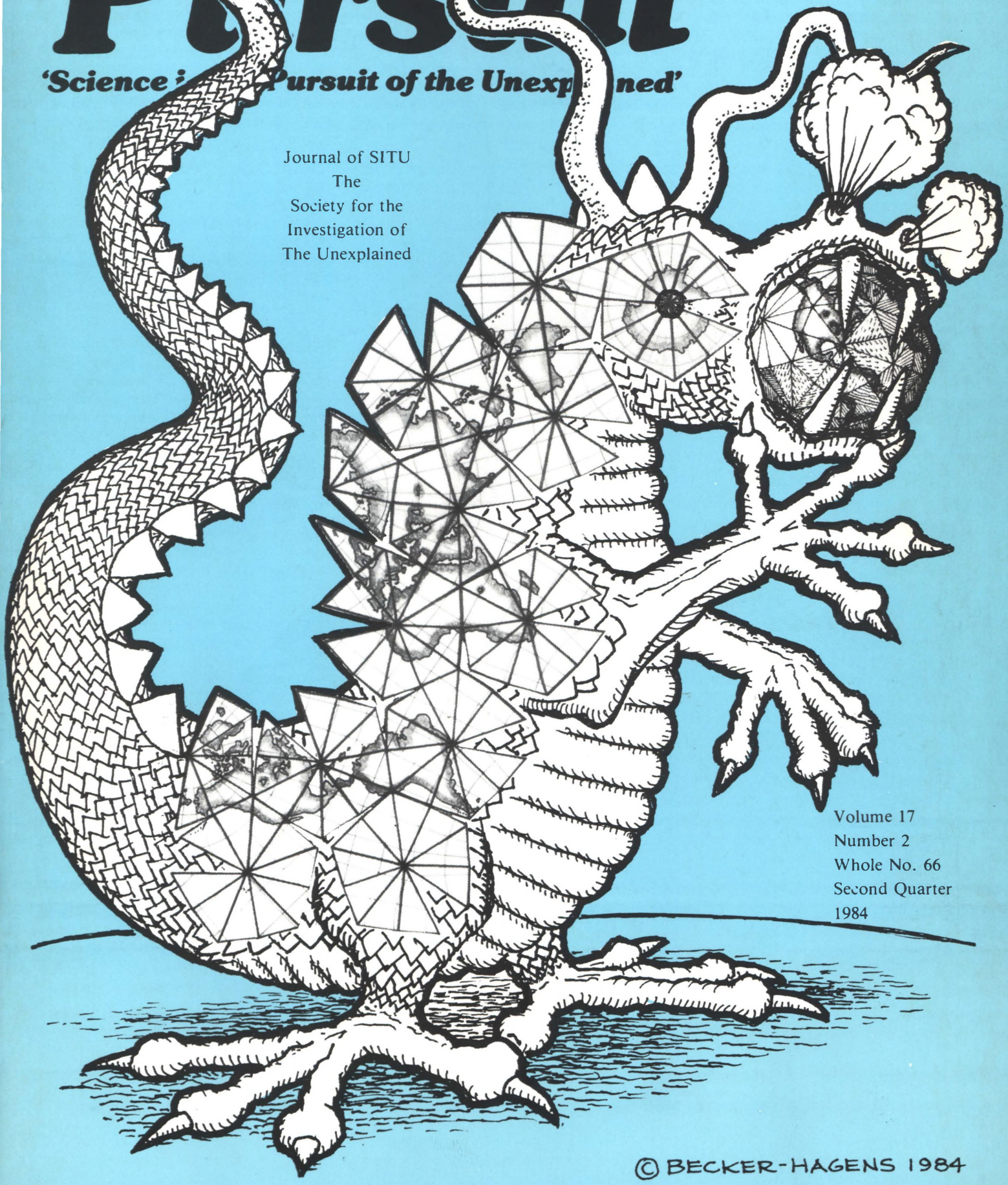
Pursuit

'Science ; Pursuit of the Unexp ned'

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The
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Investigation of
The Unexplained



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THE SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

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THE QUARTERLY JOURNAL OF THE

Pursuit®

SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

'SCIENCE IS THE PURSUIT OF THE UNEXPLAINED'

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Cover photo: "A dragon line is only so wide as the crack in the cosmic egg." A Becker-Hagens drawing.

The Becker-Hagens Report

We are pleased to be able to present The Becker-Hagens report to our membership in a complete, single-issue article.

As they explain, they have done some exhausting research in a remarkably short period of time. We feel confident, as they do, that there is still a great deal more to be learned as you will see by the various possible relationships they have already begun to investigate.

In fact, the following was sent to us by them, but, too late for inclusion in the main body of the article:

Philadelphia Experiment Grid 'Coincidence'

In the course of reading *The Philadelphia Experiment* by William Moore and Charles Berlitz we discovered an interesting coincidence that put the path of the disappearing destroyer U.S.S. Eldridge running close to and parallel with the major grid line connecting the Philadelphia Navy Yard with the Norfolk dock area and onto the 'Bermuda Triangle' point #18. Could the vessel in its alleged time travel and disappearance have been on this grid coordinate line?

We hope our readers will pass on their ideas to them directly and to us, too.

* * * * *

Long-time ***Pursuit*** readers know that we usually do not run long, technical articles in their entirety. However, due to the timeliness of the material, and its importance, we trust that our decision to depart from that standard will be accepted.

—The Editors

* * * * *

Bill Becker (Professor of Industrial Design at the University of Illinois, Chicago) and Bethe Hagens (Professor of Anthropology at Governors State University) are a husband-wife team. In 1981, they started a product and graphics design partnership, Conservative Technology. Contact them at 105 Wolpers Road, Park Forest, Illinois 60466.

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The Planetary Grid: A New Synthesis

"The experience of life in a finite, limited body is specifically for the purpose of discovering and manifesting supernatural existence within the finite."

Attributed to Pythagoras

by William Becker and Bethe Hagens

Introduction

We've entitled our current exercise in planetary grid research "A New Synthesis" — and indeed we hope it is. All that may be new about our work is that we have simply found a unique blend of the previously "unblended" ideas of others. Those others are true visionaries in the areas of unexplained earth phenomena, human history, discovery, and the art-science of geometry (earth measure). Over the last year and six months, we've received literally hundreds of letters from researchers all over the globe — who are seeking a comprehensive explanation for a continuum of phenomena and events which traditional science emotionally rejects as "impossible," "hallucinatory," and/or "unquanitifiable." Yet the events continue to be catalogued, with many reports suppressed or labelled "fraud" by orthodox scientists. Worldwide networks of questioning theorists persist and grow with each report. We will try to mention as many of our correspondents as we can within the text of this article. Several contributors, listed at the end, have truly transformed our view of this work.

* * * * *

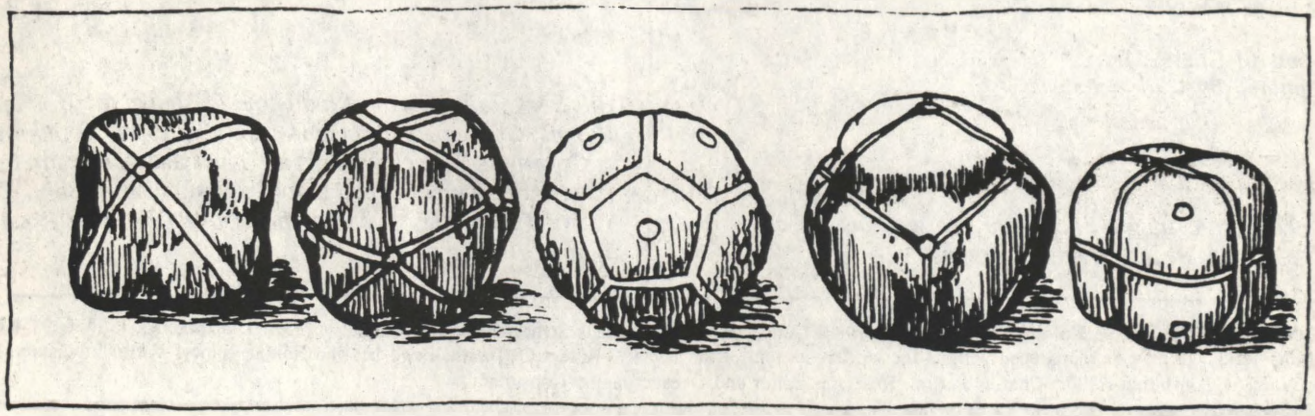
In 1200 A.D., a new energy began to move within the cultures of the West. After centuries of obedient reflection within the established order of Roman Christianity, the spirit of individualism and exploration began to emerge. The 14th century great plagues of Europe, in which one fourth of the Continental population had died — with three out of four persons afflicted, had awakened in the West the archetypal imperative to "control Nature or die!" By the 15th century, Leonardo da Vinci and the multi-disciplined geniuses of the Renaissance had rediscovered the lost scientific principles of pre-Christian Greece and Rome, and had invented the "view point" of the individual within their perspective drawing and painting systems. Paintings and public murals now began to put the individual at the center of a "world view" which, for the first time in centuries, conveyed the notion that through individual effort and analysis, the person — the viewer — could come to order and "control" the often hostile natural environment.

This "individual point of view" (perspective view point on "horizon") required "detached awareness" (standing distant from that which is viewed) and a consummate dedication to visual detail and analysis in order to "render an in-depth perspective." The writing and journalism of today still ring with the Renaissance archetypes.

Now it is 500 years later, and Leonardo's manifest symbol of individual view point and detachment has brought us to viewing video discs of the earth as seen from the moon. It has also brought us to the uneasy conclusion that our pre-Renaissance imperative to control Nature (literally "that which is born") or die has ushered us into a technological malaise where most of our man-made "natural" control systems are in crisis — especially those systems which exploit, pollute, or dramatically disturb the biospheric processes of the earth.

Just as the perspective pictorial systems of the Renaissance artists "brought into focus" the unspoken cultural archetypes of their time, we feel that the current network of planetary grid researchers (of whom we are a part) may be on a similar path toward developing a unifying symbol of a new earth: a paradigm as transcendent over our passing "Iron Age" as the Renaissance was over the Dark Ages. What may make the proposition even more fascinating is the parallel analogy that — just as the driving force behind the creative energies of the Renaissance was the rediscovery of Greco-Roman science/philosophy; so with our planetary grid theorists, the driving force behind most research efforts is the continuing flow of evidence, both physical and metaphysical, that the existence of Pre-Egyptian civilizations — some with highly advanced technologies — is now no longer speculative, but a necessary assumption for developing any comprehensive archaeological treatise.[1] We believe that the planetary grid is an ancient model that brings control through

Illustration #1
These stones on display at the Ashmolean Museum in Oxford, England suggest a life of creative intellectual synthesis for the Neolithic craftsmen who crafted and "wrapped" them with leather thongs.



comprehensive understanding and not through detached myopic analysis/manipulation. The contemporary video artist/philosopher Dan Winter expresses the idea beautifully. "Our destiny is to encounter our embracing collective mind with increasing intimacy and resonance. We awaken to a love life, in which personal love expands to planetary love — through this touching new body of mindfulness. A new body of mind crystallizes among us."[2]

Planetary Grid Researchers: Prehistoric to Present

The oldest evidence of possible planetary grid research rests within the Ashmolean Museum of Oxford, England. On exhibit are several hand-sized stones of such true geometric proportion and precise carving that they startle the casual viewer. Keith Critchlow, in his book *Time Stands Still*, gives convincing evidence linking these leather-thonged stone models (see illustration #1) to the Neolithic peoples of Britain — with a conservative date of construction at least 1000 years (ca. 1400 B.C.) before Plato described his five Platonic solids in the *Timaeus*. And yet, here they are — the octahedron, icosahedron, dodecahedron, tetrahedron, and cube all arrayed for comparison and analysis. Other multi-disciplined archaeological researchers like Jeffrey Goodman[3] and A.M. Davie[4] have dated the stone polyhedra to as early as 20,000 B.C. and believe they were used as projectiles or "bolas" in hunting and warfare. Davie has seen similar stones in northern Scotland which he attributes to the early art of "finishing the form" of crystalline volcanic rocks which exhibit natural geometry. He dates these artifacts to at least 12,000 years before Plato (ca. 12,400 B.C.). Critchlow writes, "What we have are objects clearly indicative of a degree of mathematical ability so far denied to Neolithic man by any archaeologist or mathematical historian." In reference to the stones' possible use in designing Neolithic Britain's great stone circles he says, "The study of the heavens is, after all, a spherical activity, needing an understanding of spherical coordinates. If the Neolithic inhabitants of Scotland had constructed Maes Howe (stone circle) before the pyramids were built by ancient Egyptians, why could they not be studying the laws of three-dimensional coordinates? Is it not more than a coincidence that Plato as well as Ptolemy, Kepler, and Al-Kindi attributed cosmic significance to these figures." Yet another historian, Lucie Lamy, in her new book on the Egyptian system of measure gives proof of the knowledge of these basic geometric solids as early as the Egyptian Old Kingdom, 2500 B.C.

We agree, in general, with all the above researchers that the crafting of sophisticated three-dimensional geometries was well within the capabilities of Pre-Egyptian civilizations. With the concept that knowledge of these geometries was necessary to the building of stone circles and astronomical "henges" — we also agree — and would add that we have evidence that suggests that these hand-held stones were "planning models," not only for charting the heavens and building calendrical monuments, but were also used for meteorological study; to develop and refine terrestrial maps for predicting major ley lines of telluric energy; and, in conjunction with stone circles, were used to construct charts and maps for worldwide travel long before the appearance of the pyramids.

Take another look at the five Neolithic stones. Notice the placement of points on not only completed intersections where thongs connect — but on the "open comers" where thongs might be added. The central figure, the dodecahedron, has all twelve centers of its pentagonal faces marked with points for further "wrapping" — as with the cube figure to the far right. Its corners are defined similarly by marked open points. Now note the tetrahedron, the second figure from the right. Its four vertexes or comers, which traditionally define four triangles, have already been bisected by a second array of thongs defining another tetrahedron overlapping the first at midpoints. It is our contention that these stones were not wrapped and marked with leather to facilitate their use as "bolas" or projectiles. The stones and their varied nets are too delicate and complex to have been used as hunting and warfare shot. Their appearance struck us initially as ritual objects similar to the decorative reed spheres found in Southeast Asia; or as religious symbols such as the mysterious bronze and gold spheres found in France and Vietnam — which some say depict the ancient text of the *Tao Teh Ching*. It may well be that all of these hand-held objects served similar planning and mnemonic functions for the people who treasured and crafted them. (See illustration #2)

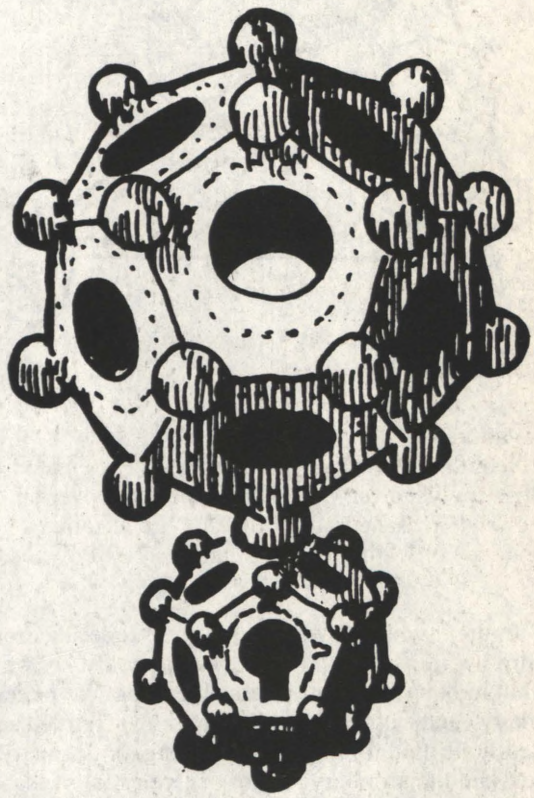


Illustration #2
Gold and bronze figures exhibiting twelve facets and twenty "horns" have been unearthed in France and Vietnam. Vietnamese war veterans recognize them as sacred Taoist objects marking acupuncture points.

Viewing the stone polyhedra together, we can only conclude as Keith Critchlow does — that their intended use was for the study, comparison, and analysis of spherically determined systems of geometry. Given the apparent use of these stones as "planning models," and given the apparent "extra wrap" of thongs on the tetrahedron — consider the result if the Neolithic craftsman of these forms had decided to discover the ultimate in delineated spherical geometry models, a single sphere upon which would be combined all the wrappings and points of all five solids.

The most direct route to such a figure is as follows: Take the icosahedron wrapping pattern and combine it with the existing pattern of points and thongs on the dodecahedron. The combination of figures provides a form composed of 15 "great circles" which intersect at 62 predicted common points.[5] (See illustration #3)

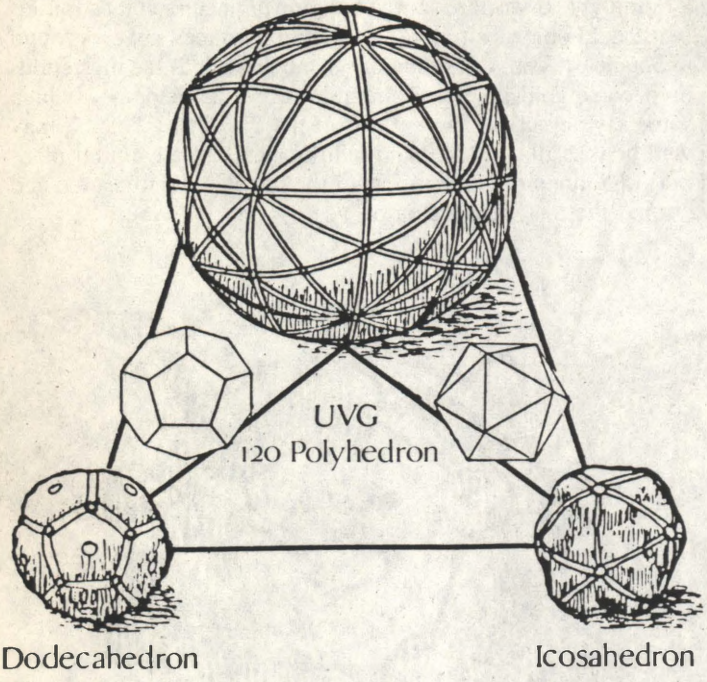


Illustration #3
The Neolithic craftsman could easily have created this beautiful polyhedron — which requires the overlap of a dodec and icosahedron. Fifteen "great circles" or "equators" of leather thong create the 120 Polyhedron.

This figure, which synthesizes the dodecahedron and icosahedron with its 120 triangles, was not only known to the Greeks but to other civilizations much earlier. We believe that its geometry can be applied in two forms: the "girded sphere" or marked stone used for mapping, dowsing, or geometry (earth measure); and the armillary sphere or "celestial basket" used as an astronomical device to measure time via the solstices and daily sunrises. The armillary sphere casts a shadow on the captured stone within its framework (see illustration #4) — thus echoing the ancient analogy "As above, so below."[6]

Returning to the creation of our ultimate spherical model, the second step would be to take the other figures — cube, tetrahedron, and octahedron — and lay out their line arrays over the existing 62 point pattern. You will find that not only is the 62 point system of vertexes compatible with the icosahedron and dodecahedron — but that all the leather thong patterns of all the polyhedral stones are precisely "mappable" over those same 62 vertexes. In fact, our surprised craftsman would soon discover that all five stone arrays can be overlapped one upon the other with different corner matchings until a beautiful polyhedron with 121 "great circles" and 4,862 points has been developed. This is the ultimate single sphere pattern which houses all five Platonic solids within multiple orientations (see illustration #5). This is the same form that was used by R.

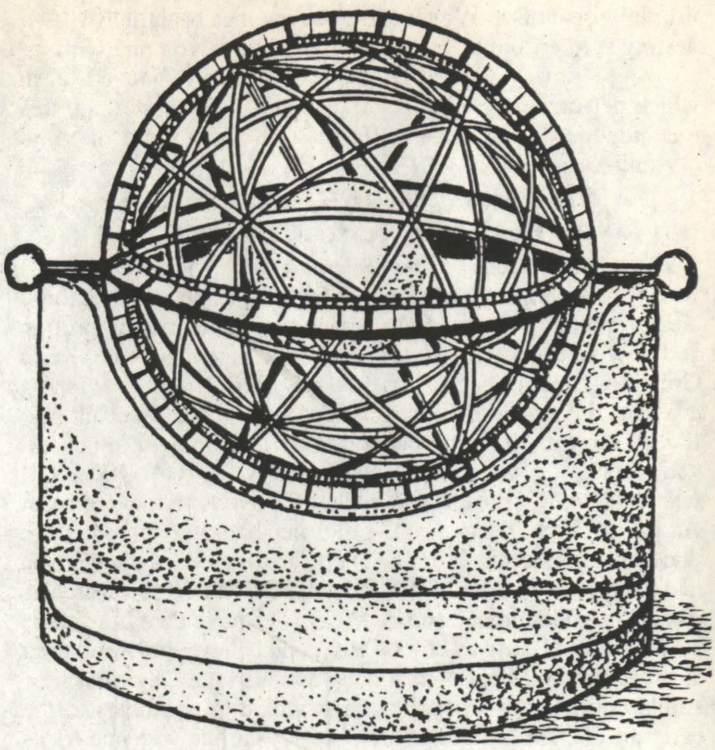
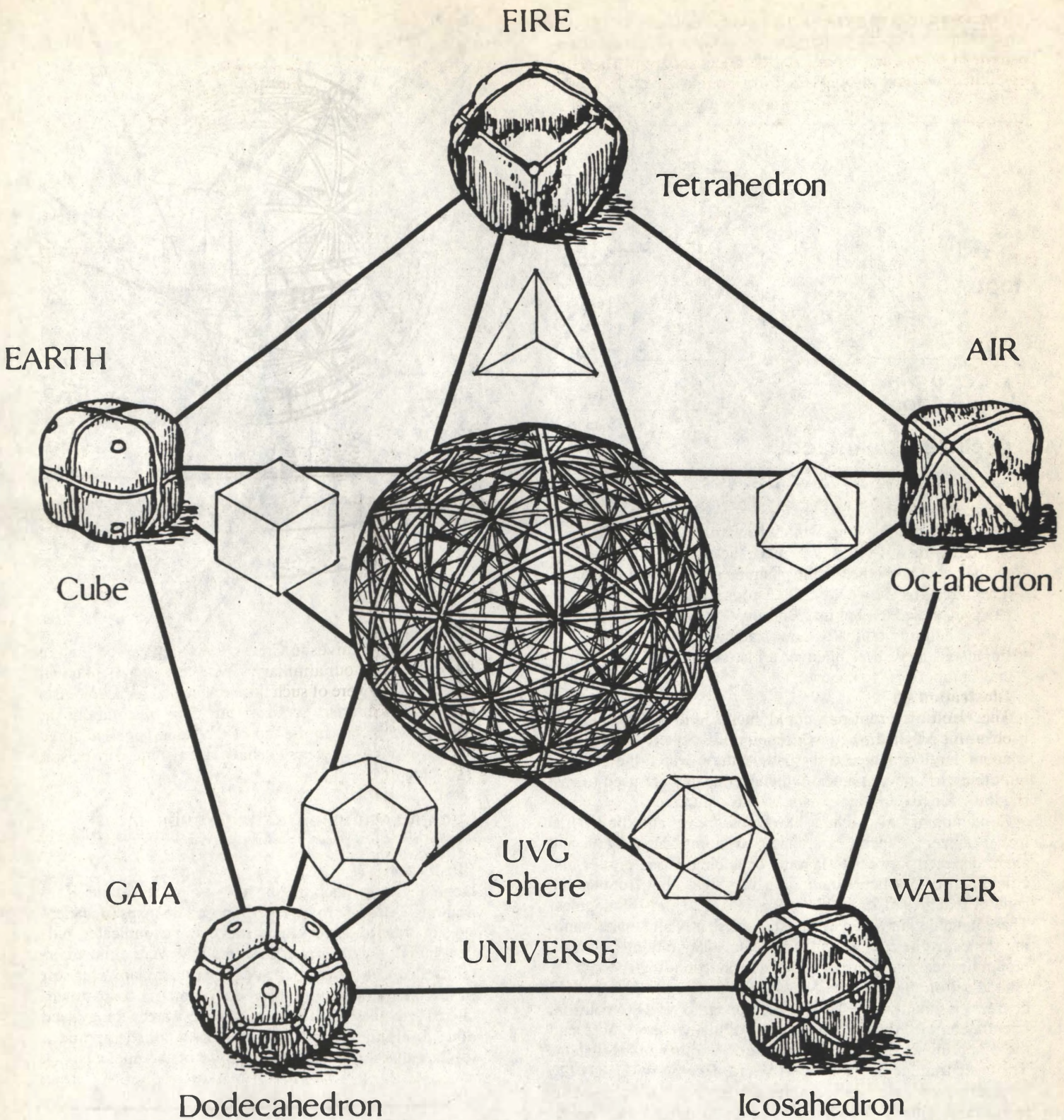


Illustration #4
The Minoan archives in Crete catalog the carved granite figure in which our armillary sphere rests as an unknown object. These were of such importance that archaeologists have cast concrete replicas for their restorations at Knossos. Notches in the top of the stand have led some to suggest that these might have been some sort of spit barbeque device.

Buckminster Fuller for his domes and, in our research, we have called it the Unified Vector Geometry (UVG) 120 Sphere. We consider it the key component in our proposed "new synthesis" of planetary grid research.

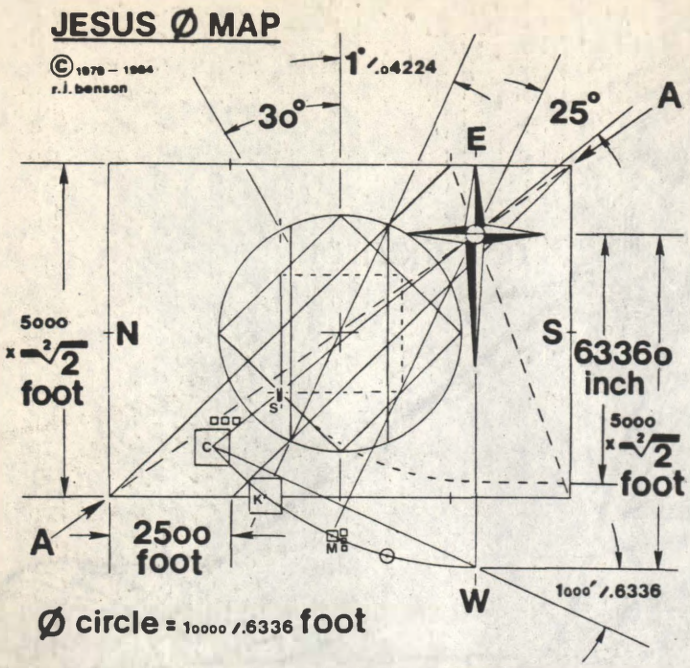
Plato's description in the *Timaeus* of a cosmology based on the five regular volumes (tetrahedron, octahedron, cube, icosahedron, and dodecahedron) echoes Pythagorean teaching regarding the manifestation of the infinite within the finite. Plato postulates a metaphysics in which the four elements of Greek science — earth, air, fire, and water — are associated with four of the five solids. He mysteriously reserves his description of that most noble form used by the Creator to fabricate the universe as "a certain fifth composition." Tradition relates the cube to earth, tetrahedron with fire, octahedron with air, icosahedron with water, and the dodecahedron with the universe or "prana/aether." Because he had written that, "The earth viewed from above, resembles a ball sewn together from twelve pieces of skin," we believe he related the dodecahedron to Gaia, the living planet earth. We also propose that Plato's mysterious "fifth composition" is more complex than the dodecahedron — but based upon it. We suggest that Plato's most noble framework for building the universe is a form which unifies and supports all the forces operating simultaneously within the five

Illustration #5 (See page 53)



Pythagorean Cosmic Morphology

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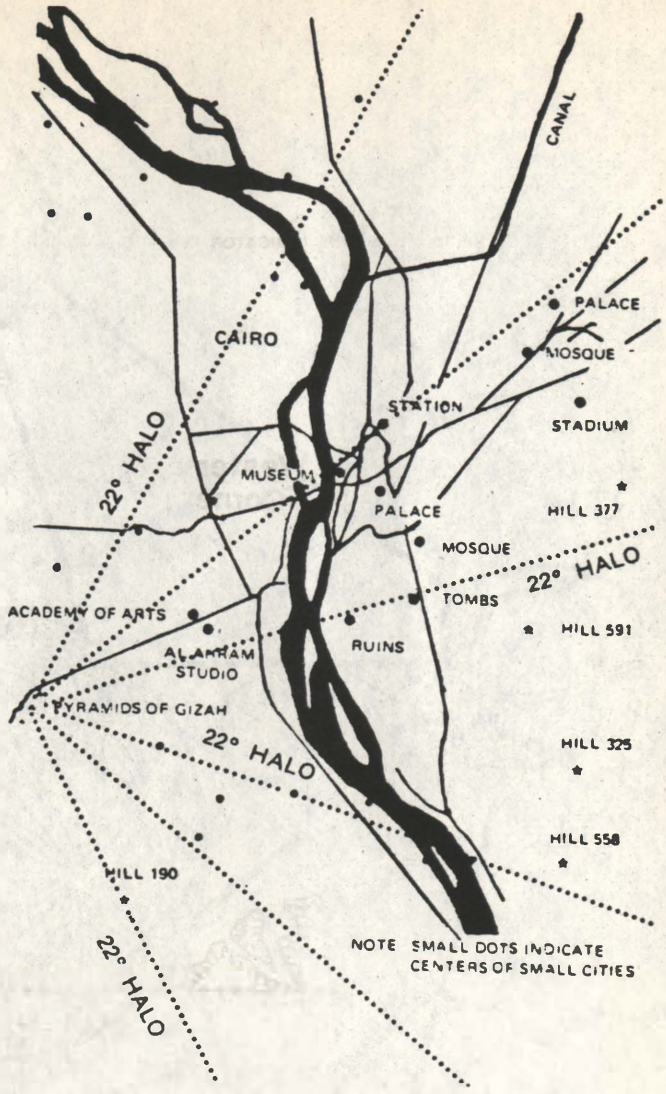
Reprinted with permission of the author from *World's Oldest Ø Map 6018 B.C.*

Illustration #6
The world's oldest map, which Richard J. "Dick" Benson dates to 6018 B.C., depicts the elegant theory of mathematics embodied in the planning of the city of Cairo. The megaliths shown are (C) Cheops, (K) Kephren, (M) Mikerinus, and (S) Sphinx. Benson's work may well provide a helpful, radically new framework for historical linguistics as well as uncover a lost simplicity in the art and numbers of geometry.

regular solids, the four primary elements, and the earth (Gaia) itself — the Unified Vector Geometry 120 Sphere. We further contend that this sphere is the pattern upon which the ancients built their armillary spheres, which to this day are used to cast shadows for reading the solstices and equinoxes.

Contemporary researchers like Donald Cyr[7] and Sir J. Norman Lockyer[8], experts in archaeoastronomy, have again and again detected in the site layouts of ancient stone circles and cities, a circular plan of radiating lines diverging from sacred centers at angles of 22+, 11+, 46+, 90, 120 and 180 degrees. These radiating lines, it was found, consistently align with standing stones, stone circles, and sunrise/solstice marking points on mountain peaks and crest "notches" surrounding the site. A related set of angles in the Megalithic landscape, 23½ and 47 degrees, is equally regular but does appear to relate to celestial phenomena of the common variety. In many cases, these and the other angles link one sacred site to another miles distant. The basic triangle in our Unified Vector Geometry (UVG) 120 Sphere exhibits just these angles, at intervals strangely correspondent with those found by Lockyer, and Cyr and others.

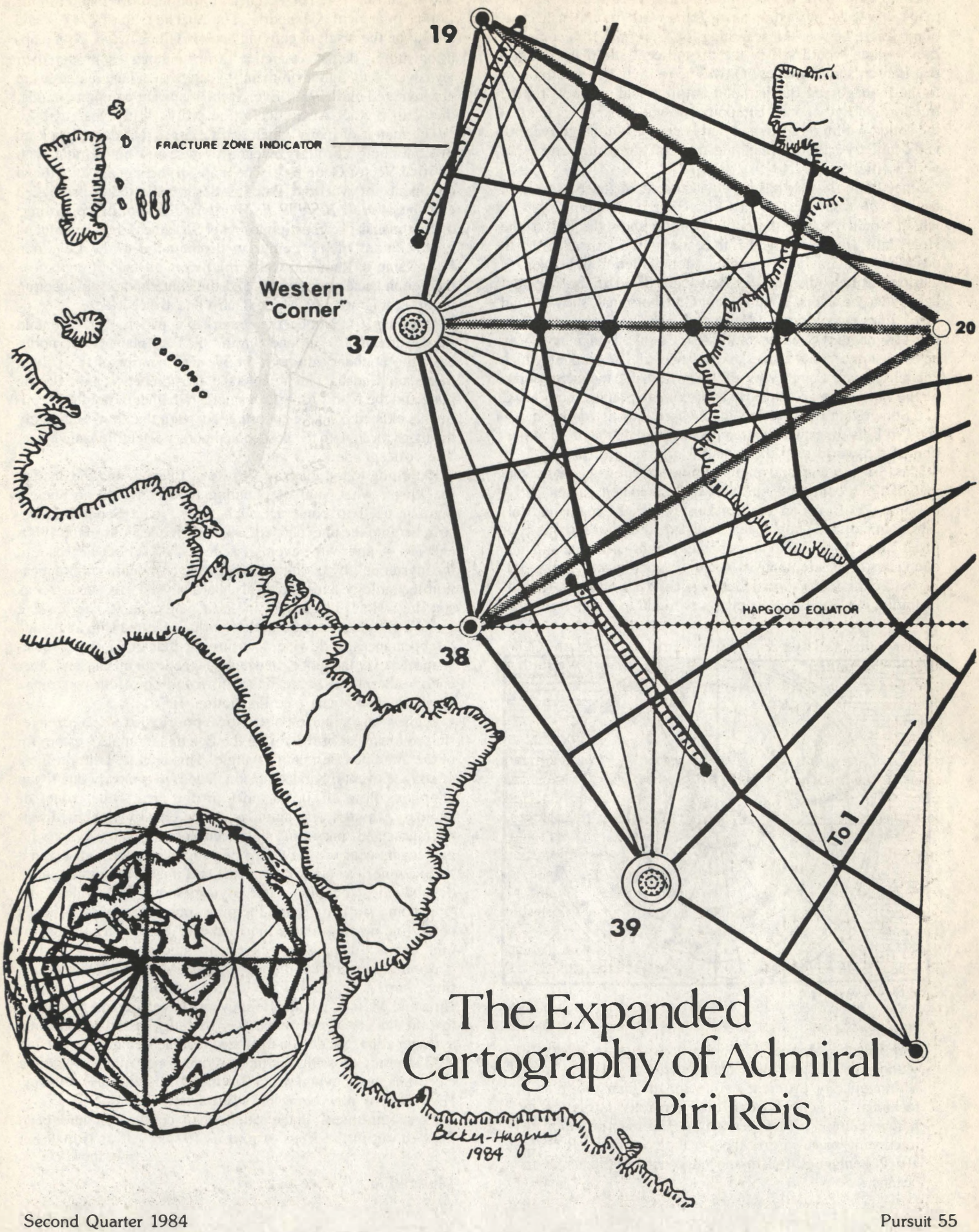
Plato had travelled extensively while making notes for the *Timaeus*. His visit to Egypt would have brought him in touch with the historian/planners of the city of Cairo. Engineer/geometer Richard J. "Dick" Benson[9] believes that Cairo is possibly the most ancient surviving example of a precise geometric site plan based not only on the angles discovered by Cyr and others but on angles which connect sites across continents and which — again — are almost eerily similar to those in the UVG 120 Sphere. (See illustrations #6, #7)



CAIRO ALIGNMENTS FOR "HIDDEN HALOS"
Reprinted with permission of the editor from *Stonhenge Viewpoint.*

Illustration #7
Donald Cyr is encouraging the use of a simple Halo Sighting Template to be superimposed on maps of ancient sites in order to detect alignments that may indicate "hidden halos" — atmospheric events that were almost certainly a part of the daily life of Megalithic man. This sort of research will require the cooperation of compartmentalized scientists in astronomy, geology, archaeology, and other disciplines — but may recreate a holistic approach to Gaia that supported the lifestyle of the ancients.

Illustration #8 **(See page 55)**
The U.S. Navy has analyzed the Piri Reis map and determined that it is a correct circular grid projection from Cairo. The half diamond (outlined by grid points 37, 19, 20 and 38) which contains the complete construction infill of the original map shows a superficial, though perhaps indicative, resemblance to two Basic Triangles of the UVG system we propose.



The Expanded Cartography of Admiral Piri Reis

Could Plato have avoided in the *Timaeus* a direct reference to the simple dodecahedron as his framework for universal creation because he was still searching for "a certain fifth composition" which would satisfy the magnificent site plan of Cairo that Benson's map implies? Or was he restricted by a secret vow to the Pythagorean Brotherhood not to reveal to the world the true form of Pythagoras' compound polyhedron, which held all the solids within its form and had been used in the global grid and armillary sphere "planning models" for Cairo and other sacred cities?

Since Plato, history has lightly sketched what seems to have been a *sub rosa* quest for a Cairo-centered mapping system, which would "square the circle" and/or show the way to the Holy Grail. (Interestingly, a 13th century writer named Wolfram described the Grail as a "precious stone fallen from heaven.") Curious artifacts like the Piri Reis map, dated 1523 A.D., but believed to be a copy of an ancient Greek original, show "wind rose" lines converging on Cairo with angular divisions of 22+ and 11+ degrees (see illustration #8). Could this map have been an extension of the site lines and solstice/sunrise markers which encircle ancient Cairo? Viewed "from above," the major points on the Piri Reis map so nearly approximate points on our UVG 120 Sphere that we have included a sketch using our geometry and Piri Reis' lines which attempts to complete the missing portion of the world map the Admiral originally drew.

The Piri Reis map and another unique document, the Buache map of 1737, contribute much toward our contention that early, possibly Pre-Egyptian civilizations possessed mathematical, astronomical, and geophysical skills equal to those in this confused "Iron Age." Both maps possess highly accurate and unique views of the continent of Antarctica not known, supposedly, before the International Geophysical Year of 1958. (See illustration #9) The Piri Reis map was found in Istanbul in 1929

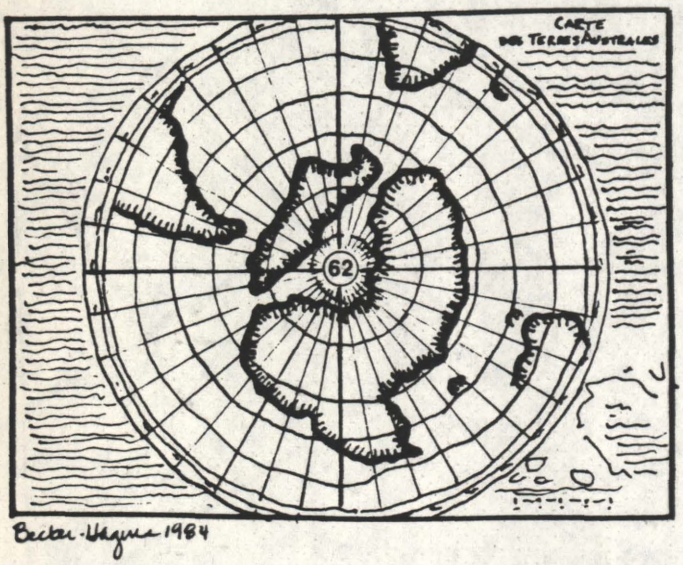


Illustration #9
The Buache Map of 1737 shows Antarctica correctly without its ice cover and may indicate everything from a dramatically different earth climate than today to a technical capacity beyond that generally attributed to human culture 10,000 years ago. The map provides an interesting piece in grid theory: the centers of all UVG 10/12 Pentagons fall at the edges of continents or in oceans.

and is said to have been copied from a map originating in the library in ancient Alexandria. The Buache map of 1737 is said also to be the result of copying ancient Greek maps. Both maps astonishingly depict Antarctica's true land masses through their icy cover — though instruments to detect such land masses were not invented until 1958. Even if the maps are complete frauds, they still predict Antarctica's true profile thirty years early.

The matter of maps which can't exist — but do — is a kind of continuing corollary avenue of research compatible with Unified Vector Geometry. The maps of the so-called mythical continents of Mu and Pan (as described in the channelled *Oahspe, A New Bible in the Words of Jehovih*; in the writings of controversial scientist/philosopher Sir James Churchward; and in revelations of the Lemurian Brotherhood to the Lemurian Fellowship in Ramona, California) were all made long before the geophysical year studies and the contemporary pioneering ocean cartography of Marie Tharp and Bruce Heezen (see illustration #10). Notice the remarkable patterns of mountain ridges running 270° around Hawaii; the flat "plain" to the northeast; the boundary through the western quarter of the United States and Canada which marks the division between the Pacific plate and the North American shield. Whether or not these continents existed is a less important question than how accurately the maps mesh with the best contemporary scientific knowledge. The correspondence is very close.

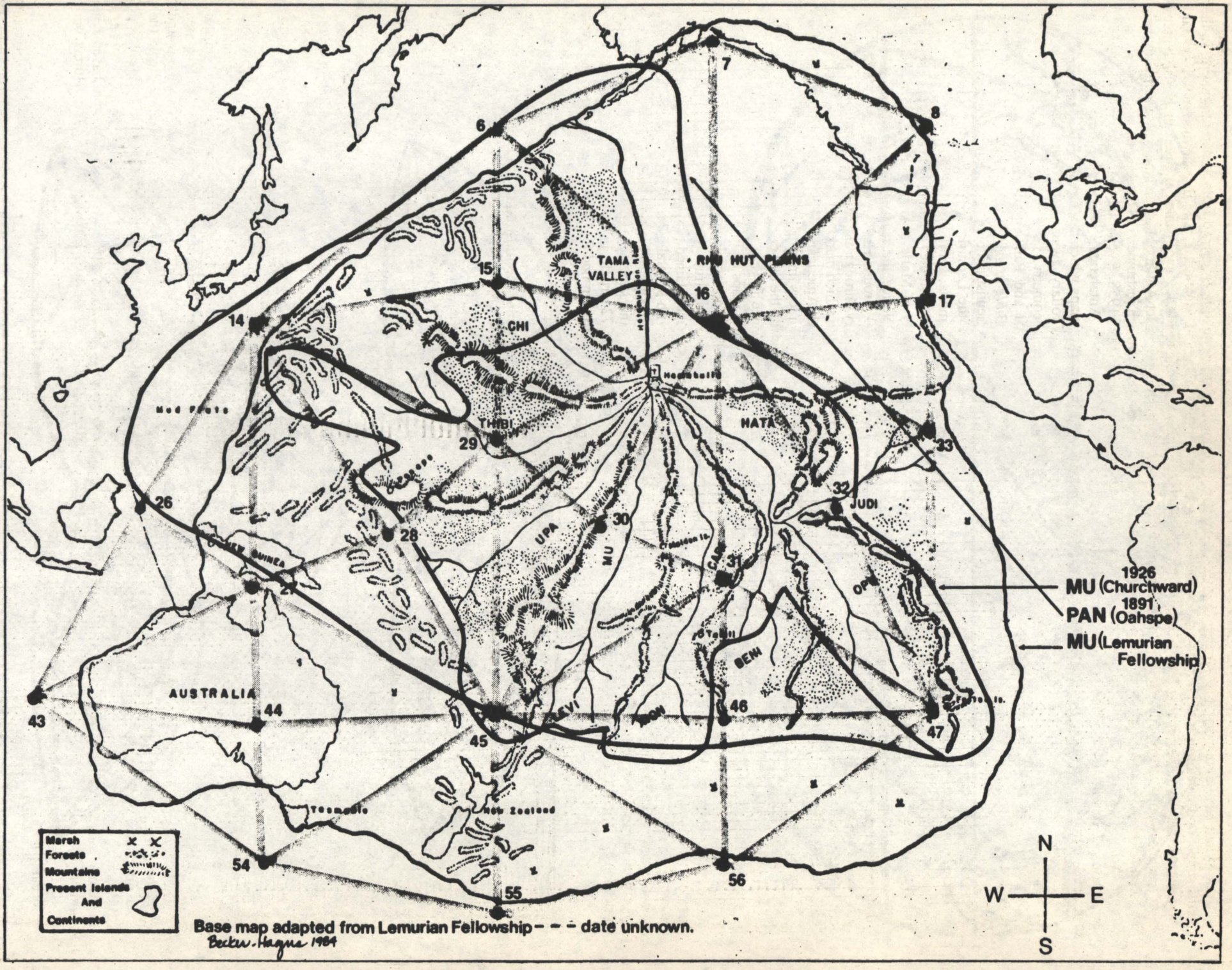
Returning to the maps of Piri Reis, Buache, and the ancient sea kings, what kind of planning models would an ancient mariner need to construct such maps? Ivan Sanderson, researcher into the unexplained, asked such questions in the 1960s and 70s — and with several associates, he set out to "pattern the mysteries" by taking full advantage of modern communication technology and statistical data analysis. His success was startling. His 1972 article in *Saga* magazine, "The Twelve Devil's Graveyards Around the World," plotted ship and plane disappearances worldwide, focusing attention on 12 areas, equally spaced over the globe, in which magnetic anomalies and other energy aberrations were linked to a full spectrum of strange physical phenomena (see illustration #11).

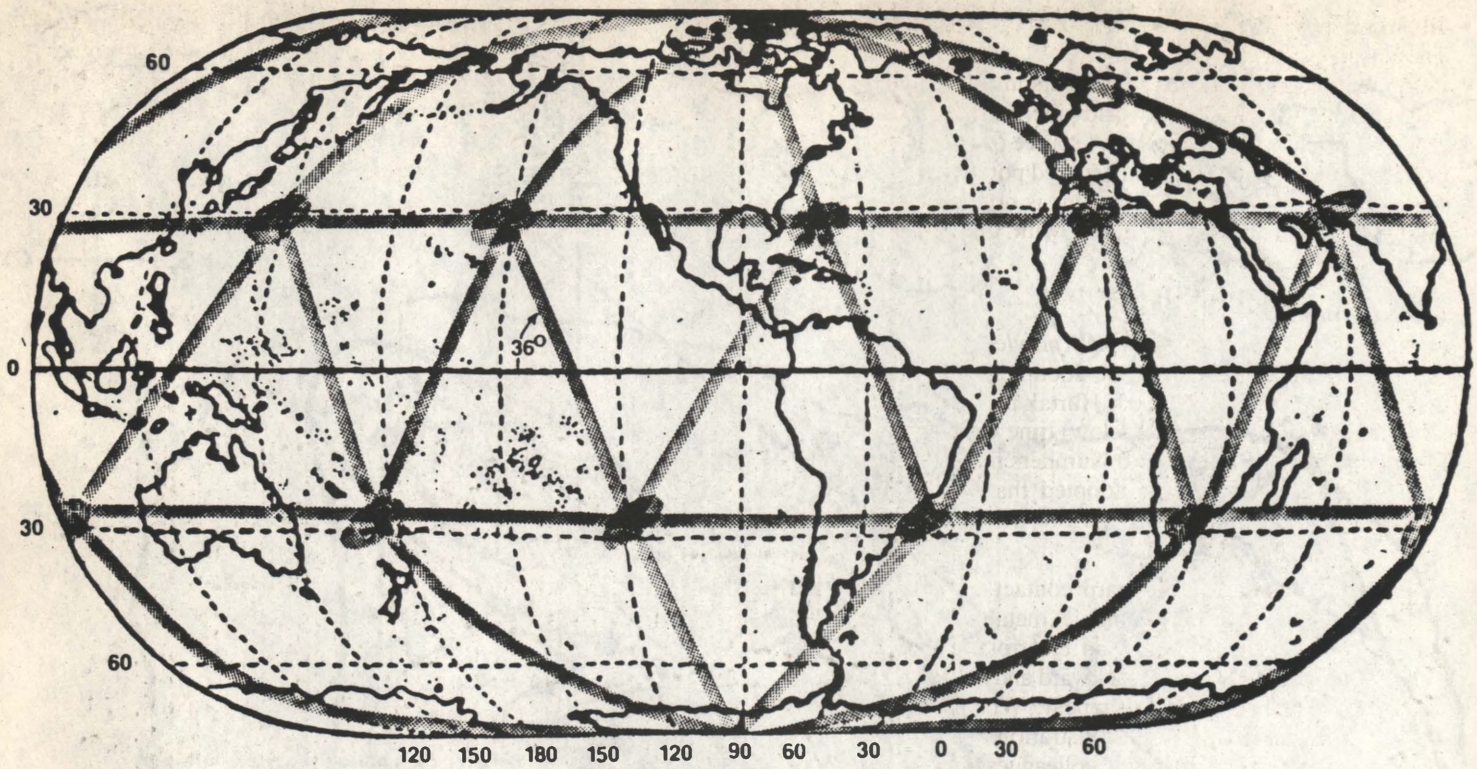
Highest on Sanderson's statistical priority list was a lozenge-shaped area east of Miami, in the Bahamas, on the western tip of the infamous Bermuda Triangle. This area's "high profile" of strange events, Sanderson concluded, was mostly due to the enormous flow of air/sea traffic in the area. Other zones of anomaly, though less familiar, were equally rich in disappearances and space-time shift occurences. A pilot flying with passengers near the Hawaii zone suddenly found himself in a "dead zone" without instruments and unable to communicate beyond the cockpit. After flying some 350 miles, the "phenomenon" lifted and the pilot found that tower officials could find no measurable time had elapsed between the beginning of his "dead zone" experience and its end.

Another area of continuing disappearances and mysterious time-warps is the Devil's Sea located east of Japan between Iwo Jima and Marcus Island. Here events have become so sinister that the Japanese government has officially designated the area a danger zone. Sanderson theorized that the tremendous hot and cold currents crossing his most active zones might create the electromagnetic gymnastics affecting instruments and vehicles. His theory is now being balanced against several.

These same areas, in the pattern of an icosahedron, have been mapped out in the *Keys of Enoch* (1977) by J. J. Hurtak but

Illustration #10 (See page 57)


7
8
6
15
16
17
14
TAMA VALLEY
RHU HUT PLAINS
CHI
THIBI
HATA
29
33
32
JUDI
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28
30
UPA
MU
CAN
OPA
BEH
AUSTRALIA
43
44
45
46
47
54
55
56
1926
MU (Churchward)
1891
PAN (Oahspe)
MU (Lemurian Fellowship)
Marsh
Forests
Mountains
Present Islands And Continents
N
W
E
S
Base map adapted from Lemurian Fellowship – – – date unknown.
Becky Hague 1984


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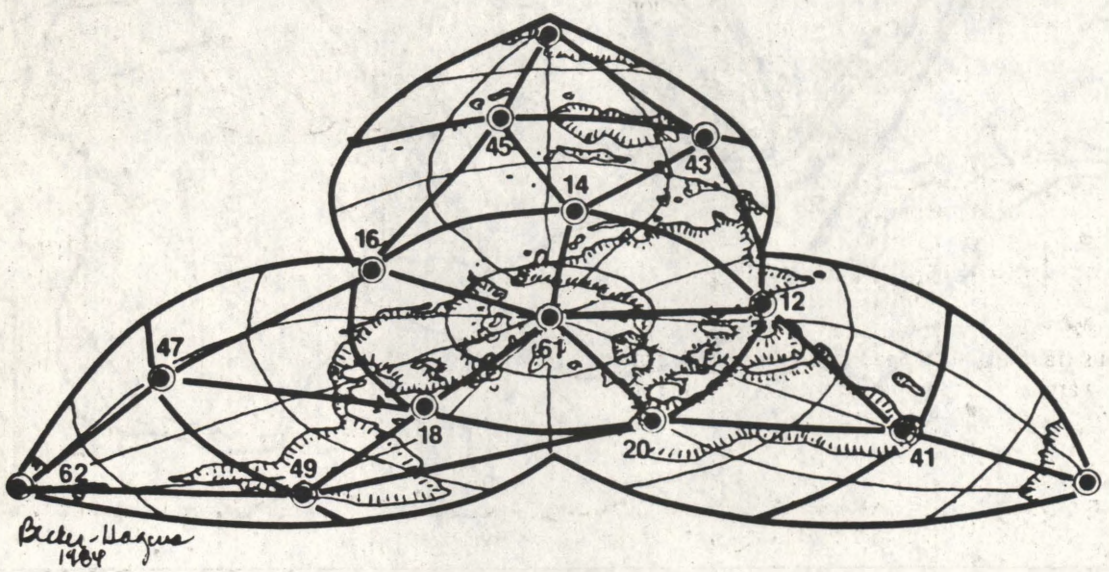

45
43
14
16
12
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61
18
20
41
62
49
Becker-Haynes
1984

Illustration #11 (See page 58)
The lozenge-shaped anomalies of electro-magnetic aberration were identified by Ivan Sanderson in the late '60s and were the impetus for a worldwide reinvestigation of practical whole earth geometry. A source of confusion has been over the location of equally spaced points zig-zagging the globe 36° from the equator. This is not point latitude but rather the angle of incidence with the equator (as shown above).

Illustration #12
In his tour de force *The Book of Knowledge: The Keys of Enoch*, a meta-linguistic code document of linguistic-cybernetic information, Dr. J.J. Hurtak proposes areas of artificial (above) and natural (below) time warp areas used for contact by the Brotherhood. Numbers reflect planetary grid coding points we have adopted that duplicate the original Russian system.

are explained as natural time-warp contact areas used by the Brotherhood. It is not unreasonable metaphysical theory to assume a pulse to the universe, an electromagnetic heartbeat which makes time appear to go backward and ahead — for planes of existence to manifest and disappear. What better spots for contact than Sanderson's? (See illustration #12)

Ivan Sanderson and his energetic colleagues are surely the contemporary rediscoverers of what has come to be called the "Planetary Grid" — so named by Christopher Bird in an article which appeared in the *New Age Journal* of May 1975. Bird's writing brought to light that a truly "morphogenetic"[10] worldwide research effort, involving earth/human origins and grids, had taken off parallel to and as a result of Sanderson's work. Bird wrote about three Russian researchers (Nikolai Goncharov, a Muscovite historian; Vyacheslav Morozov, a construction engineer; and Valery Makarov, an electronics specialist) who had published an article entitled "Is the Earth a Large Crystal?" Their work, supportive of and following immediately upon Sanderson's, had outlined a worldwide grid of points nearly identical to Sanderson's 12 and had added 50 more. These occured where Sanderson's global icosahedron overlapped the Russians proposed combination of icosa and dodecahedron. These new lines and points, in conjunction with Sanderson's, now matched most of the earth's seismic fracture zones and ocean ridge lines as well as outlined worldwide atmospheric highs and lows, paths of migratory animals, gravitational anomalies, and even the sites of ancient cities.[11]

The tradition established by the Russians with the overlapping icosa/dodecahedron grid has been adopted by almost all grid researchers with the exception of New Zealand's Captain Bruce Cathie who is working with the cubeoctahedron (Fuller's vector equilibrium model, briefly discussed in the next section of this article). Among the rest, there are some common themes in the predictive science of the grid and some dramatic divergences. Those involved in what might be thought of as "classic geometrics" use the model to predict physical events and measurable phenomena in the tradition of Ivan Sanderson: Athelstan Spilhaus (faults, seismic activity, continental drift); J.J. Hurtak (time warps, evidence of paraphysical grid line connections among pyramids in the Americas); A.M. Davie (coincident events). Another branch of theory centers in harmonics. Bruce Cathie is meticulously charting the courses of phenomena grouped under the title of "UFO." Michael Helus has undertaken a universal theory of harmonics that he calls "Astrosonics" and is attempting to develop a practical health technology for people to get "in tune" with Gaia by reactivating the harmonics of the cosmic time and place of their birth. He believes that planetary grid harmonics can and will be manipulated if we do not develop a responsible stewardship for this profound and powerful resource. John Sinkiewicz has developed a theory not unlike that of Donald Cyr — that we may be making an enormous mistake if we assume that "Nature" is natural, that it's always been like this — with wild climate swings, tornadoes, pole wobble, and the like. Sinkiewicz believes the earth energy grid is out of alignment, is no longer anchored at the north and south poles, and that New Age spiritual communities around the world are gradually rediscovering the new grid and building their sacred sites in accordance to activate it. Ray Stoner, working with shamans among the Central American and North American Indians, has gone a step further and is searching the museums and ruins for potential pieces of the grid "power system" he believes was once in operation around the world and centered in the pyramids. His is potentially the most politically revolutionary theory since so many key "artifacts" (such as the unusual stone yoke shown in illustration # 13) are found in the museums and collections of the very wealthy.



Photo: Howard Kisor

Illustration #13
Archaeologists hypothesize that "stone yokes" such as this one on display at Chicago's Field Museum were worn by Mayan athletes during their strenuous and violently competitive games. These yokes measure approximately 24" by 18" and are about 4" in width. They appear to be carved from solid granite and weigh perhaps several hundred pounds. Ray Stoner has noticed a resemblance to magnets, even down to carvings of heads facing opposite directions on the two poles. In our opinion, the object is incomplete, perhaps requiring some sort of attractive base plate.


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Illustration #14 (See page 60)
A dragon line is only so wide as the crack in the cosmic egg.

The work of both Stoner and Sinkiewicz provide something of a bridge to the work of the dowsers, notably Christopher Bird (who dowses for information); Terry Ross (former President of the American Society of Dowsers who practices a kind of dowsing of manifestation for needy Third World countries); and the thousands of dowsers here and in Europe who are slowly uncovering a transcontinental network of lines based on a kind of sixth sense of the flow of Gaia and the "ley" of the land. This same type of work has been carried on in China and Japan for thousands of years as Geomancy — the identification of archetypes of the tiger and the dragon in the landscape, and the siting of buildings and their functions with respect to balancing these forces with the flow of underground water and cosmic energy. (See illustration #14) A branch of dowsers in this country (including Tom Bearden, Ken MacNeill, Toby Grotz, and Walter Baumgartner) are pushing the politics of grid research into the development of practical "free energy devices" that will be decentralized, affordable, and supportive of personal freedom.

A New Synthesis: Predictions and Speculations

In 1983, upon first seeing a drawing of the Russian planetary grid in Moira Timms' book *Prophecies and Predictions*, we immediately recognized the work of R. Buckminster Fuller — who had spent a lifetime developing his models and theory of "nature's comprehensive building system." There before us, adapted from Chris Bird's article, was a drawing of an "incomplete" geodesic sphere — in fact, the exact sphere upon which Fuller had based his geodesic domes and much of his theory of synergetic geometry. With the simple addition of 60 lines which connected the vertexes of Sanderson's icosahedron to the vertexes of the added Russian dodecahedron we had duplicated the Neolithic craftsman's model and established Fuller's 15 "great circle" polyhedron as a key link in the chain of grid ideas. After locating Bird's original article and finding the Russian work in *Chemistry and Life*, a USSR science

Illustration #15
Our goal in producing EarthStar was the creation of a map that would be comfortable to an audience oriented to the equatorial linearity and continental positioning of a standard Mercator map. It depicts major river systems, seismic zones, major ocean currents and the lines of the UVG 120 Polyhedron. The map is an excellent tool for distance estimation, as the sides of the Basic Triangle measure 1400, 2200 and 2600 miles respectively. (An interesting numerological coincidence: the sides of the Basic Triangle add up to 6200 miles, or one-quarter of the circumference of the earth). We believe that this map was used by ancient navigators of the seas and skies, who would have found these great circle routes the most convenient and efficient for long-distance travel.

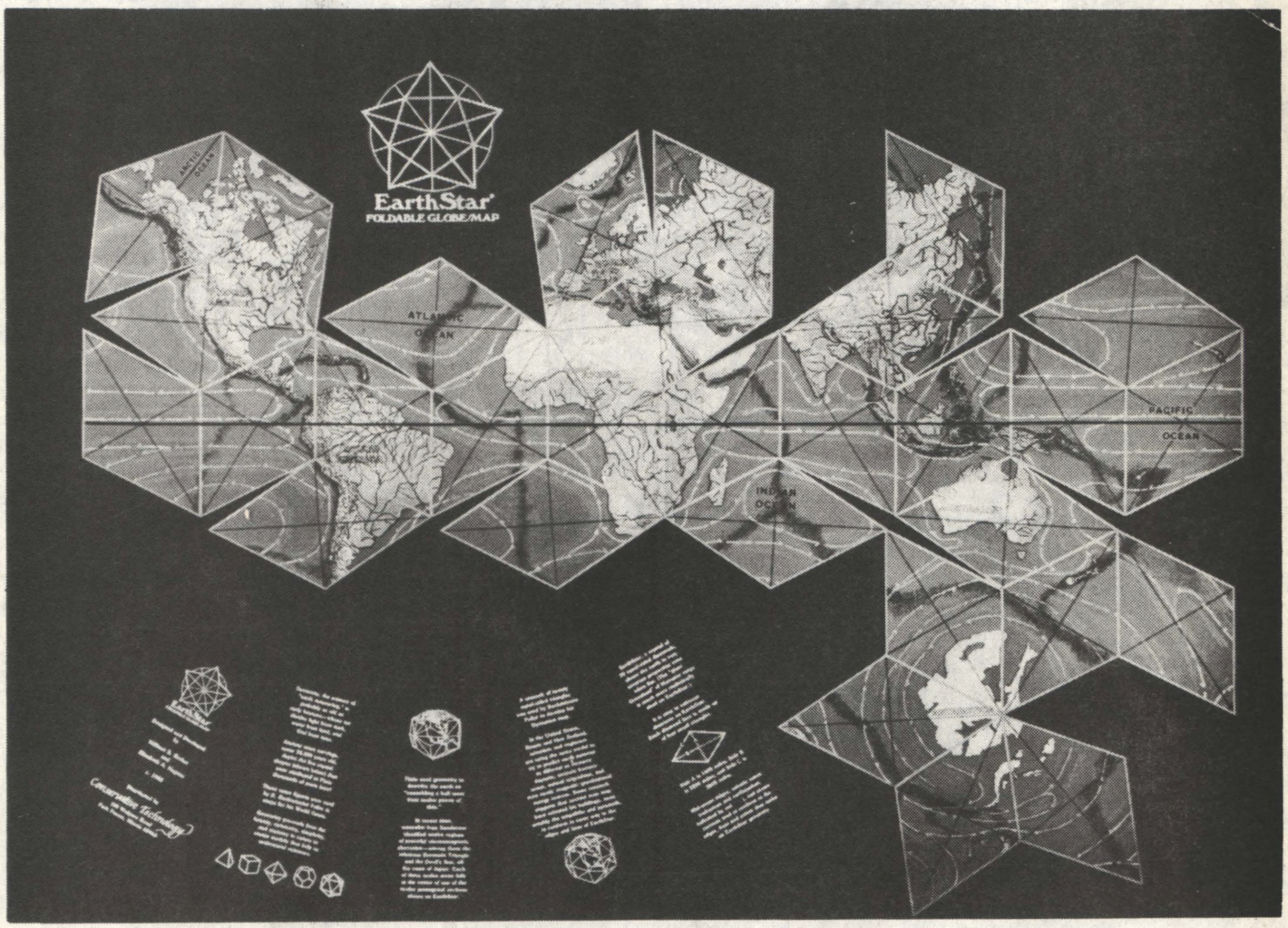


Illustration #16
The UVG 4/30 Diamond centers on EarthStar will provide, we believe, the most fertile zones for research into the ancient history of the earth because they appear to be so geologically stable. In addition, there is a surprisingly full history of advanced cultures in these areas already established: the complex of Alexandria/Cairo/Jerusalem (point 1); a possible nuclear waste storage area postulated by Jalandris in Gabon (point 40); the People of the Four Corners (point 13); the sacred lands of the Hopi (point 17); the sacred lands of the Australian aborigines (point 44); the vast complex of megaliths and stone circles in the British Isles (point 11); the extraordinary Ugansk Bay Eskimo art complex (point 9); the ancient splendor of Amazonian cities now buried in vegetation (point 36); the Argentine Tafi megaliths (point 48); the contemporary site of major Soviet defense research (point 5), and the nearly unmatchable biological splendor of the Galapagos Islands (point 34).



The Becker-Hagen Earth Star

magazine, we went into what many researchers, writers and artists call "curiosity/compulsion syndrome." Everything we seemed to hear, see, read, and even eat related "in some way" to the planetary grid. Three months after glancing at that Russian drawing, our library had totally changed, cardboard and store-bought globes littered our tables, and we were driving to Washington, D.C. to meet with Chris Bird.

Since that time nearly a year ago, a cascade of information from friends, students, co-researchers, and others has brought us to this current presentation.

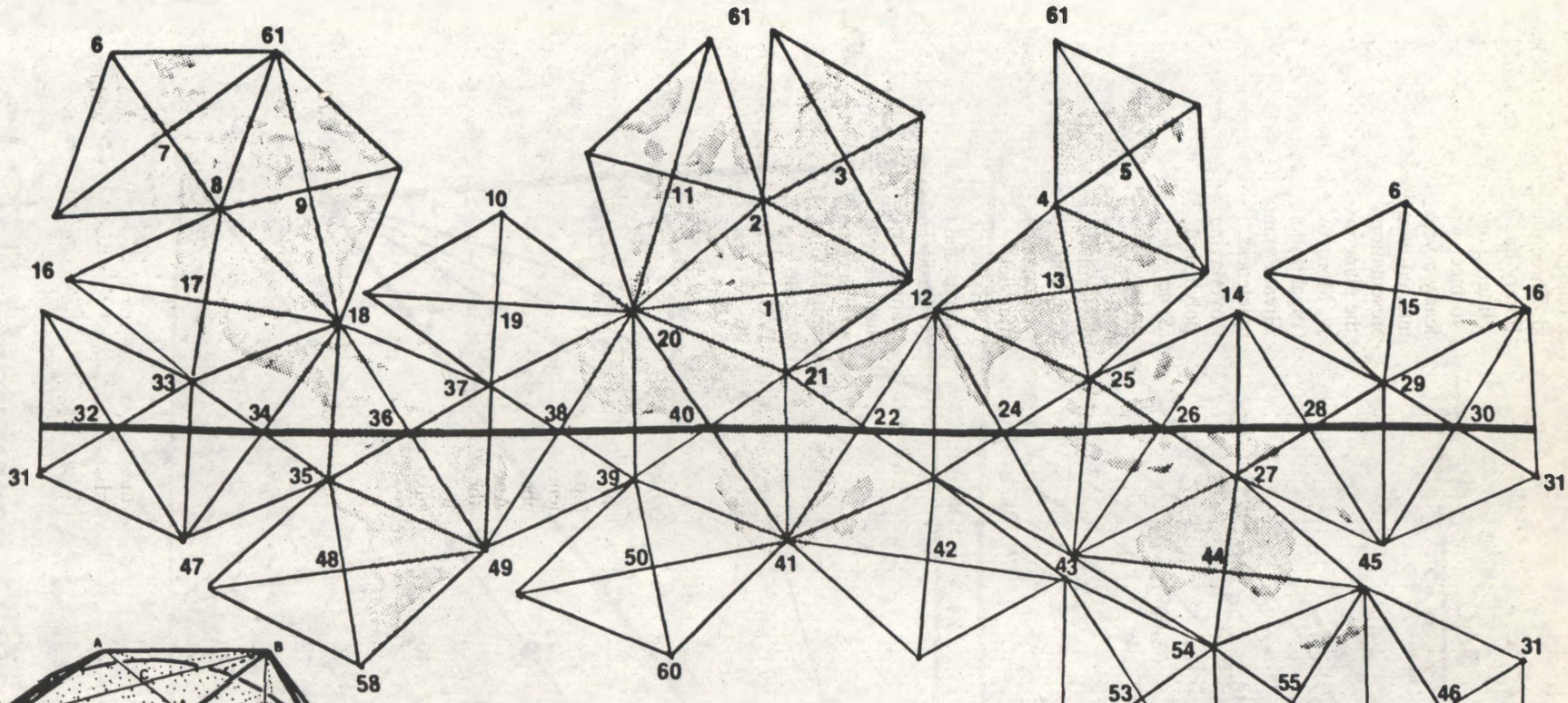
We propose that the planetary grid map outlined by the Russian team Goncharov, Morozov and Makarov is essentially correct, with its overall organization anchored to the north and south axial poles and the Great Pyramid at Gizeh. The Russian map, however, lacks completeness, in our opinion, which can be accomplished by the overlaying of a complex, icosahedrally-derived, spherical polyhedron developed by R. Buckminster Fuller. In his book *Synergetics 2*, he called it the "Composite of Primary and Secondary Icosahedron Great Circle Sets." We have shortened that to Unified Vector Geometry (UVG) 120 Sphere, because of the form's elegant organization of 121 "great circles" running through its 4,862 points. We use the number 120 due to its easy comprehension as a spherical polyhedron with 120 identical triangles — all approximately 30°, 60° and 90 in composition. All other forms within our Unified Vector Geometry use shape names and numbers which refer to the quantity of smallest UVG Basic Triangles within a given form — and the number of named forms in the UVG 120 Polyhedron or Sphere. Thus, when we refer to our "Pac-Man" pentagons which appeared in our first planetary grid map, you should know that we also call them UVG 10/12 Pentagons, because *ten* of our Basic Triangles create each pentagon and there are *twelve* pentagons in the UVG 120 Sphere and Polyhedron.

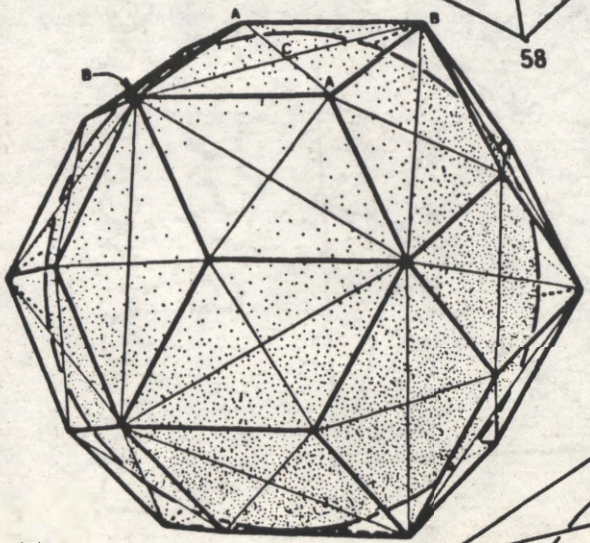
In our commercially available EarthStar foldable globe/map,[12] we use the UVG 4/30 Diamond (or rhomb). Within this diamond are 4 Basic Triangles, and there are 30 diamonds in the 120 Polyhedron and Sphere (see illustrations #15, #16). This figure permits not only easier assembly of the UVG 120 Polyhedron (in the form of the rhombic triacontahedron) than our pentagon-based hexakis icosahedron, but also permits easy orientation to the four compass points when working with the globe or map (see illustration #17, and chart).

And now we come to our most fascinating discovery of all — the predictive utilization of the Basic Triangle. It is this figure which we knew to be the result of multiple mappings of all five regular Platonic solids on the surface of a sphere or combined polyhedral form (icosahedron and dodecahedron) like the hexakis icosahedron and/or rhombic triacontahedron. What we hadn't known until recently was that R. Buckminster Fuller had not only drawn and analyzed the Basic Triangle, but had also noted all its internal angles in planar and spherical notation (See illustration #18). Also what we hadn't known until quite recently was that this triangle could predict so many kinds of events and geographic patterns, at so many times and places throughout human history. As mnemonic tools, the UVG Basic Triangle and 120 Sphere store and integrate biology, metaphysics, mythology, astronomy, geology, human struggle — or in the words of Pythagoras, "the supernatural within the finite."

Illustration #17 (See page 63)
The geometry of EarthStar is the rhombic triacontahedron projection method developed by R. Buckminster Fuller. We have continued to use the numbering system originally published by Russian researchers.

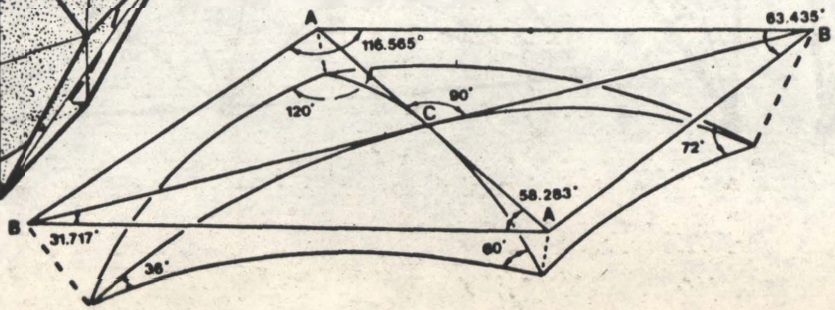
Planetary Grid Projection



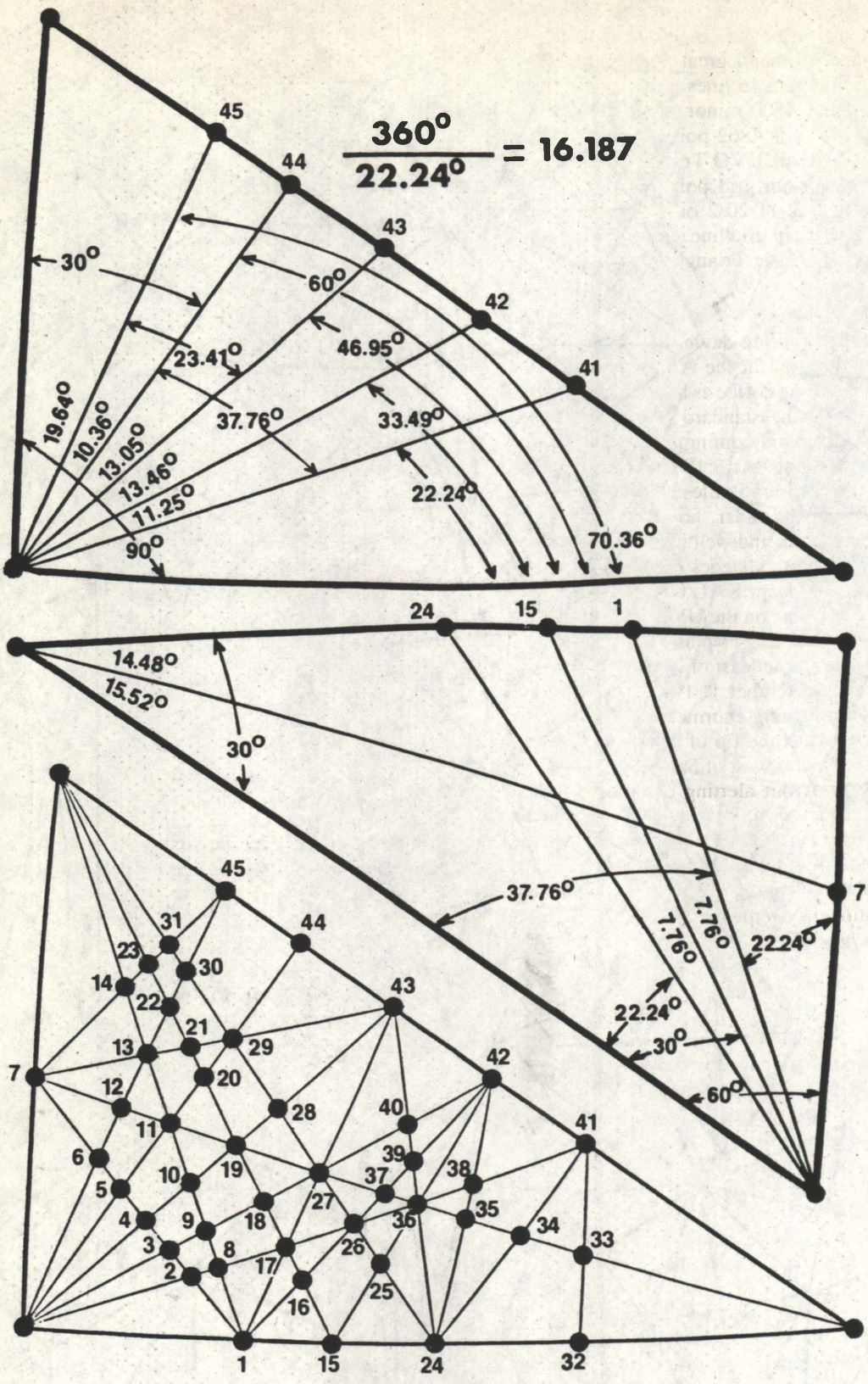


RHOMBIC TRIACONTAHEDRON

AC — 1400 mi.
BC — 2200 mi.
AB — 2600 mi.



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BASIC TRIANGLE
Unified Vector Geometry (UVG)

Illustration #18 (See page 64)

Within the Basic Triangle's 30, 60 and 90 degree angles (whose lines and vertexes define 120 of those triangles, 62 major grid points, and 15 major great circles) are arrayed 45 intersection points and 16 lines which manifest 106 minor great circles and 4800 minor points over the face of the globe (UVG total is 4862 points). By noting the three numbers for the Basic UVG Triangle followed by a single number for a minor grid point (example — Oxford, England falls near 2-11-20/2 on our European maps); two numbers for a minor grid line (example — Italy's boot heel is defined by Basic Triangle 2-1-20/43-28 minor line).

* * * * *

On September 1, 1983, in the pre-dawn sky, a 747 jumbo jet is cruising over the last island in the Aleutian chain. The Korean pilot is relaxed and having coffee as his autopilot is switched onto "Red Route 20," the standard course set for all airliners out of Anchorage to avoid coming within 25 miles of Russian territories north of Japan. At 3:18 a.m., Japan time, the pilot radios that his position is 115 miles south of Hokkaido Island in northern Japan. Ground radar, however, locates the plane 115 miles *north* of Hokkaido and well into Soviet airspace. At 3:27 a.m., a garbled distress call goes out from the plane — the last message to be sent from KAL 007. Glance at our illustration of the path of the plane on the UVG 120 Sphere and imagine this scenario. KAL 007 crosses planetary grid point 6, approximately 1800 miles east/southeast of Anchorage, Alaska about 1:00 a.m. Thursday, September 1, 1983. The positions of the sun and moon begin bringing enormous energy into the vector line which stretches from the tip of the Aleutian chain to the Mongolian/Soviet mainland west of Sakhalin Island. (See illustration #19). Silently, without alerting Captain Chun the pilot, the geo-compass in the autopilot's guidance system is slowly pulled 22.24° off its corrected north bearing, altering the course of the plane by that amount while simultaneously beginning to energize and speed up the magnetic odometer in the plane's computer navigational system. A fractional addition of a mile is added to each actual mile travelled at an accelerating rate. As the crew and passengers talk about the festivities ahead in Seoul, other smaller aircraft appear behind the 757 airliner. No communication takes place because the pilots of the smaller aircraft are never given international radio frequencies for fear they will defect. Then an explosion, and another, thunder into the ears of the crew. Captain Chun begins his radio distress call, but in four short minutes the lives of all 269 aboard are gone.

Compare the above to the flight of KAL 902 out of Paris, bound for Anchorage. The date is April 20, 1978. In the pre-dawn sky over grid point 11, in northern Scotland, the 707's guidance system compass begins to read to an energized line running up from the Bermuda Triangle. Captain Kim Chang Kyu, a veteran KAL pilot, doesn't notice the bearing of his plane changing slowly to 82.25° off his near polar great circle route. The plane moves onto an infill grid line over Greenland. By the time the plane moves into the next basic grid triangle, a passenger notices that the Arctic sun which had been on his right is now on his left. Before he can alert Captain Kyu, a Russian missile slams into the fuselage, killing two passengers and forcing the plane to land on a frozen lake south of Murmansk. As Russion troop vehicles appear on the shore, Captain Kyu apologizes to his passengers saying that he had felt something had gone wrong with his compass before the Russian planes had appeared.

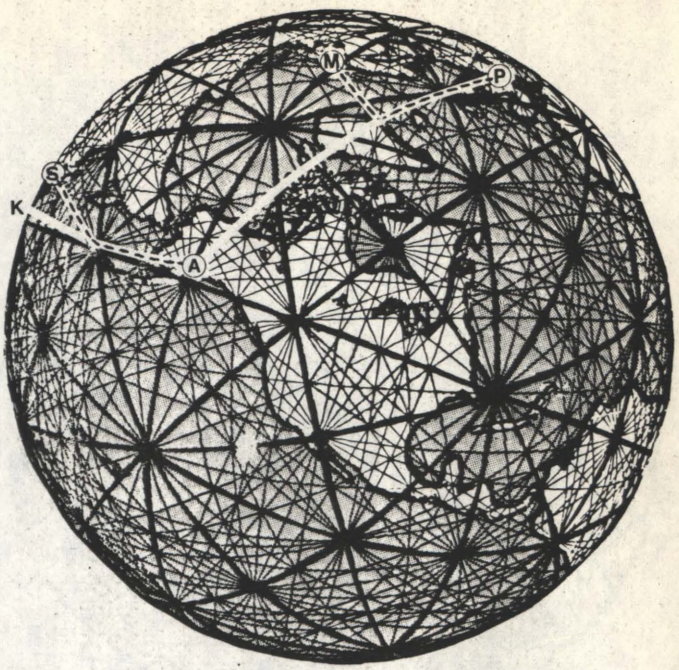


Illustration #19

An activation of the grid system appears responsible for the demise of two modern jetliners dependent upon computerized navigational systems. On September 1, 1983, KAL 007 left Anchorage (A) on an intended flight to Seoul, South Korea (K). It was diverted down a minor grid line to a crash sight near Sakhalin Island (S). KAL 902 left Paris (P) bound for Anchorage (A) on April 20, 1978 but was diverted down a minor grid line and shot down near Murmansk (M) in the Soviet Union.

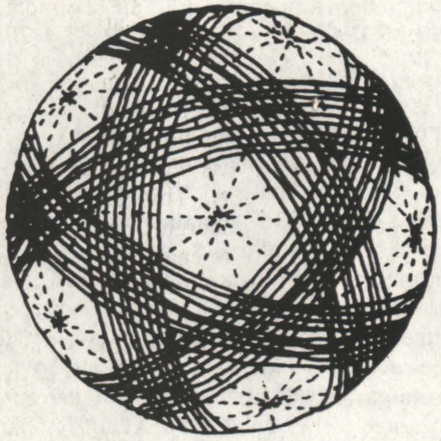
Both incidents, KAL 007 and KAL 902, were based on pre-dawn crossings of major grid points (6 and 11) by sophisticated aircraft which then, unbeknownst to their crews drifted off their programmed course and followed minor grid lines until shot down by uncommunicative Russian pilots.

We predict that there will be other incidents such as these occuring in the future, and not just off the Russian coastline. We feel that incidents such as these help pinpoint the evidence about which Ivan Sanderson theorized in 1972 — that there is a predictable physical pattern of energy events working through the system Chris Bird called the planetary grid.

The "predictable physical pattern" was discovered in quite a different context from earth energy research. While discussing the physical structures which support his theories of geometry (in *Synergetics 1*), R. Buckminster Fuller presented evidence that the micro-photography of balloon skin layers has, under near ideal conditions, produced visible patterns identical to our UVG 120 Sphere surface structure. As interior gas molecules ricochet off the inner surface of the balloon, they manifest their kinetic energy in "great circle" patterns of "shortest distance" frequency. If the ambient temperature of the balloon's exterior can be delicately balanced and equalized — the pattern of the UVG 120 sphere can become visible.

Given that the earth's original formation was based upon the clustered gravitational packing of quadrillions of vibrating cosmic dust particles and gases, in the early eons of our solar system — we feel the analogy of the balloon skin is strongly comparable to the lines of vectorial energy we hypothesize are transitting the earth's surface. Our Basic UVG Triangle reveals





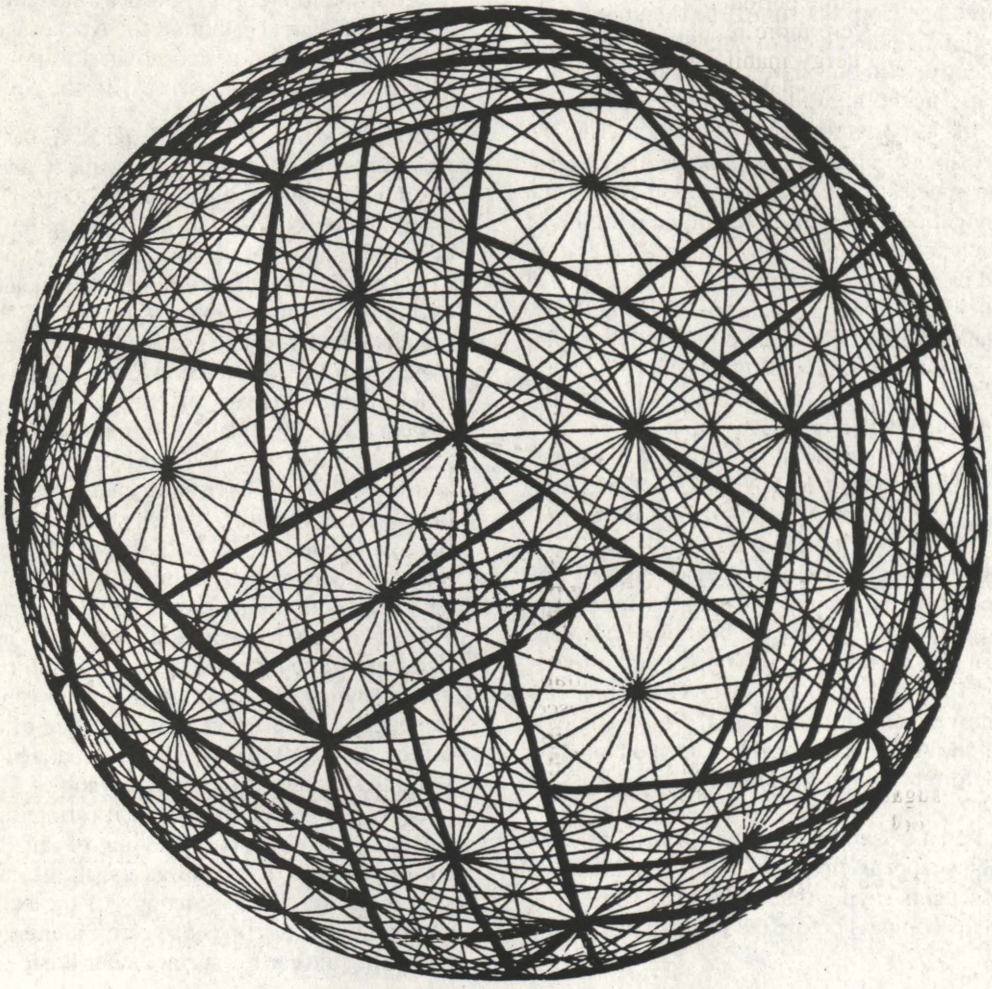


Illustration #20 (See page 66)
R. Buckminster Fuller's configuration of electromagnetic band widths (small sphere) is a hidden master pattern in the UVG 120 Sphere. The similarity to hand-held decorative reed spheres from Southeast Asia is further evidence that such "planning models" have been in common use throughout human history. "If you could only see the reams of tracing paper which spill out of the drawers in my office," writes A.M. Davie. "I have been doing the same exercise with electromagnetic band widths for years. To forecast an event in the Catastrophe Theory, this principle must be used. Whether on a Planetary scale or down to full Earth surface scale of fractions of inches, it is basically the same theory...I have done experiments (with band widths of frequency tunability) in the lab and found the same experiences as reported in the Bermuda Triangle and UFO incidents. This experiment is too dangerous to repeat, and Edinburgh University has agreed to a ban on all attempts to re-enact the experiments. It is potentially lethal. The theory of this phenomenon was known to Artistotle...It is definitely TIME-SPACE-COLOUR-HARMONY syndrome in content, and therefore obeys a numerical law of nature to allow forecasting the event."

a 120th section of these energy lines — and we think that it is totally predictable to find detailed physical manifestations of these lines, particularly on continental land masses.

A possible piece of supporting evidence comes from the Vail/Cyr canopy theory — which proposes a more equalized world climate during the Megalithic period (see footnote 7). If the global climatic ambience were more regularized than it is today, it is possible that grid energy manifestations were also more visible and potentially more available for applied use. Extending the speculation back further in time, the deluge myth found in the myths of virtually all cultures can perhaps be traced to some (Atlantean?) technological endeavor that caused a partial and devastating collapse of the canopy. Before this collapse, the poles may well have been free of ice (hence the existence of maps such as Piri Reis and Buache). Polar ice caps may have formed relatively rapidly in the period of climatic disequilibrium. In this light, Cyr's Megalithic canopy theory is correspondent with our own findings in analyzing Megalithic sites. We have documented in the illustrations of Ireland, Britain, and Europe which follow; a patterned interface of man-made constructions, dating to the Megalithic period, which correspond to our proposed "infrastructure" for the icosa/dodecahedral planetary grid. New evidence that we are just beginning to analyze[13], and which includes patterns of mounds within the central United States and the curious "lines" of the Nazca area of Peru, exhibits the same close correspondence. This proves to us that past cultures have been aware of, and attuned to, the energies of the UVG 120 Sphere.

A second analogy to earth's processes we feel comfortable with is the Russian crystal earth concept, whereby coalesced volcanic matter which formed the earth settled initially into a crystal for (UVG 120 Polyhedron). The Russians theorize that with rotation and centrifugal redistribution of molten surface material, the earth soon took on its spherical form but retains the deep crystal structure and its predictable manifestations. One of these is based on the principle that crystal edges and vertexes carry most of the thermal, structural, and electromagnetic energy events developing from within and imposed upon the surface material. Satellite cameras and infrared/radar intruments have already documented thermal/structural energy developments along the globe's UVG 120 Polyhedral edges. It remains for traditional science to develop instruments as sensitive as an experienced dowser's "earth sense" before the full spectrum of the earth's electromagnetism can be tuned like a "crystal set" radio to a wide range of frequency band widths. (See illustration #20)

It is clear to us that Megalithic peoples knew all that we now know about the planetary grid and then some. The stones which they so carefully placed upon ley lines were used to communicate with anyone else linked via common telluric energy flows. (See illustration #21) These energy flows are being mapped today

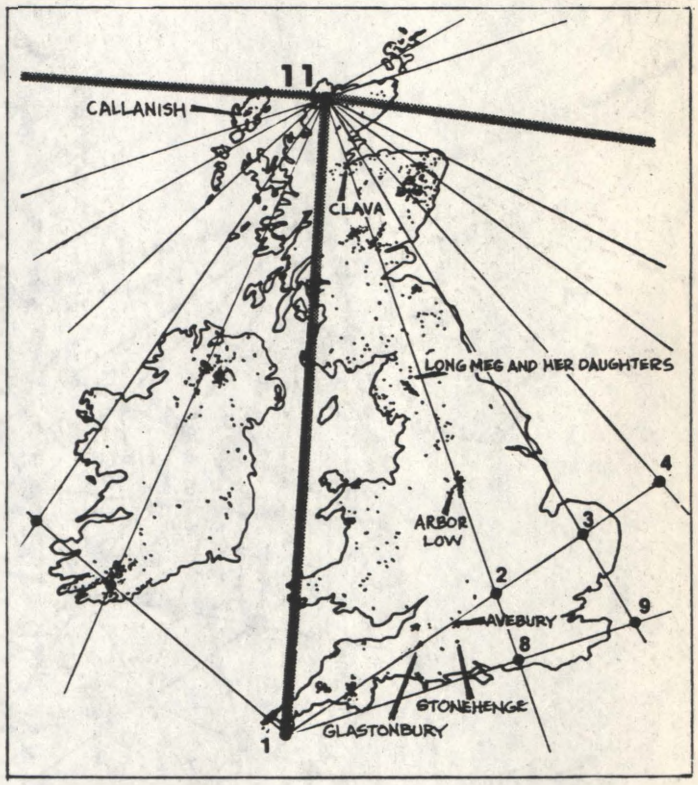
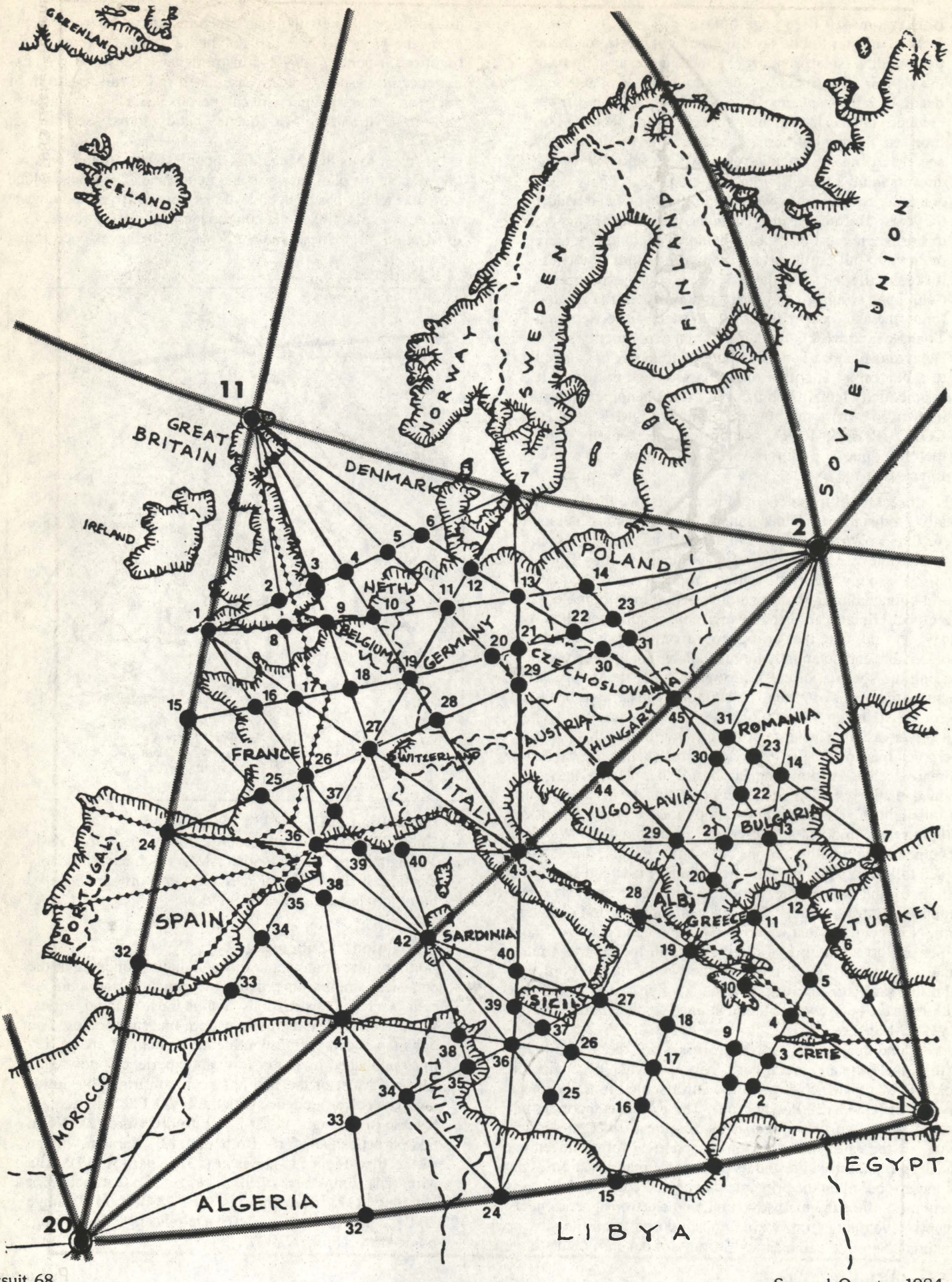
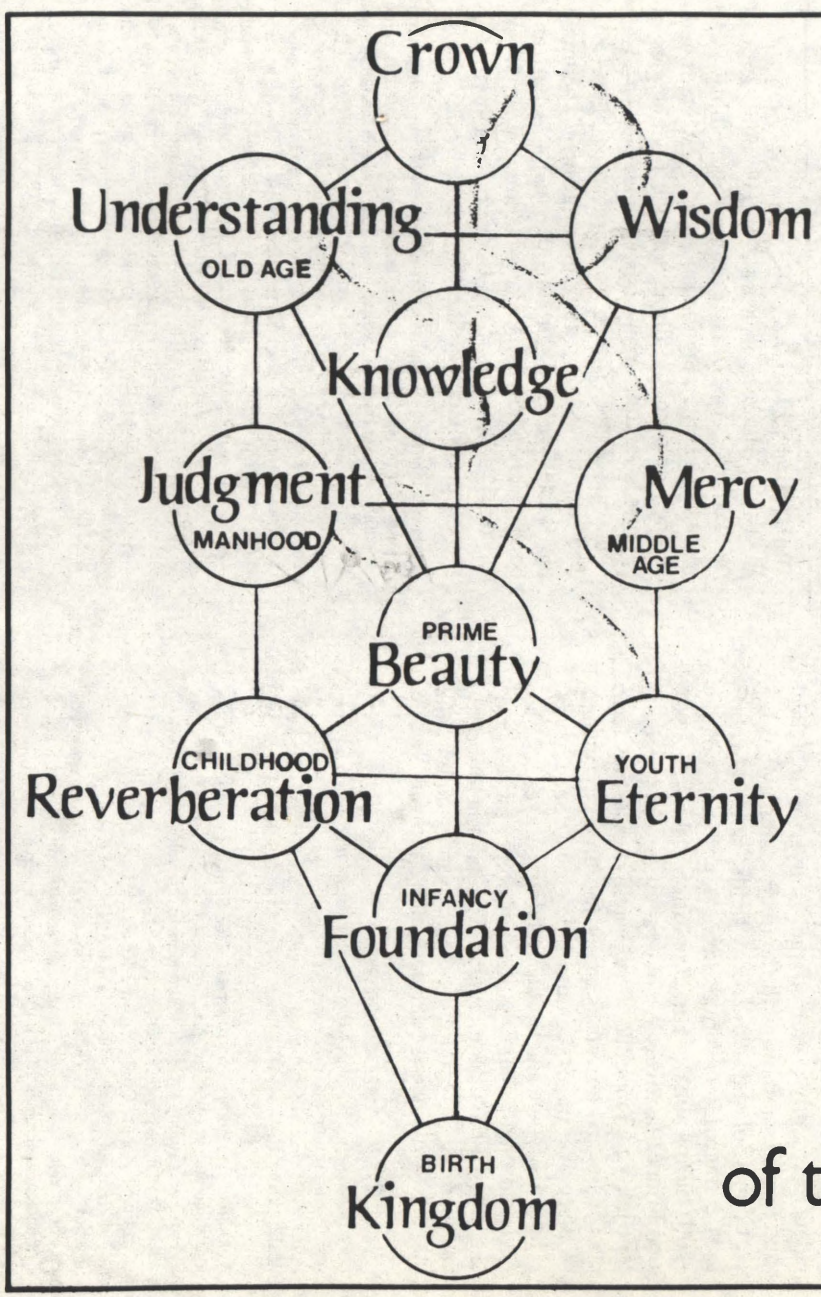
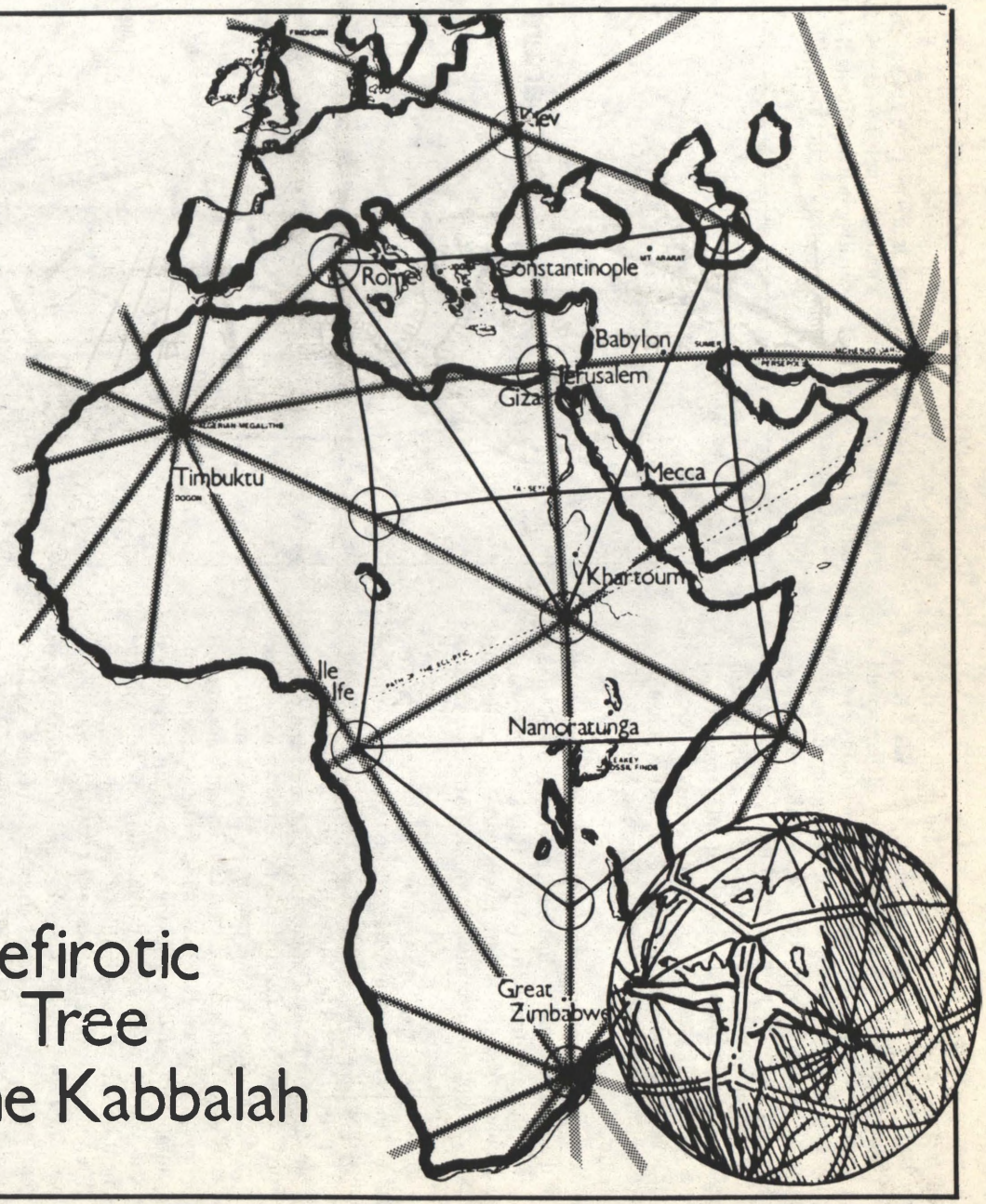


Illustration #21
Unobstructed minor grid energy lines focus into a Basic Triangle corner in the British Isles, which have probably the largest clustering of megaliths in northern Europe. Stone circles are indicated by dots.

Illustration #22 (See page 68)
Both ley line hunters and dowsers have wondered at the persistent site line-ups of ancient megaliths and more recent sacred constructions (cathedrals, capital cities, shrines, etc.). The diamond-pattern line superimposed on our map shows a transcontinental system of energy ley lines published by Golin Bloy an experienced dowser in Europe. Most of the line has been confirmed by dowsing. The correspondence with the UVG 120 Sphere is apparent. In Triangle 11-20-2, we find Oxford (2); North Sea oil deposits (4-5-6); Rotterdam (9); Hameln, village of the Pied Piper (17); Berlin (13); Chartres (17); Alta Mira (24); Frankfort (19); Barcelona (35); Cordoba (32); Hamburg (12); and Lourdes (line 24-36). In Triangle 20-2-1, we find Athens (10); Delphi (19); and Assisi, home of St. Francis (43).


GREENLAND
ICELAND
NORWAY
SWEDEN
FINLAND
SOVIET UNION
11
2
20
GREAT BRITAIN
IRELAND
DENMARK
POLAND
NETH
BELGIUM
GERMANY
CZECHOSLOVAKIA
AUSTRIA
HUNGARY
ROMANIA
FRANCE
SWITZERLAND
ITALY
YUGOSLAVIA
BULGARIA
ALBA
GREECE
TURKEY
PORTUGAL
SPAIN
SARDINIA
SICILY
CRETE
MOROCCO
TUNISIA
ALGERIA
LIBYA
EGYPT





Sefirotic Tree of the Kabbalah

©1983 Becker-Hagens

Illustration #23 (See page 69)

"The tree can be understood as representing the chakras in the body of universal man, the Anthropos...Adam Kadmon. Sacred anatomy = sacred geography. There would be a number of connected patterns of 'trees/men' covering the surface of the globe which, depending upon the scale or application, might correspond to the 'root races' or 'sub-root races' or perhaps even the twelves 'tribes' of Israel (mankind). As there are ever finer gradations of 'trees' within the Sefirotic Tree, the 'extended trees' would create chains and great circles woven across the sphere like the electromagnetic band widths of frequency tunability." Communication from Robert Gulick in Englewood, Colorado.

both by dowsing groups interested in this rarest form of "harmony of the spheres" and ley line hunters (such as John Michell and others in the great tradition of Alfred Hawkins) who wonder at the coincident siting of modern towns and significant structures upon ancient stone remains from the past. (See illustration #22)

We also hold that a major reason why Megalithic groups were so interested in astronomy and the precise calculation of solar and lunar phases was that within these calculations rested the predicted "pulses" of energy through the grid at different times of the year. Captain Bruce Cathie, an airline pilot and prolific grid researcher from New Zealand, has theorized for years regarding the grid's pulsing harmonic pattern and how it might relate to UFO and "sky light" phenomena. UVG is applicable to this research in a curious way. R. Buckminster Fuller was constantly experimenting with spherical packing — how many equal sized spheres can you fit into a given polyhedron, and how can the arrangement be shifted (keeping the same number of spheres) into a different one. As it happens, the UVG 120 Polyhedron shifts back and forth with the cubeoctahedron (or vector equilibrium model, as Fuller calls it) that Cathie uses and that seems to map UFO phenomena. We can hypothesize the heartbeat of Gaia.

The ancients evidently patterned their universal and local holidays and feasts to conjoin with the interlocking events between the grid and solar system energy fields. Both KAL 007 and KAL 902 tragedies occurred during significant holiday periods — 007 during a major Hindu feast for Vishnu, and 902 during Good Friday/Passover. We have also come to speculate that the stone polyhedra introduced early in this article may have been used as charts and terrestrial guides for large pilgrimages which took place over major regions of the globe. (See illustration #23) Spiritually and intellectually hungry travellers may well have visited major energy collection points on the grid, each having its own flavor and delight. The hand-held model, or map, attuned as it was to the solar system and to the monuments and towns one would pass along the way, was a complete tool for the voyager. (See illustration #24) It may even have charted the cycle of transcontinental festivals in much the same way that the Australian aborigines are able to coordinate huge religious gatherings with (seemingly) no deliberate planning. The "bureaucracy" is maintained only in the flow of time through lines of kinship, lines of sight, and sacred lines of the tchuringa.

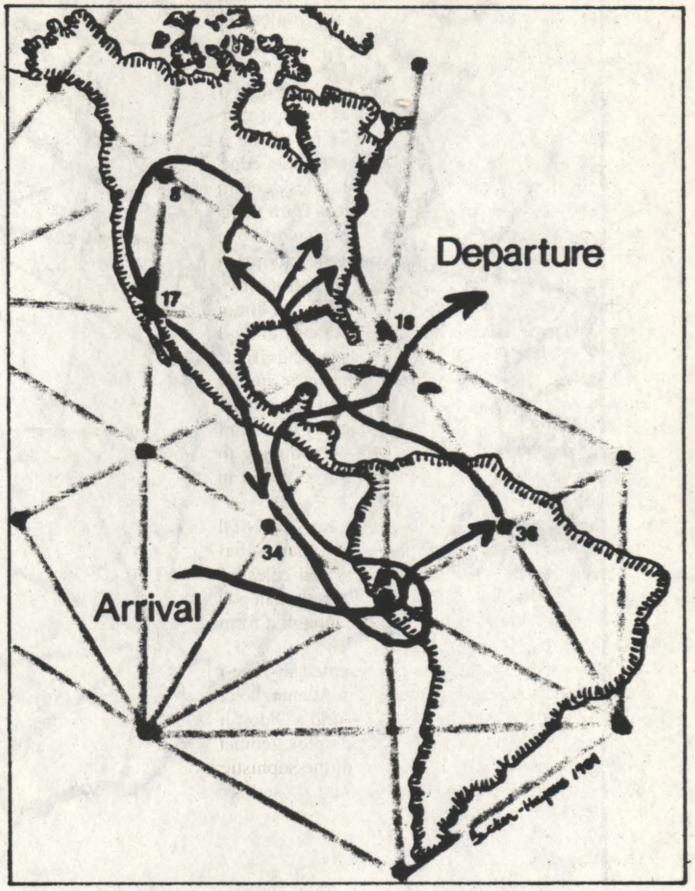


Illustration #24

L. Taylor Hansen, in a little known book entitled *He Walked the Americas,* presents over thirty years of research documenting the presence of a white-robed fair-skinned man known throughout the mythologies of the Americas (among many other names) as The Lord-of-Wind-and-Water, Tah-co-mah, or Kate-Zahl, the Prophet. The map shows the path of his pilgrimage, beginning in the western ocean, circling the major American grid points, and ending in the eastern ocean horizon. It is possible that "Jesus Christ" is our surviving mythology of sacred pilgrimages on the "Gizeh Crystal."

Footnotes

1. Let us pray that another plague (AIDS, cancer, heart disease...) will not be necessary in completing this scenario.
2. Taken from "*Gathered Notes Among Friends on: The Crystal's Dance*," a publication from Chrystal Hill Farm, 9411 Sandrock Rd., Eden, NY 14057.
3. Jeffrey Goodman is a highly controversial, free-thinking independent archaeologist and author (*We Are the Earthquake Generation: The Genesis Mystery*) who was among the earliest pioneers of "psychic archaeology." His current work focuses on health and crystals.
4. We want to thank Robert Cowley of the Research into Lost Knowledge Organization (RILKO, 8 The Drive, London N11 2DY England) for introducing our work to A.M. Davie of Alloa, Scotland. In our long, enjoyable correspondence with Mr. Davie, we have found him to be a gifted scholar of ancient languages and cultures, a keen observer of coincidence, and (as evidenced by reports of his work with SRI in California) inventor of a predictive system for events as seemingly unrelated as earthquakes, spontaneous combustion, cardiac infarction, mechanical failure, and crime.
5. We call this figure the Unified Vector Geometry (UVG) 120 Polyhedron, and hope that the new planetary grid terminology we introduce will be both clear as well as reflective of the ancient and modern contributors to its development. In one of his first letters, A.M. Davie wrote: "I came on one word yesterday which has been adopted by modern mathematics, and causes me considerable problems. Where two lines intersect, the word to describe this intersection is now termed 'Vector.' "An Bheachd-Or" is the ancient name for 'The Golden Circle,' and is a geometric figure of definite lineal measurements associated with the movements of the Solar System. The word 'Bheachd,' pronounced as 'Vect,' is according to my dictionary: Notice, Attention, Observation, Perception, Feeling, Ambition, Ideas, Conception, Distinct Recollection/Memory, Opinion, Behavior, Sense/Wisdom, Judgment, Conceit, Aim, Intention, Carriage, Vision, Eyesight, Surity, Covenant, Multitude, CIRCLE and RING."

6. Curiously, "armilla," the root in armillary spheres, has the meaning of "iron ring" and "golden coronation bracelet."
7. Donald Cyr, editor of *Stonehenge Viewpoint*, and his friend Lawrence W. Smith have championed and greatly expanded the ideas of Isaac N. Vail since their high school days in the 1930s. As an archaeoastronomer, Cyr's notion is that much can be gained in understanding past civilizations if we do not make the uniformitarian assumption that things (such as climate) have always been roughly as they are now. The Vail/Cyr "Canopy Theory" supposes that during the Megalithic period, a layer of ice crystals formed over the earth at a height of about fifty miles. This could have produced something like the greenhouse effect — a mild, relatively windless climate with the atmosphere at the dew point — over much of the earth, with spectacular halos around the sun and moon. The light of the sun shining through the ice crystals would have been so brilliant that it would have been impossible to gaze at it directly. Because of the optics of light refraction through the ice crystals, however, each halo edge would fall 22+ degrees from the center of the sun — with a less common, but equally regular secondary halo occuring 46+ degrees from the center. This glorious sky phenomenon could have given man the world over a predictable common unit of measure. A related effect of the canopy may also help explain the seemingly phenomenal knowledge of astronomy among the ancients. Joe Jochmans (writing as Jalandris) received an honorary doctorate for his interpretation of Genesis based upon canopy and other earth energy effects. He claims that the canopy may have magnified the light from the stars and planets and made them appear closer and much easier to view with the unaided eye than is possible today. His other fascinating theory is that the Megalithic canopy was preceded by an even larger more magnificent canopy that ultimately collapsed — producing the great deluge and rain of forty days and forty nights that is recorded in the sacred tradition of virtually every culture on earth.
8. Sir J. Norman Lockyer, writing in the early part of this century, was perhaps the first contemporary archaeoastronomer — having discovered significant alignments between megaliths and celestial bodies. His work was largely rejected, as were his very humanitarian politics that echo his British predecessor Alfred Russel Wallace, though it forms the base for later work reinitiated by Alexander Thom.
9. Dick Benson's work, formally presented in June of this year to the U.S. Psychotronics Association meeting in Atlanta, holds the promise of a unified field of letters and numbers. His "World's Oldest Jesus ϕ Map" is reprinted to give not only a glimpse of the complex geometry employed by the ancient planners at Cairo but to hint at the sophistication and refinement of Benson's work. One of his most exciting archaeological discoveries is a virtually identical "site plan" based on the pyramids at Teotihuacan in Mexico.
10. "Morphogenetic fields" were introduced by British biologist Rupert Sheldrake in another controversial book, *A New Science of Life: The Hypothesis of Formative Causation*, suggested for burning by *Nature* magazine in Britain. The theory is complex, implying that once something comes into existence (an idea, a gene code, a chemical structure...) it exclusively fills a specific cosmic niche; sends a kind of formative energy throughout Gaia; and makes its appearance quickly and with increasing ease throughout the world. Currently the Tarrytown Group in New York is offering a prize of $10,000 for the best experimental design to test Sheldrake's theory.
11. Over the past year and a half, students in anthopology and environmental planning at Governors State University have undertaken the tedious, not-yet-computer assisted task of checking the fantastic claims of the Russian visionaries. (Several students, among them Penny Frick, Tim Donovan, Jay Rick, Denis Chapman, John Lerch, and Mary BoyaJean, have put in far beyond the required time and effort and have been brave enough to criticize and question almost everything!) In general, the students' work has involved the translation of data from various atlases and sourcebooks from their Mercator, conical and spherical projections to the hexakis icosahedron and rhombic triacontahedron that we use for standardizing data. For the most part, the Russian claims hold up but are substantially over-generalized — particularly with respect to electromagnetic aberration.
12. EarthStar is printed in full color on heavy cardstock, 17½" x 22½", and is suitable for framing — but has been pre-punched and scored for folding into an 8"-diameter rhombic triacontahedron globe with stand. A plastic UVG 4/30 Diamond overlay infilled with UVG 120 Sphere lines is included. It is available for $7.50, tax and postage included, from Conservative Technology, 105 Wolpers Rd., Park Forest, IL 60466. Dealer and bulk order discounts are available.
13. There are many people whose contributions, insights, and encouragement have been essential in keeping us so absorbed in this research — especially Tim Wilhelm, Robert Warth, Robert Gulick, Edwin Wright, John Michell, R. Gary Smith, Robert Lawlor, Jose A. Arguelles, the Rev. Dorothy Leon and L. Taylor Hansen.

CHART: Becker-Hagens Planetary Grid System Coordinates

1	31.72°N	31.20°E	On the Egyptian continental shelf, in the Mediterranean Sea, at approximately the midpoint between the two outlets of the Nile at Masabb Rashid and Masabb Dumyat
2	52.62°N	31.20°E	On the Sozh River east of Gomel, at the boundary junction of three Soviet republics — Ukraine, Bellorussia, and Russia
3	58.28°N	67.20°E	In marshy lowlands just west of Tobolsk
4	52.62°N	103.20°E	In the lowlands north of the southern tip of Lake Baykal, at the edge of highlands
5	58.28°N	139.20°E	In the highlands along the coast of the Sea of Okhotsk
6	52.62°N	175.20°E	Slightly east of Attu at the western tip of the Aleutian Islands
7	58.28°N	148.80°W	Edge of continental shelf in the Gulf of Alaska
8	52.62°N	112.80°W	Buffalo Lake, Alberta, at the edge of highlands in lowlands
9	58.28°N	76.80°W	Just east of Port Harrison on Hudson's Bay
10	52.62°N	40.80°W	Gibbs Fracture Zone
11	58.28°N	4.80°W	Loch More on the west coast of Scotland
12	26.57°N	67.20°E	On the edge of the Kirthar Range bordering the Indus River Valley, directly north of Karachi
13	31.72°N	103.20°E	At the east edge of the Himalayas in Szechuan Province, just west of the Jiuding Shan summit
14	26.57°N	139.20°E	At the intersection of Kydshu Palau Ridge, the West Mariana Ridge, and the Iwo Jima Ridge
15	31.72°N	175.20°E	At the intersection of Hess Plateau, the Hawaiian Ridge, and the Emperor Seamounts
16	26.57°N	148.80°W	Northeast of Hawaii, midway between the Murray Fracture Zone and the Molokai Fracture Zone
17	31.72°N	112.80°W	Cerro Cubabi, a highpoint just south of the US/Mexico border near Sonoita and lava fields

18	26.57°N	76.80°W	Edge of continental shelf near Great Abaco Island in the Bahamas
19	31.72°N	40.80°W	Atlantis Fracture Zone
20	26.57°N	4.80°W	In El Eglab, a highland peninsula at the edge of the Sahara Desert sand dunes
21	10.81°N	31.20°E	Sudan Highlands, at the edge of White Nile marshfields
22	0°	49.20°E	Somali Abyssal Plain
23	10.81°S	67.20°E	Vema Trench (in the Indian Ocean) at the intersection of the Mascarene Ridge, the Carlsberg Ridge, and Maldive Ridge into the Mid-Indian Ridge
24	0°	85.20°E	Ceylon Abyssal Plain
25	10.81°N	103.20°E	Kompong Som, a natural bay on the southern coast of Cambodia southwest of Phnom Penh
26	0°	121.20°E	At the midpoint of Teluk, Tomini, a bay in the northern area of Sulawesi
27	10.81°S	139.20°E	Midpoint of the mouth of the Gulf of Carpentaria
28	0°	157.20°E	Center of the Solomon Plateau
29	10.81°N	175.20°E	Midpoint of abyssal plain between Marshall Islands, Mid-Pacific Mountains, and the Magellan Plateau
30	0°	166.80°W	Nova Canton Trough
31	10.81°S	148.80°W	Society Islands
32	0°	130.80°W	Galapagos Fracture Zone
33	10.81°N	112.80°W	East end of the Clipperton Fracture Zone
34	0°	94.80°W	Junction of the Cocos Ridge and the Carnegie Ridge, just west of the Galapagos Islands.
35	10.81°S	76.80°W	Lake Punrrun in Peruvian coastal highlands
36	0°	58.80°W	State of Amazonas, at tip of minor watershed highlands
37	10.81°N	40.80°W	Vema Fracture Zone
38	0°	22.80°W	Romanche Fracture Zone
39	10.81°S	4.80°W	Edge of Mid-Atlantic Ridge in Angola Basin, just southeast of Ascension Fracture Zone
40	0°	13.20°W	Gabon highlands, at the intersection of three borders
41	26.57°S	31.20°E	L'uyengo on the Usutu River in Swaziland
42	31.72°S	67.20°E	Intersection of the Mid-Indian Ridge with the Southwest Indian Ridge
43	26.57°S	103.20°E	Tip of the Wallabi Plateau
44	31.72°S	139.20°E	In a lowland area just east of St. Mary Peak (highest point in the area) and north east of Spencer Gulf
45	26.57°S	175.20°E	At the edge of the Hebrides Trench, just southwest of the Fiji Islands
46	36.72°S	148.80°W	Undifferentiated South Pacific Ocean(!)
47	26.57°S	112.80°W	Easter Island Fracture Zone
48	31.72°S	76.80°W	Nazca Plate
49	26.57°S	40.80°W	In deep ocean, at edge of continental shelf, southeast of Rio de Janeiro
50	31.72°S	4.80°W	Walvis Ridge
51	58.28°S	31.20°E	Enderby Abyssal Plain
52	52.62°S	67.20°E	Kerguelen Plateau
53	58.28°S	103.20°E	Ocean floor, midway between Kerguelen Abyssal Plain and Wilkes Abyssal Plain
54	52.62°S	139.20°E	Kangaroo Fracture Zone
55	58.28°S	175.20°E	Edge of Scott Fracture Zone
56	52.62°S	148.80°W	Udintsev Fracture Zone
57	58.28°S	112.80°W	Eltanin Fracture Zone
58	52.62°S	76.80°W	South American tip, at the edge of the Haeckel Deep
59	58.28°S	40.80°W	South Sandwich Fracture Zone
60	52.62°S	4.80°W	Boivet Fracture Zone
61	North Pole		
62	South Pole		

IT seemed appropriate, after reviewing the preceding Becker-Hagens' article on the planetary grid to publish the following material at this time.

A newspaper clipping dated December 6th 1976 from the ***TRENTONIAN*** *of Trenton, NJ was sent to us by one of our members that briefly described Dr. Elkin's research.*

I wrote several times in the past few years to various addresses in Moscow and elsewhere for a more complete version of the report.

Finally, an appeal was answered by the Director of the Library of the Academy of Sciences of the USSR and a photostat of. the original article, as it appeared in ***ISVESTIA****, was sent to our SITU office.*

With the kind assistance of two colleagues, D. Petroff and L. Kazhdan, the article has just recently been translated into English. The three of us hope we have done justice in this translation effort.

Perhaps someday the complete report by Dr. Elkin will become available for us to examine. In this regard I hereby appeal to our several members in the USSR for their assistance in helping us accomplish this goal. And, if any of our readers knows of any further serious investigation of this hypothesis please let us know, too, so that we can have a follow-up article in a future issue of PURSUIT.

R.C.W.

WHEN THE MOON IS IN PERIGEE

Hypothesis of a Soviet Scientist

(Soviet reporter) B. Zacharko

Nobody knows for sure how many disasters have occurred in the district of the Atlantic Ocean between Bermuda, Florida and the island of Puerto Rico, but it is known there are many. Forget about the frightening stories based on imagination. You can find a lot of them in literature about the "Bermuda" question. Instead, remember only some of the hundreds of facts nobody can explain.

On the 5th of December 1945, in excellent flying weather at Fort Lauderdale, Florida "Escadrille (Flight) — 19" composed of 5 torpedo bombers took off from the base under the command of Lt. Charles Taylor. After 65 minutes the base dispatcher received an emergency report from Lt. Taylor: "...we are close to disaster...we have lost our course..."

A rescue military seaplane was sent out to find them, but contact with it too was soon lost. Altogether in the "Bermuda Triangle" starting with 1945 more than one hundred large and small ships and about 20 airplanes have been lost.

But this is not the only place where unexplained disappearances have taken place. In the area between Japan, Guam Island and the Philippines so many ships and planes have disappeared that the Japanese government has declared the area a danger zone.

There is an opinion that the mystery of the "Triangle" doesn't exist. That everything that has happened is simply the result of the inexperience of those sailors and pilots involved but not as the result of some natural force. However this point of opinion is not proved. No doubt sooner or later the truth will be found, and more about these areas will be learned from study and investigation of sea, air and the cosmos in the offices and laboratories of scientists. Not long ago Dr. A. E. Elkin of the Physics and Mathematics Department of the Moscow Institute developed a hypothesis that seems factual and interesting.

Hypothesis is not theory, Dr. Elkin said, and I don't want to prove one point of view on the "Triangle:" does a scientific problem exist here or not? I just assumed a problem does exist and tried to discover if there is a correlation between the disasters.

When I compiled statistics about airplanes I saw, since their moment of disappearance can be determined with great accuracy to within one day, as opposed to ships, there was a certain relationship to the astronomic activity of the earth, moon and sun relative to each other.

We all know our small cosmic home called Earth is speeding in the universe in a very complicated trajectory, and is influenced by constantly changing movements. Because of this, the earth's coordinates in relation to the sun, and moon are also constantly changing their influence on the earth's surface.

Because of the earth's distorted shape, being flattened at the poles, the sun and moon have a stronger attraction on the equator because this part is closer to them. Since the earth is in polar orbit the sun and moon have a changing, strong-pulling influence effecting the earth's behavior. This reaction is strongest in June and December and has a zero value in March and September. Besides the pull of the sun and moon there are other forces on our planet, such as tidal, that are not constant to help change the shape of the earth which are at a maximum at either a new or full moon. The moon is traveling around the earth in an elliptical orbit. When the moon is in perigee tidal forces are 40% stronger than when it is in apogee.

Checking statistics of airplane disappearances, I found (calculated) which coordinates the sun and moon were in on those days. Without going into great detail about the disappearances I discovered there was a relationship to these events with a new and a full moon. When the moon was close to perigee these processes (forces) were strongest.

The relationship of the position of the moon and the sun effect tidal changes so that at that moment in the Bermuda area and other "Triangle" areas the moon and the sun caused tidal changes that made the earth's ionized magma to shift under the ocean's floor to create a magnetic anomoly. As a result, under these conditions it could be possible that gyroscopes, clocks, electrical and other electronic equipment on the planes and ships were effected.

Hypothesis is not theory but there can be no theory without a hypothesis. While accidents can't be ruled out as an explanation for the disappearances, Dr. Elkin's hypothesis indicates the events were not accidental in the cases he was able to check. If, indeed, accidents are not the cause and there is a common, natural explanation it would be practical to know when the "Triangle" areas were safe and risky for travelers to go through them.

This hypothesis indicates the most dangerous position between the earth, moon and sun this year (1976) for the "Triangles" will occur between December 20th and the 18th of January 1977.

Dr. Elkin said the natural forces that create such a field in the "Triangles" may also cause earthquakes and also cause seaquakes under deep ocean crevices. This mechanism can create serious distortion of the earth's crust and he proposes the period of earth distortion will occur from 5-8 and 20-25 December (1976) and from 5-8 and 18-20 January of next year (1977) as earthquakes: in Turkey (Tavr mountains); in New Zealand and Japan (accompanied by typhoons), in South America (20 to 35° south of the equator) and in California, USA.

All that this writer has to add is that Dr. A. Elkin proposed the possibility of a strong earthquake in Turkey at the end of November (1976) and this did just occur. "Maybe it is coincidence — or an accident," the scientist said.

Was It An Extraterrestrial Spacecraft?

A Curious Sixteenth Century Woodcut

by Luis Schoenherr

In his novel *A Canticle for Leibowitz* the American science-fiction author Walter M. Miller describes the cultural situation of our planet after a great nuclear war. Most of the surviving scientists and engineers have been hanged by a population enraged by such a failure of the age of reason. Moreover, most of the technical and scientific records have been destroyed. During this persecution the monasteries constituted for many scientists a refuge of last resort. One of them, a certain Mr. Leibowitz who apparently was an electronics engineer, tried to save what was left of the old records. To this end, he established a new religious order — the Order of St. Leibowitz — as it was called after his martyr's death (in spite of his clerical disguise, he was recognized as "one of those damned scientists" and hanged).

The members of the St. Leibowitz order devoted themselves mainly to the conservation of the few fragments of scientific books and papers that survived the nuclear holocaust and the subsequent autos-da-fe. A correct interpretation of the salvaged data was hardly possible, so the monks busied themselves with mere copy work. One day, however, a young friar had the good fortune to discover an old, rusty tin box. It contained some tools (including a soldering iron) and the blueprint of a wiring diagram. And lo! — the box was identified as the property of the blessed, venerable Leibowitz. But no amount of philosophical and semantic reasoning could explain the mystery of the blueprint. Consequently, it suffered the fate of all the other remnants of scientific data: it was copied and carefully embellished! The young friar adorned it with colorful paintings of leaves, animals, cherubims and doves — in short, it became a venerable relic.

Today it is fashionable to explain old religious or ethnic traditions as the distorted remnants of some earlier, advanced, technological knowledge. But the lesson of Miller's story can also be applied in the reverse sense. It suggests (if only by a fictitious example) how difficult it is to correctly interpret isolated fragmentary evidence from past cultures in one light of, say, our present mode of living, or on the basis of a preoccupation with certain controversial concepts for which present-day "conditions" are blamed.

The picture, shown here on the opposite page, is a woodcut print from the first half of the sixteenth century. In those days celestial phenomena were often rendered by the artists in the form of fantastic animals such as dragons, unicorns, etc. But this is apparently not the case here, for in the same picture the artist has also portrayed a comet (upper left margin), and one must admit that it is a fairly realistic rendering of what a comet looks like. From this we may reasonably conclude that the artist wasn't prone to fantastic exaggerations. If he has drawn a "fish" in the sky surrounded by clouds (haven't many of our present-day UFO's been surrounded by clouds or fog?), he has very probably depicted some artificial, torpedo-shaped object. And what could such an object have been, in the sixteenth century? Of course, only an extraterrestrial spacecraft! And how else could an artist of the sixteenth century convey what he had seen, or what had been described to him?

There is further evidence for this interpretation. Take, for example, the curious configuration of the object's body. Isn't it strikingly reminiscent of the self-supporting, geodetic structure of aircraft like the famous Vickers Wellington bomber of World War II? True, the forward section of the object looks like the head of a fish, but don't the nose fairings of some of our modern planes look like monstrous faces, and don't some earthly pilots, too, paint faces on their planes in order to enhance the menace? Then, please note the "man in the moon" in the upper part of the torpedo-shaped object. It looks rather like a face behind an astronaut's helmet, which has a transparent visor. How about the naked human body (or corpse) in the rear? Did the artist want to tell us that "they" abduct, or even exterminate and dissect, the poor earthlings?

Most striking of all, however, is the curious cone of rays emanating from the belly of the object, within which images of buildings and faces can be seen. The draftsman apparently strove for a good perspective. Yes, this can only be some sort of three-dimensional, hologram-like projection. Moreover, the presence of ecclesiastical authorities at the scene strongly suggests that the event was indeed considered supernatural by the contemporaries. (They had, of course, no idea of Star Trek and things like "beaming," but *we* know that UFOs project beams of solid light, and who does not remember Orfeo Angelucci who described to us long ago how the face of an extraterrestrial materialized within a luminous area?)

The sun and the stars depicted on the object's body are admittedly more difficult to explain. But couldn't the "sun" be one of those powerful searchlights often described in UFO reports? Has the artist perhaps tried to liken the navigation lights, or even the intermittently flashing anti-collision beacons on the object, to (scintillating!) stars? In view of all the other corroborating evidence, such matters can safely be considered as minor, unimportant discrepancies, and the planetary symbols are clearly astrological embellishments — a concession to the zeitgeist, so to say.

The whole business becomes immediately less exciting once we consider the accompanying text. The woodcut was used to illustrate the title page of an astrologically inspired forecast for the year 1524. The text reads:

> "Practica vber die grossen vnd manigfeltigen Coniuction der Planeten/ die im Jar M.D.XXiiij erscheinen / vn vngezweiffelt vil wunderbarlicher ding geperen werden."
>
> Translation:
>
> "Practicum about the great and manifold conjunction of the planets, which will appear in the year M.D.XXIIII / doubtless giving birth to many astounding things."

The year 1524 was indeed a year of great changes. The peasants' wars began in South Germany and later in the Tyrol. The cone of rays shown in the woodcut is nothing other than the graphic representaion of the phrase "giving birth." And the fish? Quite simple: The conjunctions between the Moon, Saturn, Jupiter, Mars, Venus and the Sun occurred in Pisces, the zodiacal sign of the Fishes.



A Sixteenth Century Spacecraft?

Practica vber die grossen vnd mir-
nigfeltigen Comūctionen der Planeten/die imī
Jar. M. D. XXiij. erscheinen/vñ vns
gezweyfelt vil wunderbarlicher
dinge geperen werden.

Auf K. May. Gnaden vnd Freyheit/Bin ich menigklichs/dyse meine Prac-
tica in zwayen Jaren nach zumachen/bey vnlieung. 4. Marck lötiges Golds.

Life Force, Psychokinesis and the Electric Girl

by Dr. Michael D. Swords

Abstract

We are not the first age to become fascinated by the concept of a Life Force and its potential for influencing material objects. The early part of the last century was filled with such speculations and several scientists migrated toward these ideas in their research. An extraordinary anomalous phenomenon, the Electric Girl of LaPerriere, arose in the 1840's to perplex the leading scientists of the day. The French Academie, struggling between the evidence of their testing and the challenge to their reputations, waited for the inexplicable events to subside and then, thankfully, forgot them. Forteans, however, like proverbial elephants, never forget...thankfully.

The early third of the nineteenth century was a period of imagination and creativity in western culture in almost every department of art, literature, philosophy, and science. Some historians regard it as one of several "romantic ages" which have cycled through western history (Charles Fort was in the vanguard of another in the very late 1800's). During these periods strict empiricism and mechanical law-bound thinking are relatively ignored, or at least supplemented strongly with more intuition, open-mindedness, and expansive visions of the nature of things. In periods such as these, theories of the powers of the human spirit or the "force of life" rise in respectability and receive a more tolerant hearing.

The early nineteenth century was filled with such interests, and much evidence was alleged to support Life Force ideas. One such piece of evidence, an especially odd and spectacular one, was the case of France's "electric girl," which occured in the 1840's, unfortunately just as establishment science was lapsing back into its conservative wholly analytical mode. This case began well after the beginning of interest in Life Force in the century and attracted attention at the highest scientific levels, the French Academie.[1]

Science seems to take on different "moods" in different decades, and the same "science" which Charles Fort damned in the 1880's would have received, in part at least, his praise in the 1820's. The early century, full of vitality in ideas, had not settled into its mid-century critical period where it would deny possibilities and events while assuming an air of materialistic and formula-bound superiority. Earlier legends like Humphry Davy, Michael Faraday, Hans Christian Oersted, Luigi Galvani and a great host of others plunged into research driven by world-views of reality of an imaginative, sometimes even spiritualistic, kind.

These researchers envisioned Nature as a great dynamic Unity, wherein the active powers, the forces which drove all phenomena, were constantly interacting; and, more deeply, were probably all one and the same. This insight gave rise to a style of thinking which dominated the creative scientists of the century: the Correlation of Forces research, showing this unity of Nature. It was for many of them the quest for the Ultimate Truth. Regardless of beliefs, the vision was undeniably fruitful: Davy discovered new elements, Oersted and Faraday related electricity and magnetism (and gave birth to modern civilization), and Galvani touched an even more personal chord. His discovery of the excitability of the nerves by electricity gave impetus to a vast array of speculations relating Life Force to "galvanic electricity" and the physical forces animating Nature itself. Electric eels "proved" that "nerve force" and electricity were closely related; perhaps "life force" and "nerve force" were the next pair in the correlated chain.[2]

Questions, some old, some phrased anew, arose. Does the brain act as a channel through which Life Force acts on the world of Nature? Does Life Force produce nerve force which then causes muscles to act on the physical world? What is the meaning of "will power" or "the force of the will?" Such questions tantalized the adventurous scientists and philosophers of that age. John Herschel, astronomer royal and the most respected British scientist alive, spoke directly to the point: every phenomenon must be interpreted as happening through the actions of forces. These forces seem to go on eternally, mathematically, unchanging. *But*, we do have one experience of the *origin* of such forces, and it is always connected with the mind, the intellect; the will. Herschel went on to describe the brain as a link between mind and matter, respectively the origin and recipient of action. As for the great forces of the Universe, he then located their source quickly — It was the Will of God. Hadn't the traditions of western culture always said that it was so?[3]

A second example of involvement by a prominent scientist reminds us of the darker side of science, however. Baron von Reichenbach, a mid-century researcher of high reputation in electromagnetics, left established areas behind and began working on the new theory of Life Force, thus terminating the respectable part of his career in the eyes of his peers. He postulated a quasi-material "odylic force," the effects of which he reported to be able to see using magnetic experiments. He felt that he was solidly correlating "odyle" with electromagnetism in proper scientific style, yet also related these ideas to old eastern concepts of the human aura. Reviewers of his thought and work admitted that a man of von Reichenbach's stature was totally beyond imposture but, nevertheless, "the theory of Reichenbach is but a nebulous dream overhanging the bright region of physical truth."[4]

Prominent people publishing wide-ranging ideas about the nature of the mind and life: such were the times of the "electric girl." Angelique Cottin, fourteen years old, a peasant's daugher abandoned by her parents, was the focus of the phenomena. A poorly educated child, purportedly of low intelligence, she lived in a shack with a widow-aunt in what must have been a woefully bleak existence. The beginning was in January of 1846, the 15th of January to be exact, following eight days of awesome storm and lightning.[5]

Angelique's aunt made a living weaving silk-net gloves, and she and several girls worked at this well into the evenings using candles for light. About 8 p.m. on the 15th of January, 1846, the wooden frame of the loom was violently thrown down and the candle, falling, went out. The girls felt that one of them had done it by clumsiness or as a trick, reset everything, and set to work again. Down once more went the frame. The children

ran out, fearing the "powers of darkness" were at work. Once everyone settled down they returned with Angelique's aunt. It became obvious that whenever Angelique approached near or touched the warp, the frame reacted violently, and threw itself back; Angelique seeming to be forced to follow it, only causing it to back further away. Her aunt, like the children, suspected sorcery.

The local priest was called in to exorcise the girl. He was thrown backwards from his chair as Angelique approached; but he did not think that he was in the presence of the Devil, but rather some very interesting phenomenon. Others were called in. The owner of the land could not hold the loom near her no matter how much strength he applied. He reported that he felt the force rotating as well as directly pushing away. If a wooden object was exceptionally massive, it did not move, but Angelique herself was thrown away.

For a time the phenomena involved only wooden things, but by a week other objects began to move away as well: shovels, tongs, scissors, books. The strength of repulsion increased with the variety. Once, three men were tossed several yards as they tried to hold a chair for her to sit in. In one amazing incident a 150 pound wooden block vibrated violently forty times in a minute, jumping 3 to 4 inches with each motion. Men sat on the blocks, and the same phenomenon occurred. Angelique seemed tired after such experiences. It is interesting that priests, landowners, physicians all testified to these events, and set up experiments to test her.

Both the landlord and a government engineer showed that the actions could be cancelled by isolating the girl's feet from the surrounding environment (by "dry glass"), apparently on the theory that the force involved was electrical. A priest noticed a static electricity effect on the hairs of his arm when Angelique touched him, and others confirmed this. But a similar static electricity test (repulsion of pith balls) did not produce a positive result.

The effects seemed unconscious, and were strongest when she was relaxed and unthreatened by suspicions and mockery (a familiar paranormal claim today). Effects on wood were always greater than on other substances, and her force greater when she stood on the earthen floor rather than on tiles or carpets. Many individuals came distances to see the girl, and, clouding the issue, her neglectful parents suddenly rekindled an interest in her and decided to make a few francs out of this new-found fortune by "exhibiting" her in Paris. A sad decision for humanitarian reasons but fortunate for posterity in that it brought Angelique together with the French scientists of the capital.

On the 12th of February, 1846, Angelique was in Paris and Dr. Tanchon, who wrote the most important record of this subject, met her. He observed all the previous effects and in more detail. Her left hand was warmer and more powerful than her right, and trembled when the force was exerted. She experienced a pricking shock if the object was actually touched. Removing her feet from the ground eliminated the effects, or the effects were not continuous or regular, but intermittent. Her pulse rate was fast and erratic, and she had a point on the nape of her neck which was so sensitive that the slightest touch evoked a scream. At the peak of her power a cool movement of "air," or whatever, seemed to flow from her. She was shocked by the north pole of a magnet but not the south. Of course, none of this had any readily perceivable scientific explanation. Yet it seemed very real indeed.

The pinnacle confrontation between Angelique and "respectable science" was then arranged. Tanchon invited a friend, Francois Arago, secretary of the French Academie and one of the greatest physicists of the age, to test what the girl could do. Arago and three other well-known scientists witnessed her abilities to repel wooden objects in one of the dens of Science, the Paris Observatory. Arago himself had a chair ripped away from his hands and thrown down. Several such experiments succeeded, but Angelique's effect on the compass needle was negative. The consequent report to the Academie was guarded and conservative, as is to be expected of Science viewing something which it does not understand. This was especially expected of the Academie, whose reputation for elitism and snobbery was almost unmatched at the time. A committee nevertheless was organized to study her further. Several weeks later they gave a very negative report on her alleged powers. What had happened?

Tanchon reports that the committee began by witnessing the violent chair motions which could not be restrained, and then decided on a clever experiment. Adopting the classic, but somewhat revolting, method by which Galvani had originally demonstrated "nerve force," they placed a dissected frog on Angelique's arm and connected it to a Voltaic battery — apparently on the theory that this would show if she conducted electricity. As the current allowed the gruesome dissection to wriggle and apparently revive, the simple girl went into hysteria, finally almost passing out. Nights of nightmares followed, and a constant lessening of the powers, and perhaps for her it was all for the best. The Academie had, apparently accidentally, ended this anomaly which did not fit into the understanding of the day. They could now write it off and thankfully forget it.

We don't know what took place in France in the early months of 1846 that produced the powers of Angelique Cottin. We can be fairly sure that "something" inexplicable did occur, and that some of those powers were as real as the chair torn from Francois Arago's hands. Was Angelique subconsciously exercising the power of her "life force" on the world around her? Was she acting as a channel through which natural energies flowed and interacted? Can we see in her reflections of Herschel's origin of all forces, Reichenbach's odyle, Eastern mystics mind-over-matter, Parapsychology's pyschokinesis, Spirit rappings and poltergeists, the power of faith, prayer, and the "evil eye," even the aura and the distant interactions of natural things?

Angelique is one little chapter in a great book of mysteries about the mind and the potentials of the human person. Science cannot yet read that book, since all the chapters seem to be unique. Science cannot deal with the unique. It deals only with the recurrent, the quantifiable, the retestable. This is at once its strength and its weakness. The proper scientist will look at the phenomena of "life force" and realize that until definite patterns emerge, no finding in this area may be called "scientific." But likewise, this situation does not mean that the events are any less real or important. It is perhaps here in this "damned land" between the raw events and the scientific methods that we Forteans lie. It is perhaps always an investigator acting as a Fortean, who pursues the "damned facts" openly, sees the pattern, intuits a hypothesis, correlates phenomena, and begins to bring the unacceptable into the realm of the respected. Is there a "life force" beyond electricity and chemistry? Was Angelique Cottin a dramatic demonstration of its reality? We'll never learn anything by forgetting.

NOTES

1. This "incident was reported into the Fortean literature by (who else?) Charles Fort himself in *Wild Talents.*

(Continued on page 87)

Solving The Mystery of Ball Lightning - a Military/Scientific Imperative

by Harry Lebelson

"Ball lightning enters Soviet jet" read the Agence France-Presse news release datelined Moscow. The January 14, 1984 bulletin told how a "ball of fire-like lightning" went through a Soviet airliner flying over the Black Sea. The "fireball," ten centimeters in diameter, first appeared on the fuselage of the Ilyushin 18 airliner. According to Tass, the "ball of fire" then disappeared, only to reappear "inside the plane's cabin, where it slowly flew over the astonished passengers" and then exited through the rear of the plane. With two holes in the body of the aircraft and its piloting system out of commission, the aircraft was forced to make an emergency landing.* Six months previous to this incident, a United States commercial jetliner underwent a similar occurrence.

Controlling the energy inherent in ball lightning has thus far eluded scientific inquiry. In spite of this, research continues in both the Soviet Union and the United States into the complexities of this phenomenon.

Since 1958, hundreds of millions of dollars have been spent on the research and development of particle beam weaponry in the United States alone. The government agency responsible for the nurturing of these new armaments is the Defense Advanced Research Projects Agency (DARPA), located in Arlington, Virginia. The agency, an appendage of the Department of Defense, has been pursuing research into directed energy weapons based on the use of high voltage and/or high current electrical devices. DARPA's research efforts with pulsed plasma devices and the electrical rail-gun, an electro-magnetic launcher which uses electro-magnetic energy to speed-up deadly projectiles at hypervelocities, suggests that high energy, ball lightning-like, toroidal plasmas are formed as a by-product during testing. Therefore, it can manifest potentially dangerous effects. This phenomenon has also occurred during experiments involving switching of heavy electrical current, such as that used in the electrical systems of United States submarines. Submarine warfare, until recent years, was the stepchild in the United States family arsenal of defensive and offensive weapons. Now, however, it plays a prominent role in surveillance electronics and the utilization of directed energy weaponry.

United States government officials have coined the term "directed energy weapons" when referring to both particle beam weapons and high-energy lasers. While charged-particle beam devices focus and project atomic particles at the speed of light to interrupt and destroy a target from a ground based site, high-energy lasers send narrow, intense beams of coherent light outward toward a target at the speed of light, vaporizing it.

In 1947, at the Philadelphia Naval Shipyard, tests were performed on the "reverse current gear" connecting the generators of the U.S.S. "Cutlass" (Hull No. SS 478) inadvertently generating a fireball four to six inches in diameter, which lasted approximately one second. The resulting phenomenon closely resembled natural ball lightning. The possible dangers in creating ball lightning-like phenomena in experiments with particle beam weapons and that produced in the U.S.S. "Cutlass" submarine incident, along with its value as an aid in research on the potential hazards in experiments with electrical railguns, prompted DARPA to sponsor a study on ball lightning through Battelle Columbus Laboratories in Columbus, Ohio. The purpose of the inquiry was to better understand probable hazards inherent in future research of this type. DARPA hoped that through the Battelle study, monitored by the United States Army Missile Command at Redstone Arsenal, Alabama, it would be able to validate the strongly suspected contention that ball lightning and certain pulsed plasma generation phenomena are integrally linked. Therefore, if an explanation could be found regarding the creation of one type of ball lightning, one might be able to control its manifestation in high-energy pulsed plasma weapons. Thus, it would reduce inherent hazards. It was hoped this could be accomplished by providing grounding for capture and dissipation of the ball lightning energy.

The quest by Battelle Laboratories centered first on a search to find a sufficiently consistent description of BL (ball lightning) as observed by eyewitnesses, as shown in photographs, motion pictures, or obtained by any other physical or chemical monitoring or recording techniques.

The research was derived from coordinated data of foreign and domestic literature, personnel and institutes researching ball lightning, private and public libraries and various abstract services. The information, containing detailed observations and technical descriptions of the phenomenon, was then collected into a data base and used for the analysis in the report.

Two broad categories of theoretical explanations examined by the study were: theories that assume BL to be self-contained, having no further energy imput after its been formed, and theories that assume BL is continuously energized by some external electrical field associated with a thunderstorm. Within the context of the "once-only" and "continuous energizing" theories, fall many sub-theories, most of which have undergone intensive scrutiny by scientists of many countries.

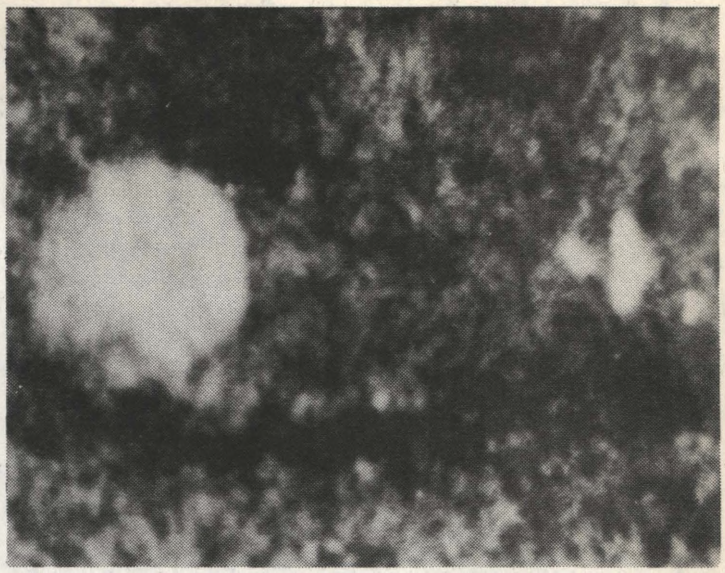
Of all the nations engaged in BL research, only the United States and the Soviet Union have intensive programs currently underway. Dr. Franklin Rose, a researcher into particle beam weaponry at the Naval Surface Weapons Center in Dahlgren, Virginia, when asked to discuss the current status of research into the hazards incurred in particle beam weapons testing due to toroidal plasmas, refused comment for national security reasons. However, Dr. Bill Barletta, in charge of the particle beam program at the Lawrence Livermore Laboratory in Livermore, California, offered this interesting side note. "My primary research, he commented, deals with electron beam development. In regard to the extent that this ball lightning business is real, and the fact that these blobs of plasma do run around in dense air as verified by the reports of many reputable witnesses, I would assume that if someone were making a particle beam device for space application as a potential weapon, that in its formative stage it certainly could be hazardous to the people doing the experiments."

Soviet research on BL is prodigious and appears to be promoted by senior Soviet nuclear weapons experts. One such Soviet academician is Yuliy Khariton, a high level consultant

*See *PURSUIT* #65, Vol. 17, No. 1, p. 42.



Rare photo of Natural Ball Lightning taken at Jials County, Tennessee, November, 1971.



Extreme blowup of Jials County, Tennessee Ball Lightning photograph.

on Soviet nuclear and directed energy weapons. Khariton, considered to be the Soviet equivalent of Dr. Edward Teller in the United States, periodically presents promising new theories on BL to the Soviet Academy of Sciences. The main body of research undergoes continuous analysis by many groups of scientists at several institutions. Among them are the Kurchatov Atomic Energy Institute of the Academy of Sciences, Moscow, the Institute of Mechanics of Moscow State University, the Institute of Hydrodynamics, Siberian Division of the Academy of Sciences, USSR, Novosibirsk, and the Khar'kov Aviation Institute.

It was at the Khar'kov research facility that V.V. Balyberdin and his associates explored the theory that depicted BL as a self-contained rapidly rotating vortex structure made of plasma or hot glowing gases. His experiments, undertaken in support of this concept, produced very short-lived vortex formations or ball lightning-like plasmoids that, because of their brevity, could not be compared with real BL. V.V. Balyberdin's work was thought to have been influenced by the early experiments and schemes of scientist Winston H. Bostick of the Livermore facilities of the University of California. Both the Livermore Institute and Sandia Laboratories in California, actively pursue BL studies. Bostick's experiments with low temperature plasmoids, generated by AC and DC currents, did not produce any long-lived models of BL once the energy source was disconnected. His research did, however, succeed in stirring up interest in the experimentation of plasma-acceleration theories.

In support of the plasma and vortex theories, research suggests that the vortex formation of BL might consist of a rotating spherical shell of normal-density air surrounding a low-density core of plasma. If this were the case, then the observed stability of rotating BL would be based on a balance between rotating centrifugal forces and atmospheric pressure. Due to the fact that so many observations of real BL mention a rotating or vortical motion of the fireball, and because several of the theories of BL based on vortex formation are beginning to show some promise, research continues along these lines of thought.

The Battelle study concluded that many other kinds of theories regarding the manifestation of BL also appear to show positive results and should be followed up with more intensive analyses. With the available literature on BL being so enormous, not all of it could be given consideration in the DARPA sponsored study. Based on its more well-founded theories and observations, the report's most notable conclusions are:

1. The data studied shows that a bona fide, long-lasting, high-energy artificial ball lightning has yet to be produced under laboratory conditions.
2. Theoretically, it seems that there may be more than one type of BL that can exist for a second or longer. Sustained experiments should continue in these areas.
3. All ongoing and recently published Soviet research on BL should be monitored and evaluated for a possible technical breakthough.
4. Observations of natural BL and the combined input of various theories indicate that some type of metallic hollow structures, such as large sheet-metal air ducts or culvert pipes, may have to be used to provide "preferred" channels of escape for any dangerous fireballs that may get loose in the laboratory work space.

Since the Battelle study was completed, some of the recommendations of the DARPA sponsored inquiry have been adopted, thereby lessening the hazards inherent in the testing of directed energy weapons and electrical railguns.

This survey is just one of many continuing probes into areas of eccentric and exotic research demanding examination by the United States Military/Industrial Complex. With today's battlelines being drawn in outer space, both the United States and the Soviet Union, with its "Star Wars" strategies about to be implemented, demand immediate solutions to nagging problems latent in the new technology. One of the staunchest advocates of that ideology is Dr. Edward Teller of the Hoover Institute in Stanford, California, who states that "On the very essential weapons and research, there is far too little appropriation. We need greater funding for accurate technical proposals into research on directed energy weapons in the area of shorter wave length regions, which are quite important." As the battle for space, this seizing of a new "high frontier," escalates daily, the prospects for serious arms control diminishes, leaving in its wake a void of uncertainty as to future relations between the superpowers.

The Infrared Factor

by John A. Keel

Remember the old army "Snooperscopes?" They were clumsy telescope-like devices that enabled troops to see in the dark. A thousand variations were invented. One was a camera which received extensive publicity in the early 1960s and then was never head of again. Even *Life* magazine carried a big spread of pictures taken with the camera. One photo was of an empty parking lot but, incredibly, you could see the outlines of the cars that had been parked there earlier. You could even read the license numbers of some of them. Yes, it was a camera that could- and did-*photograph the past.* But instead of being a boon to mankind (think of what it could have done as a crimefighting tool), it was swallowed up by the government and is used today in space satellites and U-2 spy planes.

Snooperscopes and spy satellites detect infrared radiation. Basically, infrared is heat. Look at a hot soldering iron through an infrared filter and you will actually see the glow of heat surrounding it. A glow which is invisible to the human eye because infrared is at the far end of the visible spectrum. Anything that is hot...or even warm...is encompassed by these invisible infrared waves. Living bodies are, of course, surrounded by an infrared aura and a very few people are able to see over the edge of the infrared field and "read" such auras. If the body is injured or diseased, the aura around the damaged parts is of a slightly different density and aura readers can spot it.

Automobiles in a parking lot on a hot summer day create an infrared "fingerprint" which remains after they drive away. A camera with a proper filter, lens and infrared film can pick up that cloud of heat, even hours after the car has left.

You have certainly seen some of the many infrared photos of the earth taken from space by our astronauts showing all kinds of features and conditions of the terrain and vegetation which are normally invisible.

Infrared sight is quite common in the animal world, although rare among humans, especially among nocturnal creatures. A wide variety of snakes, birds, felines, etc. are able to see the infrared auras of living creatures...even from a great distance. Thus on a very dark night a high flying predator bird can spot a tiny mouse slinking through high grass. The bird doesn't actually "see" the mouse. It sees a little cloud of infrared energy and recognizes it as lunch...just as a soldier peering through a Snooperscope sees a vague form wriggling through the bushes and knows it is an enemy sneaking up on his position.

There is a fascinating body of evidence which indicates that our elusive tall, hairy monsters, phantom black panthers and other strange Fortean creatures are equipped with infrared vision. Some of them, in fact, may only be able to see in the infrared field and beyond and may be unable to see the visible spectrum at all!

Back in the 1970s, there were many Bigfoot reports from New Jersey and a recurrent feature in these reports was the monsters' puzzling penchant for air conditioners. They would amble up to buildings that had working air conditioners in their windows and, ignoring everything else, they would approach...almost attack...the air conditioners. Why? Simple. The exterior parts of air conditioners radiate heat, as you know. If your vision was restricted to the infrared you would see a dim outline of the building with a bright cloud of infrared waves around the air conditioner. If, like the predatory bird, you were programmed to be attracted to the infrared thinking, perhaps, that it represented food, you would head instinctively for the air conditioner.

Consider, too, the automobile. In the past thirty-seven years we've had many hundreds of reports of assorted monsters attacking and/or pounding on the *hoods* of cars. Why the hoods? Because they are the hottest exterior point on the average auto. Again, they are giving off a great cloud of infrared radiation. A cloud that can easily be spotted from high in the air, too.

A car that has been running for a few minutes would be an awesome sight in a Snooperscope. The hood, with the hot engine directly underneath, would be surrounded by a rich glow while the exhaust pipe would be spewing out a trail of bright infrared. It would be a very curious sight to our monsters...and maybe to our UFOs, too.

Hostility: Attacks on Humans, Animals, and Automobiles *

Nature of Hostility	*Totals*
Automobiles approached and/or attacked	16
Autos damaged by claws, etc	4
Human beings attacked and injured	8
Animals attacked, injured, killed or mutilated	
Animal disappearances	6
Tires thrown at witnesses	2
Total number of hostile acts	36

We also have an interesting body of observational evidence indicating that *some* Ufonauts are blind. Witnesses have described how the entities stared down at them without apparently seeing them. Some contactees have told us that they were selected because of their "auras." Could this mean that only certain human beings have an energy field which can be detected by the Ufonauts? This would explain the strange process of selection that seems to be at work in UFO cases. Not everyone is contactee material because most of us are just plain invisible to the entities. We can't see into their portion of the electromagnetic spectrum and *they can't see into our visible spectrum.* They therefore operate mostly at night, like owls and big cats. In daylight they wear wraparound sun glasses or opaque helmets. And there are plenty of descriptions of both in the testimony of the witnesses of the past three decades.

Finally, if we really want to capture one of these critters it seems logical that we should set an infrared trap of some kind. Natural animals are afraid of man and very afraid of fires and noisy machines like air conditioners and auto engines. Our Fortean creatures therefore exhibit totally unnatural behavior when they pound on auto hoods. By such behavior they have given us a most important clue about themselves and one of their key senses...the sense of sight. They cannot see us except under very special conditions and it is not at all improbable that the reverse is also true. We see them mostly by mistake or by accident or we see only part of them or maybe what we can see is a total misrepresentation. They see our air conditioners and we see their toilets...which happen to be shaped like saucers.

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News From Another World: The Nebraska UFO-Cryptozoology Conference

reported by Michael D. Swords

November 11, 12, 13 of 1983: Ray Boeche, Nebraska State Director for the Mutual UFO Network (MUFON), engineered one of the finest Fortean conventions in recent years. Big Guns, J. Allen Hynek (Center for UFO Studies), Walter Andrus (MUFON), and Roy Mackal (International Society for Cryptozoology), headed a sparkling cast of experts who kept the audience and the press crackling with interest. ABC television featured the activities nationwide.

The mysteries of living dinosaurs, out-of-place animals, lake monsters, spontaneous human combustion, UFO abductions, crashed saucers, and cattle mutilations paraded before the conferees in an inspired format: four speakers per day, scheduled half-hour question and discussion sessions behind each talk, and one and a half-hour discussion sessions for all speakers at the end of the day. The interchange was dynamic and intimate. Everyone shared in the exchange. Even the experts learned some things. Thank you, Ray, for an extremely good show.

And, now to business...

Part One: Cryptozoology and Combustion, a Cabinet of Curiosities.

For this reporter, the presentation of Dr. Mackal (University of Chicago) was the outstanding example of solidity and excitement of the three days. Extant Dinosaurs! This dream of *SITU* founder Ivan Sanderson may be about to materalize. As *Pursuit* readers realize, there have been stories and folklore from central Africa for many years, alluding to the big beasts "head-like-serpent, body-like-elephant, tail-like-crocodile" that inhabit the great untracked swamps of the Congo and Rhodesian areas. Dr. Mackal and explorer-friends James Powell and Richard Greenwall have twice ventured into extremely difficult terrain in the Eastern Congo. To the west of the great Ubangi River lie regions nearly untouched. Here remain tropical swamps, similar to the domains of the Cretaceous dinosaurs. As the world entered the modern (Cenozoic) age, these regions may have remained stable, stable enough to allow a species of nature's most startling creations to survive. The names in the great quest are properly exotic: the village Impfondo, the river Likuoala, the village Epena, the river Bai, further and further removed from biology labs in Chicago and the support systems of civilization. What did they find?

Many biological samples were taken, including the tough Molombo fruit which is the alleged primary food source of the animals. Witnesses were quizzed by the animal flash-card method, with internal checks of cards of animals known *not* to be in the region included. Saurians were identified as the nearest to "mokele mbembe" by the natives. Lake Telle was said to be a recent haunt. Breaks or possible trackways in the bush were investigated. What were the preliminary conclusions?

1. stories describing the animals got vaguer going both North and South along the Likuoala; leading them to believe they were "in the vicinity."
2. witnesses passed the flash-card test with consistency; they didn't identify "ringer" cards like bears, they *did* recognize something like suariano.
3. descriptions of the animals as herbivores are not only consistent palaeontologically, but would seem unlikely for a mere folkloric fantasy relating to religion (such creatures usually are *directly* involved with humans in some more sinister way).
4. a "trackway" seemed consistent with a large animal with a massive tail, but which also stood several feet high. Neither elephants nor crocodiles seemed to have all the necessary tools.
5. the Molombo fruit, analyzed in the States, had the nutritional value of a low-fibre content pear, rather low in protein content but judged "marginal" for an adult ruminant. Maybe the animals have another food source to supplement their diet in protein.
6. After Mackal's expeditions left the Congo, local explorer-scientists penetrated to Lake Telle and photographed the animals; these films are being processed in Paris. The cryptozoologists of the world anxiously await, and Dr. Mackal is poised to return.

As related side-issues to the great Saurian-hunt, the good doctor revealed that the notorious *That's Incredible* film of mokele mbembe by Kevin Duffy was a hoax of the crudest sort. Local villagers in Impfondo carved the head and the son of the local dentist-missionary strapped it on for the swimming scene. That, indeed, is incredible. Another claimant, the Regusters expedition, penetrated to Lake Telle and may have observed the animals. Unfortunately, the films were lost or incorrectly produced. Some taped materials survived and will be reported upon soon in the *Journal of Cryptozoology*.

Dr. Mackal also reported on Loch Ness and the northern "lake monsters." His studies show correlations between sightings and salmon influx from the sea. He feels that ocean-going animals, primitive whales or zeuglodonts, follow the salmon run into the cold lakes and are then occasionally seen. Some individuals may remain behind if the lake is rich enough in fish, and be witnessed elsewhere in the year.

Another mystery involved Octopus Giganteus Verrill, the monster of the St. Augustine, Florida beach of 1896. Photos still exist as does *tissue* from the beast held in the Smithsonian Institution. Examination of the tissue shows the same alternating bands of connective tissue and protein-collogen characteristic of smaller well-known octopi, and the amino acid content of the species is comparable only to the smaller octopi, (*not*, for instance, to whale, dolphin, or squid). Photo analysis of the stumps of the octopus' arms indicate tentacles which would have stretched to great length, giving the creature a 150' spread tip-to-tip. So where is this denizen from Jules Verne today? The folklore tradition would indicate south of Andros Island in the Bahamas. Jacques Cousteau, where are you?

Two quick South American possibilities: 1) sightings of "Loy's Ape," the "impossible" large primate of northern South America, were confirmed by Danny Liska of Bogota, Colombia in the discussion period; also 2) Dr. Mackal mentioned another "hot" dinosaur possibility on the Bolivian-Brazil border. Pack your bags and go South!

Next up on the Forteana part of the program was the youthful but veteran crypotozoologist writer, Loren Coleman. Loren decided to try out some experimental ideas on the audience: at-

tempts to find correlations between odd phenomena and "magnetic" names, places, and meridian lines. We have heard some of this type of correlating before, of course, especially as regards specific places, sometimes referred to as "windows" by speculators upon the paranormal. The most organized attempt to document such "windows," the piezoelectric earth-stress theory of Michael Persinger, was surprisingly given low grades by Loren, who felt that the data sampled by Persinger was biased. Loren seemed to prefer more "occult" or psychic causal agents than electric quartz crystals and low energy plasmas.

More unusual was the suggestion that 98 West Longitude was a "mystery meridian" along which much strange activity occurs, especially cattle mutilations. This hypothesis would have been more convincing if it had been supported by a map of mutilations sites. Later in the conference, unfortunately for this idea, maps *were* shown by other speakers, and sites clustered about the meridian vaguely if at all (only in the way cattle-grazing states "cluster" about it).

The suggestion of "magnetic" names, (names of power, prominence, psychic or spiritualistic significance, around which many strange happenings occur) was more difficult to deal with. Loren suggested that many of his "magnetic" names were related to the Masonic tradition and the occult powers of the Illuminati. Well, this author doesn't want to argue with anyone claiming those kinds of powers, so let's drop it.

Loren's new videotape "Weird World," describing the Bridgewater (Mass.) Triangle, was shown. It was well-produced and spoke of the mysterious glyphs on Dighton Rock and anecdotal accounts of beasties and big birds and electromagnetic anomalies around Lake Nip.

The audience had much to say about the tentative patterns Loren had mentioned. Old buddy and co-author, Jerry Clark, threw some friendly barbs about finding patterns *anywhere*, if you go out looking for them. Jerry's point was that a University of Chicago study showed that Americans feel that they have very unusual experiences much more than is recognized: 3 out of 5 of us have them, and 1 out of 5 of us have them frequently. Roy Mackal reminded all of us that correlations do *not* mean that *casual* relations exist, especially when the data base is small. Budd Hopkins, who studed CEIII-abduction cases, felt that the Fortean researchers will never be taken seriously until they do better statistical analysis on their data, as the ufologists are trying to do. Loren replied that some "focus" points probably do exist, and traditional names (like "Devil's _____") might indicate rich areas in which to look. He also felt that it was a shame that more creativity is not being shown (or allowed) in the field, and that we were overreacting to some ideas put forward "for the fun of it."

"Big Bird" sightings came up in the audience session. Loren felt that there were three explanations: a) hoaxes, b) large condor-like birds, or c) paranormal phenomena. Larry Arnold mentioned Pennsylvania cases of a paranormal character. Roy Mackal felt that he could only buy the "zoo-escapee" or rare species (a la albatrosses) out-of-place ideas. Loren left us with an excellent reminder, which has many consequences for all interested parties:

"the body of evidence is mainly *human*."

and, as a modern brain researcher has remarked:

"if the mind were simple enough to understand,
we'd be so simple that we couldn't."

That remark would have pleased Charles Fort.

The third "non-UFO" speaker was Larry Arnold, who is fascinated by fire-phenomena. His main topic was the awesome, unnerving subject of spontaneous human combustion (SHC). Speaking always in the royal "we," he terrorized the audience with tales and photos of the famous and lesser known SHC cases: Mrs. Reeser, Jack Angel, Mrs. B. et al. It was not a moment for the faint-hearted as the gruesome pattern of consumed torsos and left-over extremities paraded photographically before us. The evidence for the *fact* of mysterious human burnings seems surprisingly strong. The evidence for a particular *cause* for these events, however, seems currently negligible.

Larry was undaunted by the lack of evidence for causes, however, and took us on an Alice-in-Wonderland tour through the borderlands of the fantastic trying to seek some out. Variously cited as potential villains were malignant hyperthermia, bioelectricity, geomagnetism, ley lines, lunar effects, biorhythms, subatomic particles, long-snorkled living UFOs, and Thursdays. The audience, albeit sympathetic, had, shall we say, "difficulty" with some of these hypotheses. Larry was doing what Loren had done — regaling us with often wild concepts for discussion, stimulation, and fun purposes. Still, inventing subatomic "pyrotrons," which get out of hand and nuclearly destroy living tissues, was a bit embarrassing to the scientifically trained. And Thursdays being sacred to Thor the thunderbolt thrower, well...this author doesn't want to mess with Thor, either, so take it as you will. Oddly, Larry didn't mention his earlier published theory of SHC, psychokinetic backlash from a suicide victim seeing the Hell-fire and trying to return to his body, nor the metabolic imbalance theory with the "vitamin" Inositol usually fingered as the culprit. These would have appealed more than any of the above to the paranormally-inclined on the one hand or the materially and energy-inclined on the other. Maybe they were "old stuff."

Several members of the audience pointed out the problems of trying to produce patterns out of a very small data base (no matter how well documented the individual cases are). Although three points do make a non-trivial line, they may not constitute any real significance (especially if there are several cases of urban concentrations already lying on such lines). Another major concern was when hypotheses contradict each other (ex. SHC via *bad* people, suicide victims, and SHC-auras via *extremely good* people, a la the Shroud of Turin). It is a shame that someone has not tried to test the burning characteristics of body tissues saturated with various known metabolites (ex. Inositol) or their derivatives, to at least apply some rational method to this fascinating topic.

Larry left us with his favorite quote, from Eden Philpotts:

"The Universe is full of magical things
just waiting for our wits to grow sharper."

In that, we all agreed.

Part Two: Close encounters in Cornhuskerland, the Big Guns Speak.

J. Allen Hynek. What better way to lead off a discussion of UFOs than with the man who has become synonymous with the study? Dr. Hynek, one-time USAF scientific investigator and current Director of the Center for UFO Studies (CUFOS) in Evanston, Illinois, tried to cut through some of the confusion in the subject, and prepare the way for the speakers to come.

Conversations on this topic are often clouded by people talking at cross purposes. Let's get a definition for the "UFO Phenomenon." Dr. Hynek says it is this:

A. a large and continuous flow of reports (there are over 100,000 in the CUFOS computer alone);

B. an army of "reporters"/"percipients" (two-thirds of the cases being of two or more persons at the same time);

C. the content of the reports (the evaluation of which is, of course, the problematical area).

Defined thus, it is obvious that the "UFO phenomenon" exists. Because of the amount of people and reports, it is also obvious that the phenomenon is significant in some way, and scientifically interesting. Because of the many approaches to "evaluation," it is also obvious that many hypotheses may be applicable to explaining the phenomenon, and that unravelling this morass of subjective and objective elements will be very difficult.

Looking at the mass of the reports, Hynek reflected: "The question is not why I should believe these reports, but rather what right have I *not* to believe in them?" One long-standing factor in confusing people on this subject has been government's public attitude or posture toward UFOs. Hynek recalled, from his own past, instances of "devious doubletalk and misuse of statistics" by the USAF Bluebook Project. He reminded us that this stance continues today. Most obviously, the USAF states that they are no longer concerned with UFOs since they pose no threat to national security, but refuse to release certain documents on UFOs for national security reasons. Dr. Hynek thinks that the reason for government secrecy is that the USAF *doesn't* have all the answers, and is not anxious to get into public conversation on a potentially important subject over which they have no control.

Several "classic" cases were then presented (ex. the McMinnville, Oregon Daylight Disk Photo; the Delphos, Kansas Landing trace; the Levelland, Texas electromagnetic effects; the Warren, Minnesota policecar-collision; the "Father Gill" New Guinea close encounter of the third kind; the "Captain Coyne" helicopter incident; the Socorro, New Mexico landing) to show the audience that the hard core of interesting and diverse "unknown" was still there. Dr. Hynek had been a major investigator in each of these. Captain Coyne told him, "you know, it was like looking into another world."

Allen Hynek has seen widespread change in "ufology" over the years and has undergone many changes himself. He noted the transition from the simplistic notion of extraterrestial visitors in mechanical devices toward a bewildering complex of other ideas. This he thinks is appropriate and helpful in the long run. The scientific establishment reacted badly to the simplistic notion from three viewpoints:

A. the reported craft seemed not spaceworthy;

B. the ufonauts had an awfully long way to come;

C. they seemed to be at home in our atmosphere.

[This reporter is not staggered by the first two, given the possibilities of "motherships" and unsuspected technologies, but number three does seem very unlikely.] The good doctor admits he's puzzled: "the phenomenon at this stage is so strange that it may not be possible to explain it until we have a much better understanding of the physical *as well as the psychical universe.*"

Concerning the strangest of the strange, close encounters of the third kind (CEIII), Hynek stated, "cases where we have contactees with continuous flow of information (people with a continuous "in" to the extraterrestrials), or cases where ufonauts and contactees have sexual relations are left out on the limb, *which is perhaps where they should be.*"

And, in a private remark, he stated that he had no information about captured humanoids from his USAF investigator days and that the rumor that Steven Spielberg's CEIII creature was based on such reports is baloney, despite published statements by certain "ufologists" to the contrary.

Walter Andrus, the Director of the Mutual UFO Network (MUFON), spoke on what could be termed "classic close encounters." His presentation was really a tour-de-force of the modern *methodologies* employed by ufology, and demonstrated the advanced state of some ufo-investigations, as compared to most paranormal borderland investigations.

His first example was the Paul Trent, McMinnville, Oregon Disk Photo, which was close enough to very nearly qualify as a "close encounter of the first kind." The audience was treated to a rather technical dissertation on *photo analysis* and *computer enhancement*. And, that is how it should be. We'll never learn anything *just* listening to stories. This photo was passed as "large and unidentified" by the analysis of Bruce Maccabbee, of Bill Spaulding of Ground Saucer Watch, and by the largely skeptical Condon Report. The raw details: 20 to 30 meters in diameter, solid, and at-a-distance.

The second example was an abduction-examination near Emory, Texas. Here, the now-famous *regressive hypnosis* methodology was used, plus police-style searching for corroborating clues, and *medical examination* with x-rays (by "our" Earth-based doctors, afterwards) to see if changes had occurred after the UFO examination. Typical abduction characteristics of levitation, telepathy, insertion of "tools" in the body, mini-humanoids (these had "pug-noses," though, rather than the usual nearly-nonexistant ones), lost time, and "calling by name" were present. The abductees were two: mother and young daughter. The subjective nature of the experience, the "first-name" basis especially, creates the problem for all close encounters researchers of separating physical realities from activities purely within the "carnival of the mind."

The most extensive report was on the most famous landing trace case in ufology: Delphos, Kansas. Led by THE landing-trace researcher, Ted Phillips, this trace area was tested for *radioactivity* and a myriad of *soil characteristics* (elemental constitutions, dehydration, solidity, luminescence or fluorescence). Trees beside the landing trace were similarly tested. Against all odds UFO researchers are trying to bring science and technology to bear in their discipline. What'd they find?

Soil was dehydrated to a depth of 14 inches. Trees were dehydrated near ground level. Two subsequently died. The landing spot was luminescent for a while, the trees also, but less intensely. No radioactivity was detected.

Within the ring-spot, the soil would not take up water and plants would not grow. Without the ring, the opposite was true. Agriscience Laboratories, Inc. in Hawthorne, California did the elemental analysis. Many substances were in significantly higher amounts within the ring-soil than without: Calcium, Magnesium, Potash, Iron, Manganese, and Zinc. Nitrate was lower. Microscopically the soil is shot through with "tiny white threads" [which appeared organic to this reporter]. The ring was reported early to cause a numbness of the fingers when touched. Later (several years) toadstools grew about the ring-spot and were reported also to cause a numbness. [This reporter suggested testing the strands for types of fungi, and analyzing the organism, if found, for concentration of trace metals to explain the elemental analysis, but it had not been done for lack of contacts with a proper expert in this area.]

All that work was laudable, admirable...but it was almost ruined by the latest report: lambs from the nearby sheep pen having lambs "on their own" (ewes pregnant without the "courtesy" of a ram), one birth having a full wool coat and hooves, and the mother being only 6 months old herself. This bizarreness was bad enough, but on going to inspect the miracle animals, they had all been slaughtered already (conveniently). This sort of piled-on wierdness-without-confirmation is exactly what no case in ufology or the paranormal needs. It is a tribute to Mr. Andrus' honesty in reporting that he tells the whole story as he sees it, no matter where the awkardness comes in. He also

mentioned another piece of local wierdness, the older story of the "Delphos Wolf Girl," which is now admitted by perpetrators to have been a *goat* dressed up in a red gown and let run loose. Simon says, The Search For Truth take several steps backward. Again. If one wasn't a humanitarian, you'd like to get the idiot-hoaxers of the country in an isolated spot somewhere for a "close encounter of the nose-relocating kind."

Walter left us with three further personal evaluations of interest:

A. The Billy Meier "Contact from the Pleiades" case is a proven hoax;

B. The Bermuda Triangle is an illusion based on the same factors that cause large amounts of accidents at busy streetcorners;

C. The number of correlations between Bigfoot and UFOs sightings are very low, and he feels that there is little possibility of a connection.

John Schuessler is a key researcher in MUFON and an employee of McDonnell Douglas Astronautics, working with NASA on Skylab and the Space Shuttle. He reported on the "Cash-Landrum" close encounter incident in Texas, involving health damage to the percipients. This case hints very strongly of governmental secrecy.

Driving on a quiet country highway, two older women and the young grandson of one of the women were surprised by a diamond-shaped object with two rows of blue lights laboriously blasting fire from its underside and struggling in the air. Flames seem nearly to reach the car from over one hundred feet away. One of the witnesses felt that Christ's final coming was at hand. As the device, "big as the watertower," groaned slowly across the trees, it was joined by at least 23 helicopters of the large twin-rotored military kind. The whole ensemble moved off and the witnesses continued home.

Later, all three experienced a barrage of symptoms classically related to radiation sickness. A MUFON radiology consultant stated, "we have strong evidence that these patients have suffered damage secondary to ionizing radiation. It is also possible that there was an infrared or ultraviolet component as well." As health and behaviors changed, both women lost jobs (one of them even lost ownership of businesses) and their lives altered markedly. Naturally, they would like some compensation if they were innocently damaged by some military activity.

Attempts to track down the cause of the incident have been completely unsuccessful. All military bases in the area deny any knowledge and consequently, any responsibility. Some people in the UFO field see this lack of evidence for *military* involvement as an indication of the liklihood of *extraterrestrial* involvement, even hailing this as "the most important UFO case in years." Some have gone so far as to suggest that aliens disguise their craft as helicopters to throw us off. Most of *PURSUIT'S* readers, it might be ventured, have come up with a lot less complicated alernative for this case: no UFOs, a lot of secret military action.

There are plenty of reasons to guess "U.S. Military Project" on this one:

1. there were loads of "U.S. Military" helicopters in the story, and there are many of that type of device in several bases in the area;
2. on that very night there was a *100* helicopter operation elsewhere in Texas, so such an activity would not be unusual;
3. the "UFO" was blasting flames from its underside — very unusual for a UFO-incident, but rather common for "earth-technology;"
4. the witnesses noted the odor of "lighter fluid" in the air; perhaps liquid hydrocarbon ("gasoline-like") rocket fuel?;
5. the U.S. Military has ample reason to tell us nothing on this case even without extraterrestrials being involved (for one, a possible secret vertical takeoff military device test; for another, little incentive to take responsibility for irradiating citizens with a snafu'd test).

To this reporter, there are two really sad things about this case: One, that Mrs. Cash and Mrs. Landrum have had so many difficulties and there seems little chance for justice and compensation. This is by far the most important outcome of this experience. Two, this incident points out the danger of "wanting it too badly" by some UFO enthusiasts. Since there is such a conceivable alternative hypothesis (U.S. Military test), we certainly shouldn't be hailing this as the most important case in years, nor scrambling for "disguised helicopters" theories to firm up the extraterrestrial hypothesis. To John Schuessler's credit, he has stayed quite objective about this case and is primarily driven by humanitarian concerns for Mrs. Cash and Landrum. Others haven't kept as cool, however, and seem not to recognize the danger of selectively believing the military whenever it fits their theories (i.e. the military is constantly accused of covering everything up, but is believed in *this* case when it says that the "object" was not its device). This doesn't mean that there's *no chance* of UFOs in this "sighting," but it should indicate that, as of now, there's no evidence of any concrete kind to support that speculation.

Part Three: Missing disks, time, and mutilators — tales from the Dark Side.

Missing disks: If you're looking for paranoia in the paranormal, you've come to the right place! After the "Cosmic Watergate" part of the conference was presented, most conferees were checking under their seats and staring suspiciously at the people in the next row.

Len Stringfield presented a paper on crashed saucers and hidden humanoids. Well, he did and he didn't. Ray Boeche, the conference organizer, read the paper for him. Mr. Stringfield could not make it. The reason wasn't stated, but he has recently had threats claiming that he was in mortal danger because of his research and feels the threats are genuine. It is about this time that your typical friendly conference goer begins to wonder about many things, none of which are particularly upbeat.

Well, let's pretend that the "Men-in-Black" aren't coming to get us for a moment and ask what Len feels he's found. Mr. Stringfield is an old-time UFO researcher with many contacts within and without the military. He feels that he has 25 independent sources who have been involved with crashed saucers and their occupants including the bio-specialist who did the autopsy-anatomies. The tales have an eerie, forbidden aura about them. They are all allegations as of now, great stories, but still anecdotes until something more concrete arises. They certainly do make you ponder, though.

One bit of biological pondering that disturbed this reporter was the apparent absurdity of some of the biological details stated by the unnamed witnesses. These details were so nonsensical that it almost makes you want to credit the story on the grounds that if someone were making it up they certainly wouldn't have included such "zingers." For example, how the extraterrestrials create new generations without any reproductive anatomy would appear tricky. But it's unlikely that they'd have to worry about it anyway, since they have no gastrointestinal tracts for nutritional intake. It was a bit painful to hear enthusiasts from the audience speculate on direct energy absorption from the environment.

And then there were the hands: very tightly bound (inflexible "spread") due to excessive webbing between the fingers, impractically long fingernails and no thumbs, giving the hand a "claw-like" impression. None of this was pictured of course, just drawn or verbally described. It would have been hard to design a "hand" theoretically less useful for a tool-using animal. Perhaps this segment of the first-hand witnesses should be scrutinized very closely before the ufologists get too attached to certain of these "details." All this aside, we all hope Len Stringfield wraps up his investigations soon and safely, and clears up all the questions his work has created.

A second and very dynamic report on similar subjects was presented by Larry Fawcett. Mr. Fawcett works closely with Larry Bryant of CAUS (Citizens Against UFO Secrecy) in applying the Freedom-of-Information Act to obtain UFO documents from governmental agencies.

A barrage of cases, all backed with government documents flashed on the screen, inundated the audience to lay the foundation of the "government coverup" case. An interesting National Security Agency Report entitled "UFO's: Hypotheses and survival implications," considered the potential impact on the human race from UFOs, regardless of what the phenomenon is all about. The hypotheses (hoaxes, hallucinations, natural phenomena, secret Earth projects, and extraterrestrials) were *all* considered interesting and important. For example, if UFOs are hoaxes and/or hallucinations, they indicate a human mental aberration of widespread proportions. The NSA holds at least 279 UFO documents, which they will not release because of potential harm to the agency.

The "star" of the crashed disk show was the Bentwater AFB case of late 1980, and recently reported in *OMNI*. Researchers both here and in the site-country (Britain) have dug out witnesses to the landed craft, and to its humanoid occupants. The British TV-interview was played. The witness led us through unusual secretive preparations for a search, through a woods at night, past a G.I. hysterical on the ground, to the giant 20-24 foot diameter "transparent glowing yellow aspirin" flat upon the ground, the mist curling about it and a feeling of dizziness and fainting. Other tales from the story were added. It was a great tale indeed. We're waiting anxiously to see if it is more than that.

Missing time: Budd Hopkins is an artist who is researching "missing time" abduction cases, and who has published a book on the subject. The book has brought many new cases to Budd, and he shared his latest experiences with us. In fact there are so many of these happenings that are coming out of the woodwork that the talk could almost have been retitled, "You, too, can be a UFO-contactee...and probably *have* been."

Mr. Hopkins is in many ways a breath of fresh air on the CEIII abductions scene. He seems to be trying very hard to get his research technology down pat, to see whether his patterns make any sense, and to keep his mind open to a variety of possibilities.

His metholodogy involves a battery of psychological tests, (such as MMPI, Rorschach, et al), and an extensive amount of interviewing to document "who the person is" and what they know *before* going into regressive hypnosis, and, if deemed appropriate, polygraph analysis.

He sees a few patterns emerging: *1.* Concerning the "abduction" itself: a pattern of abduction, examination which causes pain, and dispassionate beings working on people as if they were little more than livestock; *2.* Concerning the psychological profile of the abductees: people with a general uneasiness about the outside world (more "wired," more nervous than normal), with less of a sense of well being..."slightly wounded people," *3.* and a peculiar detail: small scars, usually on the leg, without any recollection of any related injury, and often born in 1943 with the secret abduction occurring in about 1950. This reporter, by the way, takes no responsibility for the readers checking their legs and their birth certificates and going bananas. Go and see Budd Hopkins instead.

Missing mutilators: Who dunnit? One of the stars of the conference was Linda Moulton Howe and her presentation of "Strange Harvest," a fixating film on cattle mutilations. Before we investigate who the mutilators are, let's find out whether we really have a problem:

1. a "cattle mutilation" consists of an animal dead from non-obvious causes, and dead *before* the mutilations take place, according to most investigators. The mutilations themselves create queasy feelings in the average person hearing of them: udders partly removed, rectums "cored out," tongues partially missing, eyes or eye tissue removed (typically one only), little bleeding in evidence;
2. Since 1967 there have been 550 mutilations examined by law enforcement officers in Colorado alone; the total U.S. count is estimated at between 5 and 10 thousand, mostly in states west of Mississippi. In 1975, there were 3 "mutes" per day in Colorado;
3. the Governor of Colorado stated on August 25, 1975: "these mutilations are one of the greatest outrages in the history of western cattle ranching;" and, "it is clear that natural predators are not responsible." Senator Harrison Schmitt of New Mexico called an investigative conference on the subject in 1979, and mentioned at that time that the FBI had been called in;
4. Colorado State University examinations of the corpses revealed that use of "sharp instruments" for excisions of tissues was clearly evident in many cases.

It appears that we have a problem.

Well then, who dunnit? The alternative hypothesis for animal mutilations (a few are on animals other than cattle) are stated as six: extraterrestrial bio-testing, secret government or industry bio-testing, satantic cults and rituals, individual pranksters-whackos-fools, natural predators, some sort of natural disease. Can we sort these out?

The natural predators and diseases hypotheses might explain some cases but are obviously inadequate at handling the Colorado State information about significant numbers of "Surgeries." It is likely that a quite large number of mutilations are due to "intelligent" activity, if we allow a rather loose usage of that term.

Barely qualifying as "intelligent" are the individual prankster and satanic cult hypotheses. Although it's conceivable that these causes might be at work here, the odds are against it. Why? Law enforcement officials have been investigating these cases as "crimes" (rightfully so, considering the economic loss to the rancher). Yet they have been able to gather no clues at the sites. No tracks. No physical evidence. It's hard to imagine cults or idiots being that clever or that careful.

This leaves us where it always seems to leave us: UFOs vs Government (or business) secrecy. Linda Howe sees a clear pattern of correspondence in place and time between mutilation incidents and nuclear technology sites (weapons testing, power plants, research). This is extremely intriguing but it doesn't distinguish between two hypotheses, (nor would a government denial that they had anything to do with it). Two kinds of "activities" have been claimed to go on in the skies coincident with ground-butchery: UFO sightings and Helicopter sightings (or hearings). Hmmm. Score still tied: US Government 2, UFOs

(Continued on page 92)

GRANDFATHER IS HERE TO STAY

By Sarah Fitzjarrald

My grandfather, Solomon Jackson, died in the year of 1887 at the age of forty-five. He had served as a Union soldier in the War between the States and became a physician after the war.

My grandmother was thirty-four years old when he died. She was left with a small homestead in rural Arkansas, a widow's pension of eight dollars per month, and five children to rear. The oldest child, a daughter, was eleven; there was a son, ten; another daughter, eight; and twin daughters, aged three. My mother was one of the twins.

There was enough acreage for Grandmother to raise one bale of cotton per year, which was her only cash crop. Of course, she had the usual cow, some chickens, a couple of hogs to butcher, and the inevitable vegetable garden.

Farmers have always helped each other and I am sure that Grandmother's neighbors did more than their part. She reared her family alone and all of her children grew to adulthood; all married and had children of their own.

* * * * *

I have no way of knowing about all of my grandfather's personal effects. I know only that after my mother died in 1964 I fell heir to five medical journals, dated 1867; his mortar and pestle; small balance scale; and his mustache cup.

All of the family had remained in Arkansas except my mother. She and my father moved to western Oklahoma when my twin and I were infants.

I am sure that Grandmother kept my grandfather's memory alive as best she could. But when we used to visit the Arkansas relatives there was not a lot of conversation about him. Occasionally she would show his old tintype picture and perhaps a book or paper of his.

I recall seeing one of his books with his name in the front of it. He had a hand stamp reading, "Dr. S. Jackson," with some ornate curlicues around the name, as was the fashion of the day.

In retrospect it seems unusual that I did not really get into the reading of the medical journals until 1976. I was aware that I had put them away but I was busy with a family of my own and a small business with my husband that took most of my time.

The medical journals were titled, *The Eclectic Medical Journal*, printed in Cincinnati, Ohio.

When I finally had time to begin browsing through them I had to handle them very carefully because the paper had begun to turn yellow and the pages were already rather brittle. However, I found an article which was unusual in that it was submitted by a doctor in Russellville, Arkansas, relating the story of the first two hypodermic injections ever given patients there.

Hypodermic injections were the newest innovation in medicine and one of those written about contained a powerful narcotic, morphine sulfate, and was given to a man who had delirium tremens.

I copied the article verbatim, added a few introductory paragraphs, a closing sentence, and submitted it to a regional magazine, *The Ozarks Mountaineer*. The year of 1976 was the time of the swine flu scare and the editor accepted it immediately. He paid on acceptance and I was naturally very pleased to know that the article would be published in the near future.

* * * * *

Shortly after I received my good news two of our very dear friends came to visit us. Ted and Garnet Meyers lived in Fayetteville, Arkansas, and we usually tried to get together with them around the 8th of September because Ted and I shared the same birthday. Garnet and my husband, Mac, teased us with the suggestion that people born on the 8th of September were mostly to be tolerated. It was our private little joke. They had arrived on the 6th of September. (Ted is now deceased and we miss him very much.)

On the morning of the 7th I arose with the usual anticipation of having fun with Ted and Garnet. After breakfast I seemed to get a sudden impulse to take Garnet uptown to visit one of the antique stores in the area. She had never seen it and I told her to be prepared. Its wares were in a state of complete disarray, which was one of the chief attractions of the place. It was a large warehouse-type building and one could browse for hours, not knowing what was just around the next shelf, or whether a corner might offer old churns, washing machines, or probably some plowshares.

Garnet and I went by the see Arba, another friend of ours. She poured coffee for us and I was just beginning on mine when I got up and began pacing the floor.

Arba said, "Sit down and drink your coffee. What's eating you?"

I explained that I just wanted to get to the store and invited her to go along. She declined with the housewife's expected remark, "I need to clean this house."

* * * * *

When Garnet and I got to the store she was duly impressed. She does china painting and found her way to some shelves and tables where there were some old dishes.

Since I was still flushed with the excitement of selling my article I asked the clerk if she had any old medical journals. She replied that they did not have any journals but they had some old medical books.

Things were in such a mess that I had to slide my feet in sideways to get to the shelves she pointed out. However, I spied a two-volume set which looked promising. They were titled, *System of Surgery*, by Samuel D. Gross, copyrighted 1866, published by Henry C. Lea, Philadelphia.

I picked up Volume One and found that it was indeed in excellent shape. The price was $10.00 and I was not particularly excited about it. I had not yet begun my small collection of medical books and ten dollars in 1976 was larger than it is today.

However, I picked up Volume Two and received a shock. It had my grandfather's name stamped on the first page, just as I remembered seeing it years ago. I was shaking my head and saying, "This just can't be!" when Garnet came around the shelf and saw me.

"What can't be?" she asked.

"These were my grandfather's books!" I said, trembling with excitement.

"You are going to take them, aren't you?" she asked.

"My dear Garnet," I answered, "wild horses couldn't take them from me!"

With her practical nature she suggested that I should not seem too excited because sometimes the price went up. So when I got to the counter I very casually asked the clerk if the books were $10.00 for the set, or if each was priced separately.

"Each," she replied.

* * * * *

When we returned home Mac and Ted had the courtesy to seem impressed with Grandfather's books. I went to my files and removed the folder I had about him. I had written the General Services Administration in Washington, D.C. for information pertaining to his war record.

"That's odd," I said, after re-reading some of the personal data. "Grandfather Jackson died on the 6th of September. Yesterday was the anniversary of his death."

It was only a small coincidence but highlighted by the fact that we were holding his books in our hands.

We were due for another jolt. According to the radio news the next morning, the antique store had had a small fire in the early morning hours, which added yet another bit of mystification about those three days, the 6th, 7th, and 8th. It was only a small fire but once in a while my flights of fancy lead me to the feeling that I had rescued my grandfather's books from the fire — after all, it could have been a large fire.

There were many of my cousins living in the area at that time and I have wondered if one of them sold Grandfather's books to the antique store. It would not have been unusual since none of us ever knew him except through our grandmother's memories. Not everyone has sentimental attachment to inanimate objects, whoever their owners might have been. And I must admit that my blood pressure was not greatly affected when I first acquired his few possessions.

Granted, inanimate objects are merely material things. And yet, it was only a little more than two years after I found my grandfather's books when his mustache cup disappeared from our house and reappeared in my sister's house in Phoenix, Arizona. (See *PURSUIT*, second quarter, 1983.)

But why *his* books? And why *his* mustache cup?

* * * * *

My grandmother died December 23rd, 1934, at the age of eighty-one. She made her home with one of her daughters and enjoyed the love and respect of all her family. There were nineteen grandchildren who grew to adulthood and had families of their own.

She, too, liked books and was an avid reader. My favorite memory of her is when she sat in her rocking chair in her long-sleeved, dark print frock (ankle length), wearing an apron over it, and holding a book in her hands to catch the best light from the window.

Never once do I recall her talking about the harshness of those years she must have endured as a young mother keeping her family together and rearing her children alone. She was a lady of great dignity.

* * * * *

The two events surrounding my grandfather's mustache cup and his books are merely set forth as further offerings in the realm of the unexplained. Never would I be so bold as to attempt explanation.

In our family we are not much given to shrines, or wrapping things in tissue paper. Grandfather's things rest comfortably in the two china closets, and I would like to think he would appreciate my sense of humor when I put his "traveling" mustache cup in the china closet which has the locked door.

His books are protected from the heat and humidity but I frequently take them out and read some of the articles found in them. There is only one article with a notation. Pencilled in the margin is the word, "good."

Medical science is supposed to have come a long way since 1866 but that opinion might depend upon whether one has had to have an injection recently.

In our wills Mac and I have bequeathed my grandfather's few possessions to one of our daughters who is interested in medicine. They will remain in good hands.

I wish that I had known my grandfather. I wonder if he somehow knows about his mustache cup and his books.

And yes, I sometimes ask, "What next, Grandfather?"



Re: *Pursuit* Vol. 17 No. 1

Addendum to Ker Ys Article

By Jon Douglas Singer

As this story goes to press new data on French sunken cities has come to my attention. Dr. Dimitri Rebikoff, one of the first investigators to conduct detailed surveys of the Bimini Road and other submerged sites in the Bahamas, published an article, "Underwater Archeology — Photogrammetry of artifacts near Bimini," in the *Explorers Journal* (September, 1979) which was reprinted in *The New Atlantean Journal* (Summer, 1984, pp. 9-12). In this article, which was primarily a discussion of evidence favoring the ancient, artificial origin of the so-called Bimini Road, Rebikoff referred to other sunken ruins around the world. The *Explorers Journal*, incidentally, is published by the famous Explorers' Club of New York City, whose members conduct scientific expeditions to various parts of the globe.

On page 11, Rebikoff made a tantalizingly brief reference to a recently discovered sunken city off the coast of St. Tropez, south France. Unfortunately, he did not say who had discovered the city nor did he divulge any data on its size or age, except that he inferred that it was extremely ancient. His report failed to disclose the story of how the sunken ruins had been found. Perhaps that saga will be told in the near future. His terse account did not state that there were walls with foundations cut in the living rock, either as trenches or deep grooves. He compared the construction methods to those utilized at the Bimini Road and implied that the two sites may have a common designer or architectural tradition which would be of extremely ancient origin. It is curious indeed that this discovery of an actual sunken city took place near the sites of the legendary drowned metropoli which I referred to earlier. Perhaps, one day, someone will find the ruins of Ker Ys.



NOTES

(Continued from page 77)

2. Galvani's reports had many interesting spinoffs, the most "popular" of which was Mary Shelley's *Frankenstein* written in 1816.
3. Herschel's ideas appear in a chapter XII ("On the Origin of Force") of his *Familiar Lectures on Scientific Subjects* which went into several editions in last century.
4. See the review of his ideas in *North British Review* 15:140 ff. (1851), and *NBR 22*: 204 ff. (1854).
5. Details of the case are taken from the extensive report in *Atlantic Monthly*, September 1864, pp. 284 ff. which translated and used the primary sources in French.

Michael D. Swords is associate professor of natural science at Western Michigan University, Kalamazoo, Michigan.

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 article appeared, and your first initial and last name (or membership number only, if you prefer to be credited in that way).

Mystery Gas Detected in Pyramid

A mysterious gas seeping from the depths of a 4,600-year-old pyramid kept tourists away from the tomb of the Pharoah Chephren. Egyptian army experts crawled through the ancient shafts to hunt for its source.

"There is something down there," muttered one of the army chemical experts. "But we're not sure what it is."

Fifteen tourists complained of eye irritation and had difficulty breathing after gas apparently filled the burial chamber in the center of the pyramid, build in 2640 B.C.

Because of the complaints, the pyramid was closed, said Nassef Mohammed Hassan, director of antiquities for the Cairo area.

One of the army experts said the gas had largely dissipated, but he said more tests were needed to determine its origin. All the army experts spoke on the condition that they not be named.

Egyptian tourist police and guides shooed tourists away from the pyramid, which is about 435 feet high and is the second largest of the three pyramids on the Giza Plateau on the western edge of Cairo.

"I think the effects (of the gas) are decreasing," Hassan said, "and there will be nothing in two or three days. We can open the pyramid to the public after we have the results of the tests."

Reporters who crawled through the narrow passage to the burial chamber suffered no ill effects.

Hassan said it was the first time that any gases had been detected in the pyramid. An estimated 15,000 to 20,000 people visit the pyramid sites daily, he said.

Hassan said archaeologists are certain there are no undiscovered secret chambers from which gas could have come. But he speculated that gases could have seeped into the chamber from subterranean pools of water or sewage beneath the Giza Plateau.

One of the army experts also speculated that a stinkbomb might have been left in the chamber "as a child's prank."

SOURCE: AP in *The Schnectady Gazette* (NY)
4/18/84
CREDIT: R. Girard

Extinct Bird Reported at Reserve

The white-tailed sea eagle, long thought extinct has been discovered in a newly designated nature reserve in northeast China, the official news agency Xinhua said.
SOURCE: AP in *The Nashville Tennessean*
4/18/84
CREDIT: H. Holland

Professor Claims Answer to Mystery of Pyramids

A mere 4,683 years after the fact, a professor at Johns Hopkins University has developed a theory that answers the apparently age-old question of why the great pyramids of Egypt were built on a plateau at Giza.

It will not please individuals who suppose in pyramids a power to keep milk fresh, sharpen razor blades and supply inner peace. The answer seems rather to lie in a simple combination of earthly terrain, kingly megalomania and worship of the sun.

The answer came slowly for Hans Goedicke, an internationally known scholar who delivered his hypothesis last week at a lecture at the Homewood campus of Johns Hopkins in Baltimore.

It emerged over the past 11 years as Goedicke mulled over results of field work and excavations near the Khephren Valley Temple.

During a Johns Hopkins dig, Goedicke had observed that a line could be drawn from the southwestern corners of the three Giza pyramids. The line extended to Heliopolis, a sun-cult sanctuary at the eastern edge of Egypt where as early as 3,000 B.C. the benben stone had marked the spot where the sun entered the world of man.

Goedicke theorizes that the ruler Khufu had his pyramid built on a plateau on a line with the benben stone to mark the western point where the sun exited the world, bringing on darkness and suggesting, as Goedicke says, that a "king's demise is comparable to the setting sun."

The position of the first pyramid took advantage of the prominence afforded by a plateau elevated about 10 meters over the surrounding desert. The two subsequent pyramids were built to maintain the sightline with Heliopolis, Goedicke thinks.
SOURCE: *Austin American Statesman*
12/4/83
CREDIT: John Palin

Lightning Deaths Blamed on Witches

Tribal "diviners" in Johannesburg, South Africa danced on the ashes of a hut in a rural black community in an effort to fix blame on alleged witches for a lightning strike that killed 13 girls, and police feared a wave of fiery executions to avenge the deaths. Villagers believe the lightning strike, which also injured 20 people was "called down" by witches in the area about 200 miles west of Johannesburg.
SOURCE: UPI in *The Nashville Tennessean*
9/5/84
CREDIT: H. Holland

Huge Dinosaur Bone Found in California

The largest dinosaur bone ever discovered in Southern California has been unearthed at a construction site in Carlsbad, a San Diego suburb, according to San Diego paleontologists.

The three-foot-long upper thigh of a duckbill dinosaur, which is in excellent condition, is thought to be about 70 million years old according to Tom Demere, assistant curator of paleontology at the San Diego Natural History Museum.

"It's a very important find because it shows us dinosaurs were living near here and what kind," said Demere, who is now studying the fossil. "It's the most complete and the oldest dinosaur bone ever found in Southern California."

Brad Riney made the find on December 23, 1983 at a 560-acre site where a research and development park is being built. Riney, who along with Demere is a consultant on the project, was patrolling the area just after workers finished for the day when he spotted the bone.

"They had bulldozed a big section and I decided to check out the area," said Riney. "Just the tip of the bone was exposed. I dug it out and got real excited. I knew what it was right away because of the size."

The duckbill dinosaur, also known as a hadrosaur, roamed the western United States about 70 million years ago. It had webbed feet and was semiaquatic, living near coastal marshes on a diet of leaves, twigs, small animals and aquatic plants. It was about 20 feet tall and walked on its hind legs.

Although the site where the bone was found is 300 feet above sea level and three miles from the ocean, it was once underwater, Demere said, and fossilized oysters were attached to the outer layer of the bone.
SOURCE: AP in *The Morning News*, Wilmington DE
2/6/84
CREDIT: H. Hollander

Robertson Kangaroo Sightings Probed

A kangaroo spotted on Highway 49 in Robertson raised some eyebrows, but sheriff's officials said no one had contacted them to report the animal missing.

The 6-foot-tall, 200 pound kangaroo was spotted near the WDBL radio station and was reportedly making 10-foot-high bounces, according to veterinarian Dr. Jim Burkhart.
SOURCE: *The Nashville Tennessean*
6/30/84
CREDIT: H. Holland

'Christ Cloth' Blood Same as on Shroud

Apparent bloodstains on a cloth that may have been placed on the face of Jesus Christ shortly after his crucifiion came from the same person whose impression is on the Shroud of Turin, a Duke University researcher said.

Dr. Alan D. Whanger, a shroud expert, also said he believes an explanation is close as to how the impression on the shroud could have been made.

The shroud, which carries the impression of a man, is believed by some to be the burial cloth of Christ. It has been kept in the Cathedral of St. John the Baptist in Turin, Italy, for more than 400 years.

The supposed face cloth, called the Sudarium, has been kept in a cathedral in Oviedo, Spain, since the 9th century.

Whanger and his wife, Mary, used a polarized image overlay technique they developed in 1981 to make comparisons of the two cloths. One photographic image is projected directly over the other through polarizing filters.

By using a third rotating filter, the similarities between images can be examined minutely. The Whangers said they noted 76 congruent stains over the face and 58 over the back of the head, thought to have been caused by a crown of thorns.

"We feel this is hard evidence that both were in contact with the same person," Whanger said. Whanger said he believes his findings substantiate the authenticity of the face cloth and the existence of the shroud long before the 14th century — a period of large-scale relic forgeries. Some people believe the shroud was manufactured at that time. The shroud was first made public in France in 1356.

The Whangers said the face cloth was folded around Christ's face prior to the placement of the shroud. The Whangers speculated that the face cloth was removed when the shroud was folded over the body and because it was stained with blood, it was left in the tomb near the body, as was the custom.

"We believe that the face cloth was placed on the body shortly after death and before the entombment because it is much more bloody than the shroud," he said.

The face cloth measures 2-feet-9-inches by 1-foot-9-inches. The linen shroud cloth is 14-feet-3-inches by 3-feet-7-inches and has the front and back image of a man.

Whanger said there is new evidence of the nature of the shroud image itself.

He said he has been collaborating with West German physics teacher Oswald Scheuermann, who has theorized the image may have been created by a bolt of lightening.

Scheuermann has produced images with virtually the same detail and physical and chemical characteristics as those on the shroud by means of radiation from high-voltage high-frequency electrical currents.

SOURCE: UPI in *The Schenectady Gazette* (NY)
4/19/84
CREDIT: R. Girard

Goliath a Pushover?

David of Biblical fame may have so easily slain Goliath because the Philistine suffered a rare growth disorder that made him a giant but also allowed a pebble from the youth's slingshot to penetrate his brain.

In a letter to the New England Journal of Medicine, a husband and wife team from Vanderbilt University theorized that Goliath may have suffered a rare disorder that causes tumors to grow in the endocrine glands which help regulate the body's growth and functions.

"It would explain why Goliath was so large, why he couldn't really see David and why he was felled by a small rock from a slingshot," said psychiatrist Pauline Rabin who formulated the theory with her endocrinologist husband, David Rabin.

The Rabins postulated that Goliath suffered from multiple endocrine neoplasia, a hereditary disorder that causes tumor growth in endocrine glands.

"In the disorder, the body produces extra growth hormones and that would account for Goliath's giant height," Mrs. Rabin said. "The Bible said he stood 6 cubits and a span and we think that's the equivalent of about 9 feet tall."

The Rabins said the pressure from the tumor may have cut down Goliath's vision, not allowing him to take much heed of David.

The disease also causes tumors of the pancreas and that could lead to low blood sugar — which would weaken a person.

"It's possible that on the morning of the contest, Goliath was in a weakened state," Mrs. Rabin said.

SOURCE; UPI in *Schenectady* (N.Y.) *Gazette*, 10/23/83.
CREDIT: J. Zarzynski.

Bobolinks May Use Built-in Compass

Tiny bits of iron oxide in the heads of bobolinks may act like compasses during the bird's migration between the northern and southern hemispheres, a researcher has found.

It is the first reported finding of the magnetic material in a migratory bird, Robert C. Beason, assistant biology professor at the State University of New York at Geneseo.

Bobolinks have the longest migratory path of any New World land bird, ranging from Canada to northern Argentina and Chile, he said. His research indicates that they check their internal compass periodically while navigating by the stars.

Beason and coworker Joan Nichols published results of the work in the current issue of *Nature*.

For the research, 27 bobolinks in cages were put in a planetarium to test their reactions to projected star patterns. Judging by the direction the birds went to try to escape, Beason found that when the stars indicated north in one direction and the Earth's magnetic field pointed the other way, the birds navigated by the stars for two to five nights before switching to the magnetic field.

That suggests that bobolinks use stars but also orient themselves periodically with their internal compass. "It's like looking at your compass, picking out a tall tree or mountain to walk toward, and then looking at the compass again," Beason said.

Test of 22 bobolink heads showed they contained enough magnetic material to discern the Earth's magnetic field. Dissection found iron oxide, possibly magnetite, in sheaths around the olfactory nerve, in tissue between the eyes and in tiny bristles jutting into the nasal cavity.

In tests of live birds this summer, Beason hopes to show that the iron oxide does trigger messages to the brain.

SOURCE: AP in *The Morning News* (Wilmington, DE)
5/15/84
CREDIT: H. Hollander

Mass Fish 'Suicide' Puzzle to Biologists

Biologists are still puzzling over why millions of tiny anchovies invaded Santa Cruz Harbor in a kamikaze run that caused them all to suffocate in the oxygen-depleted water.

The school of fish that pushed against the central California shore-line and into the mile-long harbor last month was so large — perhaps 2,000 tons — that it rivaled a year's commercial fishing harvest in the area.

Within hours the oxygen supply in the harbor, which has berths for 900 boats, was exhausted. It fell to 0.4 parts per million, less than one-tenth of normal.

The result was a blow for Santa Cruz businesses as the rank smell of decomposing fish chased off summertime visitors.

A week after the influx began, harbor workers had scooped up 400 tons of the dead fish carpeting the harbor floor in an inch-thick layer. The cleanup has cost more than $15,000.

Mountains of the dead fish were either turned into chicken feed, hauled out to sea or carried to the Santa Cruz sewage treatment plant.

The phenomenon is not a new one in the harbor 70 miles south of San Francisco. Anchovies poured in — and died — in massive numbers in 1964, 1974 and 1980.

Biologists have offered theories ranging from the presence of city lights to the periodic shift in ocean currents known as El Nino.

El Nino, blamed for unusual weather in the winters of 1981-82 and 1982-83, carried an abundance of northern anchovies to the central coast last fall, said Richard Parrish, fisheries biologist in Monterey, Calif., for the National Marine Fisheries Service.

The area's relatively mild weather in February and March was ideal for spawning and helped boost the anchovy population even further.

When the fish clogged the harbor last month, about a dozen aerators were placed in the water. As the fish died in massive numbers, air compressors were brought in to serve as makeshift aerators and the number of machines was increased to 40.

SOURCE: AP in *The Nashville Tennessean*
8/5/84
CREDIT: H. Holland

Nevada Bigfoot Report

A Nevada motorcyclist told state police he spotted a 7-foot creature resembling the elusive Bigfoot while riding along a highway in the rain.

Paul Claywell of Las Vegas pulled off Interstate 5 and reported to state police that he had spotted the creature. Then he continued on his way, state police dispatcher Kathy Wooton said.

"He stated that his headlight hit an animal which was standing upright on its hind legs," Wooton read from a police log.

"It turned and looked at him as he approached it, then turned and ran off the road, still upright."

She said the officer who took the report said that Claywell "was obviously very shook and seemed quite sane when he came in."

"He stated that he knew he was tired, but he knew for sure it wasn't a bear because bears usually don't run upright," Wooton said.

"He stated that the animal ran hunched over, and had long straight hair all over its body, as well as its face. He stated that he would describe him as the animal called Bigfoot."
SOURCE: AP in *Austin* (Tex.) *American-Statesman*. 11/11/83.
CREDIT: D. Palin

Massa the Ape

Massa, at 52 the world's oldest captive gorilla, still is a "tough old cookie," but researchers have made plans for the day he dies so they can study his brain, preserve his organs and learn why he has lived so long. "He's the oldest primate outside of man," said Dietrich Schaaf, curator of the Philadelphia Zoo, where Massa has lived since Dec. 30, 1935. "He's very, very valuable to the scientific world."

The ape goes back on exhibit at the zoo after surviving a life-threatening tooth infection. He was taken off exhibit because he was listless, slept most of the time and wasn't eating his food, zoo officials said. A medical team anesthetized him and pulled out six infected teeth. He is now down to his last three.

Nevertheless, within days Massa was eating peanut butter and jelly sandwiches, drinking grape juice and moving about in his cage. "In fact, he's a pretty tough old cookie," curator Schaaf said.

But Massa's passing is only a matter of time, and when it comes, the zoo and health specialists will be ready. His brain will be studied by researchers at the Johns Hopkins Medical Institutions in Baltimore and Montefiore Hospital in New York, the heart will be analyzed at the zoo, a veterinary doctor at the University of Pennsylvania will oversee distribution of other organs, and his bones will go to the Smithsonian Institution in Washington, Schaaf said. "Aging is something we don't understand," Schaaf said, explaining why there was so much interest in Massa.

Gorillas usually live to be about 25 years old in the wild, but Massa was spared an early death when he was purchased from a sea captain by Gertrude Lintz of Brooklyn, who nursed the sickly animal back to health and cared for him until he grew too big. It was she who named him Massa, or "big boss."

The zoo's research director, Bob Snyder, says he is interested in the long-term effects of a special diet Massa has been eating most of his life. The diet, developed by Snyder's predecessor, Dr. Herbert Ratcliffe, is a mix of what might now be termed "health foods," including brewer's yeast, whole-grain cereals and milk solids. Snyder says animals get bored with the diet, which is why Massa recently was treated to sandwiches, fruit juice and cupcakes to perk him up.

But Massa otherwise has stuck to the regimen, making him and other apes at the zoo "the best controlled experiment in the world" on the effects of the diet, according to Snyder.
SOURCE: *Asbury Park* (N.J.) *Press*. 11/5/83.
CREDIT: Member #432.

'Deathstar' Seen as Comet-spewer

Scientists say an uncharted 'deathstar' that showers the Earth with comets every 28 million years probably rid the planet of dinosaurs and will plunge the planet into darkness and cold again — in 15 million years.

In a report to the Lawrence Berkeley Laboratory, the researchers from the University of California at Berkeley said they used evidence from fossils, rare metals and ancient impact craters dotting the earth to explain why certain species of life have become extinct at regular intervals over the past hundreds of millions of years.

The scientists describe the star as a "dwarf," or smaller star, which orbits in space as a companion to the Sun and takes 28 million years to complete one orbit. They conceded they have only indirect evidence that the star exists.

They want to call the star "Nemesis," after the Greek goddess who "relentlessly persecutes the excessively rich, proud and powerful." They also said there is no immediate cause for concern because the next shower of comets is not due for about 15 million years.

Their theory was contained in two papers submitted to the international science journal, Nature. The researchers are astrophysicist Richard A. Miller, geologist Walter Alvarez and astronomers Marc Davis, all of Berkeley, and Piet Hut, who normally is attached to Princeton University's Institute for Advanced Study.

Alvarez, a Nobel Laureate, and associates who include his son, Walter, and other nuclear scientists have spent the five years analyzing the rare metallic element iridium lying in layers within the Earth's crust. They have found evidence of the layers throughout the world and have dated the deposits at two distinct geologic periods.

One was about 65 million years ago and the other about 230 million years ago.

Each time a burst of comets collides with earth, the scientists say, the planet is plunged into a period of darkness and cold that may extinguish anywhere from 20 percent to 70 percent of all plants and animals existing at the time.

Once the catastrophe is ended, new families and species emerge, the researchers say. They are convinced their theory will eventually settle arguments over why Earth's dinosaurs disappeared abruptly some 65 million years ago.

The comets are unleashed on the Sun and its planets, they believe, when the star's orbi is closest to earth, or 3 trillion miles away. The star is now at the farthest ppoint of its orbit around the Sun.
SOURCE: UPI in *Schenectady Gazette*
2/21/84
CREDIT: J. Zarzynski

Meteorite Hints at Life in Space

Scientists have discovered amino acids from a meteorite that struck China last year, indicating the existing of life on other planets, a news report said.

Amino acids are a basic component of protein and nucleic acid, the fundamental elements of living organisms.

The official Xinhua News Agency said that a meteorite estimated to be between 19 and 23 inches in diameter fell on the city of Wuxi in east China on April 11, 1983. Ice from the meteor melted before scientists could preserve it, but a retired worker in the area saved some of the water for analysis.

The water had a greater density and higher mineral content than that found in ice on Earth, said the scientists who studied it.

They discovered amino acid compounds, which "indicated that life could exist on other planets if conditions were favorable," Xinhua said. They also said the existence of water to form the ice was another indication that life on Earth might have originated elsewhere in the universe.
SOURCE: *The Philadelphia Inquirer*
3/25/84
CREDIT: H. Hollander

From "The Golden Hind"

"...Elizabeth Sydenham, dismayed by Drake's apparent total disappearance at sea (which could in her case have been only on the comparatively short West Indian voyage) was persuaded by her parents that he was dead and that she should marry another. As she was about to enter the church at Monksilver on her wedding day a cannon-ball fell at her feet. It was a sign that Drake was still alive, she declared, and she refused to go on with the ceremony. Fanciful rubbish? Perhaps — but at Combe Sydenham until a few years ago they exhibited an ancient cannon-ball said to be the one concerned. Some scholars have considered it a meteorite."
SOURCE: "*The Golden Hind*"
by T.W.E. Roche
Praeger Publishers
New York - Washington - 1973
Copyright the estate of T.W.E. Roche 1973
p 175
CREDIT: H. Hollander

(Continued on page 92)

Letters to the Editors

Dear Editor:

When I received *Pursuit* No. 64 (Fourth Quarter 1983) and happily noted Zecharia Sitchin's "Earth Chronicles and the Giza Forgery" as the third item in the table of contents, I expected little more than a condensation of his first book, *The Twelfth Planet.* This truly remarkable work was so filled with facts, deductions and ideas that I quote the King of Gilgamesh in my novel *The Offspring* (Leisure, 1984) and cited both Sitchin and his book. Little did I realize, however, that I was about to find myself knee-deep in another Mesopotamian field of even more awesome discovery, astounding connections and logical speculation.

"Earth Chronicles and the Giza Forgery" deserves to be spread across the nation's front pages and reprinted in the textbooks of at least four disciplines. As a full-time author and anthologist, I know why this will never happen, but I shall keep on believing that it should. Now that Sitchin has developed telling evidence for our origins on a transplutonian planet known as Nibiru, it's possible and indeed challenging to draw some conclusions about the nature of the Nefilim — presumably our oldest ancestors.

Bearing in mind that your correspondent is a storyteller first and an amateur scientist tenth or twelfth, let's try this: According to the Sumerian records, Earthlings as we now know ourselves were created by fertilizing the egg of "an apewoman" the egg then reimplanted in the womb of a female Nefilim astronaut some 300,000 years ago.

Clearly, it's possible to identify certain human/Nefilim characteristics as ones not usually found in the ape and other animals. Bypassing the evolutionists (a detour of no small delight), we may conclude that these "higher," non-earthly attributes are traceable to our germinating forefathers.

—As an easy opener, take the knack of standing erect: apes can do it, but don't — not all the time, nor without crouching. May we not assume that the natives of Nibiru unfailingly stood up — all the way — on two feet?

—Contrast our relative hairlessness with dogs, cats, bears and other earth-walking mammals: It's a resonable inference that the ancient astronauts who said in effect, "Let there be the light of intelligence," were bald, or notably lacking in hirsute adornment.

—Most lower animals, I hear, are color-blind. Logically, the "higher" order of Nefilim could not only detect color and — since we are their descendants and any originating Adam and Eve were mix-mated prototypes — they surely also sensed a wide range of colors.

—Many mammals have olfactory capabilities much superior to man's. Should we expect, then, that the Nibiruvian progenitors were able to smell much of anything that went by? And what does the absence of such capability tell us about the nature of their environment?

—As for the mouth, our jaws and dental accoutrements lack the tearing-and-rending power of most other earth-dwelling mammals; but most of us remain carnivores, a circumstance that seems quite explicable as a throwback to the partly animal, Nefilim past and supports the conclusion that our long-range Nibiru neighbors possessed toothless, tiny mouths, little more than slits in their unwhiskered jaws.

When you put all this together — bald head, wrap-around eyes, a proboscis miniaturized in two dainty nostrils, a thin-lipped aperature for a mouth, and the uniformly snug-fitting jumpsuit — you call up an image not unlike the strange little figures so often "witnessed" in the act of gathering water-samples or rock-and-soil specimens a yard or two from a just-landed UFO!

But the basic, important concerns are still to be appraised: What intellectual, emotional, affectional, aggressive, reverent or logical attributes do we possess that our animals don't? These, if my reasoning holds, may properly be attributed to the masses of Marduk, as the Babylonians chose to call those from the "Planet of the Crossing." My laid-back manner of presenting these assumptions is meant neither to deride Zecharia Sitchin's scholarship nor denigrate his extraordinary findings, but rather to suggest a personal humility born of my own educative deficiencies.

People of Earth tend to be social creatures. Given to invoking the territorial imperative, we sometimes slaughter one another. We hunt, work to provide for our loved ones and have sexual intercourse to propagate our line; we lie about loafing, establish a home base of operations which we then beautify and defend; and we live to die. So do most of the other mammals that meander over the face of our enigmatic Earth. What, then, does that leave us as the bequest of the Nefilim? What qualities or skills or redeeming interests may we confidently say are now shared by our mammalian brothers and sisters? What, therefore, may be the gifts from a people who were a third of a million years ahead of us when the universe was that much younger?

I see Nibiru's natives as creatures with a sense of humor that does not simply smile in muscular reflex but makes and enjoys jokes, satire, amusing happenings, and humor that is both comment and saving grace. I see the Nefilim as beings who read and write; for earth-tied entities besides man can do neither, nor can they paint, invent music, choreograph or knowingly dramatize. I see the inhabitants of a Twelfth Planet as beings who venerate a Creator and seek to understand His intentions, who prefer peace to war, who are spontaneously generous and conscientiously teach their kind in the hope that what the young do with the knowledge will mean real progress for every creature of Nibiru.

I see evidence that the children of the stars are ready to make a conscious, collective decision to discover what is laudable about us, what marvels we can create and invent that will banish the obligation to die, and what the Creator of us all — a larger, more far-flung "us" — intends that we should do and be. I see the opportunity to live in peace with whatever we learn, to yield to the capacity for generous giving instilled in us 300,000 years in the past, and to help our young learn what they can and must learn to redefine "progress," for every creature of Earth.

—J.N. Williamson

* * * * *

Editor's note: J.N. Williamson is the author of several published books, mostly horror fiction. His most recent report to SITU described his synchronistic observations while attending a movie matinee in his home city, Indianapolis, Indiana (*Pursuit* No. 59, Third Quarter 1982, p. 122).

Nebraska Conference *(Continued from page 85)*

2; and both "scores" are awfully weak. Leo Sprinkle had two hypnotic regression cases on the videotape-film which linked UFOs directly with "cattle-napping." One was combined with a highly emotional human abduction and examination (without mutilation of the humans). Both stories made for interesting listening, but considering the widespread awareness of cattle mutilation stories and the controversies surrounding regressive hypnosis, we honestly still don't know what's going on.

Will we ever get to the bottom, or the top, of all this? This reporter can only recall the words of an old West Virginia philosopher, Mountain William:

"If you spend all your time gazin' at the stars,
you're bound to step in somethin' on the road."

Watch the skies, folks. Also, watch your step. Together we'll get all this figured out in time.

Corrections

Mr. Nelli has recognized or recommended the following changes and/or corrections in his article "Energy and Paranormal Phenomena," PURSUIT vol. 17 #1. Our thanks and/or apology to him and to our readers.

page 33 col. 1, line 8 - should read, of learning about.
The areas being investigated
page 33 col. 2, line 34 - subject, should read, subjective
page 34 col. 1, line 27 - to attempt, should read, in attempting
page 34 col. 2, line 54 - solidarity, should read, solidity
page 35 col. 2, line 13 - transitions, should read, transition
page 35 col. 2, line 16 - conscious, should read, consciousness

Situations *(Continued from page 90)*

Rock Markings are Perplexing

Soviet scientists weren't about to buy the local legend that a piece of the sun fell near the town of Ukhta, but how were they to explain those perplexing rock markings, hexagonally shaped imprints 760 yards below the Earth's surface?

Some people said the markings were evidence that an alien spacecraft had once landed in the area. The Paleontology Institute of the Soviet Academy of Sciences, also concluded the markings were not a result of natural processes, the official news agency Tass said.

Stumped, scientists called in researchers from the country's top criminology institute.

"The criminologists quickly discovered that the traces had been left by the head of a bolt currently in use," Tass reported. "The examination revealed that the digits 8 and 4 had been pressed on the imprints."

As to how the bolts reached such depths, there was no explanation.

SOURCE: AP in *Schenectady Gazette*, NY
4/28/84
CREDIT: Bob Girard

The Man Who Never Dreams

An Israeli scientist said yesterday he has documented for the first time a case of dreamless sleep, apparently caused by a tiny bit of shrapnel lodged in a man's brain.

Dr. Ron Peled, deputy director of the Sleep Research Center at the Technion Medical School in Haifa, said dreamfree slumber has no apparent ill effects on the 33 year-old subject, whose name he withheld.

A brain scan showed a small piece of shrapnel was lodged in his brain when he was wounded while serving in the Israeli army nine years ago, Peled said.

Although people do not always remember their dreams, research has shown there are four to five dream periods, each lasting less than 30 minutes, during each eight hours' sleep.

The location of the shrapnel, Peled said, could help pinpoint the exact position of the dream center in human beings, and advance the "very young field" of sleep research.

SOURCE: UPI in the *New York Post*
7/5/84
CREDIT: Joe Zarzynski

Satellites Reveal Ancient Mayan Cities

Analysis of satellite remote-sensing data has led to the discovery of the ruins of two ancient Mayan cities hidden in the jungle of southern Mexico, according to a report by the Earth Satellite Corp.

One of the ruins is believed to be the site of Oxpemul, a Mayan city found and then lost again in the 1930s. The other was said to be a site previously unknown to archaeologists. Structures at the sites, including pyramids and smaller stone buildings, indicated that the cities flourished in the Classic Maya period between A.D. 600 and A.D. 900.

The discoveries stemmed from a test aimed at seeing how useful satellite imagery could be in archaeological reconnaisance. Rod Frates, founder of the company, which is based in Chevy Chase, MD, led a team of geologists and archaeologists that analyzed data from the Landsat satellites, which used multispectral sensors to create images for mapping the earth's surface.

Frates said the analysis located more than 100 possible sites of Mayan ruins. Subsequent visits to the sites confirmed the existence of what were believed to be the two most interesting ruins. The supposed Oxpemul site is near the village of Dos Aguadas in the Yucatan. The other ruin, for which a Mayan name is presumably unknown is near the village of Conhuas.

The National Science Foundation is working with the National Aeronautics and Space Administration on several projects using spaceborne sensors to investigate promising regions of the earth.

In recent years an imaging radar system carried by the space shuttle uncovered traces of ancient settlements that had long been buried under the Sahara Desert in Egypt.

SOURCE: New York Times News Service in *The Tennessean*
6/28/84
CREDIT: H. Holland

Pyramids Are Not Made of Polymers, Say Experts

A theory that the building blocks of the pyramids are mineral polymers cast on the spot ran into polite but stony opposition from archaeological scientists last week. Researchers attending the 1984 Symposium on Archaeometry, held in Washington, DC, at the Smithsonian Institution, found evidence for the controversial idea — presented by polymer chemist Joseph Davidovits — less than rock solid.

For a number of years, Davidovits has been promoting his theory that ancient monuments such as the pyramids and the Easter Island statues were constructed from man-made stone — crushed rock agglomerated with an organic binder. Instead of cutting and hauling huge stones, Davidovits asserts, ancient peoples built molds to form the stones using the low-temperature polymerization process he has rediscovered at his geopolymer institute at Barry University in Miami Shores, FL.

X-ray diffraction analysis of casing stone from the pyramids of Cheops and Seneferu show the materials could not have come from the Egyptian quarries they are traditionally associated with, Davidovits told the researchers. Samples from the quarries showed the rock there to be pure limestone, whereas the pyramid stones contain a small percentage of other materials — most notably hydroxyapatite — indicative of a geopolymeric binder, Davidovits says.

Davidovits' audience seemed eager to chip at his theory. The British Museum finds nothing that can't be explained as natural limestone — including no hydroxyapatite — in its samples from Cheops, Michael S. Tite, an archaeological scientist with the museum's research lab, quickly pointed out. Another speaker suggested Davidovits check quarry samples from the west, rather than east side of the Nile.

Still other researchers wondered if Davidovits had checked the microstructure of a cross section of the pyramid stone — an experiment that would clearly differentiate natural stone from man-made aggregate. Davidovits skirted the question — a response that seemed only to solidify his colleagues' resistance to his ideas.

SOURCE: *Chemical and Engineering News*
5/21/84
CREDIT: Diane Kleinschmidt

The Notes of Charles Fort

Deciphered by Carl J. Pabst

ABBREVIATIONS

A	Aurora
ab	about
Ac to	According to
A.J.S.	*American Journal of Science*
(Al)	[? Almanac ?]
An Sci Dis	*Annals of Scientific Discovery*
Arc. Sci.	*Arcana of Science*
Ast. Nach	[? Astronomische Nachrichten ?]
BA	*Report of the British Association for the Advancement of Science*
Belg.	Belgium
bet	between
B.W.I.	British West Indies
Cass.	Cassiopeia
Ceph.	Cepheus
Chem News	*Chemical News*
Ciel et T	*Ciel et Terre*
Conn	Connecticut
CR	*Comptes Rendus*
(Cut)	illustrated
D-262	*The Book of the Damned*, page 262
det met	detonating meteor
diff.	different
edin New Phil Jour	*Edinburgh New Philosophical Journal*
Elec	Electric
Eng	England
est.	estimated
e to w.	east to west
Ext occurrence	Extraordinary occurrence
(F)	*Fletcher's List*
Finley's Report	Finley's *Report on the Characters of 600 Tornadoes*
(F.O.)	[?]
(Fr)	France
Frgs	Frogs
Hist Astro	*History of Astronomy*
incip. volc.	incipit volcano
Inf conjunction	Inferior conjunction
(It)	Italy
J. des. Deb	*Journal des Debats*
Jour Frank Inst.	*Journal of the Franklin Institute*
Jour of Asiatic Soc of Bengal	*Journal of Asiatic Society of Bengal*
La Sci Pour Tous	*La Science Pour Tous*
lat.	latitude
L'Institut	[?]
LT	London *Times*
mag.	magnitude
Mass.	Massachusetts
Mechanics Mag	*Mechanics' Magazine*
Mems Geolog. Survey of India	*Memoirs of the Geological Survey of India*
met	meteor
metite	meteorite
(N)	[?]
N.M.	No More
no.	number
N.S.W.	New South Wales
N.W. Provs.	Northwest Provinces
N.Y.	New York
obj	object
Op Mars	Opposition Mars
p.	page
Pers.	Perseus
phe	phenomena
Proc. Amer. Phil Soc	*Proceedings of the American Philosophical Society*
Proc. Roy. Irish Acad.	*Proceedings of the Royal Irish Academy*
q	earthquake
Ref	Reference
Rel-Ph. J	*Religio-Philosophical Journal*
/// [Reverse side]	probably not related
R.I.	Rhode Island
Sc Am	*Scientific American*
Spon Comb	Spontaneous Combustion
sq	square
S. to N.	South to North
Symons'	*Symons' Meteorological Magazine*
th. storm	thunderstorm
Timb's	*Timb's Year Book*
volcs	volcanoes
Vulcs	Vulcans
Wrms	Worms

(Continued from Pursuit *No. 65, First Quarter 1984, page 48)*

1835 Aug 4 / Great concussio[n] / air / S. Herefordshire / stone of Aldsworth probably from Rept BA 1860-75 / See July 4, '34.

1835 Aug 4 / 4:30 p.m. / South Herefordshire / Tretire, Herefordshire / explosive sound / thought meteoric / BA 52-184

[Reverse side] Also at Malvern / The Analyst, 1835-175.

1835 Aug 4 / Ab 1/2 mile from where the met fell, there was a shower of small pieces.

[Reverse side] Children thought it a shower of black beetles and held out hands to catch the supposed insects. Was 4:30 p.m. / BA 57-140.

1835 Aug 4 / Gloucester / "an extraordinary concussion of the air felt and heard" / ab. 3:30 a.m. /

[Reverse side] Like a report of heavy ordnance / L.T. 24-3-d.

1835 Aug 4 / Sound / ab. 4:30 p.m. / S. Herefordshire / "Most extraordinary concussion in the air." / BA '52/184.

1835 Aug 4 / Aldsworth, near Cirencester / Metite / (F) / Nature, 94-258 /

[Reverse side] C.R. 125-896.

1835 Aug. 7, etc. / L.T. Index / Halley's Comet.

1835 Aug 19 / q and sea waves / Japan / III / [Heavy / BA 1911].

1835 Aug 20 / q / Lancashire / See March 10, 1843.

1835 Aug 20 / q. / Manchester / M. Post, Oct 9, '63 / 1863.

1835 Aug 20 / q / Clitheroe, etc. Lancashire / ab. 3:30 a.m. / LT 24-3-d.

1835 Aug 23 / Volc eruption / Mt. Ardschen, in Cappadocia / BA 54 /

[Reverse side] Gentlemans Mag. gives date Aug 25.

1835 Aug 23 / Asia Minor / III / [Heavy quake / BA 1911].

1835 Aug 25 / 5 p.m. / Mount Kassarich, near Odessa / thick smoke and flames from mt and q's till Sept. 1 / [Reverse side] q's in Oct / An Reg 35-143.

1835 Aug 30 / q / Dept. Drôme, France / B Assoc 256/1854 / See Sept 14, 1836.

1835 Sept 3 / Hurricane / Barbadoes / L.T. 23-2-f.

1835 Sept 6 / Gelat / Germany / Gotha / 20 / D-49.

[BCF, p. 49 / See 1811//.]

1835 Sept 13 / Maudvit said he saw whirlwind take up, at Caux, all the water and living fishes in a "mare". / [Reverse side] Cosmos 3/4/697.

1835 Sept 14 / q's / France / BA 54.

1835 Sept 20 / Near Bristol / Army in sky / Cosmos, N.S. 13/264.

1835 Oct 2 / [L.T.] 3-c / etc. // Halley's Comet.

[18]35? / 1834 / Oct 6 / [L.T.], 1-f / etc. // Halley's Comet visible / See Aug. Index.

1835 Oct 12 / glass / Ab.6 p.m. at Lambeth a large square of plate glass in a draper's shop Westminster-road. [Reverse side] Three bullet holes in glass. Not said bullets found but attributed to an air-gun. /

[Front side] See Oct. 31.

1835 Oct 12 - 13 / (It?) / Flashes, q and whirlwind / See 1805.

1835 Oct 12 / Great q. / Calabria / BA 54.

1835 Oct 14 / Intense darkness / Quebec / Niles Nat. Register 57-192.

1836 Oct. 23 / 7 p.m. / 11 p.m. / Fireballs over Greenfield, Mass. exploding with q. effects. / Niles Weekly Register, Nov. 5.

1835 Oct 24 / (Fr) / Pau / Sounds or q's / B Assoc 54/128 / See Nov.

1835 Oct 27 / ab.4 a.m. / St. Bertrand de Comminques / sharp shock and rumbling sound / Another an hour later.

1835 Oct 27 / B.A.54 / ab. 4 a.m.

very severe q in Haute-Garrone and rolling sound /
[Reverse side] See Jour des Deb., Nov. 5. / Moneteur, Nov. 6

1835 Oct 27 / q and phe / ab. 4 a.m. / q in Haute-Pyrénées / the Cirque de Troumouse in the mountain enveloped in a burning sulphurous column. / CR 1-469.

1835 Oct 28 / 3:45 — near Barèges / and 4:30 — Tarbes / shocks and sounds like thunder / BA 54.

1835 Oct. 29 / q — meteors / ab. 4 a.m. / St. Gall, Appenzell, etc. Switz., and [Reverse side] Bâle, 3:47 a.m. / Shocks. / sound like report of a cannon / Meteors. / BA 54.

1835 Oct 29 / 3:47 a.m. at Bâle - 4 a.m. other parts of Switzerland / Violent shocks —
[Reverse side] dull sound like distant cannon. "Luminous meteors were observed." / BA '54.

1835 Oct. 31 / Glass breaking / Home of Mr. Archbold, barrister, 4 Lindengrove, Kensington Gravel pits — a large conservatory in his garden — crash and part of the glass roof fell.
[Reverse side] Day after day glass fell. Police could find out nothing. Mr. A suspected someone but nothing found out. No missiles mentioned. / Glass broke while constables on watch. /
[Front side] (See Oct 12.)

1835 Nov. 1 / Attrib this to terrestial volc — but none in Ky. [?], etc.

1835 Nov 1 / q — dry fog / q. / Moluccas / for 3 weeks had been preceded by a heavy sulphurous fog.
[Reverse side] There was a volc eruption on the island of Banda. / B.A., 54.

1835 Nov 7/ Trans Merc.

1835 Nov 11 / q / Concepcion, Chile / 2 volcs, 400 miles away, were in violent action. / BA '11.

1835 Nov. 13. / Met set fire to barn. / Ain, France / Rept. B.A. 1865-128.

1835 Nov 13 - 14 / Great fall of mets seen in U.S. and by Sir John Herschel at Cape of Good Hope.
[Reverse side] Ac to M. Arago. / Mag Pop Sci 3/62 / (P).

1835 Nov 13. / Simonod (Ain), France / Oldham's Cat of Meteorites / (F?).

1835 Nov 13 / 9 p.m. / Belley (Ain) / Brilliant meteor seen and loud detonations heard. At the same time, a fire broke out on roof of a
[Reverse side] farm house and attrib to the meteor. / C.R. 1-414 // 2 strange stones found and thought been meteoric / had black crust / (2-66).

1835 Nov 13 / loud detonations / near Belley (del'Ain), France / Meteor said to have set fire to a
[Reverse side] barn. A stone was found — resembled obsidian but no nickel in it; so not meteoric. / (BA 60-75).

1835 Nov 13 / This meteorite in the Museum of the Geological Survey, Calcutta, ac to Oldham.

1835 Nov. 13 / (Fr) / Near Belley) (Ain), loud detonations. Stone resembling obsidian was found, "but no nickel, and is not meteoric." / BA '60-75 /
[Reverse side] 65-128.

1835 Nov. 13 (·) / (Fr) / Belley / 9 p.m. / Belley (Ain) / Det met / C.R. 1/414 / 2 stones thought might have fallen were found. / 2/66 /
[Reverse side] and set fire to a "grange".

1835 Nov (end) / (Fr) / Pau (Basses, Pyrénées) / q and loud explosive sounds / B.A. '54 / (See Oct 24.)

1835 Nov or Dec / Snails / Montpellier.

1835 Nov. 16 / Comet passed perihelion. / Newcomb, "Astronomy for Everybody, p. 262, tells only of successful predictions. "So exact was their work that two of them hit the time
[Reverse side] within five days: Professor Rosenberger assigned November eleventh as the date of return, and Ponteconlant predicted it for November thirteenth." / (*ver.*).

1835 Nov 17 / Peribelion passage of Halley's Comet. Ponteconlant and Rosenberger had
[Reverse side] calculated it to be on 14th. / W. T. Lynn, in N and Q 10-1-152.

1835 Nov 17 / Aurora / Nima / C.R. 1/499.

1835 [Nov] / Conjunctions with the moon / Nov 18 — Saturn / 19 — Mercury / 20 — Mars / 21 — Venus / Observatory 25-58 / solar eclipse on 20th.

1835 end of Nov / Basses Pyrénées / shocks / loud explosions / Rather severely cold weather turned
[Reverse side] and a hot, suffocating south wind blew. / BA 54.

1835 Nov 18 / morning / Red glare in northern sky. Dome of St. Paul's brilliantly illuminated.
[Reverse side] Engines of the Fire Establishment called out repeatedly. / L.T., Nov. 19.

1835 last of Nov / At Pau (Basses-Pyrénées), either shocks or sounds
[Reverse side] at time of a sudden hot, suffocating south wind. / BA 54.

1835 Dec. 11 / A- / Canada / Kingston, etc. / AJS 30/131 · ·

1835 Dec 11. / A / dets / Am J. Sci 32/217.

1835 Dec 12 - 13 / ab. midnight / Berlin and Magdeburg / large meteor / BA 60.

1835 Dec 22 / (moon) / Light like a star in Aristarchus / Proctor, Myths and Marvels, 329 / by Baile [y].

[BCF, p. 398:
Dec. 22, 1835 — the star-like light in Aristarchus — reported by Francis Bailey — see Proctor's *Myths and Marvels*, p. 329.]

1836

1836 Jan 3 / Very violent q in Philippines. Several volcs were active. / BA 54.

1836 Jan 5 / Philippines / I / [Light quake / BA 1911].

1836 Jan 12 / 6:30 p.m. / Large meteor at Cherbourg. Detonations heard at Coutances. / BA 60.

1836 Jan 12 / Detonating wheel-like meteor / (D-262) / See Feb 12. / Cherbourg, France.

[BCF, pp. 274-275:
Rept. Brit. Assoc., 1860-77:
That, at Cherbourg, France, Jan. 12, 1836, was seen a luminous body, seemingly two-thirds the size of the moon. It seemed to rotate on an axis. Central to it there seemed to be a dark cavity.
For other accounts, all indefinite, but distortable into data of wheel-like objects in the sky, see *Nature*, 22-617; London *Times*, Oct. 15, 1859; *Nature*, 21-225; *Monthly Weather Review*, 1883-264.]

1836 Jan. 24 / India / Chandernagore / Sook-Saguir / also Kabul / I / q [Light] / BA 11.

1836 Jan 28 / 9 p.m. / See May 19, 1806. / vessel at 0° 40 S and 22°, 30' W / violent shock to a vessel.

1836 Jan. 31 / Stone fell near two men who had been shooting. / near Corrèze, France / Phipson — Meteors, p. 47 / [Reverse side] CR 58/226.

1836 Jan. 31 / (Fr) / Mascombes, France / stone and 2 dets / BA 67/416.

1836 Jan. 31 / 1 p.m. / Metite / Mascombes. / Particulars / "Preceded by Detonations" / La Sci Pour Tous 9-93.

1836 Feb. 8 / (It) / Rivoli, Piedmont / det met / BA '60 / 7 a.m.

1836 Feb. 9 / (H[un]) / 5 p.m. / Hungary / q and sounds and atmospheric disturbances / BA 54.

1836 Feb. 12 (?) / Cherbourg / 6:27 a.m. / Det met and strong sulphurous odor / C.R. 2-154.

1836 Feb. 13 / moon / Ac to Gruithuisen, in western crater of Messier, where there are two remarkable straight lines of light,
[Reverse side] dark band between them covered with luminous points. / Sc Am Sup — 7-2696.

1836 Feb. 23 / Feb. 26 // Shocks / Parma, Italy / BA 54.

1836 Feb. 24 / (It) — (q — met) / Great q / Rossano and Croscia, Calabria, in ruins. Rise and fall of sea. / A meteor seen. / Ponton, Earthquakes, p. 108.

1836 April / Easter Monday // Shropshire / (8 o'clock) / q / like an explosion / LT, Ap. 14-5-e.

1836 Ap. 2 / Pribyloff Islands, Alaska / Destructive q / BA 1911-42.

[BCF, pp. 41-44 / See August 13, 1819.]

1836 Ap. 22 / Sulphur / Prussia / Phipson, Earth's Atmosphere — p. 42.

1836 Ap. 22 / Aurora at Sea / C.R. 111/519.

1836 April 24 / (It) / (Cut) / "A terribly destructive earthquake" / Calabria / In the sky were phe that looked like "great beams on fire." / BA 54/259.

1836 Ap. 24 / Cosenza, Italy / III / [Heavy quake / BA 1911].

1836 Ap. 24-25 / (It) / Calabria / phe and q / See 1805.

1836 Ap. 24 / night / At moment of great q in Calabria, a meteor
[Reverse side] appeared along the shore of Calopezzali. / C.R., 17-621.

1836 Ap. 24 / Calabria and Naples / shock and meteor / The next day Vesuvius
[Reverse side] sent out thick smoke. / BA 54.

1836 Ap. 24 / Rossano, Calabria / large fireball / "like a wooden beam on fire" / BA 60.

1836 April / Great dry fog in South Australia / Chem News 88-42 /
[Reverse side] "The phenomenon excited a great deal of apprehension in the minds of the settlers."

1836 Ap. 24 / (It) / Rassano, etc (Cosenza) / great q / [BA] '11.

1836 May 3-4 / Calabria, Italy / I / [Light quake / BA 1911].

1836 May 8 / Toronto / A / A.J.S. 32 / 393+.

1836 May 10 / Pollen in valley of the Aspe (Basses-Pyrénées) / C.R. 2-516.

1836 May 13 / (Fr) / 5 a.m. / Angers, Nantes, etc., west of F. / sounds and q / BA 54.

1836 May 15 / Konigsberg / (N) / lights on moon during eclipse of sun / Loomis, *Treatise on Astronomy*, p. 174.

1836 May 15 / Ac to Poey / C.R. 56/88 / Havana / Luminous things moving away from sun to con- [Reverse side] siderable distance and then retracing. Others moved with no commonness of direction. Some size of 7th mag. star. Others scarcely detectable.

1836 May 15 / Augs. / Havana / eclipse of sun / (N) / C.R. 56/88 / D-210.

[BCF, pp. 220-221:
Hosts of small bodies — black, this time — that were seen by the astronomers Herrick, Buys-Ballot and De Cuppis (*L'Année Scientifique*, 1860-25); vast numbers of bodies that were seen by M. Laney, to cross the moon (*L'Année Scientifique*, 1874-62); another instance of dark ones; prodigious number of dark, spherical bodies reported by Messier, June 17, 1777 (Arago, *OEuvres*, 9-38); considerable number of luminous bodies which appeared to move out from the sun, in diverse directions; seen at Havana, during eclipse of the sun, May 15, 1836, by Prof. Auber (Poey); M. Poey cites a similar instance, on Aug. 3, 1886; M. Lotard's opinion that they were birds (*L'Astronomie*, 1886-391); large number of small bodies crossing disk of the sun, some swiftly, some slowly; most of them globular, but some seemingly triangular, and some of more complicated structure; seen by M. Trouvelet, who, whether seeds, insects, birds or other commonplace things, had never seen anything resembling these forms (*L'Année Scientifique*, 1885-8); report from the Rio de Janeiro Observatory, of vast numbers of bodies crossing the sun, some of them luminous and some of them dark, from some time in December, 1875, until Jan. 22, 1876 (*La Nature*, 1876-384).]

1836 June 3 / Red Hook, N.Y. / Tornado / *Finley's Report.*

1836 June 10 / Sury (Loire) / Fireball / S. to N. / BA 60.

1836 June 12 / Venetia, Italy / II / [Medium quake /BA 1911].

1836 June 23 / [London *Times*], 6-f / Sun Spots.

1836 June 28 / 8-9 a.m. / Heavy fall of snow in Sydney, N.S.W.
[Reverse side] Unprecedented. / Symons' 12-170.

1836 July 8 / New England / Dark Day / Sc Am 112-229.

1836 July 8 / Basilicata, Italy / I / [Light quake / BA 1911).

1836 July 15 / evening / Providence, R.I. — sound like thunder and q. / Niles Register, July 30, 1836

1836 July 20 / [London *Times*], 5-a / Ext. occurrence.

1836 July 20 / [L.T.], 6-f / Strange Discovery.

[BCF, p. 169:

London *Times*, July 20, 1836:

That, early in July, 1836, some boys were searching for rabbits' burrows in the rocky formation, near Edinburgh, known as Arthur's Seat. In the side of a cliff, they came upon some thin sheets of slate, which they pulled out.

Little cave.

Seventeen tiny coffins.

Three or four inches long.

In the coffins were miniature wooden figures. They were dressed differently both in style and material. There were two tiers of eight coffins each, and a third tier begun, with one coffin.

The extraordinary datum, which has especially made mystery here:

That the coffins had been deposited singly, in the little cave, and at intervals of many years. In the first tier, the coffins were quite decayed, and the wrappings had moldered away. In the second tier, the effects of age had not advanced so far. And the top coffin was quite recent-looking.

In the *Proceedings of the Society of Antiquarians of Scotland*, 3-12-460, there is a full account of this find. Three of the coffins and three of the figures are pictured.]

1836 July 25 / Inf conjunction / Venus-Sun / (A1).

1836 July (?) 28 / Norwich, Conn / obj like a mosaic of stones in tar. / See under Objs.

1836 Aug / A / dets / Am J. Sci 32/220.

1836 Aug 8 / successional / Smyrna. / B.A. '54 / midnight — qs / At 10 p.m., a met had [b]een seen.

1836 Aug / Pribyloff Islands, Alaska / III / [Great quake / BA 1911].

1836 Aug / Perseids / A.J. Sci 37-335.

1836 Aug 11 / Aurora / B Assoc 1836/32.

1836 Aug 15 / Albi, France / frogs / C. Rendus 3/435 /// A 45
[Reverse side] [stamped].

1836 Aug 20 / Large met / detonating / Illinois / 4 p.m. / in sunshine / BA 60.

1836 Aug. 20 / Meteors in Illinois in daytime / A.J. Sci 33/402 / BA '60-76.

1836 Aug 30 / Oaxaca / q. / See June 5, 1897 / BA '11.

1836 Sept 7 / Spon Comb / Paris / L.T., Ap 10-3-f, 1837.

1836 Sept 14 / (FR) / (See Aug 30, '35.) / Aubres, Drome, France / Metite / (F).

1836 Sept 18 / Florence / 10 a.m. / Fireball / "A doubtful substance found?" / BA 60.

1836 Sept 24 / near Macclesfield, Eng / Swarm of minute insect est. upon 50 sq miles / Analyst 5/234.

1836 Sept 25 / (N) / Red glare in sky, London, and firemen out / Mechanics Mag 36/335 /
[Reverse side] These in Annual Report upon London Fires.

1836 Oct 11 / Volc / Goentoes, Java / N.M. / C.R. 70-878.

1836 Oct 18 / Breslau / large fireball / BA 60.

1836 Oct 18 / Great aurora or sky glow and 2 Vulcs or sunspots / See Feb, 1837. /
[Reverse side] CR 3/585.

1836 Oct 18 / (N) / "Fire in sky" alarm and hundr[eds] of firemen and soldiers in many cities in
[Reverse side] England, France and Germany. / Mechanics Mag 26/355 /
[Front side] See Sept 25.

1836 Oct 18 / Cherbourg / Aurora / C.R. 3/518, 536, 585.

1836 Oct / A. / France / 34/288 A. J. Sci.

1836 Oct 18 / Aurora / ab 8 p.m. / London / great red glare in sky / fire engines called out / LT, Oct 20-3-c.
[Reverse side] at Strasburg, Rennes, etc., ab. 8:30 / *Times*, 24th / Two columns of fire rose in opposite directions.

1836 ab. last of Oct / Paisley / Kirkpatrick / Erkine / Inchinan / ab. 10:50 p.m. / L.T., Oct 31-6-e.

1836 Nov 1 / [London *Times*], 2-e / q / Rancliffe Bridge / (not found).

1836 Nov 1 / Vulc / 2 black bodies diff. sized by Pastorff / C.R. 49/811.

[BCF, pp. 202-203 / See 1834//.]

[BCF, pp. 412-413 / See July 31, 1826.]

1836 autumn / Many auroras / Shetlands / C.R. 3/781.

1836 Nov / Jour of Asiatic Soc of Bengal of [Nov] / See May 18, 1806 — vessel at 1 35 S and 20 45 W of
[Reverse side] Greenwich (23 SW of Paris) heard loud sound and felt shock, In a succeeding voyage, met at 0 35 K S and 15 50' W of Greenwich, sea violently agitated and volcanic cinders or ashes floating.

1836 Nov 11 / See Dec 11 / Macao, Brazil / (F).

1836 Nov 12 / Leonids / ac to Olmstead / A. J. Sci. 31-388.

1836 Nov 12 - 13 / Near Tours, mets like a rain of fire reported. Near Culloy, in the valley of the Rhone, seen through a fog so rapidly people though[t] auroral flashes
[Reverse side] or lightning. / Athenaeum 1837-12.

1836 Nov 12 - 13 / In northern Russia, unusual no. of meteors (lat. 60), town of Boguslowsk. /
[Reverse side] C.R. 4-524 / bet 3 and 4 a.m. of 13th, from Leo.

1836 Nov 12 - 13 / N.Y. / Evening, few meteors, but flashes like lightning and aurora. / 2 a.m., began mets from Leo./
[Reverse side] Niles Weekly Register, Nov 19, 1836.

1836 Nov 20 / (It) / Italy / q and red light / See 1805.

1836 Nov 20 / q. / II [Medium] / Salerno and Basilicata, Italy / BA '11.

1836 Nov 22 / Silesia / "atmospheric explosion / BA 60.

1836 Dec 3 — etc. / 2 p.m. / Began eruption in Guadeloupe. / C.R., 4-294.

1836 Dec 11 / Parma / from 7:45 p.m. till midnight / Ab. 50 mets = stars first mag, 12 = Jupiter.
[Reverse side] Then ab 15 smaller ones till daybreak. Most from e to w. / L.T., 1837, Jan 4-6-2.

1836 Dec / Eruption / Guadalopue / See Feb. / Athenaeum 1837-444.

1836 Dec 11 / At Parma, from 7:45 to midnight, no less than 50 meteors equally in brilliance stars of 1st mag, 12 of them a bright as Jupiter. From midnight till 6:30,
[Reverse side] great number of smaller ones, 15 size of stars of second mag. Most of them from e. to w. / See Dec 11, 1833. / L.T., 1837, Jan 4-6-b.

1836 Dec 11 / See Nov. 11. / Macao, Brazil / fall great number of stones / C.R. 5-211.

1837

1837 Jan 1 / q / Palestine / Congregational Magazine 20-405.

1837 Jan 1 / Great q / Syria / BA '11.

1837 / Vesoul and Toulouse / 1:15 a.m. / loud det. met / BA 60.

1837 Jan 1 and to Feb / Great quake on 1st in Syria / Athenaeum [1]837/416.

1837 Jan 1 / 4:35 p.m. / Beyrout, Syria / q. / The atmosphere was hot and
[Reverse side] charged with electricity. / Arc. Sci. 1838-254 / 39 villages destroyed.

1837 Jan 1 / Great q. / town of Saffet / 4 or 5,000 killed / L.T., Ap. 12.

1837 Jan 1 / Severe shock / Beyrout / 14 houses thrown down /
[Reverse side] L.T., Feb 7/5/b.

1837 Jan 5 / 1 a.m. / near Vichy, etc. / Met size of moon followed by several luminous points — one minute / C.R. 4-94.

1837 Jan 5 / 1:15 a.m. / Toulouse, etc. / det met / BA 60-76 / Germany, too.

1837 Jan 15 / Mikolowa, Hungary / 5 p.m. / stonefall, ac to Poggendorf / BA 60.

1837 Jan 26 / bet 1 and 2 a.m. / Chalons-sur-Seine and at Bourg (Ain) / aurora very brilliant / supposed from a fire. / Night, 25 - 26, aurora at Geneva, maximum at 12:45. /
[Reverse side] [L.T.], Feb 7-6-d / 8-6-f.

1837 Jan 29 / Vizille, Isere / violent explosive sound followed by q. / BA 54.

1837 Feb 5 / Op Mars / (A1).

1837 Feb / Eruption / Guadaloupe / Athenaeum 1837-444 / See Dec.

1837 Feb 13 and 14 / Red dustfall / ab. 600 miles w. of Cape Verde /
[Reverse side] Nautical Magazine, 1-291.

1837 Feb. 15 / Over the Comrie region fell a black powder. / Edin New Phil Jour 31-293.

[BCF, pp. 242-243 / See Sept 24, 1816.]

[BCF, pp. 403-405 / See May 17, 1830.]

1837 Feb 15(?) / Phantom / In *Times* of 25th copying from the Western Luminary, that on Wednesday night (Feb. 15?) some persons saw lights in the streets of Exmouth and heard tramping horses bet 11 and 12 p.m. — going
[Reverse side] to windows saw a funeral procession — several mutes on horseback, some with torches, three mourning coaches followed by chariots — procession ending with more mutes on horseback. Said that several persons ran from houses and
[Second page] saw it turn a corner, and took a short cut, expecting to overtake it, seeing the lights glittering in the road, but upon reaching the road could not see it, and searched in vain.
[Reverse side] Then inquiries at the toll gate, but somewhere between last sighted and the toll gate the procession had disappeared. Said that no person likely to be buried with such pomp had died in the neighborhood.

1837 Feb 16 / 2 Vulcans by Pastorff / An Sci Dis 1860/410.

[BCF, pp. 202-203 / See 1834//.]

[BCF, pp. 412-413 / See July 31, 1826.]

1837 Feb 18 / Aurora — from the sun / Wycombe / 10:30 p.m. / "Two streams of a bright vermillion color; the one
[Reverse side] arising in the northeast, passing over Arcturus and Ursa Major, and the other originating in the southwest, leaving Orion on the south and passing over Aldebaran and Capella and meeting in the zenith, forming a luminous arch of no great breadth."
[Front side] The western limb was by much the brightest and shot forth rays.

1837 Feb 18 / Aurora / Proc. Roy. Irish Acad. 1/38.

1837 Feb 18 / Dorset / 7 to 11 p.m. / Aurora / LT, Feb 25-2-f.

1837 Feb 18 / Aurora / France / Switzerland / Livonia / CR 4/589, 263, 337.

1837 Feb 18 / Aurora / London and France / Am J. Sci 32/396.

1837 Feb 18 / From 8 to 10 p.m., broad crimson streak in sky, e to w., close to Mars. / L.T. 25-6-a.

1837 Feb 22 / Orkneys / Ship illuminated with St. Elmos fire and shore nearby and then thunder and hail. / Jour

Frank Inst. 2-20/362.

1837 Feb 25 / q. / Belg. / Ciel et T 8/38.

1837 Feb 25 / Doncaster / 10 p.m. / Aurora in east / 10:30, another, opposite column in west, on Orion / L.T., March 1-2-e.

1837 March / at Cape of Good Hope — by Sir John Herschel / Sunspots, "extraordinary both in point of
[Reverse side] number and magnitude and in every point of view extremely remarkable. / Arcana of Science 1838-279.

1837 March 3 / at Zara, Dalmatia, q. preceded by a dull noise.

1837 March 14 / Austria / I / [Light quake / BA 1911].

1837 March 18 / Greece / II / [Medium quake / BA 1911].

1837 March 28 / island of Curzola, Dalmatia / At 6:15 p.m. a luminous meteor and train of fire — at 8:30 a.m., a (q). / B Assoc '54/267 / (See March 3.)

1837 March 31 / Ap. 1 // See Ap. 12. / Meteors / New Haven / A.J. Sci 11/184 /
[Reverse side] Wrong date / See 1826.

1837 April / A / France / Am. J. Sci. 34/285.

1837 April / Unknown worms of Devonshire.

1837 spring / Haunted house 3 miles west of Lafayette, Indiana / Rel-Ph. J. May 4, 1872, p. 15.

1837 April - May / Caserta, Italy / I / [Light quake — BA 1911].

1837 Ap. 15 / Austria / Stonefall reported. Greg thinks maybe
[Reverse side] confounded with Jan. 15. / BA 60.

1837 April 6. / Angers / Aurora / C.R. 5/589.

1837 Ap 11 / Tuscany, Italy / II / [Medium quake / BA 1911].

1837 Ap. 11 / Tuscany, etc., Italy / q. / II [Medium] / BA '11.

1837 Ap. 12 / q. / Hartford / Am J. Sci 32/399 / See Ap. 1. / See Aug. 1840.

1837 April 20 / (F) / Setting sun above the horizon — moon rose in total eclipse (refraction). / Thomson, Intro to Meteorology, p. 82.

1837 Ap. 24 / *Times* of / "Altogether unknown to agriculturists of the neighborhood." /
[Reverse side] worms / Devonshire / D-92.

1837 Ap. 24 / Wrms / nothing in Plymouth *papers*.

1837 Ap. 28 / 10 p.m. / Shores of the Baltic, in the province of Koeslin, Prussia.
[Reverse side] A hill 100 feet high sank, leaving a chasm, with a sound like thunder. / LT. May 17-7-e.

1837 May 5 / (Slag) / Am. J. Sci., 33/395 / Ac to Boston Daily Advertis[er], slag, or stones that looked like scoria from a furnace, fell at Bridgewater, Mass. / B Assoc, '60 /
[Reverse side] Said been warm when found. // Am J. Sci., 50/322 / Prof. Shepard says nothing but slag and had been on the ground in the first place.

1837 May 5 / bet 3 and 4 p.m. / East Bridgewater, Mass / ac to A. J. Sci. 32/395, quoting the Boston
[Reverse side] Daily Advertiser, June 10. / A metite. / resembled lava, or the scoria of a furnace.

1837 May 16 / [*London Times*], 7-c / Another wonder.

1837 May 17 / [*London Times*], 7-e / Ext. phe.

1837 May 17 / Algeria / Mirage of troops? / La Sci Pour Tous 2-206, col. 2+ .

1837 June 1 / q. in Syria / Safat and Tabereah / Athenaeum, 1837-416 / Fire shot from ground. Many hot springs burst out. Throughout month of Jan.

1837 June 21 / ab. 11 a.m. / Bleibourg, etc. / Illyria / q preceded by a sound like
[Reverse side] thunder / BA 54.

1837 July 4 / Insects may have been attracted by the light.

1837 July 4 / Canterbury / From ruins of a fortress a stream of red light was
[Reverse side] seen. Residents were alarmed, but it was found light came from swarms of small insects. Said that at same place been a similar phe. ab 30 years before. /
[Front side] L.T., July 7-7-d / See Sept 6-4-d.

1837 July 7 / At Colchester a countryman supposed to have come from the neighborhood of Thorpe engaged a room at the Mitre public house. Morning of the 8th he did not appear.
[Reverse side] Landlord found the door locked and key gone. Forced the door open. Floor, bed curtains covered with blood — lodger gone. Because a penknife covered with blood thought he had committed suicide. Police inquiry — nothing heard of him. /
[Front side] (L.T. 12-5-b).

1837 July 12 / De Vico saw a ve[ry] small and perfectly round spot, without a trace of penumbra, traverse a good part of the
[Reverse side] sun's disk in 6 hours. / Observatory 2/424.

[BCF, p. 201:
De Vico's observation of July 12, 1837 (*Observatory*, 2-424).]

[BCF, pp. 412-413 / See July 31, 1826.]

1837 July 14 / Yonozu, Japan / Metite / (F).

1837 July 21 / Unknown ? Fishes / Niles Register, Aug 5, 1837, that ac to the naturalist Dr. Wood, fishes had fallen in th. storm into the streets
[Reverse side] of Louisville. He considered them doubtfully a species of *Exocetus*, but was doubtful because the pectoral fins were peculiar. Holding one up to a light he found it devoid of veins or arteries. /
[Front side] (Beware "Exocetus").

1837 July 21 / Fishes / streets of Louisville.

1837 July 24 / Redruth / Shower in one street only — small yellow flies — fell thick — bit or stung severely. / L.T., July 31, 1837, 7/d /
[Reverse side] See Cardiff, May, 1907, or 1905.

1837 July 24 / (F) / (F.O.) / Gross-Divina. / Hungary / Metite / B.A. '60 /
[Reverse side] Nagy-Divina, ac to F.

1837 Aug / (Fr.) / Esnaude, Charente / Metite / BA '60 / (F).

1837 Aug 2 / St. Thomas, W Indies / I / [Light quake / BA 1191].

1837 Aug 2 / St. Thomas, W Indies / Destructive q. / BA 1911-55.

1837 Aug 2 / q and hurricane / island of St. Thomas / BA 54 says account seems very doubtful.

1837 Aug 2 / night / q / Sydney, N.S.W. / BA 54.

1837 Aug 3 / morning / Severe shocks / Zante / BA 54.

1837 Aug 5 / New Haven, Conn. / Met / BA 60-76.

1837 Aug 9 / Geneva / At 9 p.m. — clouds on horizon — none zenith — water fell — large drops "tiede" to such a degree
[Reverse side] as to drive peop[le] to shelter. Fel[l] for several minu[tes] and stopped — but fell again several times duri[ng] an hour. / C.R. 5/5[49] / ac to Wartmann.
[BCF, pp. 409-410:
In *Comptes Rendus*, 5-549 is Dr. Wartmann's account of water that fell from the sky, at Geneva. At nine o'clock, morning of Aug. 9, 1837, there were clouds upon the horizon, but the zenith was clear. It is not remarkable that a little rain should fall now and then from a clear sky: we shall see wherein this account is remarkable. Large drops of warm water fell in such abundance that people were driven to shelter. The fall continued several minutes and then stopped. But then, several times during an hour, more of this warm water fell from the sky. *Year Book of Facts*, 1839-262 — that upon May 31, 1838, lukewarm water in large drops fell from the sky, at Geneva. *Comptes Rendus*, 15-290 — no wind and not a cloud in the sky — at 10 o'clock, morning of May 11, 1842, warm water fell from the sky at Geneva, for about six minutes; five hours later, still no wind and no clouds, again fell warm water, in large drops; falling intermittently for several minutes.]

1837 Aug 9 / The q's here at Acapulco were from W. to E. till 12th of November — after that, stronger and from E. to W. In Dec., again W. to E.

1837 Aug 9 / See Sept. 2. / Shocks here (Mexico) went on. / BA 54 /
[Reverse side] Sept 18, violent / severe, 21st, 22nd.

1837 Aug 9 / q-phe / Morelia (Michoacan), Mexico — 4:15 p.m., shocks — 15 minutes
[Reverse side] later, great tempest and electric discharges so great that the air seemed on fire, and falling stars in the evening. /
[Front side) Ref — early Nov, 1839.

1837 Aug 9 - 10 / The Perseids noted in Switzerland by M. Wartmann; noted as coming from Ceph., Cass., and Pers. /
[Reverse side] C.R., 5-552 /
[Front side] p. 183, M. Arago announced extraord no. of meteors — as directed toward Taurus. /
[Reverse side] p. 347 / See that some noticed them in U.S., too. / See A. J. Sci.

1837 Aug / Mets / A. J. Sci 33-index / 34-180.

1837 Aug 9, 10 / Perseids / A. J. Sci 34-180.

1837 Aug 10 / 60 mets an hour counted at Vienna. / Athenaeum 1838-900.

1837 Aug 10 / Volc / Merapi, Java / N.M. / C.R. 70-878.

1837 Aug 10 - 11 / between 11:15 and 12:15 / M. Arago and 2 other observers counted 107 meteors. / L.T., Nov.2-1-d.

1837 Aug. 26 / [L.T.], 3-d / Astro. rarity / 25-3-d / 23-6-a / other notes.

1837 Aug 29 / Upper Silesia / Fireball / BA 60.

1837 Aug 30 / Cork, Ireland / Fireball / BA 60.

1837 Sept 2 / See Aug. 9. / Mexico — after a storm — clouds around volc Jorullo, and at night many meteors. / BA 54.

1837 Sept 6 / Barbadoes / I / [Light quake / BA 1911].

1837 Sept 21 / 7:48 p.m. / at Paris / great met from near the Eagle / C.R., 5-555.

1837 Sept 22 / + / Big q and phe in air / Van Dieman's Land / B Assoc 54-269.

1837 Sept, end of / Volc eruption near Acheen, East Indies / BA 54.

1837 Oct 1 — loud rumblings at Agram / Oct 6, detonation like discharg[e] of artillery and earth trembled / Oct 7,
[Reverse side] 2 reports / on 6th, at intervals day and night. / great damage reported / Athenaeum 1837-852.

1837 Oct 6 / Devastating gale / New Orleans / L.T., Nov. 21-6-b.

1837 Oct 11 / (sky fire) / — 8 p.m. / 18 — 7 p.m. / Nov. 5 — 11:30 / Nov 12 — 5 to 10 p.m. / Nov 14 — 10 p.m. // Red light in sky /
[Reverse side] no arch as observed at Cambridge / LT, Nov 22-6-b.

1837 Oct 11 / 7:30 p.m. / Dept of Calvados, France / violent shock and loud explosions heard / BA '54.

1837 Oct 12 [LT], 5-c / Wild man / Indiana.

1837 Oct 18 / See '36. / Aurora / Paris / C.R. 5-639.

1837 Oct 20 / Stowe, Ohio, 3 a.m. / Tornado / [V]ery few tornadoes [e]arly mornings. /
[Reverse side] Finley's Rept.

1837 Oct 20 / q and sound / Devon / See May 3, '09.

1837 Oct 20 / at Camelford, rumbling sound and vibrations.
[Reverse side] Thought was thunder, but the atmosphere was too serene. / L.T. 30-6-c.

1837 Oct 31 / 12:58 a.m. / Morcia, Spain / q / atmosphere suffocatingly hot / BA 54.

(To be continued)

THE SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

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ORIGINS OF SITU/PURSUIT

Zoologist, biologist, botanist and geologist Ivan T. Sanderson, F.L.S., F.R.G.S., F.Z.S., in association with a number of other distinguished authors, established in 1965 a "foundation" for the exposition and research of the paranormal—those "disquieting mysteries of the natural world" to which they had devoted much of their investigative lifetimes.

As a means of persuading other professionals, and non-professionals having interests similar to their own, to enlist in an uncommon cause, the steering group decided to publish a newsletter. The first issue came out in May 1967. The response, though not overwhelming, was sufficient to reassure the founding fathers that public interest in the what, why and where of their work would indeed survive them.

Newsletter No. 2, dated March 1968, announced new plans for the Sanderson foundation: a structure larger than its architects had first envisioned was to be built upon it, the whole to be called the Society for the Investigation of The Unexplained, as set forth in documents filed with the New Jersey Secretary of State. The choice of name was prophetic, for Dr. Sanderson titled one of the last of his two-dozen books "Investigating the Unexplained," published in 1972 and dedicated to the Society.

Another publication was issued in June 1968, but "newsletter" was now a subtitle; above it the name *Pursuit* was displayed for the first time. Vol. 1, No. 4 in September 1968 ("incorporating the fourth Society newsletter") noted that "the abbreviation SITU has now been formally adopted as the designation of our Society." Issue number 4 moreover introduced the Scientific Advisory Board, listing the names and affiliations of the advisors. Administrative matters no longer dominated the contents; these were relegated to the last four of the twenty pages. Most of the issue was given over to investigative reporting on phenomena such as "a great armadillo (6 feet long, 3 feet high) said to have been captured in Argentina"—the instant transportation of solid objects "from one place to another and even through solids"—the attack on the famed University of Colorado UFO Project headed by Dr. Edward U. Condon—and some updated information about "ringing rocks" and "stone spheres."

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

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The Planetary Grid:
A New Synthesis

