level; this projects 1 to 4 inches from the base of the walls, apparently as if intended as a support for flooring boards, which have never been introduced.[25]

This alteration in plan, the concomitant roughly finished floor, and the fact that the Ancient Egyptians, as Edwards notes, seem to have abandoned the Queen's Chamber in favor of constructing the Grand Gallery and King's Chamber, strongly suggests that, for one reason or another, they lost interest in finishing the Queen's Chamber.[26] This decision, which took place before either Chephren's or Mycerinus's Pyramids were built, is patently inexplicable in terms of Wilson's ideas.

Given the vast amount of work required to construct these two pyramids, the importance of the Queen's Chamber, and the relatively small effort required to finalize it, why did the builders stop? The termination of the Queen's Chamber, and the subsequent constructions of the other two pyramids make nonsense of Wilson's claim that they were constructed as models of astronomical bodies. Although the reason for the disuse of the Queen's Chamber is unknown (perhaps in the context of Wilson's theories the Moon's orbit changed abruptly), the chamber seems to have been constructed according to geometrical considerations. Petrie's generally accepted work shows that the unit of measure used by the Ancient Egyptians in constructing the Giza complex was the Royal Cubit (20.62 imperial inches).[27] This unit is seen in the design of the base of Cheops's Pyramid, the King's Chamber therein, the chambers of Chephren's Pyramid, and many of the

features of Mycerinus's Pyramid.[28] Apart from Wilson's conjecture, there is nothing to suggest that the Ancient Egyptians used a measure of 21.8 cm. Had they wished to show the sidereal and synodic lunar months incorporated in the design of the Queen's Chamber, and given the vast space they could utilize within the confines of Cheops's Pyramid, it is strange that they did not use the Royal Cubit (52.35 cm) or half a cubit (26.175 cm). The choice of a unit of 21.8 cm is arbitrary, though characteristic of the free-form thinking that seems to prevail among many earnest devotees of pyramidology. Also to be noted is the impression given by Wilson that the Queen's Chamber is cuboid in shape. He fails to mention that the stated height (245 in.) refers to that of its ridge; the equally important height of the chamber's walls (184.47 in.) is ignored.

An alternative to Wilson's hypothesis concerning the design of the Queen's Chamber holds that the chamber was constructed so the squares of the dimensions of the chamber were in round numbers of square cubits:

> A beautiful corollary of this theory is that the squares of the diagonals, both superficial and cubit, will necessarily be also in round numbers of square units (i.e. cubits).

Since the Queen's Chamber centers between the north and south sides of the pyramid, its exact placement evidences the same fondness for geometrical symmetry that the Ancient Egyptians elsewhere displayed; in all respects, the alternative hypothesis affords a more satisfactory explanation of the design of the Queen's Chamber than Wilson's explanation.

One final point: In claiming that the Ancient Egyptians understood stellar aberration, Wilson strongly implies that they had access to telescopes; if not, how would observers viewing a zenithal star know enough to tilt the telescope slightly so that the starlight would pass centrally through the tube, the angle of tilt being equal to the stellar aberration? No evidence has ever been produced to show that the Ancient Egyptians were familiar with simple convex or concave lenses, let alone telescopes, so that idea seems highly implausible.

Wilson concludes that Harlow Shapley's initial decision to censor Velikovsky is now vindicated by this latest piece of pyramid "interpretation." Surely that raging astronomical lion would be most uneasy if Velikovsky's massive assaults on authority are now opposed only by specious pyramidology.

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21. *Ibid*., p. 204.
22. *Ibid.*
23. Edwards, *op. cit*., p. 123.
24. *Ibid.*
25. See note 19, p. 67.
26. Edwards, *op. cit*., pp. 123-124.
27. *Ibid*., p. 256.
28. See note 19, pp. 178-207.
29. *Ibid*., p. 191.

30. Royal Cubit is 20.62 inches in length; squared, it is 425.18 in.^{2} Petrie gives the following dimensions for the Queen's Chamber:

Width: 205.85 in., so 205.85^2 = 42374.22 divided by 425.18 = 99.66 (100)
Length: 226.47 in., so 226.47^2 = 51288.66 divided by 425.18 = 120.63 (120)
Wall Height: 184.47 in., so 184.47^2 = 34029.18 divided by 425.18 = 80.03 (80)
Ridge Height: 245.10 in., so 245.10^2 = 60074.01 divided by 425.18 = 141.29 (140)

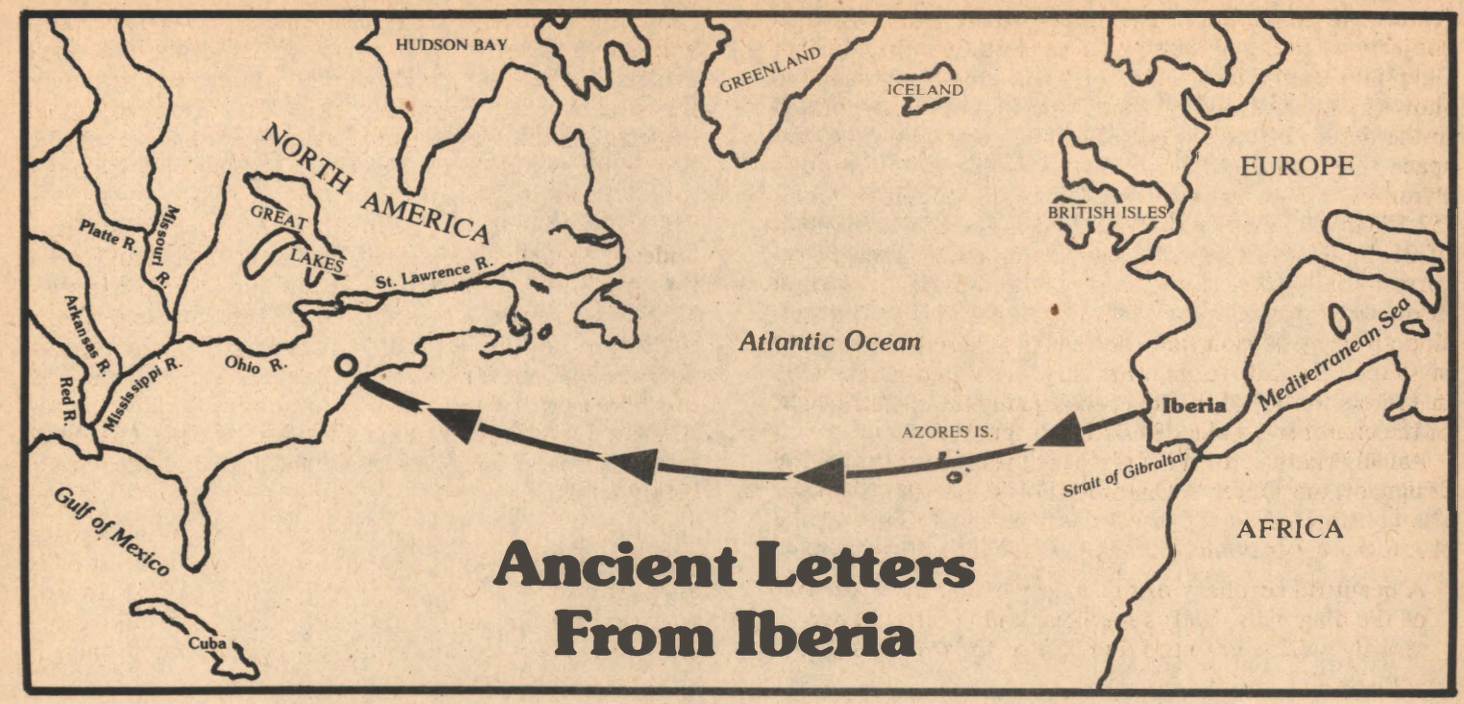
By the same process the diameter squared of the length and wall height gives:

The diameter of the length-wall height is 292 in.
The diameter of the width-wall height is 276.4 in.
The diameter of the length-width is 306 in.
The diameter of the length-width and wall height is 357 in.

so 292^2 = 85264 divided by 425.18 = 200.54 (200)
276.4^2 = 76397 divided by 425.18 179.68 (180)
306^2 = 93636 divided by 425.18 = 220.226 (220)
357^2 = 127449 divided by 425.18 = 299.75 (300)

The figures in parentheses refer to the theoretical values the Ancient Egyptians were aiming for. The slight discrepancies involved are, as Petrie notes (see note 19, p. 129), covered by the variations in each of the dimensions. Petrie has given his estimate of the mean dimension in each case. The exception to this is the ridge height, although difficulties with construction or changes in design may account for the small discrepancy.





Ancient Letters From Iberia

South Iberian scripts were used in the first millenium B.C. in the area we know as Spain and Portugal. The scripts were brought to the Iberian peninsula by Semitic Phoenicians in the course of their trade, which flourished for hundreds of years and ranged throughout the Mediterranean and beyond. How far beyond? Undoubtedly, these enterprising sailors passed through the Strait of Gibraltar many times, turning north for frequent visits to the coasts of Britain; also south, to do business along the Atlantic shores of Africa. And in letters which experts agree are South Iberian script, evidence is chiseled in stone that ancient mariners crossed 3,500 or more miles of ocean to reach American shores at least once, and that a subsequent overland trek westward took them as far as the Ohio River, even beyond it.

by Ida Jane Gallagher

AS EXPERTS deciphered ancient scripts on stone tablets excavated from burial mounds and other diggings in West Virginia and nearby states, an amazing fact that may prompt rewriting of history books became evident: America had visitors or inhabitants from the Mediterranean Sea region, many centuries before Columbus landed on our shores.

For more than 100 years, translation of crude messages chiseled on tablets associated with Adena burial mounds of West Virginia, Ohio and Tennessee baffled historians. Their ancient characters don't look much like the ABCs, and the words belong to vocabularies of nearly forgotten foreign languages which require translation into modern English. Further complicating matters, scripts often read from right to left or from top to bottom.

No wonder Adena mound tablets confused the experts. For years, these messages were either disregarded or called a hoax. But recent innovations in epigraphy, the translation of ancient scripts, spurred renewed interest and investigation of these old inscriptions. At last, epigraphers achieved a breakthrough in decoding the mysterious old writings. Their task could have rattled the brains of James Bond, the CIA or anyone undertaking the decipherment. Fortunately, some Americans successfully tackled the job. The results? Amazing implications for American history.

The controversial Grave Creek Mound tablet, unearthed in Moundsville, West Virginia, in 1838, is a prime example of widespread confusion surrounding the purpose and authenticity of inscribed burial tablets. (Fig. 1) Through the

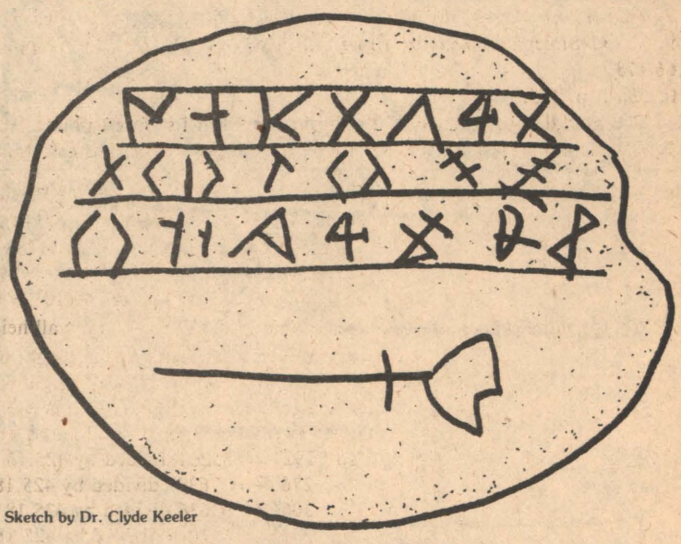


Fig. 1 The Grave Creek Tablet

Discovered in 1838 in Moundsville, West Virginia, this burial tablet is a 1½x2-inch grayish sandstone rock. After years of study, experts agree that the letterforms of the inscription are South Iberian.

years, experts pondered the Grave Creek tablet. Several antiquarians received copies of its obscure message for decipherment soon after it was discovered. Danish antiquarian Professor Rafn determined that its inscription was not Runic, but Iberian, even though Iberian script was considered undecipherable until recently. Rafn's findings rejected former speculations that the tablet was incised by Norsemen.

Frenchman Maurice Schwab offered the first translation in 1857: "The chief of emigration who reached these places (or this island) has fixed these statues forever." Later, a Moundsville osteopath's version appeared in a newspaper. It read: "United States of Egypt, built by states of Western Union."

Amused by attempts to decipher the tablet, Andy Price, publisher of the *Pocahontas Times* in Marlington, West Virginia, added his tongue-in-cheek version in 1928: "Bil Stumps Stone Oct 14 1838." This practical joke perpetuated the myth that the stone was a hoax and had been inserted in the mound to fool excavators. Incredibly, even national museum authorities took Price seriously, accepting his version for many years after he published it.

Abelard Tomlinson, whose family owned the mound and had, until 1838, resisted its opening, led the excavation team. Tomlinson's testimony that he found the tablet in the upper vault of the mound attests to its authenticity: "I removed it with my own hands, as I supposed from its ancient bed, believing it to be a genuine antiquity. . . . I was carefully removing the dirt, which was mostly of decayed timber, when it took my attention."

Not considered an American Indian artifact, this tablet's meaning remained a puzzle until 1975, when America's foremost epigrapher, Dr. Barry Fell, offered a translation of the South Iberian script that reads from right to left. The language is Semitic: "Tumulus in honor of Tadach . . . This tile engraved . . . (The) queen caused to be inscribed."

Fell's Iberian decipherments were verified by prominent Iberian epigraphers. Script can be dated by style, by comparison with European data and by associated artifacts. South Iberian script was used in Spain and Portugal in the first millenium B.C., when Mediterranean Sea merchants visited the Iberian Peninsula regularly. These cross-cultural contacts resulted in a variety of spoken languages and scripts.

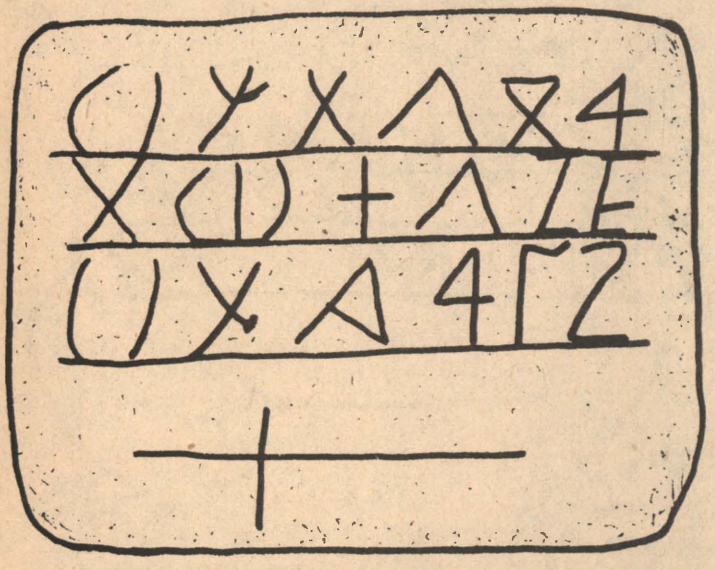


Fig. 2 The Braxton County (W. Va.) Tablet

According to translator Barry Fell, the South Iberian script on this 3x3½-inch burial tablet identifies the deceased as "Teth" and Teth's brother as author of the inscription.

Sketch by Dr. Clyde Keeler

Two other funeral tablets incised with the same South Iberian script have also been found in West Virginia. The Braxton County tablet, reportedly found in a stream bed, was translated by Fell. It reads: "Tumulus in honor of Teth . . . This tile is engraved . . . (His) brother caused to be inscribed." (Fig. 2)

An additional tablet, reported in the *Moundsville Daily Echo* on July 17, 1956, was discovered by Robert Dunnell in Ohio County and is called the Ohio County stone. Epigrapher Donal Buchanan deciphered its South Iberian script. The language is Semitic: "This was set up for Lydia, wife . . . Jacob engraved it."

The Bat Creek stone story illustrates the type of confusion that has accompanied interpretation of ancient tablets. In 1885, the Smithsonian Institution conducted excavation of Bat Creek Mound in Louden County, Tennessee. Prof. Cyrus Thomas, in the original excavation report, identified the inscription on this stone as "beyond question letters of the Cherokee Indian alphabet." Although Cherokee scholars refuted it, this assertion endured for 70 years. Smithsonian experts corrected the error after Dr. Joseph Mahan and Dr. Henriette Mertz independently discovered, to everyone's amazement, that when the tablet was turned upside down from the way it had been published in the report, Old Hebrew script was clearly recognizable.

Several epigraphers translated the Bat Creek stone inscription. Hebrew scholar Dr. Robert R. Stieglitz offers the most convincing decipherment. He compares the characters on the tablet to ancient Hebrew script imprinted on Jewish coins minted during the rebellions against the Romans. (The Jewish War, 66-73 A.D.; Bar-Kokhba's Revolt, 132-135 A.D.) By this timetable, Stieglitz dates the Bat Creek stone at about 100 A.D. The Smithsonian concurs on the basis of radiocarbon-dating of wood and bone material found in the unrifled mound. Stieglitz's translation: "2 . . . A comet for the Jews . . . 1" He believes that the numeral 2 refers to two important skeletons set apart from seven others in the grave. He interprets the numeral 1 as the date of burial, year 1 of the Messianic Era. "Comet" may refer to a firebrand leader or perhaps to Halley's Comet, which "hung over Jerusalem like a flaming sword" in 69 A.D.

A second Hebrew tablet, the Decalogue tablet, was unearthed from a small mound near Newark, Ohio, in 1860. When a huge rock stack was torn down to repair Buckeye Lake reservoir, 12 to 15 small earthen burial mounds arranged in a circle were uncovered. The Decalogue tablet contains an abbreviated form of the Ten Commandments, copied almost entirely from Exodus 20.

The Rev. J. W. McCarthy originally translated this Hebrew tablet in 1861 and recently, his decipherment was confirmed by Fell and Hebrew scholars Ernest Bloom and Jon Polansky. For years, the Decalogue tablet was regarded as a hoax, because its alphabet and language were unknown to most American linguists. Fortunately, Dana C. Savage, Jr., who puzzled over the inscription for several years, brought it to Fell's attention.

This tablet (Fig. 3) is shaped like a doorway or arch, with a figure identified as Moses carved in considerable detail on its front side. Hebrew letters inscribed around the archway and on the back read from right to left. According to the Bloom-Polansky translation, the message begins thus:

Fig. 3 The Decalogue Tablet



This drawing is close to actual size of the tablet unearthed near Newark, Ohio in 1860. The inscription in Hebrew sets forth in abbreviated form the Ten Commandments as recorded in Exodus 20.

Drawing by Hilary Grimm

"I am YHWH your God. You will not have other gods before me."

These inscribed burial-mound tablets and several more that have been reported must be considered national treasures. Their ancient scripts have shattered the myth that Columbus discovered America. Evidently, Mediterranean Sea people reached the interior of America by the first millenium B.C., and left their messages carved on stone tablets found in the Adena burial mounds, as well as on rocks.

The ancient visitors from the Mediterranean must also have been our first colonists, merging their culture with that of American Indians. A missing link in American history is fast becoming apparent, as epigraphers and archeologists find the answers to questions about our very ancient, pre-Columbian past.

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This article originally appeared in the March 1981 issue of Wonderful West Virginia *magazine under the title "Stone Tablets Found in Mounds Reveal Startling Old Scripts."*

The Vampire as Reality

by Kim L. Neidigh

DESPITE all our science and technology, or perhaps because of it, modern man remains fascinated by tales of the supernatural. In films and popular literature, ancient tombs disgorge living mummies, and werewolves stalk the shadows. On silent night-wings, vampires seek their human prey.

The vampire, especially, holds a keen attraction for the modern psyche. Although most of the well-known vampire stories come from earlier times, reports issuing in our own century suggest that vampires may still walk among us.

As recently as 1912 a Hungarian farmer turned back to the late Middle Ages for a prescription to insure final passage of a suspected member of the "living dead." The corpse was disinterred, the mouth stuffed with garlic, and a stake driven through the heart. And, according to the *London Mirror* of November 9, 1967, a blonde woman "with sharp, pointed teeth, wearing a mini-skirt and black stockings," attacked several people at night near Manaus, Brazil, and the next day a child was found dead with two small punctures near the jugular vein.

Studies in classic vampirism abound in literature of the 14th through 18th centuries. Henry More, a scholar who lived in the 1600s, recorded the case of a Silesian vampire:

As Johannes Cuntius lay dying from the kick of a horse, a black cat jumped upon his pillow and scratched his face. From the moment of death and all through the funeral violent storms swept over the countryside. As the final shovelfuls of earth were tamped down over his grave, the rains ceased and the stormclouds sped away. . . . But this was only a prologue.

Soon after the burial, Johannes was seen walking about at night. Much more upsetting to the commmunity, however, were simultaneous reports of milk turning to blood, of elderly people being strangled, and of children disappearing, apparently kidnapped. The turmoil continued for six months. Finally, the exasperated authorities decided to find out whether the grave of Johannes Cuntius was really his last resting place or—what else? An exhumation order was issued, and sure enough, what the gravediggers brought up was a corpse, and it had to be the mortal coil of the late Johannes Cuntius. But what made identification so certain was the remarkably fresh condition of the remains; moreover, there was blood *flowing* from a vein in the leg. Such evidence convinced the examiners that Cuntius was responsible for all the strange crimes of the past several months. The body was dismembered and burned, and forthwith, the terror ceased.



Portrait of Vlad IV

Dracula, of course, was the most famous of all vampires. His name appears on a list of "history's most evil characters" according to a poll taken early in 1981. Caligula, Adolph Hitler and Idi Amin also are named. Unlike this trio, however, Dracula seems to have lacked any political motivation; he murdered for pleasure.

Bram Stoker's *Dracula* was based on the Wallachian Prince Vlad IV, a 15th century nobleman who ruled what is today the country of Rumania. Best-known as Vlad the Impaler or Dracula ("son of the devil"), this bloodthirsty monarch was responsible for the agonizing deaths of hundreds. His favorite means of execution was impalement and he frequently dined amidst the bodies of his victims. From time to time he would drink their blood and bathe in it. After his death in 1477 there were reports that he had risen from the dead—and went in quest of more blood.

At the beginning of the 18th century a peasant farmer died in Kisilova, near Graditz, now in Yugoslavia. Three days after the funeral he came to his son in the night and asked for food. He ate and departed. Within a few days the son was found dead in bed. Others came down with a mysterious illness and died. The Tribunal of Belgrade sent agents to investigate. The body of the farmer was exhumed and was found with eyes open and lungs breathing. It was staked and burned.

Dean Augustin Calmet, in his *Dissertation on Vampires*, mentions a vampire who preyed upon his own kin. A soldier, quartered with a family on the Hungarian border, was slightly surprised when a stranger joined them at dinner, but family members seemed frightened beyond reason at the man's appearance. When his host died the next day, the soldier was told that the dinnertime "stranger" was the man's father who had passed away ten years before. The soldier related the tale to his superiors and a Count de Cabreras was appointed to take appropriate action. The father's grave was opened, and the body that was brought up was found to be fresh and whole. So the Count had the corpse decapitated and reburied.

The traditional way to terminate a vampire's bloody career was to exhume the body and drive a stake through the heart. Most times the method seemed to work. But a vampire in Bohemia received the stake without effect and went about thanking his captors, saying they'd been "very good to give him a stake with which to defend himself against the dogs." His ravaging ways continued for awhile, until the authorities had his body taken outside the village, a new stake put in, and the remains cremated.

To connoisseurs of the macabre, the name of Elizabeth Bathory is almost as well known as that of Count Dracula. Born in 1560 into a family which included numerous satanists and perverts, Elizabeth gained fame for her beauty



Vlad dining among his victims

Illustrations are from 15th century manuscripts.

as she grew into girlhood; quite in the vampire tradition, her long, black hair was a dramatic feature. At the age of fifteen she was wed to Count Ferencz Nadasdy. All too soon the Count went off to war, unaware that the forces of evil were about to terrorize his castle home in the Carpathians.

Elizabeth sought instruction in the arts of black magic and was tutored by a wizard named Thorke. One day a strange visitor came to the castle. His pale skin and pointed teeth were accented by the black clothing he wore. After spending considerable time with each other in the castle, Elizabeth and her visitor eloped. She soon returned—alone.

Now her career as a creature of utter wickedness sank to its bloodiest depth. She tortured the servants and delighted in experiments with knives and branding irons calculated to inflict the most pain. Her husband, back from the wars, warned her not to continue these practices, but she persisted, and when the Count died, she felt free of all inhibitions.

Elizabeth was getting along in years; her mirror reflected the image of a woman who "had been" beautiful. She wondered whether bathing in the blood of a young virgin might be an effective way to counteract the ravages of age. So she had one of the young housemaids murdered and the blood drained into a vat. Elizabeth disrobed and stepped in; as she bathed, she felt the warmth of youth course through her body and the glow of new life revitalize her moribund skin.

The euphoria of the bloody bath was of short duration. In order to prolong the sensation and perpetuate its benefits Elizabeth decided that only "new blood" would do, and that posed a problem of supply. At first, selected young maidens were lured to the castle with promises of employment. Later candidates for the vat were simply abducted. Finally, one of the victims managed to escape. After hearing the account of her ordeal, the authorities sent soldiers who broke into the castle and arrested everyone. Elizabeth's accomplices confessed to the slaying of forty girls and were executed. Elizabeth was examined, found insane and sentenced to confinement for life. She was walled up in her own room and died in 1614. There is no report she ever returned from the dead.

In the vampire literature are stories of attacks on cattle and sheep. These attacks on animals provide a background from which to view the contemporary rash of animal mutilations, where lack of blood is a suspicious characteristic.

Something was killing and draining sheep of their blood near Badminton, England, in 1905. In December 1977 a six-month-old calf was discovered near the Blue Spring High School in Missouri. A precision instrument had been used to cut off the right ear and tail and remove the liver; there was no blood, but swollen neck veins indicated the liver had been removed through the jugular. Another six-month-old calf was found by its owner with the penis missing and blood drained, on January 29, 1979 at Duran, New Mexico. Since the classic case of "Snippy" the horse in 1967 there have been huge numbers of similar cases of animal mutilation and, despite many theories, no one yet knows precisely how the blood and organs are removed, or why. Is some malevolent force sustaining its vampiric existence—at the ranchers' expense?

What are we to make of such strange stories, whether they be of present time or recounted from olden days? Do the dead ever come back to life? Many authorities have tried to explain away all vampires as being homicidal psychotics with a thirst for blood. But neither maniacs nor premature burials can account for reports of long-dead individuals "rising from the grave" or of depredations being committed in accordance with vampire tradition. Which is the more likely: Have many otherwise sensible men been long deluded, or do genuine vampires still exist?

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Letters

The Lost Continent of Mu(ror)

I recently acquired a paperback book entitled *Mu Revealed* by Tony Earll (Paperback Library, 1970). In this work, the author claims knowledge of the discovery of some scrolls found in Mexico which describe life on the supposed lost continent of Mu (called "Muror" in this case). I have not heard anything heretofore about such a discovery, and would like to hear from anyone who might know anything about these reputed scrolls.

The book, which I found in a used-book store, draws heavily on some dubious sources, such as Churchward, Le Plongeon, and Paul Schliemann. While this does not necessarily mean the new material in the book is equally dubious, it leads to wonder at its authenticity. Mr. Earll makes a reference which appeared in *Pursuit* back in the Spring 1980 issue (No. 50, page 78). He links the Egyptian *Book of the Dead's* mention of a place called "Antes" to his theory about Mu. In the *Pursuit* reference, Jon Douglas Singer links the same name to Atlantis.

I hope by bringing this apparently little-known book to the attention of the readers of *Pursuit*, some light may be shed on the truth (or falsity) of its remarkable claims.

Paul B. Thompson

* * *

Fair Play is the Name of the Game

Edgar D. R. Wilson's "Evidence for the Stability of the Solar System Since c. 2700 B.C." (*Pursuit* No. 54, Vol. 14, No. 2, Second Quarter 1981) is based upon rather remarkable assumptions. We are asked to believe that the ancient Egyptians knew with accuracy the velocity of light as well as the radii of Mercury, Venus, and the Earth. In modern times, measuring these quantities has been made possible by optical instruments with precision-ground lenses and mirrors. As far as I know, there is no accepted evidence that the ancient Egyptians possessed such devices.

Wilson considers it possible to support Shapley's decision "to prevent by all possible means the spread of Velikovsky's ideas until such time as admissible evidence on the subject might be presented." It is good for Wilson that the editors of *Pursuit* have a more liberal attitude, proven by the publication of his article.

Ragnar Forshufvud

* * *

The Fairly Uncomplicated Wudewāsa

Concerning the article which appeared on page 13 of the First Quarter 1981 issue of *Pursuit* (No. 53, Vol. 14, No. 1), "The Wudewāsa or Hairy Primitives of Ancient Europe," be advised that there should be no question at all regarding the origin of the name Wudewāsa which is a fairly uncomplicated Indo-Germanic term.

Wudewasa, or Woldwasan, combines the word for forest (Wold) and the word for being (Wasan) in Anglo-Saxon. In German this would be Waldwesen. Related terms for Wasan occur in other languages; for example, Wezen (Dutch), Vasen (Swedish) and Wesen (German). As a part of the verb "to be" it is also related to the current, English, singular past tense of "to be," i.e., *was*.

Hillyer Senning

Tom Bearden Further Explains

Several correspondents have written about the difficulties involved in understanding my view of Nikola Tesla's work (*Pursuit* No. 55, Third Quarter 1981, pp. 107-121). Some of the comments point out that Tesla only used a "simple" extension to electromagnetics; others question precisely how I view that a fundamental constant of nature can be varied.

I agree that Tesla used only a relatively "small" extension of our present electromagnetics—but even that extension seems to have yielded such remarkably different results that our present scientists have great difficulty comprehending it. Indeed, the addition of an extra dimension to the electrostatic potential is a simple but very profound change to all electromagnetics. And it means that, for the general case, everything has to be re-done, for what we have now is a special case where the electrically induced variation of timeflow rate-change is negligible.

The question as to what variable(s) and fundamental constants can be changed by electrically changing the rate of flow of time is the fundamental issue, and one which I deliberately passed over lightly in my "Tesla paper."

First, it appears that in present theory a change in the rate of flow of time is only envisioned and accepted due to relativistic velocity. However, in the Tesla paper, my reference 81 (Bloch & Crater, "Lorentz-invariant potentials and the nonrelativistic limit," *American Journal of Physics*, 49(1), January 1981, pp. 67-75) clearly establishes that a time flowrate change can be accomplished by electrostatic potential alone, even though the velocity is nonrelativistic. I regard this as a fundamental statement affecting all of present physics theory. Indeed, one might even argue that this reference establishes half my thesis! The other half of the thesis, of course, appears reasonably established by reference 1 (Whittaker, E. T., Proc. London Math. Soc. 1, 367 (1903). This reference establishes that any vector field can be replaced by two scalar fields. It follows that any vector wave can be replaced by two "coupled" scalar waves—the coupling merely being the statement of the pairing of the two scalar waves. Thus it can be argued that these two papers, taken together, concretely establish the entire basic thesis of the Tesla paper.

In an electrical change of time flowrate, for example, I personally hypothesize that a variation has occurred in almost every fundamental constant of nature, as well as in the so-called "curvature of spacetime." Changes, I believe, occur in the speed of light in vacuum, in the magnitude of the gravitational constant, in the magnitudes of space parameters, etc.

In my view, the reason is that vacuum (spacetime) is identically charged (virtual-particle flux through a four-dimensional framework of reference, coming from and returning to higher "dimensions" outside the Minkowski 4-D frame). In other words, I don't recognize "emptiness" as such, at all. The charge flux I'm visualizing is close to Farraday's idea of "electric flux," except that it has more dimensions than Farraday was thinking in terms of, and the vacuum/spacetime is identically this charge

flux, not emptiness or void. The charge flux, I believe, is a nested flux of virtual particles—generally the very same one already familiar to particle physics, but with the idea of "emptiness" removed. Indeed, it can be argued that the very structure of the presently accepted concept of nested levels of virtual particulate flux has eliminated any possibility of "total emptiness." Emptiness at any one level merely consists of the absence of that level of flux, but contains the continued presence of subordinate levels of flux. In other words, particle physics already includes a sophisticated "ether" that is pure nested levels of nested charged particle flux in the virtual state. And that "ether" is precisely what I regard the vacuum and spacetime to be: NOT "to be composed of," but *identically to be.*

This isn't too novel an idea. With a simple diagram and necessary assumptions, one can argue (see Bearden, *The Excalibur Briefing*, 1980, pp. 233-235) that the present "nested levels of virtual state flux" on a particle identically constitute rotated frames in higher dimensions! At least they can be modeled in that fashion. This, of course, makes for hidden variables and a nested set of "jump" thresholds between orthogonally rotated frames, in addition to the presently recognized quantum threshold between the first level of virtual state and the observable state. This identification of nested virtual levels with higher dimensional, orthogonally rotated spaces appears to be something which has not previously been noticed, and it crudely unites relativity and quantum mechanics in a manner not previously attempted. Obviously, even this approximation may be very limited.

At any rate, my concept of electrostatic potential (ESP) is that it is a true "point" function in an infinite-dimensioned space or spacetime, that is the same as the vacuum and an infinitely nested structure of virtual state. In this view, the ESP can affect the various levels of virtual state (i.e., the higher dimensional, rotated frames) directly, and in so doing affect higher dimensional objects and fields directly. This opens up the direct possibility of communication between orthogonal worlds ("parallel" universes), travel back and forth in time, direct engineering of the virtual state and virtual interactions, etc. Transmutation of elements, for example, can be done directly. This part, at least, is already an experimentally proven fact. Kervran's fundamental work already establishes that living systems can accomplish transmutation without using the kinds of extreme energies now necessary to do it in particle physics.

But note again how I regard a fundamental constant to vary with the electrically varied flowrate of time. From a quantum-by-quantum detection standpoint, in the laboratory frame we can only attain an enduring constant value of something by attaining it in repeated detections/observations. If we leave alone the basic charge flux constituency of laboratory frame vacuum/spacetime, then our repetitious laboratory frame measurements/detections used to establish a fundamental constant of nature remain unchanged. However, if we change the laboratory frame's very vacuum/charge/spacetime itself, then we squeeze or stretch the most fundamental measurement/observation conditions—the very background or matrix of each observation itself. In that fashion, our follow-on measurements/detections to re-examine a "fundamental constant" will themselves be changed—and thus the observed value of the constant is changed. In other words, fundamental constants themselves are conditional to a relatively unchanging spacetime/vacuum/charge in the laboratory frame.

Maxwell himself envisioned a "medium" or ether, and Graham & Lahoz, "Observation of static electromagnetic momentum in vacuo," *Nature*, May 15, 1980, pp. 154-155, may have gone a long way to concretely establish a Maxwellian ether. In addition, some further evidence of the Tesla potential may be that the speed of light in vacuum experimentally appears to be different on or near the surface of the earth (and thus in an increased "charged flux" activity) than it is in space away from earth (e.g., Belyaev, B. N., "On Random Fluctuations of the Velocity of Light in Vacuum," *Izvestiya Vysshikh Uchebnykh Zavedenii, Fizika* No. 11, November 1980, pp. 37-42; there is a translation by Plenum Publishing Corp. which I have misplaced). In addition, R. M. Santilli, "Partons and Gravitation: Some Puzzling Questions," *Annals of Physics*, Vol. 83, No. 1, March 1974, pp. 108-157, seems to have proved that one of the cornerstone assumptions of physics—that electric field and gravitational fields are separate things—is false. One is therefore left with only two alternatives: either they are totally the same thing, or they are partially the same thing. My comment is that, at any rate, some direct interconnection/interaction between the two fields must be possible, and my view of Tesla's use of electrostatic potential is consistent with that, as indeed would seem to be the variation of the speed of light *in vacuo* between proximity to greatly increased charge flux (on earth) and nonproximity to increased charge (in space).

I hope this letter at least more fully indicates the direction I have taken on Tesla's work, and answers some of the penetrating questions correspondents have asked.

Tom Bearden

* * *

Collective PK in Tennessee

Sabina Sanderson's article on "collective PK" (*Pursuit* No. 55, Third Quarter 1981, p. 133) reminds me of a similar incident I read about years ago.

A preacher named Gregory, who also owned a county newspaper in Lafayette, Tennessee, wrote a serial describing his family tree. It was an odd genealogy narrated at great length, but he had no difficulty getting it printed since he owned the paper.

According to the Rev. Mr. Gregory, one of his distant forebears, who lived ca. mid-19th century, met his end via the bolt-from-the-blue route, just as did Sabina's victim. It seems that this chap cursed God, then dared the Deity to strike him down. Lightning out of a clear sky executed him instantaneously and before several witnesses.

If the onlookers' mental projections induced the PK bolt that slew Sabina's victim, similar feelings on the part of onlookers at the Tennessee knockout might have invited the same result. Rural Tennesseeans of that era were generally ultra-fundamentalists. They would have been quite as upset as any devout natives of the Caribbean, to hear one of their own defy God.

Harold Holland

Letters from members to *Pursuit's* editors are always welcome and should be addressed to: Fred Wilson, 66 Bortic Road, P.O. Box 134, Cedar Grove, NJ 07009. Letters are subject to abridgement to assure fair sharing of the limited space available.

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.)

How Old? How Real?

Petrified Five-Month Fetus Discovered in Argentina

Last fall, research editor Charles Berlitz received a letter from Argentina in which the writer, Ricardo Liendro, said he had made a remarkable discovery while exploring a valley several miles south of his home in Salta, largest city in Argentina's mountainous northerly province of the same name. The object discovered, Sr. Liendro wrote, was a petrified human fetus about five months of age, found encased in solid rock of undetermined age.

A gynecologist's report which accompanied the letter authenticated the object as a petrified human fetus but added nothing to the few details given in the letter about the circumstances of the discovery. Also unexplained was the lapse of at least 15 years between the time of discovery and the time of disclosure.

Mr. Berlitz heard nothing further from Sr. Liendro up to the time this issue went to press. At his suggestion, excerpts from the letter are printed below with the gynecologist's report adjacent so that available information may be shared with readers rather than withheld pending further investigation which, though necessary, is not feasible in Argentina at this time.

(Letter and report translated from Spanish by Mauricio Rivadeneira)

Dear Mr. Berlitz,

Your name as a writer and investigator of international caliber is well-known to me. I wanted to let you know about a finding of great anthropological value which is as follows:

In one of my explorations in the valley of Calchaqui, Salta province, near a snow-covered mountain that peaks to 6,000 meters, I found a strange-looking stone of an oval shape. When thrown on the ground it split in half and revealed what doctors later confirmed to be a human fetus at about the five-month stage, petrified but in as perfect condition as it would be if newly aborted.

In 1969 I traveled to the U.S.A. for the purpose of submitting this anthropological object to the complete study I felt sure would be possible in a nation so technologically advanced. Though begun, the study was never concluded because the institute ["Instituto de las Fuerzas Armadas"] where the study commenced decided that to continue would involve making two longitudinal cuts to the mass of the fetus. I was opposed to this because I felt the operation was unnecessary and would destroy the shape of the whole. At this point the professors decided to end the study. However, the institute did estimate the object to be about 500,000 years old. (Other geologists have estimated ages up to *five million years*, the petrification being so perfect and compact.)

To the naked eye the object makes a spectacular sight because 50% of the small body protrudes out of the stone, the dorsal part indicating that inside the stone is also the complete placenta. I won't say more because I trust that sometime you will see this anthropological piece.

Enclosed you will find the complete scientific study made by Dr. Julio F. Temer of Buenos Aires, a prominent gynecologist who has practiced his specialty for more than 25 years.

The object is in question on two points: Is it anthropoid or humanoid; and, is it older than the estimate given in this country as 40,000 years, when mankind first appeared in America?

It had been my plan to travel to Mexico, where the most important anthropological museum is located; also to France, Germany, England, etc., to exhibit the object and have it further studied. In Argentina we do not have the scientific tools.

Now I am trying to answer the questions in the book I am actually writing, but because of my bad health (heart trouble) and my economic situation, I haven't been able to finish it.

(The letter concludes with a paragraph asking for investigation of the petrified fetus, and over the signature of Ricardo Liendro is a statement that he has "been in mining and archeology for 25 years.")

ANATOMIC STUDY OF THE OBJECT IDENTIFIED AS 'PETRIFIED FETUS' performed in 1967 by Dr. Julio F. Temer, gynecologist; member of the Argentinian Scientific Society, Ecology Society of Argentina, the Scientific Society of North Argentina, and former chief of descriptive anatomy for the Office of the Director General of Anthropological and Biological Investigations in the Province of Salta.

Upon visual examination, the object mentioned appears without any doubt to be the petrified remains of a human fetus at approximately four to five months of age.

The petrified cavity reveals the following: an area about 6cm long and rounded, with the characteristics of a cephalic area (i.e., head of the fetus) being very noticeable in the lower part, a depression representing the neck, and immediately under it, the left shoulder. Under this is a rectangular surface, following which we find a rounded part that would be the left buttock, and at its end another round part, the left knee; still proceeding in a downward direction, passing along the leg on the same side to the last part, the foot on that side is discerned. The position of the petrified fetus is the crouch, typically maintained by the human fetus.

Noticeable is a disc with the characteristics of the uterus, with a circular border and two faces, one visible on the exterior and the other adhered to the abdomen, on the inside. Also noticeable are a great number of protrusions and cavities with the characteristic appearance of veins and arteries of the uterus leading to the umbilical cord. Located between the stomach and the uterus is an array of pieces that seem to be parts of the placenta.

It is interesting to note that the ovoid shape of the cavity is characteristic of the human cavity that contains a live fetus. Given the well-preserved shape and details above described, it is possible the petrification occurred while the fetus was still inside the matrix.

(Signed) Julio F. Temer
M.I. 3902175
M.C.M. No. 222



What Color is Your Ice?

Fortunately for A. C. Hinson, the chunk of ice that fell from the sky didn't hit his home. The solid piece weighed about 30 pounds, Hinson guessed, and if it had struck the roof it wouldn't have stopped until it landed on the second floor—or someone's head.

After recovering from the shock of disaster narrowly averted, Hinson ran to the slope where he heard the chunk hit, about 200 yards north of his home in Tecumseh, Oklahoma. He retrieved several fragments and put them in his freezer. Then he got on the phone.

The next day, Dr. Peter Ray and another meteorologist arrived from the National Severe Storms Laboratory at Norman, where Dr. Ray is chief of meteorological research. After inspecting the fragments, he told Hinson: "I can say fairly confidently that it's not a hailstone." Less confidently, he said that it might have fallen from an airplane, or "it's possible" it fell from outer space.

"Saturn's rings are purportedly ice, and it's possible there are chunks of ice in outer space, too," he said. "But that's a very improbable

A New Twist in the 'Rustless Iron' Story

While we were drafting the promised further report on the rustless iron and "Damascus" steel of ancient India, member James Loretta was writing to tell us something we should have known, or at least suspected: By 1979 the Russians apparently succeeded in re-creating rustless iron under laboratory conditions after discovering that particles of iron clinging to moon-dust brought back by Luna 16 remained rustless after nine years' exposure to Earth's atmosphere. His report:

In its issue of November 17, 1979, the *Philadelphia Inquirer* printed a UPI-Tass release from Moscow entitled "Soviets duplicate non-rust iron." The article immediately flashed in my mind a connection with India's rustless pillar which I had known about for some years.

Upon seeing the article on page 184 of *Pursuit* No. 56 (Vol. 14, No. 4) I thought you'd be interested in reading the *Inquirer* article since I have not (and never have) seen previous mention of the Soviet connection. Enclosed is a photocopy of the article. I find the connection thought-provoking. I'd be interested in hearing what you or other SITU members think. —James F. Loretta

TASS, MOSCOW, VIA UPI

Moon dust doesn't rust, and this has led Soviet scientists to an equally remarkable discovery.

Pure, non-oxidized forms of iron and other materials brought back from the moon more than nine years ago by the unmanned Luna 16 spacecraft have remained in that non-rustless state on Earth.

In trying to find out why, Soviet scientists have managed to duplicate in laboratories the unique corrosion-resistant properties they found in the moon-dust.

"The formation of these unusual forms of elementary substances is connected with the action of the solar wind" on the moon, said Valery Barsukov, one of the scientists who helped to duplicate the properties of moon-dust. The solar wind—a stream of high-energy particles from the sun—does not penetrate Earth's atmosphere but does strike the surface of the airless moon.

After Luna 16 returned to Earth with its soil samples from the Sea of Fertility, Soviet scientists discovered non-oxidized iron in the loose dust and rock on the moon's surface. "We expected to find on the moon substances of a low degree of oxidation, but the fact that the iron has not oxidized (on Earth) . . . since the Luna 16 expedition surpassed all the expectations," Barsukov said.

(UPI editors added their own comment to the Tass release):

Barsukov did not explain why the corrosion-resistance has persisted long after the moon-dust was exposed to Earth's atmosphere. Neither did he give any details of the laboratory techniques involved in recreating the process on Earth.

Thanks to Mr. Loretta, and thanks to any SITU members who can help us learn more than these bare details about the Russian re-creation of rustless iron. We'll write more when we find out more. —The editors.



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thing. It's more possible than being a hailstone, though."

Mark Weaver, a spokesman for the Federal Aviation Administration, said the ice probably is what is known as "blue ice" from an airliner. Sometimes water treated with a slightly blue chemical will leak from an airplane lavatory and will form ice on the fuselage, Weaver said. When the ice grows to a certain size, it will fall off. "We've had three or four cases like that," he said. However, he noted that a 30-pound piece of ice is quite large to be "blue ice."

* * *

There was no doubt about the kind of "heavenly" ice that fell one week later and punched an 18-inch hole in the roof of a store in southwest St. Louis, Missouri. The ice was blue, the air seemed almost blue with the stench, and a partner in the tile business that owned the store was very blue after he climbed up on the roof, noted that about $1000 would be needed to repair the damage, and called the FAA at Lambert St. Louis airport only to be told that none of the seven or eight transports on the ground showed any signs of a leaking toilet valve.

The tile man, "Gib" Maxson, Jr., got more snickers than sympathy from his customers and neighbors, but after awhile he admitted "it's pretty comical when you come right down to it. I was reminded that a bird dropped something on me when I was 10. It's all a matter of scale, I guess."

SOURCES: *Boston Herald-American*, 3/16/82; St. Louis *Globe-Democrat*, 3/24/82.
CREDITS: L. Coleman, P. Nelke.

UFO? Don't Bet On It!

On a calm winter night something bright and blue raced through the sky and exploded in a blaze of light about a mile offshore near the Golden Nugget Hotel Casino in Atlantic City, New Jersey. The Coast Guard received a number of calls from witnesses who said that something had crashed into the ocean, but a search of several hours by three boats and two helicopters yielded no sign of wreckage.

A visitor from a nearby suburb said he was driving his car with three passengers aboard at about 7 p.m. when they saw a bluish-green streak of light pass over the hotel in a downward path. "It didn't look like a plane," the driver reported. "At first we thought it was a falling star, but I've seen falling stars before and they're always white," he added.

A woman in another suburb said she was standing outside her home at 6:35 p.m. when she saw "this beautiful sight in the sky. It was a silvery green ball with a long tail, heading out toward the ocean. I called my husband and told him I thought I had just seen a phenomenon."

From her home on an island 15 miles north of Atlantic City another woman reported seeing a light in the sky between 6:30 and 6:45 p.m. She described it as "very bright, shaped like the fuselage of an airplane, blue in front with little red flames in the back, like something I've never seen."

At Bader Field, Atlantic City's airport, controllers said there were no incoming or outgoing aircraft in the area at the time.

SOURCE: *The Press*, Atlantic City, NJ 1/13/82.
CREDIT: Member #2984.

Psychic's Map Finds Lost Boy

Shortly after breakfast on a September morning Justin Stahly, age 2-1/2, wandered away from his Iowa farm home with only his dog, Sandy, for company. The dog soon returned, but Justin didn't.

Not too upset when she first noticed his absence, the boy's mother called inside and outside the house and looked in the barn and woodshed. Then panic took hold and she raced to the back field to get her husband. Together they called again and again, and kept on walking and looking until they realized they were getting nowhere.

They telephoned the sheriff. He briefed his deputies on the disappearance. They spread the word, and by noontime a small army of volunteer searchers was deployed all over the Stahly property. On horseback and on foot the men combed corn and soybean fields, probed wells and cisterns, and even took apart some of the farm machinery. When darkness forced suspension of the day's fruitless efforts, the volunteers started to plan a more intensive search on the morrow, fearing that the survival time for a 2-1/2-year-old child deprived of food and water wouldn't be very long even if he were spared injury or escaped illness.

The volunteers set up a fund (eventually it totaled $16,000 in donations from 6,000 individuals). Some of the money went for the rental of two airplanes and a helicopter specially equipped with heat sensors, to reinforce an enlarged battalion of ground-searchers that resumed work at dawn on the second day of the disappearance. All that day the quest continued, without a sign being found of Justin Stahly or any clue uncovered as to his whereabouts or condition.

At dusk the aircraft returned to base and the volunteers straggled back to the Stahly house where they grouped around the front porch. Jeff Stahly, Justin's father, wanted them all to hear what he had to say:

"You've done everything that can possibly be done, but I'm afraid it's too late for my son." He thanked them, and the search was called off.

One of the listeners was a farmer from the next township named George DeGroot. He had been searching alone. He decided to make a last try. He vaulted a fence from which the others had turned away, having reasoned that no 2-1/2-year-old could climb over it or crawl under it. DeGroot had just begun to look along the far side of the fence-line when he heard a whimper. "It was very distant," he recalled later. "I shouted a couple of times. It got more real, like a boy's voice crying. I started running."

Within minutes, Justin was on his way to a hospital. Doctors examined him and found his condition good; he had suffered only a few insect bites and scratches. A nursing supervisor said he was alert, and "he's proved it by eating a popsicle non-stop." "He's not much dehydrated, and he is in good, good shape," the father added.

In the hospital lobby, reporters turned their questioning to George DeGroot. What led him to look on the other side of a fence that none of the others thought Justin could get across?

Pointing to a pocket of his jacket, DeGroot replied that a map drawn by a psychic had guided him to the site. Asked to identify the psychic, he declined, and with a smile as relaxed as any in the room, he turned and left to get his car.

SOURCE: AP dispatch in *The Tennessean* (Nashville), 9/7/81. CREDIT: H. Holland.



Killer Ravens Mutilate Cattle

Farmers is northwest Ontario are losing cattle to a bizarre syndrome. Killer ravens are swooping down on the ill-fated cows and plucking out their eyes, causing death soon afterward.

Cattle farmer George Wall first began finding dead cows that had apparently bled to death after their eyes had been ripped out five years ago. Since then, he estimates he has lost 40 head worth about $10,000.

He isn't the only one. Other farmers in the area have had similar losses, and one of them was witness to a recent calf-killing by ravens.

Wall began to have suspicions about the deaths, which included cattle of all ages, but it was not until last spring that he found them confirmed in a sudden and savage way. He said he was watching a six-month-old calf in the barnyard when a large black raven flew over the fence and landed on the calf's head. "All of a sudden, down went the beak, out came the eye, and the animal went down like it had been hit with a sledgehammer," said Wall.

He examined the animal, then called a veterinarian and the district agricultural representative. "I told them what I'd seen, and when I did, they said, "Don't tell such far-fetched stories." Unable to convince anyone that his problem was real, Wall waited for another attack. It came three weeks later, and the next day it happened again. After two attacks in a row, Wall called the Ministry of Natural Resources and called back the vet and the agricultural representative. "This time, I didn't ask them. I told them to get out here quick, and when I showed them what had happened, they agreed I was right." Wall explained that the ravens go for the eyes first and after the animal goes down, they often begin picking at the rectum.

When it came to a bull in Wall's herd, the birds used a different tactic. The big animal died after the ravens swooped down on his back in a succession of "sorties" during which they pecked at and pulled away innumerable small tufts of hair with their beaks. Eventually, holes appeared in the skin and, although Wall applied medication daily to stop the bleeding, the repeated attacks left the animal in such weakened condition that he could no longer take nourishment.

Wall "tried everything" to drive the predators away—shooting, hanging a few dead ravens around the barnyard in a scarecrow pattern, standing guard at times of day when previous attacks occurred, but nothing worked. He thinks the birds go for the eyes and rectum because other regular food sources, like mice, are hard to come by in winter.

Dr. David Millar, the veterinarian who was called to investigate the killings, doesn't agree. He says the ravens are selective and their attacks are not prompted by hunger because the cows' carcasses are untouched; noting that the cattle bleed from the eye cavities after the ravens strike, he doubts the bleeding is sufficient to cause death. Wall says that some of the dead cows from his herd "absolutely bled dry," but Millar says the animals he examined did not. "I believe it must have something to do with the severing of the optic nerve. The animal drops instantly and it is not aware of anything after that. For all intents and purposes it is dead."

Another theory developed locally holds that the killing habit could have started with birds scavenging large animal carcasses, developing a taste for the eyes and learning to recognize them as a nutritious source of food.

Several other farmers within a six-mile radius of Wall's farm have complained of similar attacks upon their herds, probably by the same ravens. But there must be more than one flock of the black brigands, for about the same time an attack was in progress in the sector of the Wall farm, another vet was called to a farm more than 100 miles distant, to hear the owner of a young calf describe its death in the same terms used by Wall.

SOURCE: *The Calgary Herald*, Alberta, Canada, 3/14/82. CREDIT: V. Markotic.



Memos & Miscellany

Coming Events

June 27 - July 3: The 1982 "Rainbow Experience." Schedule of events at Elizabethtown College, Elizabethtown, Pa., includes lectures and workshops focused on "Creative Synthesis—a week-long experience in learning how to balance your interior and exterior knowledge with practical application to your daily life." For details, write: Life Spectrums, P.O. Box 373, Harrisburg, PA 17018.

* * *

July 22 - 25: U.S. Psychotronics Association Conference (1982) at the Green Center building, Colorado School of Mines, Golden, CO. Physics, UFOs, crystals, radionics are among the major fields to be covered in presentations by and discussions with Tom Bearden, Robert Beutlich, Riley Crabb, Daniel Fry, T. Galen and Sarah Hieronymous, Andreja Puharich, Leo Sprinkle, Marcel Vogel, others. For details, write: Robert Beutlich, 3459 W. Montrose Ave., Chicago, IL 60618.

* * *

August 10 - 21: Guided tour of "Megaliths and Mysteries of Ancient Britain" includes Avebury, Silbury Hill, Stonehenge, Glastonbury, Findhorn, and the Orkney Islands.

August 21 - 31: Guided tour of "Megaliths and Mysteries of Ancient Egypt" includes temples at Komombo, Edfu, and Esna, as well as more famous ones at Karnak, and Hathor's at Denderah; the Cairo Museum, Sphinx, and the Giza Pyramids.

The tours are consecutive in order to allow those who plan to take both, to leave directly from Britain for Egypt. Those taking the Egypt tour only will depart U.S. August 20. For details, write: Holistic Life Travels, 1627 Tenth Ave., San Francisco, CA 94122.

* * *

September 15 - 19: The American Society of Dowsers' 22nd Annual Conference, at Danville, Vermont. "In our workshops for 1982 we intend to present many new faces and facets of dowsing, while continuing to stress the importance of basic dowsing skills," says the Dowsers' announcement; it calls special attention to a two-day pre-convention "dowsing school" beginning September 14. For details, write: American Society of Dowsers, Danville, VT 05828.

New Organization

In the process of formation since February, the International Society of Cryptozoology intends "to serve as a focal point for the investigation, analysis, publication, and discussion of all matters related to animals of unexpected form or size, or unexpected occurrence in time or space," according to the announcement brochure. For a copy, write: J. Richard Greenwell, Sec.-Treas., P.O. Box 43070, Tucson, AZ 85733.

Corrections

In *Pursuit* No. 56, Fourth Quarter 1981:

Page 177, left column, last sentence: "He thought the builders were the people of Manoa, the legendary lost city of the Amazon." The pronoun [He] is incorrect and should be changed to [Bond]; it was interviewer Bryce Bond's conjecture, not Ivan Sanderson's, that the sunken cities near Yucatan were built by Manoans.

Page 181, left column, first paragraph, ninth line: Change [she] to [he]. Reviewer Robert Barrow joins *Pursuit's* editors in apologies to *Mr.* Tam Mossman, senior editor at Prentice-Hall, Inc.

Back cover: Overlooked in indexing was a book which received a very favorable review in *Pursuit* No. 53, First Quarter 1981. Add, under "Books Reviewed," [On a Slide of Light, Greta Woodrew, 42].

Sometimes It Happens . . .

If you ever receive a copy of *Pursuit* with pages duplicated or left out, or groups of pages assembled in other than numerical order, please write *immediately* to SITU, P.O. Box 265, Little Silver, NJ 07739, and give volume, number and whole number to identify the affected issue, and your name and address as it usually appears on the envelope in which you receive the journal. We will send a good copy to replace your bad one, at no charge. This type of bindery error is infrequent and never affects more than a few copies in any printing; but SITU has no way of knowing the nature or extent of the error unless notified by the individual member who receives an improperly bound copy. Prompt notification also helps us to minimize such errors in the future.

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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."

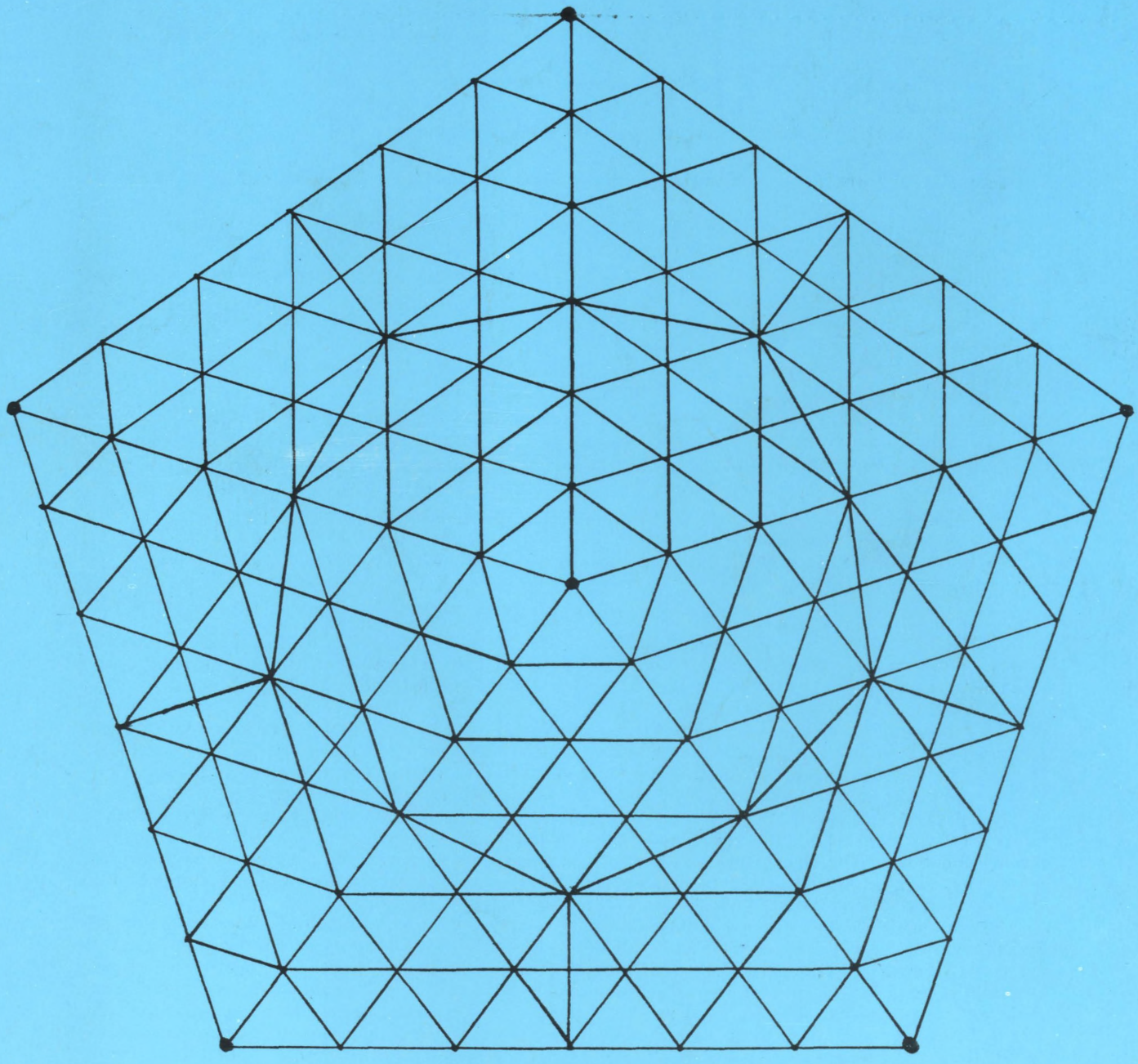
Thus SITU was born, and thus *Pursuit* began to chronicle our Investigation of The Unexplained.

Printed in U.S.A. ISSN 0033-4685

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Pursuit

WORLD ENERGY WEB



3rd DENSITY LEVEL

(See 'The Planetary Grid', Page 6)