



PURSUIT

"SCIENCE IS THE PURSUIT OF THE UNEXPLAINED"

VOL. 5, NO. 2

APRIL, 1972

SOCIETY FOR THE INVESTIGATION OF THE UNEXPLAINED

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ORGANIZATION

The legal and financial affairs of the Society are managed by a Board of Trustees, in accordance with the laws of the State of New Jersey. These Officers are five in number: a President, elected for five years; two Vice-Presidents; a Treasurer; and a Secretary. General policy is supervised by a Governing Board, consisting of the five Trustees, and four other members elected for one year terms. General administration and management is handled by an Executive Board, listed on the inside back cover of this publication. The Editorial Board is listed on the masthead of this journal. Finally, our Society is counselled by a number of prominent scientists, as also listed on the inside back cover of this journal. These are designated as our Scientific Advisory Board.

PARTICIPATION

Participation in the activities of the Society is solicited. Memberships run from the 1st of January to the 31st of December; but those joining after the 1st of October are granted the final quarter of that year gratis. The annual subscription is U.S. \$10, which includes four issues of the Journal PURSUIT for the year, as well as access to the Society's library and files, through correspondence or on visitation. The annual subscription rate for the journal PURSUIT (alone, and without membership benefits) is \$5, including postage. (PURSUIT is also distributed, on a reciprocal basis, to other societies and institutions.) The Society contracts-- with individuals, and institutional and official organizations for specific projects -- as a consultative body. Terms are negotiated in each case in advance. Fellowship in the Society is bestowed (only by unanimous vote of the Trustees) on those who are adjudged to have made an outstanding contribution to the aims of the Society.

NOTICES

In view of the increase in resident staff and the non-completion, as yet, of additional living quarters, there is no longer over-night accommodation for visitors. Members are welcome to visit to consult our files, but we ask that they make application at least a week in advance to prevent 'pile-ups' of members who, as a result of the simple lack of facilities, as of now, cannot be properly accommodated.

The Society is unable to offer or render any services whatsoever to non-members. Further, the Society does not hold or express any corporate views, and any opinions expressed by any members in its publications are those of the authors alone. No opinions expressed or statements made by any members by word of mouth or in print may be construed as those of the Society.

There have been a number of articles recently on the problem of junk mail and the way in which one's name gets on such a mailing list. We should like to assure our members and subscribers that our mailing list is available only to resident staff at our headquarters.

PUBLICATIONS

The Society publishes a quarterly journal entitled PURSUIT. This is both a diary of current events and a commentary and critique of reports on these. It also distributes an annual report on Society affairs to members. The Society further issues Occasional Papers on certain projects, and Special Reports on the request of Fellows only.

RECORD: From its establishment in July, 1965, until the end of March 1968, the Society issued only a newsletter, on an irregular basis. The last two publications of that were, however, entitled PURSUIT-- Vol. 1, No. 3 and No. 4, dated June and September, 1968. Beginning with Vol. 2, No. 1, PURSUIT has been issued on a regular quarterly basis: dated January, April, July, and October. Back issues, some available only as Xerox copies, are available; those wishing to acquire any or all of these should request an order form.

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THE JOURNAL OF THE SOCIETY FOR THE
INVESTIGATION OF THE UNEXPLAINED

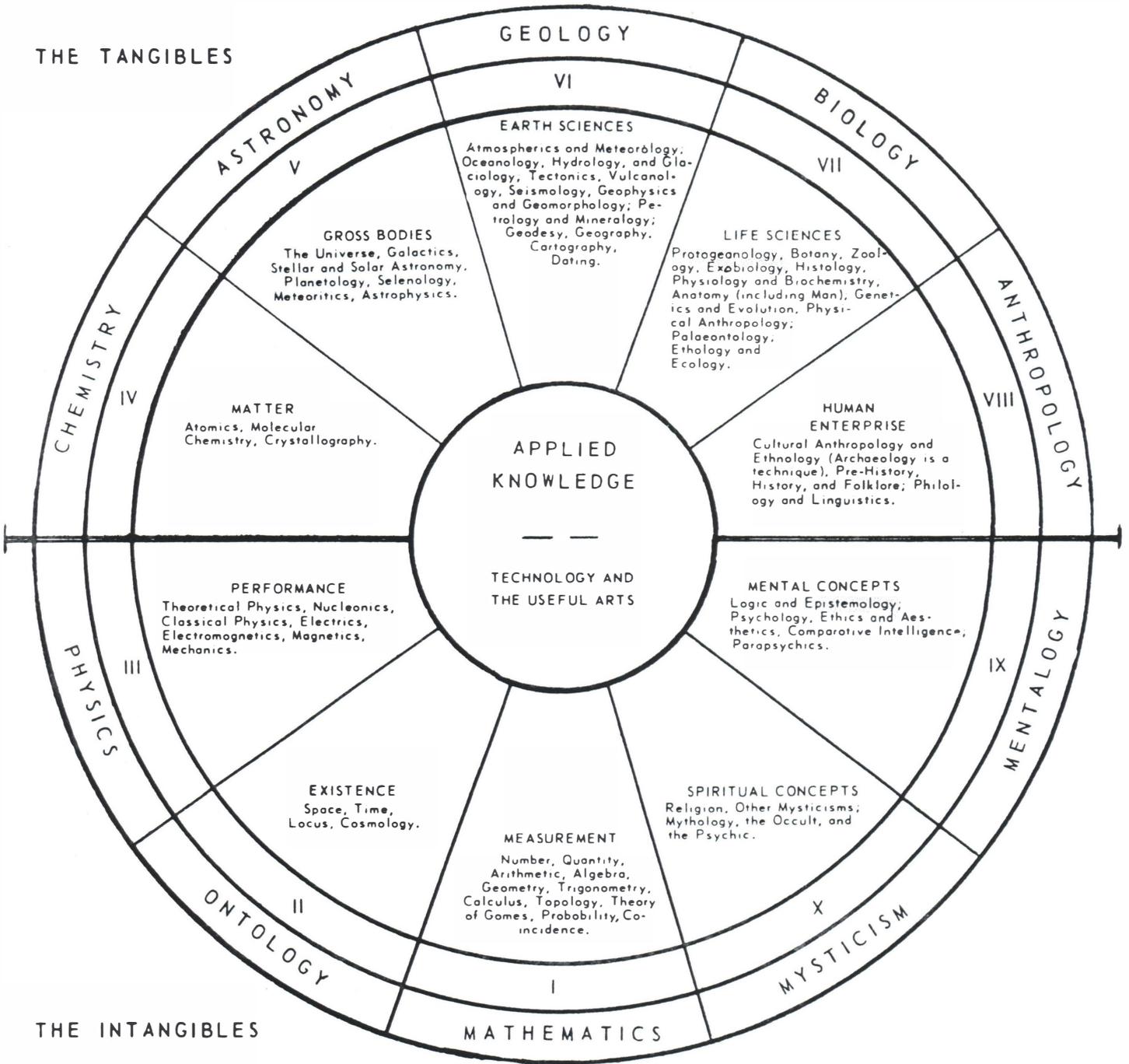
DEVOTED TO THE INVESTIGATION OF "THINGS"
THAT ARE CUSTOMARILY DISCOUNTED

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THE TAXONOMY OF KNOWLEDGE



Everything in existence, including "existence" itself, and thus all of our possible concepts and all knowledge that we possess or will ever possess, is contained within this wheel. Technologies and the useful arts lie within the inner circle, having access to any or all of the ten major departments of organized knowledge.

From the KORAN: "Acquire knowledge. It enables its possessor to know right from wrong; it lights the way to heaven; it is our friend in the desert, our society in solitude, our companion when friendless; it guides us to happiness; it sustains us in misery; it is an ornament among friends, and on armour against enemies." - The Prophet.

EDITORIAL

ON THE TRUE NATURE OF THINGS

I have asked to be permitted to sign this personally as I wish to take sole responsibility for what I am going to say; and also because — though we publish the usual statement that “No opinions expressed or statements made by any members by word of mouth or in print may be construed as those of the Society” (see inside front cover and in our brochure) — I wish to exonerate both the Boards that set our policy and administer our Society; and, even more so, our distinguished Advisory Board. In other words, I am speaking entirely for myself and not on behalf of SITU as a corporate body, or with the concurrence of any individual member, or group of members, thereof. However, I feel strongly that the following should be put on the record.

It would seem to me, after over forty years of field work and research; and of reading the current scientific, quasi-scientific, and a lot of serious popular literature (and that in several languages), I have come to the point where I have to face up to certain disturbing facts; or at least one basic one. There is now just too much coming out in orthodox scientific journals to permit me to ignore these facts any longer.

Said facts are that, while we thought we knew at the least the basic structure of “reality”, it is now becoming clear that we don’t — and in just about every department of so-called “knowledge”. Our precepts, as taught, are tumbling like ninepins. Moreover, the way in which they are “tumbling” is most distressing to scientists — so, more power to them for having the guts to say so — however much laymen, and the mystics, may deride them for their “blind” orthodoxy.

The detailed facts would require at least four fat volumes, written in simple language, but with massive quotes, or paraphrasing, to expostulate this problem. Therefore, may I just go ahead without even one example? (Said examples have been increasingly turning up in this journal, and more especially in its Book Reviews.)

That which has now been discovered, and by truly scientific means, or which we have accomplished by technological methods is, manifestly, both sound and working. Nevertheless, an ever-increasing volume of facts —and sound evidence to regard these as real— is/are cropping up every day. A remarkable example is reviewed on page 32 of this issue. The point is that the “reality” we have been taught to accept, and the reasons for doing so, appear now not to be the whole truth. There is just too much coming to light that all of us once thought was inexplicable (or just plain “baloney”) that our modern knowledge is explaining; or for which there could be valid explanations within our modern terms of scientific and technological reference.

This causes the scientific community some distress and not a little aggravation, but it is giving the so-called occultists (including the mystics, and all such assorted thinkers) cause for somewhat raucous and considerably unwarranted glee. As Fortean, we have always stood squarely in the middle: denying neither opinion, but insisting on a pragmatic and realistic approach to all matters. This, of course, leans strongly to the so-called “scientific” approach. So I come to the reason for this expostulation.

However you look at it, or wherever you stumble across it today, it becomes increasingly obvious that we are either living in a “twin” universe, or we are —and always have been— infested with what is best called the paranormal from another universe, or universes. Thus, there are two sets of “rules” or “natural laws” operative in our Universe, or our Earth, and in all our lives. One —that one that is not our accepted “reality”— is either “weaker”, less general, or rarer, or “occasional”. This manifests itself in the unexplaineds. But we must now realize and appreciate the fact that these could or might (and watch those qualifying words) be explained even along our current scientific principles and/or by our current technological know-how.

I, personally, am increasingly persuaded to suspect that this “other reality” (which we have come to call the para-normal) is a great deal more prevalent than the average person thinks; and that this goes both for working scientists and the dedicated mystics. Further, I am willing to put it on record that it is due, for the most part, to our (legitimate) ignorance of it, and to the average person’s reluctance to even talk about it —and notably about their own personal experiences.

Thus, as a fortean from way back, all I can ask is that people, from astronauts to cow-farmers, come out with both their experiences and their thoughts thereupon; and let the proverbial “chips” fall where they may.

Ivan T. Sanderson.

UFOLOGY

A DOCUMENTED CASE OF GOVERNMENTAL DISHONESTY

Almost from the moment that ufology was 'invented', there have been those who have charged the Government with deliberate "cover-up", sometimes with such continuing vehemence that they have alienated even their staunchest supporters. The trouble is that they have rarely, if ever, even tried to present full proof of their allegations. We now have in our files a document entitled "The Fitzgerald Report", copyright 1959 by none other than Robert J. Durant, who had not even heard of Ivan T. Sanderson at that time. We wish very much that we had space to reproduce the whole thing, but it runs 20 pages*, so we must condense and stick primarily to the evidence of "cover-up" and such.

At approximately 3 a.m. on the morning of the 21st September 1958 a Mrs. William Fitzgerald observed a metallic, disc-shaped object maneuvering in the front yard of her home in Sheffield Lake, Ohio. The object was also seen by Mrs. Fitzgerald's son John. Neither realized that the other had seen it until late the next morning when Mr. Fitzgerald, who had at first disbelieved the boy's story, questioned them separately and found that their descriptions were identical. Later, the UFO Research Committee of Akron, which investigated this case, found two other persons in the immediate neighbourhood who had had experiences which helped to confirm the Fitzgeralds' story.

Two other 'sightings', one most pertinent to our tale, were reported in Lorain, Ohio, which borders Sheffield Lake. At 2 a.m. a Mrs. Grego watched a "big red ball" moving outside her window; she reported that it made a low pulsating sound that made her "sick to her stomach", but she noted no after-effects. At 2:30 a.m. a Mrs. Stewart was wakened by a light flooding through her window. A look at her clock indicated that it could not be the sun, and the moon had set at 1:07 a.m. on the 21st. She described the object as being several times larger than the moon, and noted that it moved off in a westerly direction. Neither of these cases would seem to be in any way related to the Fitzgeralds', but we will come back to Mrs. Stewart later.

Mrs. Fitzgerald called the newspaper and was subsequently interviewed by members of the UFO Research Committee of Akron who prepared a report and sent copies to the Aerial Phenomena Group, Air Technical Intelligence Center, Wright-Patterson Air Force Base, with a request for an investigation. The Air Force sent two investigators who checked train schedules, lake activity (Sheffield is on Lake Erie), and other possible factors in the sighting. On the 4th

October they 'interviewed' Mrs. Fitzgerald and her son John, with a member of the UFORCA attending. Mrs. Fitzgerald filled out the standard form carried by the Air Force men and was asked five questions; young John was asked one. The AF chaps then departed, stating that a full report would be sent to Mrs. Fitzgerald within 30 days.

The Air Force first released their conclusions on the case to the Honorable A. D. Baumhart, Jr., Mrs. Fitzgerald's congressman, to whom she had written in an attempt to get some 'action'. The letter to Congressman Baumhart was signed by W. P. Fisher, Major General, USAF, Director, Legislative Liaison; the pertinent part read as follows:

"The investigation revealed that a railroad track ran near the home of Mrs. Fitzgerald. The night of Mrs. Fitzgerald's sighting, a train passed the house at approximately the same hour of the reported sighting. The train had a rotating headlight which, under some conditions, would produce unusual effects. Contact was also made with Chief Bosun Mate William Schott of the Coast Guard Station, Lorain, Ohio. Chief Schott reported that he was using his spotlight in an attempt to attract the attention of another ship, and that the light was directed toward shore in the general direction of Mrs. Fitzgerald's house. The time and date of this incident coincide with those reported by Mrs. Fitzgerald. Mrs. Steward (sic) of Lorain, Ohio, a witness listed in Mrs. Fitzgerald's report, could not recall anything unusual on the night of the reported sighting. Mr. (sic) Grego of Lorain, another witness, was not available for interview. The weather at the time of the incident was a misty rain with haze and smoke.

"The conclusion of Air Force investigators was that the combination of moving lights, noise of the train and prevailing weather account for the illusion experienced by Mrs. Fitzgerald. The Air Technical Intelligence Center, after evaluating the evidence in this case, concurred with the conclusion of the investigators."

Now to the real nitty-gritty:

Mrs. Stewart (not Steward) signed an affidavit giving the facts concerning her experience and added the statement that:

"On October 4, 1958, I was visited by Technical Sergeants Hof and Haistain from Air Force Intelligence department. I repeated the account of my experience as written above. The sergeants talked to me about the sighting for about 10 minutes. They were going to have me fill out a report form but then decided against it."

As The Fitzgerald Report points out, the Air Force statement that Mrs. "Steward (sic) could not recall anything unusual" must have been (1) a deliberate attempt to distort the facts, (2) an unforgiveable act

*Copies are available at \$2.00 each.

of negligence, or (3) an extreme case of ignorance.

As for Mrs. Fitzgerald, her reaction to the report by the USAF was that "The person who made it must be insane." They may not have been insane, but they were certainly incompetent.

1) They did not bother, even when asked, to observe headlights on trains passing near the Fitzgerald house —the light never hits Mrs. Fitzgerald's window.

2) The Fitzgerald house is 3000 feet from Lake Erie, which cannot be seen from the house. In addition, the Coast Guard vessel was 5½ miles down-shore from the Fitzgerald house when the signalling took place, and the light would have had to shine through downtown Lorain to be seen at the Fitzgeralds'—rather a neat trick for any searchlight, aside from the fact that the signalling apparently took place about 2 hours before Mrs. Fitzgerald's sighting.

3) It wouldn't help to interview Mr. Grego; it was his wife who saw the "big red ball".

4) According to the USAF, "misty rain with haze and smoke": Mrs. Fitzgerald stated that it was not raining, and the wind direction was such that smoke from a U.S. Steel plant would have been blown away from, not toward, the Fitzgerald home.

5) Chief Schott told a member of UFORCA that the AF sergeants did not obtain a written statement from him or even question him closely about his activities on the lake. The "investigators" did not make a house to house check in the neighbourhood for further evidence either. They did not ask Mrs. Fitzgerald for a 3-D drawing of the object, showed little interest in its movements, and had Mrs. Fitzgerald fill out a form intended for reporting objects in the sky, not in a front yard, thus making it difficult for Mrs. Fitzgerald to turn in an adequate report. Obviously, the USAF did nothing to improve on this.

Rather grimly, the Fitzgerald Report notes that on October 6, 1958, the USAF put out a news release stating that 98.1% of all UFO reports are of "known" objects, with the rider that "Refinements in investigative procedure have resulted in a steady decline of unknowns". The FR retorts that "After studying the Fitzgerald report it should be manifestly clear what the Air Force means by 'refinements in investigative procedure'".

The FR includes a 6-page appendix detailing the correspondence between the USAF on the one hand, and Mrs. Fitzgerald, Congressman Baumhart, other members of Congress, and members of UFORCA on the other. We cannot reproduce all of it by any means, but we shall pick some of the juiciest items. To wit:

The original Fitzgerald Report, with a letter requesting proper investigation and disciplinary action

against the Air Force 'investigators', was sent to General Fisher and to Major Lawrence J. Tacker, the officer in charge of handling all enquiries concerning UFOs except those made by members of Congress. General Fisher replied as follows:

"I refer to your inquiry concerning allegations relative to the unidentified flying object sighting reported by Mrs. William Fitzgerald, Sheffield Lake, Ohio, on 21 September 1958. The investigation conducted by Air Technical Intelligence Center on the unidentified flying object sighting reported by Mrs. Fitzgerald was thoroughly reviewed by Air Force Headquarters. The Air Force is entirely satisfied that the individuals who conducted the investigation of the unidentified flying object sighting at Sheffield Lake on 21 September 1958 were thorough and competent. Further, that their findings were accurate and adequate."

Major Tacker's reply, except for the opening phrase, is identical to General Fisher's. Letters to the Secretary of Defense, the Secretary of the Air Force, and to Colonel Gilbert of ATIC were answered by Major Tacker with identical letters.

UFORCA and Mrs. Fitzgerald were becoming rather annoyed and sent a still more strongly worded letter to Major Tacker and received a rather venomous letter in return; we quote only portions of it:

"We do not have the resources allotted to this project to fill individual requests or to answer the erroneous charges concerning individual sightings which amateur organizations such as yours make against the Air Force. Further, we are not interested in your theories or science fiction approach to this subject. [We aren't making this up, you know; UFORCA has the letters on file.]

"The Air Force is compelled to deal scientifically and objectively with facts and the findings to date deny the existence of flying saucers. We are sure our analysis and evaluation of reported sightings by qualified scientific personnel are more than adequate."

From General Fisher:
". . . case closed. . ."

Members of UFORCA wrote asking permission to see the official Air Force records of the Fitzgerald case, which the USAF had stated were unclassified. They were informed, as was Congressman Baumhart, that their request could not be honoured. The reports may be unclassified but you can't see them?!

To a certain extent, one sympathizes with the poor

old Air Force which should never have been given the job in the first place and was never given adequate personnel, either in numbers or training, to tackle a job that has confounded the best minds around. However, they could be polite about it; and they could be honest. To state that investigations are

competent and adequate but that one lacks adequate resources suggests a bad case of finniminnimysis*.

*This disease is caused by an excess of finniminnies in the bloodstream with the result that the left hand does not know what the right hand is doing.

CHAOS & CONFUSION

AN UNDERWATER EXPLOSION – OR WHAT?

by Robert J. Durant

The average depth of water in the oceans is 12,450 feet, as compared with an average height of the land above the sea, of 2,750 feet. The greatest known depth is 35,640 feet, in the Marianas Trench in the Pacific. The highest known land is Mount Everest, 29,002 feet. About 23 per cent of the ocean is shallower than 10,000 feet; about 76 per cent is between 10,000 and 20,000 feet; and a little more than 1 per cent is deeper than 20,000 feet.

A certain long, narrow depression in an oceanic bed is called a trench. The deepest trench in the Atlantic Ocean is located about 100 miles north of the island of Puerto Rico, approximately at the southern boundary of the area we have come to know as the "Bermuda Triangle". This trench extends some 300 miles in an East-West direction, and reaches a depth of 28,374 feet. Aside from the general shape and depth of this trench, which has been ascertained with sonar depth-finding equipment, we know little about the state of affairs in its lower reaches. This is because there is at this time simply no way to construct an adequately instrumented exploratory device that will withstand the fantastic pressure developed by the 28,000 foot column of water. This pressure is on the order of 13,000 pounds per square inch.

Flights between Puerto Rico and the United States cross the Puerto Rico Trench (and the Bermuda

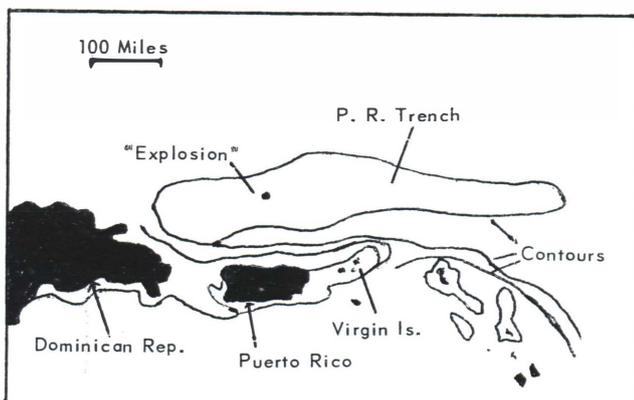
Triangle) several hundred times every week. Unusual incidents in this area are statistically rare, but when one does occur it is almost always a "whopper". Here is one such story that recently came to my attention.

An associate of mine was assigned as copilot on a Boeing 707 jetliner carrying passengers from San Juan to Kennedy Airport in New York. Twenty minutes after takeoff the jet levelled off at its assigned cruising altitude of 31,000 feet. The pilots checked their navigation to insure that they were accurately guiding the plane over a checkpoint 100 miles from San Juan. The copilot noted that the direction-finding radios indicated the proper bearing of 354 degrees magnetic and checked the distance-measuring equipment reading of 99 nautical miles from the airport transmitter. He was about to record the checkpoint passage when his eye caught an amazing sight in the water below.

At the 1:30 o'clock position, about four or five miles from the path of the jet, the ocean was boiling up in a gigantic hemispheric mound. The copilot described the phenomenon as "a big cauliflower in the water". He immediately called the captain and the flight engineer to see the "cauliflower". The three crew members watched for about 30 seconds until the sight passed behind the wing of the jet and disappeared from view. The copilot watched the mound of white water growing in both height and diameter, but by the time the other two crew members unlocked their harnesses and climbed over to the right side of the cockpit for a look the mass had begun to fall back. Nevertheless, all three agreed that they had witnessed something of a most unusual nature, and of extraordinary dimensions. Making a rough calculation based on the apparent size of the mound of water as seen from an altitude of 31,000 feet, it appears that the diameter of the mound must have been $\frac{1}{2}$ to 1 mile and with a height $\frac{1}{2}$ to $\frac{1}{3}$ of the diameter.

As so often happens in instances of encounters with anomalous phenomena, such as UFO's, Abominable Snowmen, and so forth, these observers were somewhat stunned by the scene. Consequently, they did not turn back to observe the "cauliflower" in more detail; though, at this late date, they feel that it is most unfortunate that they did not do so. The flight continued to Kennedy Airport without further incident.

At Kennedy my informant telephoned the Coast Guard and the FBI to relate the details of the "sight-



ing". Several days later he checked back with both agencies and was told that they had no knowledge of other similar reports, missing ships, unusual waves, or anything else in connection with the reported underwater upheaval. He did make one more call, however, and that was to an acquaintance of his who is a seismologist on the staff of Fordham University in New York City. After exchanging pleasantries and some small talk about mutual interests, the copilot brought up the real purpose of his telephone call. The Fordham seismologist, whose duties include operation of a round-the-clock seismic wave detector, got very huffy, said he had no knowledge whatsoever that could possibly be connected with the sighting, and then hung up!

The three crew members who witnessed the "cauliflower" believe that they observed the result of an underwater atomic explosion. The shape of the mound of water, its frothing and almost boiling appearance, and the enormous size of it, all point to an atomic explosion. And there is another circumstance that makes the atomic explosion hypothesis even more appealing: This incident took place on the afternoon of April 11, 1963, one day after the loss of the atomic submarine U.S.S. Thresher.

The Thresher met an unknown fate in the North Atlantic, several thousand miles from the Puerto Rico Trench. At least, that is the official version. For any number of very good reasons having to do with national security, the location and even the date of the demise of the nuclear powered, missile carrying, Thresher might have been misrepresented to the public. The pilots might have witnessed the explosion of the Thresher's nuclear power plant and/or its atomic missile warheads. Or they might have seen the end of a Russian sub destroyed by the American Navy in retribution for the Soviet destruction of the Thresher. This last may sound implausible, but I submit it as a distinct possibility, considering the state of affairs in the world today and the extent of the clandestine activities being carried out by both sides. A volcanic eruption on the sea bed is another possibility, though the shape of the water mass would seem to stand against that hypothesis. Underwater volcanic activity is a well known occurrence, but it does not result in the sudden lifting of millions of tons of water.

One more possibility comes to mind, and that is the reason that this case is being presented in the pages of PURSUIT. The explosion, if that is what it was, took place almost directly over the Puerto Rico Trench and in that part of the globe where so many unexplained disappearances of ships and aircraft have taken place. In other words, this case might be another piece in the so-called "Bermuda" puzzle.

The location of the "cauliflower" was approximately 19 degrees 54 minutes north latitude, 066 degrees 47 minutes west longitude. Unless the pilots were greatly mistaken in their estimate of the size of the mound of water, there must have been repercussions

of one sort or another from this incident, such as high waves on the Puerto Rican shores, dead fish, swamped craft, etc. We urge readers living in that part of the Caribbean to search the newspaper files for information that might serve to shed light on this incident.

FIRE-WALKING AGAIN

A number of members have questioned Bob Durant's 'dismissal' of fire-walking via the Liedenfrost Effect. They have brought up some pertinent points, but the fact remains that ordinary fire-walking is explained by the Liedenfrost Effect. There are other cases of fire-handling —e.g. dancing on red-hot wood embers for twenty minutes or more (the fire-walkers of Langadas, a small town near Salonica, Greece, reported by member No. 1060), sitting on a red-hot stove for extended periods and the like— which seem to be connected with a particular trance state. On the other hand, we have now acquired quite a collection of cases of immunity from injury which do not fit either category. Some of these are most extraordinary.

Adolph Heuer reports having watched a TV show which featured a Jamaican gentleman who had the MC smash bottles and strew them around, and then jumped onto the broken glass and walked around on it without so much as scratching his feet. His expression was described by Adolph as that of a man who had been asked to jump off a high diving board into a barrel of concrete. Sibley Morrill reports a similar exhibition he witnessed some years ago. In both instances, the performer insisted that there was nothing 'psychic' about it but that he had no idea why he didn't get cut.

Ivan and Alma Sanderson once knew a quite "mad" Mexican aristocrat of the old school, [whose name Ivan Sanderson cannot now remember], who used to munch on champagne glasses, stick steak knives through his cheeks, and on one memorable occasion —to show his devotion to Alma— carved the initials "AVS" on his arm. He bled profusely at first, but by the end of the evening not even a scar was visible! Then there was another old school friend of Ivan's —Prince Singh of Kapurthala, India— who did the same for years in chi-chi European restaurants. Both, incidentally, are still alive.

These chaps aren't 'psychic' in the ordinary sense of the word. And the things they do are patently physical. There is no question of a trance state or any "preparation" at all. The writer (MLF) walks on gravel without distress but definitely draws the line at a pile of broken glass.

As for ordinary fire-walking, member No. 372 reports that he has walked on slate soaked with gasoline and set afire. It singed the hair on his legs but he was otherwise unharmed. He recommends shaving the legs; he says it smells terrible.

II. ONTOLOGY

OTHER UNIVERSES

by Ivan T. Sanderson

At last we are getting somewhere with the core problem of all, and the one which, if tackled boldly and without prejudice or preconception, could not only knit a lot of troublesome mysteries together, but also give us a firm basis for the construction of a better concept of reality; and, withall, without straining our current logic too much. Moreover, the first clear statement on this in any popular form came from none other than the dean of science-writers, Walter Sullivan of the N. Y. Times. Since not everybody reads the Times, and many of those who do probably skip the science section, it is unlikely that many, even of our members, picked this one up; so we quote and paraphrase.

In his column of the 27th January of this year, Mr. Sullivan wrote, under a head "Laws of the Universe Put Into Question" (we would have said "Laws of our Universe. . ."), and we quote: — Recent astronomical observations have . . . for example, brought into question the reliability of the yardstick used in estimating distances to faraway galaxies. They have revealed objects that seem to be moving faster than light . . . and others whose energy output defies explanation." He then goes on to say that two suggestions have been made to explain these observations: and it is the second of these that packs the wallop, and this in just one brief sentence, namely: "A more radical suggestion is that matter is entering this universe from other universes [emphasis ours], carrying with it the physical 'constants' characteristics of those universes". Mr. Sullivan then goes on to cast the first real shadow of doubt upon the so-called Doppler Effect, a matter that we have always doubted seriously and which we have discussed with five of

the really leading astronomers of the world. But that is another story.

That astronomers have been getting into a rather tight box is obvious to anybody primarily interested in that subject, and even to those who read columns such as Mr. Sullivan's and the serious popular-scientific magazines like Scientific American and The New Scientist. However, this statement about "other universes", and especially having some connection with ours, is really cosmological and wrapped tightly around by its cocoon of ontology. Once you can conceive of this idea of other universes in physical terms, you will be ready to try and understand not only the theories of Jacques Vallee and John Keel regarding UFOs, but a very high percentage of other fortana, like unauthorized things that fall from the sky; out-of-place animals; "monsters" of various kinds; poltergeists; and so on and so forth. The key to the whole thing is, as we have found out after ten years of studying the so-called "Bermuda Triangle" (which it isn't) and its eleven equally spaced areas of anomaly, disappearances and appearances scattered around the globe, is what we call "Time". This means that these "other universes" could be precisely coincident with ours in space (or anywhere from a tiny bit to infinity off our base), but run on different "times".

It is therefore in no way inconceivable that very high intelligencies in other "universes" could devise purely physico-mechanical means of "dropping through" from one space-time continuum to another, or of collecting things from one and dumping things into others. At that level of competence they could possibly create things, animate (monsters) or inanimate (UFOs), to suit their purposes — whatever those might be. Even if our universe is either finite or infinite, there is still an infinity of room for others in time.

III. PHYSICS

SOUND AS A HIGHWAY HAZARD

Our member No. 340 wrote us some time ago both to report and to ask a question. What follows is really in the nature of a "public service". His letter read:

"Have you ever driven a car with only one window open and noticed (it's fairly rare) sometimes the air in the car will start throbbing or pulsing. It would seem to me that the whole car is reverberating like the inside of a giant whistle. Some infrasonics are hazardous. . . . Could this kind of infrasonic effect be dangerous, directly? indirectly? by causing the driver to have an accident?"

The answer, from the British Acoustical Society at the University of Salford, England, is a resounding

YES. Studies by that Society have revealed that "infrasonics", i.e. noises inaudible to the human ear, are common today in cars and produce a state similar to drunkenness in drivers, slowing their reaction time by 20 to 30 per cent. This is particularly true at superhighway speeds and the effects are accentuated when the car windows are open. It would seem that a number of otherwise unexplained accidents are due to the menace of infrasonics. So far as we know, no one has come up with an answer to this one, and we can only suggest that our members bear these facts in mind, particularly when driving on turnpikes and other high-speed roads, and pull off the road at the first sign of relaxed vigilance, slowed reactions, or whatever. If in doubt, stop. Better to be late than dead.

MORE ON LIGHT WHEELS

by Robert J. Durant

The radial lines of light that comprise the "submarine lightwheels" have often been reported to appear as S-shaped or sinusoidally curved. This curvature is one of the most puzzling aspects of this curious phenomenon. In the remarks that follow I hope to demonstrate that the curvature of the radials is a necessary result of the fact that the light beams are formed by the radiation of sound waves.

The case for sound as the exciting force of the light beams has been made quite forcefully by Dr. Wallace Minto in Fate Magazine (July 1964) and in chapter 7 of Ivan T. Sanderson's Invisible Residents. In brief, Minto shows that the simple mechanical vibrations of sound cause a microorganism called Noctiluca miliaris to emit light.* His theory explains other characteristics of the lightwheels, such as their ability to pass undisturbed through the hulls of ships. But why do the lines sometimes curve? Is it not a verity that light always travels in straight lines? If you will bear with me through a bit of mathematical analysis, the problem of the curvature of these lines of light might be very neatly resolved.

We must assume that in some unknown manner, and for some unknown purpose, rotating beams of sound are being generated under the waters in certain parts of the world. Instead of viewing the entire rotating system, it will be simpler to focus on a single component radial or spoke of the wheel. This we assume to be a rotating source of sound waves, exactly analogous to a rotating beam of light from a lighthouse. Sound waves consist of physical vibrations. These vibrations excite the Noctiluca into emitting light. Thus, by obtaining a clear picture of the path of the sound waves in water, one automatically has an exact picture of the light pattern resulting from the sound.

For the purposes of mathematical analysis it is often convenient to view the whole as a sum of many small parts. In this way a line can be represented as the sum of an infinite number of points, or a curve can be composed from any number of connected straight lines. In accordance with this method, we will substitute a "chopped up" series of sound impulses for a continuously rotating and transmitting sound beam.

Imagine a source of sound waves that will transmit the sound in a straight beam. A practical example of this would be a highly directional loudspeaker. Extremely directional "coherent" underwater sound sources that spread out only a few feet per hundred feet have been developed and put to use in various military applications. Now, immerse this speaker in water, and begin to rotate it slowly in a clockwise

direction. Instead of transmitting a steady beam of sound, let us make the speaker emit a "beep" once per second. And finally, let us assume that the speaker rotates at $2\frac{1}{2}$ RPM, which is equivalent to 15 degrees of arc per second.

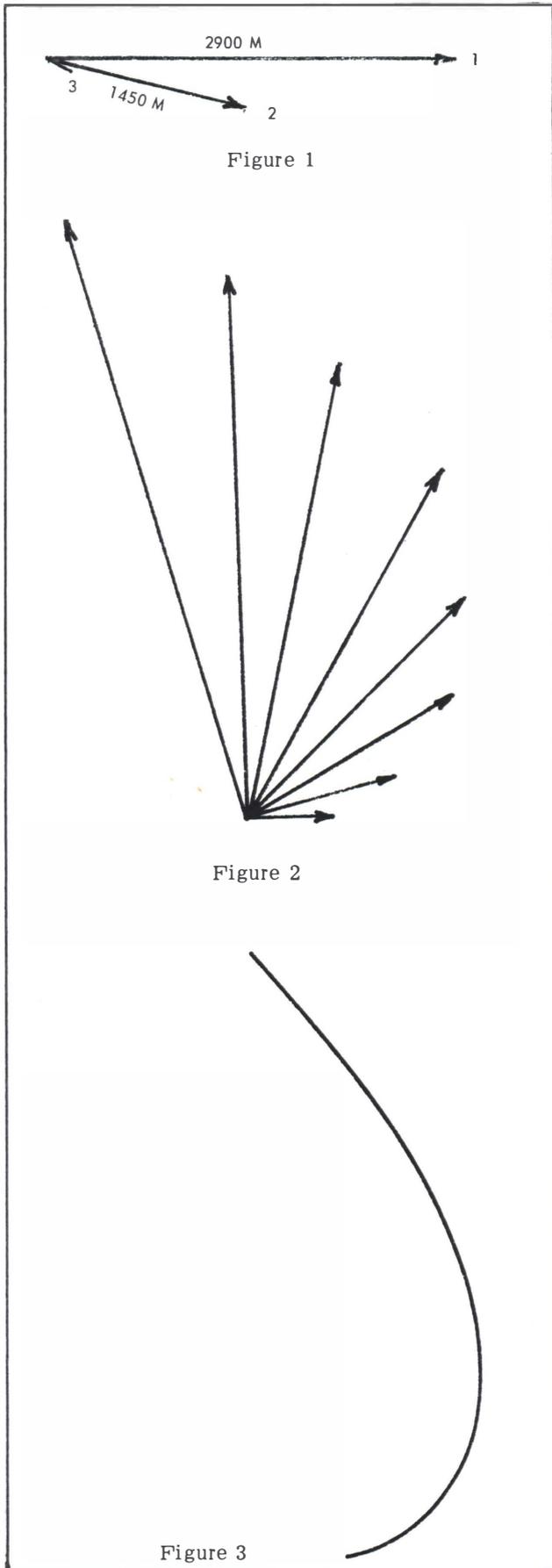
Thus, our speaker is rotating at a steady 15 degrees per second and sending out a very short acoustical burst once per second. At the end of one second the beep will have travelled 1450 meters (4800 feet) through the water, and the speaker is just about ready to emit the second beep. At the end of two seconds the first beep has travelled 1450×2 or 2900 meters, the second beep has travelled 1450 meters; and the third beep is about to be sent. Figure 1 is a graphical representation of the paths taken by the sound impulses or "beeps". Note that while each beep is radiated from the speaker at a steady rate, there is an angular difference of 15 degrees between the paths taken by each successive beep.

Observe the points of the arrows in Figure 1. The arrow-points show the position of the sound impulses that serve to excite the Noctiluca. Each arrowhead is a particle of vibrating water. If the particle of water contains Noctiluca, it will appear as a pinpoint of light. Figure 2 shows a number of arrows formed as the machine beeps through 90 degrees of rotation, or six seconds of elapsed time. The arrowheads can be viewed as the positions of the beeps or points of light.

Figure 3 is formed by connecting the arrowheads with a smooth curve. Drawing this smooth curve is equivalent to replacing the one-per-second beeps with a continuous sound beam. Thus, Figure 3 is the path, and the only path, described by sound waves emanating from a rotating source in water. This curve is a special form of spiral that makes precisely the same pattern displayed by the water spraying from a lawn sprinkler or the sparks from a catherine wheel fireworks device. In certain respects it is similar to oceanic or atmospheric vortexes. It is obvious that this configuration has a very pronounced curvature. When two reciprocal lines are viewed, the general shape is definitely similar to the letter "S" — i.e. twisting, or snakelike. But the curve is not that of a sine wave. Many observers have described the radials as being "sinusoidal" in shape, but it is clear now that they were using the term in the more general sense of curving or undulating rather than as a precisely described trigonometric sine wave.

The actual shape of the spiral formed by the rotating sound source is curved much less than Figure 3 would indicate. I have drawn that curve with a deliberate distortion of scale in order to emphasize the general shape of the spiral. The shape of any spiral formed in this manner can be inferred from the ratio of the velocity of the impulse (V) to the rotational velocity of the source (W). Where the ratio of V to W is great, the curvature will be small; and vice-versa. Thus, a rotating beam of light will show no apprecia-

* A protozoan that generates light on any physical stimulus.



ble curvature because the speed of light is so enormous. At the other end of the scale, the curvature of a rotating garden spray is very great because the velocity of the water is probably on the order of 10 feet per second, as compared with the speed of light which is $186,000 \times 5280$ feet per second.

Varying the rotational speed of the source will also alter the shape of the spiral, and once again this is in agreement with the garden sprinkler analogy. If the sprinkler is made to rotate more slowly, the jets simply spray out in straight lines. The practical application of this theory to the lightwheel phenomenon serves to explain some of the disparities in the reports of the shape of the wheels, for observers have at times seen the lines as straight shafts and at other times as curving beams. In short, the beams will appear curved when the device is rotating, and conversely, they will "flatten out" when the device slows its rotation or stops altogether. The distance of the observer from the center of the phenomenon is also a factor. If one observes only the outer extremities of the beams, they will always appear to be straight lines. But if one has a view of the entire length of a beam, a curvature will appear. Some ships encountering the submarine lightwheels have sailed directly over the center, and they have reported a very pronounced curvature near the center. All of this is perfectly consistent with our analysis and the graphical representation of Figure 3.

Now we come to two questions that would seem to elude a precise answer. How many radials do the lightwheels have? How rapidly do the wheels rotate? Here it gets a bit sticky because we have such sketchy data from the mariners who have encountered the lightwheels. Until we get a good set of aerial photos of a lightwheel, or until one of these seamen comes forward with much more detailed information, we will have to resort to some educated guesswork. The problem is that the beams of sound must spread out quite a bit as they move through the water. Even a laser light beam one thousandth of an inch in diameter on the earth's surface expands to an area of several hundred feet when it is focused on the moon. This results from innumerable collisions with air and dust particles on the way. So it must be assumed that even a very good "coherent" sound source will expand considerably over a distance of six or seven miles. Without the spreading of the beams one could calculate the number of beams by the observed ratio of the width of the beam to the width of the dark area as the beams sweep past the ship. In one particularly well reported incident this ratio was given as 25 feet for the light beam and 100 feet for the intervening blank space. These figures (assuming the beams to be symmetrically placed) mean that there is one beam placed on every fifth degree of arc around the circumference of the device, for a total of 72 individual beams. But other reports give somewhat different width ratios, all the way up to a one-to-one ratio of widths. I believe this disparity is due to the spreading of the

sound beams as they travel outward from the source. All that we can say for sure at this point is that there are no more than 72 individual radials. For reasons that are too involved to go into here I believe that the true figure is close to 72 separate beams.

We run into the same problem calculating the rotational speed of the lightwheels. Observers have often stated that the beams crossed at a rate of two or three per second. Assuming 72 beams, this would give a rotation of $1 \frac{2}{3}$ and $2 \frac{1}{2}$ RPM, respectively.

The size of the lightwheels is another problem. They ought to vary with the power of the sound source and with the number of Noctiluca present. Here again the observations seem imprecise. One report has the lines extending to the horizon or "about 3000 feet long". This observation was made aboard a freighter,

and assuming the point of observation to be about 25 feet above the waterline, the horizon would in fact be located 6.15 miles away! The size of the generating device, on the other hand, seems to be 200 to 300 feet in diameter, and this figure is more readily believed because the observers literally sailed directly over the machines.

And I definitely plunk for machines rather than animals. Dr. Minto's suggestion that mating whales might be the sound source is ingenious but does not seem to me to fit all the facts at our disposal. It is true that a variety of animals use either radar or sonar, emitting regular "beeps", but that even mating whales would rotate (while remaining stationary) with the regularity required to produce the lightwheels as described by competent observers, I doubt very much.

IV. CHEMISTRY

THE "RUSTLESS" IRON PILLAR AT DELHI

In our October, 1971, issue we included an article on the "rustless" iron pillar at Delhi, India, a standard item in fortune books. This dealt with the findings of one G. Wranglen of the Royal Institute of Technology in Stockholm, as summarized in the New Scientist. We have great respect for this journal but are sorry to say that in this case, their precis was not as good as it might have been. We now have (thanks to our members) three copies of his original article in the Collection of Czechoslovak Chemical Communications (vol. 36, p. 625), and Mr. Wranglen would seem to know what he is talking about—he works for the Department of Applied Electrochemistry and Corrosion Science.

That part of the pillar which is below ground is covered by a rust layer more than 1 cm thick, with corrosion pits up to 10 cm (4 in.) deep. Wranglen therefore concludes that climate, rather than the composition of the iron, is the primary cause of the good preservation of the pillar aboveground. He goes on to say:

"Immediately above the surrounding platform, the surface of the pillar is very rough, apparently due to defects in the forge-welding, which seem to have been made worse by corrosion, resulting in deep pits. A band of the circumference of the pillar at a height between 1 and 1.5 m(eters) above the stone platform is very bright, as if polished. The latter is due to the custom of visitors to stand with their backs towards the pillar, trying to clasp their hands around it 'for luck'. The whole pillar is covered by an oxide film of metallic lustre but varying colour (black-blue-brown). According to magnetic measurements, the oxide film on the bright, polished section is less than 50 μm ,* immediately above 500-600 μm and higher up thinner again. It should also be noticed that if the

oxide film is scraped off on some spot, the exposed iron starts to rust as usual. After a week or so a normal rust spot is observed, which, however, is gradually converted to a darker oxide. After a few years the newly formed oxide cannot be distinguished from the main oxide of the pillar. This shows that the good state of preservation of the pillar is due to a protective film of corrosion products, formed also in present-day Delhi climate, and not to some inherent slag or oxide coating or some surface treatment carried out during the early history of the pillar, as has occasionally been suggested. Such a coating would certainly have been damaged and made ineffective, at least locally, in the course of the ages."

J. C. Hudson carried out exposure tests with carbon steel plates at various locations, and Wranglen reproduces part of a table showing the results. Plates exposed at Khartoum, a rural, desert-like climate, lost 2 μm in thickness per year; this being the smallest loss found, it was assigned a corrosion rate of 1. At Frodingham, England, the thickness loss was 200 μm per year, with a relative corrosion rate of 100. At Delhi the respective figures were 5 and 3. However, Wranglen notes that the tests at Delhi ran only one year, while those at other sites lasted ten years, and adds "This means that the value for Delhi is, relatively, too high, since the rate of rusting in slightly corrosive climates follows a parabolic [curve] rather than a linear function".

The upshot of all this is that one should not become too excited about the non-rusting pillar at Delhi. However, some other interesting points have cropped up 'en route'. Wranglen points out that very old iron, deriving from Antiquity or the Middle Ages, in some cases has obviously rusted much less quickly than the best of modern steel but that this is, in

* Millimicron, i.e. the millionth part of a millimeter.

fact, a case of "survival of the fittest". He quotes from a book entitled Metallographia or an History of Metals by J. Webster, published in London in 1671,

"Lastly, as to this point I shall onely mind the Worker in this metal of a passage in Diodorus Siculus, an ancient Author, who tells us: That the Celtiberians did thus prepare Iron to make their weapons of War of. For they hiding Iron plates in the earth, did suffer them to be there so long, until the weaker part of the Iron wasted, and the stronger remained. Then of that they made Swords, and other Arms for the use of the War. To these, thus made, all things or Arms would yield, that neither shield nor helmet, nor any other Armour could resist them".

In other words, they got rid of all the brittle, inferior bits of iron and used the relatively indestructible leftovers.

Perhaps even more interesting is information received from Ralph Izzard who spent some time in India and often visited the pillar at Delhi —it was a favourite picnic spot. He writes as follows:

"In my opinion the origin of the Pillar is to be found in Bihar (a Province of which Patna is the capital). The whole of southern Bihar is one vast forest peopled by bow and arrow aboriginal tribes. In 1963 I spent some months happily with them, filming and hunting. The tragedy is that beneath the forest is one solid mass of iron ore. Thus, at Jamshedpur, on the forest fringe, stands the colossal Tata Iron and Steel Works. . . . Research scientists at Tata's have done much work concerning the Ashoka Pillar. . . . As I recall, [their reports] definitely state that the Pillar was made in Bihar and as proof of the fact it is pointed out that in some parts the aboriginals made not only their own iron, but also their own steel out of clay forges. Steel-making has died out in Bihar but it still definitely continues in Orissa, the wilder province to the south, where I have actually seen it being done by aboriginals in the clay forges in the depths of the forests. The Tata boys know all about this too."

Benighted natives indeed!

V. ASTRONOMY

THE MOONS OF MARS

In recent years and in certain circles, much has been made of the mention by Jonathan Swift (1667-1745) of two moons of Mars (going around in opposite directions) in one of his books, the question being: How on earth (or off it) did he or could he have known of them, the usual answer being that he must have received his information from some type of OINT (Other INTelligencies, or extraterrestrials, if you wish). The actual answer to that apparently unanswerable question is much more mundane. In 1610 Johannes Kepler predicted that Mars would be found to have two moons.

Kepler was, of course, one of the very great astronomers and did not simply guess that Mars would have two moons but based his prediction on observations he had made. The moons were not 'discovered' until about 200 years later, but there is little if any doubt that Swift was familiar with Kepler's works. Swift took a degree at Trinity College in Dublin (though he is said to have obtained it only by "special grace") and "natural philosophy" was a standard part of the curriculum of all universities at his time. (Oddly enough, in most cases biology was taught only to medical students!)

There has also been much speculation that these moons would prove to be artificial satellites —i.e. space stations— and one Russian scientist stuck his neck out rather far in this direction. Photos sent back by Mars-probe satellites show both to be nothing more than hunks of rock. We cannot at the moment find the quotation and therefore must paraphrase, but

Carl Sagan, one of the chief exponents of the possibility of extraterrestrial life —though not necessarily of Little Green Men on Mars— noted that he didn't claim to know all possible types of satellites but that he was willing to state categorically that no artificial satellite ever looked like that!

BIORHYTHMS: PLANETS: AND ASTROLOGERS

In our January 1972 issue we included a short piece on "Planet X", estimated to be three times the size of Saturn and believed to be orbiting the sun far beyond Pluto. Initial reports by AP stated that its existence was suspected because of perturbations in the orbit of Neptune, something we should have questioned at the time. A report in the Los Angeles Times of the 29th April 1972 states that the 'new' planet was suspected because of perturbations in the orbits of three comets — Halley's, Olbers', and Pons-Brooks', which never arrive quite on schedule. (However, George Getze, science writer for the L. A. Times, goes on to say that J. L. Brady (of the University of California's Lawrence Radiation Laboratory), who predicted the planet, said that "from Earth, Planet X would be located in the constellation Casseiopeia, on the border of the Milky Way". This sounds completely balmy. If it is a planet of our sun, it must revolve around that body and could not always be even "in the direction of" Casseiopeia — aside from the fact that Casseiopeia is a good many light years away!) No "twiddles" have ever been noted in Pluto's orbit, but only one quarter of that orbit

(according to George Getze, at least) is known in any case: and there are astronomers who doubt that Pluto is actually a planet. However, what is known of its orbit does not contradict the possibility of another planet beyond it.

We noted in our original article that this would pose a problem for the astrologers, but they would seem to be extremely agile and have already announced that they "expected" Vulcan (not yet proved to exist either!) since they "need" a tenth planet! Presumably they will now 'need' an eleventh. The astrologers have also been quick to latch onto some recent findings of the biologists in particular; namely, that the relative positions of planets, the moon, and such things as sunspot cycles do influence animal (including human) behaviour. It has long been known that crime increases at the full moon — ditto, difficulties in mental institutions; but much more subtle effects have been detected in the last decade.

Scientists at the Sandia Laboratories in Albuquerque, New Mexico, have computerized records of accidents at that laboratory for periods of up to 20 years, and found definite correlations with phases of the moon, the sun's rotation, variations in the magnetic field, and barometric pressure. Though the actual mechanism is unknown, the facts have been put to use by at least one company, the Ohmi Railway Co. of Japan, which computed the "biorhythm" of each of its 500 drivers and now — when an 'off day' is expected for an individual driver — hands him a card reminding him to be extra careful that day. They have thus cut their accident rate by 50% in one year, and the rate has continued downward since then!

Superficially, this might seem to bear out the contentions of the astrologers; but they have not really done their homework in this case.

Some time back we reviewed a splendid book entitled The Scientific Basis of Astrology by Michel Gauguelin, a French scientist who set out simply to disprove astrology and in the course of his work discovered some most extraordinary 'coincidences'. Using the exact time of birth of successful professional people, Gauguelin — who is basically a statistician, now at the Psychophysiological Laboratory at Strasbourg University — and his wife found evidence that "an inherited temperament causes the individual to be sensitive to the rise and culmination of the planets and that these provoke the birth at one particular hour rather than at another" [emphasis ours]. This is, of course, the exact reverse of the astrologers' point of view; but it has been checked

by various statisticians and astronomers who have concurred with the Gauguelins' findings and who have been unable to find any "internal" factor to explain the "success" of certain individuals. Also, the Gauguelins studied over 30,000 deliveries of children and their parents to back up their findings, whereas two highly regarded astrologers said they had 'proved' their contentions (which were wrong) on the basis of only 200 and 2000 cases, respectively.

The most interesting fact reported by the Gauguelins is included in an article in Cycles* for May 1972, and we quote:

"The Gauguelins concluded from their studies that 'there is a hereditary tendency for children to be born under similar cosmic conditions as those that prevailed at the birth of their parents.' It involves the closest and heaviest bodies of the solar system — the moon, Venus, Mars, Jupiter, and Saturn. The statistical correlation decreases as the distance of the planets from the earth increases, and the effect is not found for the more distant planets, Uranus, Neptune, and Pluto. In addition, there is no correlation for Mercury, the smallest planet of the solar system."

The Gauguelins have also found that there is a definite relationship between this "genetic sensitivity" to planetary cycles, and solar activity — the greater the solar activity, the stronger the "sensitivity". But, all correlations break down when the delivery is not natural — i.e. when a caesarian section is performed or labour is induced, either for medical reasons or for the convenience of the doctor.

Doubtless, none of this will do anything except infuriate the astrologers, but we hope that even they will consider the logic involved. Their belief is that some sort of "rays" emanate from the planets and

*Cycles is published by the Foundation for the Study of Cycles, 124 South Highland Avenue, Pittsburgh, PA 15206, and is a most important publication. The Foundation, which is affiliated with the University of Pittsburgh, is the world's leading center for research on cycles — all the way from sunspots to the price of pig iron. Since many forteen phenomena exhibit cyclic behaviour, many of our members may be interested in the Foundation's work. Individual memberships are \$15 per year, prorated from January 1. For more information, write the address given above.

MODERN CONVENIENCES?

From Adhesives Age, January 1972: "Batch after batch of French baker Maurice Rivat's dough had been spoiled by breaks in the electrical service. When it happened again recently, he loaded up 330 pounds of the dough, went to the offices of the government-run electrical firm and poured it down the stairway."

influence mankind, but they ignore the fact that the planets are not equidistant from Earth — though they seem, if I interpret their statements correctly, to insist that each planet has equal ‘power’ within its own sphere or sector, or whatever. You cannot have it both ways, and the Gauguélins have found that some planets (Uranus, Neptune, Pluto, and Mercury) have no influence at all. This is reasonable, considering their distance from Earth. Though scientists are coming more and more to accept the idea that our physical ‘laws’ may not hold true in distant parts of

our universe (let alone other universes), Pluto is a planet and relatively very close to us, and it is not likely that the ‘laws’ change at that point. Hence, “emanations” from Pluto ought to be virtually non-existent when compared to those from, say, Mars.

Lastly, we are tickled by our member No. 1121 who, having had training in astronomy, checked on the positions of the planets and the constellations in evidence at the time of his birth and discovered that the constellation Hercules was the only major one around. Astrologers, however, call him a Leo!

VI. GEOLOGY

TERRESTRIAL METEORITE CRATERS

A curiously ambiguous statement turned up in a recent issue of Science Newsletter. This prefaced a straight account of some intensive investigations by one Dr. D. J. Milton of the U.S. Geological Survey and nine other U.S. and Australian researchers on “The result of geologic, seismic, gravity and magnetic surveys of a cryptoexplosion crater at Gosses Bluff, Australia”. This preface read: “Both Mars and the moon are dotted with surface craters, mostly created by impact. Some scientists believe the terrestrial craters that most closely resemble lunar and Martian craters are a class called cryptoexplosion structures. There are some 60 such craters known and they occur in a wide variety of geologic environments (sic), but their origin is debated”. So let us so debate.

Has it not appeared strange to you that both the moon and Mars should be pockmarked while we, who must have been in the same line of fire as it were, apparently are not? Probably not; but there is at least one good reason or explanation, and this is that actually we are, but the ‘marks’ are crypto or hidden because this is, first, a “water planet” and, second, it is geologically speaking “viable”, meaning that (as per the dictionaries) it is capable of growing and developing. Further, this our planet appears to have been in a state of tectonic turmoil throughout its history so that those portions of it exposed to the atmosphere have been literally churned up ever since it originally coagulated, and this churning is still going on today; and this is not caused only by the grinding movements of the great continental plates but is due also to massive deposition of sediments under water that cause the rocks below to sag and be compressed. Then, there is continuous erosion almost all over, that literally washes away hills and mountains. Thus, even an enormous impact crater may be totally obliterated in, geologically speaking, practically no time at all. As this planet is almost three-quarters covered with water, a like percentage of meteor strikes would simply have caused unbelievable tsunamis (or ‘tidal waves’) but not left any other trace, since they vaporize — see Dietz, Scienti-

fic American, Aug. 1961; and Enever, Analog, ca. 1966.

Nonetheless, we are subjected to an everlasting overall rain of meteorites. The vast majority of these are, of course, minute particles by the time they reach the ground (or the sea surface), but still 100 metric tons of this solid matter gets through the atmosphere daily [incidentally, this makes 365 x 100 x 4-billion, or 146 trillion tons of matter we have collected since this earth was stabilized], while every now and then a really big boy gets through, causing craters like the Barringer in Arizona and the two hundred mile mess in eastern Siberia in 1947. (Lucky for us, incidentally, that we haven’t had one of these land in an ocean recently because, according to Dietz, the wave from even a modest one might be 20,000 feet high by the time it hit the nearest continental shore.)

Despite the continual obliteration of impact craters on our land surface, a lot more than sixty buried ones have now been discovered from careful examination of comparatively low altitude aerial surveys. They are littered all across Canada for instance, the buried ones coming to light due to the curious crescentic shapes of some lakes and the differences of vegetation that grows in and around a circle containing these lakes. (Also take a close look at the eastern shoreline of Hudson Bay!) Some of these ancient craters are hundreds of feet below the present surface but the mineralogical pattern persists. The truth is, we have been peppered just as massively as the moon and Mars throughout our planet’s history. How could we have avoided this since we have always swept around roughly the same belt like little brooms, mopping up the lesser debris in that belt or that which comes into it, or might be passing through it. The really unexplained fact is how life of any sort has managed to survive this bombardment at all, and especially the results of those large bodies, three quarters of which must have landed in the seas and oceans. Do we need to look any further for the causes of mass extinctions of life or what geologists call ‘unconformities’, meaning overall surfaces of all strata that seem suddenly to have been swept and

scraped clean, and then new ones laid down upon them?

ON BIG THINGS

by Ivan T. Sanderson.

I have asked for a little space to submit a brief item under my name as being a topic which has always intrigued me. This is the size of things. There is an old wives' tale to the effect that people, and especially men, of small stature have a penchant for large things. I have been exactly six foot since the age of 16; but, if the above is true, I should have been born a midget because I have always sought the largest of all things — from cars to bacteria.

This prompted me at a very early age to enquire into the real size of things. Fortunately, one of my teachers was Professor (now Sir) Julian Huxley; and one Dr. Albert Einstein lectured at my Alma Mater — and handed me my scroll, incidentally! My primary interest being biological, this was the department that I first latched onto. The results were very startling, and have affected my whole life. Here they are; neatly laid out for you.

However, having also obtained a degree in Geology, which in those days encompassed crystallography, mineralogy, and petrology, as well as the more standard subjects, like tectonics, stratigraphy, volcanology, and so forth, I have always been equally intrigued with the size of inanimate objects. Perhaps it was a chip off one of the apices of a diamond crystal that measured 21 feet (the chip, that is) that first startled me; or maybe a gold-leaf-covered copy of the largest gold nugget ever then found, that lay in a lighted glass case at the entrance to the mineral gallery of the British Museum. It was about three foot long and, balancing out the lumps and bumps, some eight inches in diameter. (I once read of a crystal of



Largest piece of almost pure silver ever found.
(From the National Enquirer)

tourmaline that was 135 feet tall!) In our issue of October 1971 we described an island off the coast of Labrador, a mile long, that is to all intents and purposes one vast crystal. Now comes this hunk of silver ore 4 feet long, and so pure that the 1,620 lb. nugget will yield 1,140 lbs. of silver.

This is not a single "crystal" but it is one heck of a lump of silver. One could presumably get larger pieces out of mines by pursuing veins — at least if, for instance, the famous Los Alamos mine in Mexico were opened up again; but a hunk of this purity is actually fabulous. The largest gemstones found, before they were cut up, are also in some cases almost unbelievable.

THE SIZE OF THINGS

Each rung of the 'ladder' shows a tenfold increase.

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38	Largest Life-Form	Giant Redwood Tree
37	Largest Animal	Female Blue Whale, Largest Fish (Whale Shark) Largest Land Animal (dinosaurs)
36		Largest Land Mammal (Paluchitherium), Shellfish
35		Largest Bird (Moa), Crocodile, Horse
34	Average Man	Largest Flying Bird, Clam, Crat
33		Average Cat, largest Frog and Worm.
32		Average Pigeon and Rat.
31		Mouse, largest Insect and Spider.
30		Smallest Mammal (Shrew) and Bird (Humming-Bird)
29		Smallest Fish, Average Bee.
28	Average Animal	House-FLY, Smallest Backboned Animal (a Frog).
27	Mean of Lifesize	(smallest Echinoderm)
26		Flea, Water-Flea (Daphnia).
25		Smallest Shellfish.
24		Smallest Insect, The Human Ovum (eggcell)
23		Smallest Worm.
22		----- (one quarter) -----
21		Amoeba
20		White blood Corpuscule,
19	Smallest Animal	Red blood Corpuscule, Human Sperm, Monas
18		Anthrax (disease) Bacillus
17		Tuberculosis, Disease Cocci.
16		Round Bacteria
15		Larger Viruses
14	Smallest Life-Form	Ultra-filterable Viruses
13		
12		
11		
10		
9		
8	Water Molecule	
7	Hydrogen Atom	
6		
5		
4		
3		
2		
1	AN ELECTRON	

VII. BIOLOGY

THUNDERBIRDS AGAIN — AND AGAIN

This keeps cropping up again and again. It is, of course, one of the "greats" that never fail to spark the public, like "The Abominable Snowmen", the "Ringing Rocks", the misnamed "Bermuda Triangle", the Loch Ness "Monsters", Sea "Serpents", and now some new ones like the Frog "Wars" (wrong again), and so forth. And incidentally, "The Jersey Devil" has turned up again. But that's a frightfully complicated story and comes in at least three parts, one of which is definitely solved. But this Thunderbird bit just goes on and on:

It all began with the Amerindians and was rife all over this continent when the whiteman first hit it, and from both east and west. The tradition had acquired a certain mythological content by that time, but was otherwise a perfectly straightforward statement of zoological fact by said Amerinds; yet nobody, except the first Spaniards in the West, would even listen. This annoyed the indigenous peoples not a little because it not only impugned their veracity but insulted both their traditions and, in some cases, their religious precepts. The facts as first given by and which have since been repeated year after year and even by "palefaces", and right up to commercial and private airplane pilots, are as follows.

We have birds that we call Turkey-Vultures or Turkey-Buzzards. Both these names are misnomers because these are not true vultures, but belong to a New World family of birds known as the Cathartidae. This includes the great Condors. (They are not "Buzzards" either, as those are kinds of Hawks.) All

that the Amerinds said was that they had a truly giant Condor that lived on mountain tops and was primarily nocturnal; and they had tens of thousands of wood and stone sculpts of this bird on their totem-poles and other monuments out west. This bird, they affirmed, had a wingspan equivalent to six men with outstretched arms, finger tips to finger tips, making about 30 to 36 feet.

The early colonists, trappers, and hunters didn't see anything particularly bizarre or impossible in this. In the 16th, 17th, and even the 18th centuries the average person was still struggling out of the dark ages, and popular belief was still rife with giants and monsters. Besides, the people who founded what are now Canada, the U.S., and Mexico, were not exactly intellectuals; while it was comparatively very late before any true scientists turned up — and they, as often as not, immediately got clobbered by the merchants and other executives. Birds with a 36-foot wingspan in Pennsylvania would have shaken up even old Ben Franklin. Kites indeed!

The two most amazing cases I know of are a "sighting" made by a lone private flier while flying up the Hudson River Valley in May 1961, at midday in very clear weather, when there were other small planes in the vicinity. At first he thought it was another plane with a somewhat greater wingspan than his, but it deliberately made a pass at him and then chased him. He circled to inspect it as he was puzzled as to how he had missed it; and then it began to "flap" as he approached it, and he saw to his amazement that it was an enormous bird. The case should be read in full, along with the other, as the stories

LOVES OF A GORILLA

Adhesives Age (October 1971) reports that "When the gorillas at the Frankfurt Zoo became lethargic and apathetic, a television was installed in their cage as an antidote to boredom. The experiment proved that the old movie King Kong wasn't just a flight of Hollywood fancy: gorillas do love pretty girls. Keepers at the German zoo report that the television gave the gorillas a new lease on life. Gorilla TV favorites, in order of preference: love scenes, weight lifting, and auto racing."

In fact, the Philadelphia Zoo found this out by accident a number of years ago when they installed a TV set in the keepers' quarters in the old "Monkey House". The keepers soon experienced that peculiar feeling one gets when being stared at from behind, and discovered that "Bamboo", then the oldest gorilla in captivity (in the U.S. at least), was watching too. If memory serves correctly, he also liked pretty girls best.

A REQUEST FOR HELP

A letter to the Scottish Field of March 1972 notes that "At the University of Newcastle-upon-Tyne work is being carried out on the structure of bird skulls. I am anxious to find more skulls of the crow family, that is: rook, carrion and hooded crow, jackdaw, magpie, jay, etc. I would be most grateful if anyone finding dead birds of these species could remove and send me the heads. If the heads are still feathered these are best sent sealed in one or more polythene bags in a crushproof box. I shall be glad to refund postage. (Signed) T. R. Birkhead, Department of Zoology, University of Newcastle-upon-Tyne, Newcastle, NW1 7RU, England." Specimens should be labelled with date and place of origin, i.e. 5 miles east of Armpit, Nebraska (don't look that up in a gazetteer; it is one of Ivan Sanderson's 'concoctions'); and the package should be labelled "Scientific Specimen".

were told in an article by Jack Pearl in the May, 1963 issue of Saga Magazine.

Shortly after noon on November the 23rd, 1962, a United Airlines Viscount was cleared to land at the Washington, D. C., airport, but suddenly vanished off the radar screen. It crashed and exploded in a wood in Maryland. The Civil Aeronautics Board investigators found both parts of the 35-foot-wide tail stabilizers half a mile behind the rest of the plane, and both were matted with blood and feathers of "an unidentified bird". There was a lot of the usual rubbish talked about swans and geese but not even a flock of these could tear off the tail assembly of such a plane. Furthermore, an ex-pilot, then an aeronautical engineer, pointed out that it would be impossible for "a" bird or birds "to get through the arc of props and hit the tail". Finally, one official report stated that there were enormous slashes or gouges right through the thick, tough metal of the tail assembly.

The most extraordinary of all Thunderbird accounts, however, forms a mystery within a mystery; and is the one we have been yammering about in issue after issue; namely, the photograph of one said (and by everybody, and for over 80 years at that, we should add) to have been killed in 1886, brought into a place called Tombstone, Arizona, strung up with outstretched wings against a barn, with six men with outstretched arms fingertip to fingertip, to show its size. The story further invariably asserts that a photograph of this was published in the local newspapers, named The Epitaph. The ridiculous — and almost fortean thing — is that, while hundreds of people we know personally have seen this photograph, nobody can give us so much as a reference to any of the dozens of publications in which it has been reproduced; and up to only a few years ago. Furthermore, the editor of the Epitaph has become more than a little incensed by the constant stream of requests for a copy. He has searched his "morgue" back to 1884 and can find not one single mention of it.

Mary and Curt Fuller, editor and publisher of Fate Magazine, when first asked about this said at once that of course they knew the picture, and that they had even published it in an early issue. Both they and ourselves have complete sets of this magazine, and both of us went through all of them, page by page — but no such picture! We had a copy once but sent it off with two of our members on a field trip to Coudersport, in northern Pennsylvania, to look into a whole string of Thunderbird reports from that area. The photo was not returned to our files, and neither of our

members (one who had moved to Boston, the other from Philadelphia) can find it in their files. The clincher on this one came when, five years later, another member who had never heard of the first two, met a game warden who told him that two young men camping out in a special-body, green station wagon (ours!) had shown him this photo!!

Another of our members we could "kill". After reading our forlorn appeals, month after month, for this photo, he solemnly wrote (this year) saying that he had seen it a couple of months before but had forgotten where! And he is a profound fortean too, and a very conscientious bibliographical researcher.

There just might be a clue to all this ridiculous "jazz". There was once a Tombstone in Nevada, as well as in Arizona. It does not appear in any gazetteer any more but I think I drove by it in 1959. It has probably long since become a ghost town; but whether it ever had a newspaper who is now to tell; but that any such newspaper also be called the Epitaph is just too much to ask.*

But then still another thing comes up to completely confuse the issue; and here we must abbreviate atrociously. According to several articles, the latest being in Old West, Vol. 6, No. 4, of Summer 1970, in a column entitled "Letter Rip!", a Mr. Harry F. McClure, of 1424 1/2 North El Paso, Colorado Springs, gave as nearly firsthand details of what appears to be a quite separate "monster" case, also seen near Tombstone, Arizona in 1890. The writer once saw, when a kid, the two ranchers concerned in this case but he never met them, and he has forgotten their names as of over 60 years ago. This story as published, and known all over the area, appears to be of quite a different animal, without feathers and having a long pointed snout, and membranous, batlike wings. The ranchers shot at it on the ground with 30-30 rifles but it was beyond range and their horses were so hysterical that they could not release them. This animal was not killed, brought to town, or photographed.

Once again, can't SOMEBODY give us at least a reference to any publication in which the giant bird photograph has been reproduced in the last 80 years? (N.B. The National Geographic, alleged to contain a reproduction of the photo, has been checked, with negative results so far.)

*Possibly, though "epitaph" is almost a 'natural' for a town named Tombstone. MLF.

VERY ODD INDEED

A UPI dispatch for Bournemouth, England states that "Cyril Kent drove into his local gasoline station and told mechanics he had a strange squeak in the car, and asked if they could fix it. The mechanics put the car on a hydraulic lift and found a little white hen sitting on the back axle. 'I don't even live near a farm', Kent said."

VIII. ANTHROPOLOGY

A RATHER "DISGUSTING" CASE

by Ivan T. Sanderson.

This modest uproar began in May, 1971, when a gentleman by the name of Mr. Walter Elliott, of Quincy, Mass., a carpenter by trade but whose hobby for many years had been collecting Amerindian and other artefacts washed up on the New England beaches, noticed, while having an al fresco lunch on Popham Beach, Maine, on one of his days off, three boulders sticking out of a bank that had on them inscriptions and what looked like a map of that immediate area's shore line. On washing them off he knew enough to spot that they at least looked like Norse runes.

The reporting on this story has been atrocious; and the contradictions in over twenty accounts from different newspapers, and some semi-scientific journals, have to be read to be believed. Also, there has been a singularly unpleasant implication from the first that Mr. Elliott was — as almost all the press called him — a "beachcomber". Beachcombers were derelicts and are now virtually extinct except on a few tropical islands, but the connotation (almost a mystique) lingers on. Mr. Elliott is a very intelligent and well-read man, and he knew just how to go about getting his finds at least "looked at". At first, however, he failed; and one paper states that the mere attempt cost him over \$1000! He sent letters to over 50 experts at colleges, museums, and other institutions but received only 15 replies and no encouragement, and he once spent five hours just trying to get somebody to look at them at Harvard! He was so disgusted that he took the boulders back to Popham Beach and reburied them as near to the point where he had found them as he could. This is a sad commentary on the behaviour of our scientific establishment; but, from forty years of personal experience investigating such matters, it would appear to be the established rule of procedure. (Don't ever let an amateur upset the cart.)

However, in the meantime it appears that the only two real experts on not only runic scripts but the marvellous sort of "acrostics" written into them,

which was a highly skilled and specialized art, were allowed to inspect these stones. These were Dr. O. G. Landsverk, founder of the Landsverk Foundation of Glendale, California, and his associate, Mr. A. Monge. Dr. Landsverk, as subsequently reported in newspapers and other publications, while making very definite statements as to the authenticity of these runes, did not really say anything; and I quote: —

"Monge's solution to the code can only be described as fantastic in its historical connections and implications. This new development is really astounding. In view of these finds I now believe that the Vinland that existed in the early 12th Century was centered in the Popham-Popham Beach area."

But Mr. Monge came up with some very definitive renditions; namely, concerning one Bishop Henrikus, also called Eric Gnuþsson, who, he said, sailed in 1123 from Greenland to Vinland, being the Bishop of both areas. Apparently he died there the following year. His name is on all the church records and mentioned in several sagas. We understand that Landsverk and Monge will be publishing full descriptions of both the texts, the map, and a (fourth?) stone that allegedly bears a number of sort of depictions. No photograph of this last appears to have been published, while those of the three stones show (1) a map, (2) a long inscription in runic, and (3) simply a crude rune allegedly saying "Henrikus, Oct. 6, 1123". Were there four stones, or were the pictographs on the back of one of them?

Then comes the matter of dates. Are these, as given, an adjustment to our calendar? That used by the Nordmanni — i.e. the Norsk, Svensk, Dansk, and several subjugated peoples such as the West Coast Picts, some of the Irish, and the Normans — did not run on our calendar by any means. We are always suspicious of precise dates allegedly given on any ancient document, be it a Sumerian clay tablet or a 17th century will. Let us not forget the protest-marchers in 1752 yelling "Give us back our eleven days" (astrologers beware). Moreover, in this respect, no two reports of what Messrs. Landsverk and Monge are

 ARCHAEOLOGY

From Land to the West, by Geoffrey Ashe: "...evidence may already have been found, and gone unrecognised. All archaeological workers are specialists nowadays, and it would be interesting to ascertain how many authorities on Celtic antiquities have even looked at American antiquities, or vice versa. As Professor [John] Evans remarked to me, 'They would be afraid people would think they were cranks.' No doubt a justified fear, but what a pity!... I am not disputing the need to specialise; I am entering a plea for collaboration. It is perfectly possible that the vital clue is staring us in the face, only the proper expert has not yet been induced to stare back."

alleged to have said, agree. An excellent series on this whole, now somewhat "dreary", story started appearing in the Maine Times on the 3rd December 1971, under the byline of one Lynne Langley. She even got the Norse and "vikings" right, and with the right ships too! But the dates for Bishop Henrikus in this are all different!

To sum up for the benefit of those who may have been interested in, but became hopelessly confused about, this matter, as far as we can find out from reliable news sources — and we begin to wonder if there are any such anymore — Mr. Elliott helped to retrieve the stones that, being on State land were

State property, and was compensated to the extent of \$4500 for his help and his serious efforts to bring them to the attention of the appropriate authorities. But there are conflicting stories even as to this, and as to where the stones have finally been lodged.

But the really incredible thing to us is that people still bother to try and dispute the fact that the Norse were all over North America, and either down to or up to Oklahoma, starting about 1000 AD (our calendar). Some of the things said about Mr. Elliott's stones are so utterly puerile as to be laughable — and notably from Yale, which has got itself caught in the same trap, but from the other side.

AN APPEAL AND AN OFFER MOSTLY TO YOUNG PEOPLE

We desperately need one (or two) active young people, male or female, who are willing to learn the office routine, shoulder the drudgery of paper work, but who, at the same time, don't mind "getting their hands dirty". We are "working stiffs" here; and anybody joining us has to be prepared to turn their hands and efforts and brains to anything, from filing to tree-trimming or even dish-washing!

Point number 2: Said person has to be compatible.

The last points are these: (1) We cannot pay any salary, though "pocket money" sometimes crops up!; (2) we offer board and (good) keep; (3) there are two cars available, to be driven at your own risk; (4) time of day (or night) means nothing here; (5) you'll have

to work, but, while I "crack the whip", I'll never tel anybody to do anything; (6) you'll meet more people here in a year than the average person meets in a lifetime; (7) you'll be fully insured; and (8), for our part, we don't tolerate any "bloody nonsense" around here.

Would all of you members try to rustle up some volunteers, and let us know? The deal is two weeks, as the undersigned's house-guest, to look them over. But, "O-U-F—OUT", if we don't get along, or they behave in a manner of which I do not approve. And, please not to forget that this is my home, as well as my place of business.

Ivan T. Sanderson

The Trinity College (Cambridge) Annual Record for 1970 contains the following notice: "G. B. Blaker was last year reported as being dead, but is in fact still alive. The Editor apologizes for the mistake, which is particularly shocking because Mr. Blaker was also reported dead in 1945." He must lead an interesting life.

FOR PSYCHOLOGISTS ONLY

In response to the "Classic correspondence" in our January issue, we received a note from Member No. 1025 to the effect that when he was taking psychology at California State College (now University), Los Angeles, a classmate of his, on a midterm exam, defined "tabula rasa" as a venereal disease! He adds, "I believe the chap received half credit for originality!!"

For non-psychologists, "tabula rasa" means, literally, a "clear slate", the state the mind is alleged to be in at birth. (Lovely English, what?)

TRUTH IN ADVERTISING

The Foo Lung Ching Kee Co., in accordance with governmental regulations, labels one of their products as follows: "Rice Sticks (Net Wt.: 1 lb.). Ingredients: Rice." You can't be clearer than that. They also add the helpful advice that this is "a food prepared by cooking alone or with other food products".

CURRENT PURSUITS

RINGING ROCKS

A number of our members have visited or are planning to visit the Ringing Rocks sites and are reporting to us on their experiences. When a sufficient number are received, we will do what we can to present a résumé of their findings. In the meantime, anyone visiting these sites is asked to include in any report several specific items: date; any psychological or physical experiences which seem 'abnormal'; a rough estimate of the percentage of rocks that ring (we don't expect a census count!); weather conditions; any difficulties with cameras and/or light meters (please state what type of meter is used); any aberrations on the part of compasses if you have one with you; any unusual behaviour on the part of pets if these are taken along.

MECHANICAL DOWSING

About a dozen of our members have asked for and been sent instructions for experiments on mechanical dowsing. These experiments take time to set up, but we will report on the results, if any, in a future issue.

A CHAIN IN THE ROCK UP THE AMAZON

Our member who has notes on this moved recently and is still going through the appalling task of unpacking and getting settled. She has promised to send the information on as soon as she unearths it.

THUNDER BIRDS. See page 40.

ANDREW CROSSE'S ACARI

A number of members have written for information and are presumably doing something about that gentleman's experiments. We will have a report later, we hope.

CORRELATION BETWEEN NATURAL AND FORTEAN PHENOMENA

Member No. 52 has been put in touch with a number of members who have volunteered to help. It is unlikely that we will have a report on this for some time.

TIME ANOMALIES

This is, at the moment, one of our major interests. We will be grateful for any account relating to apparent "time travel", i.e. instances in which persons seem to have 'stepped' either backward or forward in time; or for accounts of any vehicle which arrives before or after it 'should' have.

ABSMERY

Two crews are set for very specific "expeditions" in search of a Sasquatch this summer. We give no further details here so as to give both a completely clear field in locations which we have voted "most likely to succeed."

CHARLES FORT'S NOTES

As many of our members will know, Charles Fort's original notes and clippings were given to the New York Public Library by Tiffany Thayer's widow some years ago. They were stored in shoe boxes—hardly the best containers in the world, but serviceable. The NYPL and all 'old-time' forteans have long wished that someone would catalogue them and, most important of all, microfilm them before they disintegrate. In 1965, Ivan T. Sanderson found a gentleman who lived opposite the main library building, was willing to undertake the work, and was qualified to do so. He died of a heart attack while arrangements were still being made, and that ended that for the time being.

Recently, one of our members volunteered to do the job; but, most regrettably and, in our opinion, quite illogically, the NYPL is only open from 10 to 6 on weekdays and is, for all practical purposes, closed on weekends!* How anyone is thus supposed to be able to use the Library is beyond us. (In our opinion, a great working library like this should open from 4 pm to 11 pm during the week and from 11 am to 11 pm on Saturdays and Sundays, when people could prosecute research without interfering with their work schedules, or earning their living.) Further, the NYPL is not permitted to send Fort's (or anyone else's) manuscripts to any branch library; they must be worked on at the main library. Currently they are stored at an Annex, but the NYPL will bring them over in batches if we can find someone to do the necessary work. The notes have, by the way, been removed from the shoe boxes and are now stored in card-catalogue files. The job will be a long and tedious one, but the NYPL will give every assistance possible since they are as eager as we are to see these properly preserved and catalogued.

If any of our members living in New York City is free from 9 to 5 and feels that he could take on this

* Rooms 108 and 315, only, are open from 10 am to 2 pm on Saturdays.

task, please call us. Your only reward will be the gratitude of all fortuneans, present and future, and the knowledge that you have contributed to the search for truth.

MEMBERS' FORUM

On the home front, Member No. 1072, who lives near our HQ, comes regularly to collect old newspapers and all glass jars and bottles for recycling. (We 'recycle' our own garbage in a compost heap.) Apart from the primary purpose of recycling, this also eases our trash disposal problem.

For those interested in Nikola Tesla, there is an article in the IEEE-Spectrum for June 1972. If you cannot find a copy locally, their address is 345 E. 47 St., New York 10017.

Member No. 354 would like to contact any members interested in putative extreme low frequency sonic or electromagnetic effects — specifically in connection with fortunean phenomena.

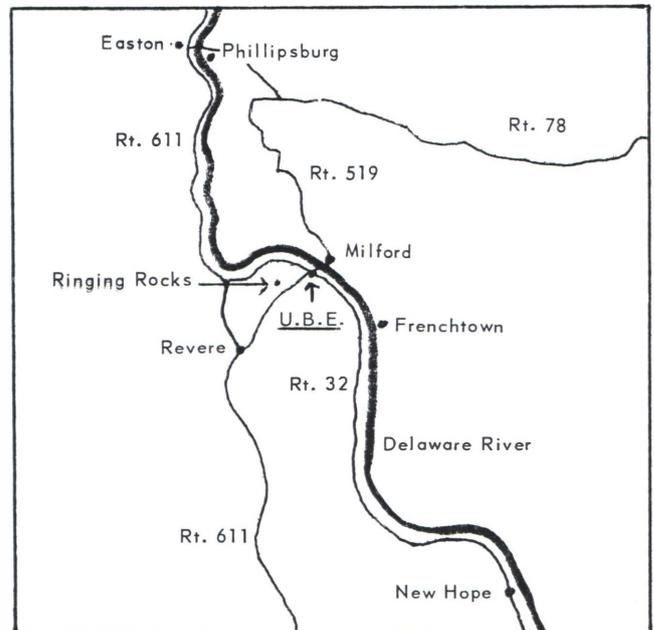
Member No. 1052 is interested in any information on or references to solar prominences which are so large that they escape from the sun and fly into space. He has received no help from any astronomical observatory!

If any of our readers has a copy of Trevor James' book They Live in the Sky and is willing to part with it, Member No. 1025 would like to have one. We will put the party of the first part in touch with the party of the second part.

Member No. 922 is interested in obtaining any clear photos of UFOs and in getting in touch with any members who would be willing to assist him with "information in general" — i.e. any inveterate "pen-pals" are invited to write to him c/o SITU.

We would ask once again — since, obviously, no one reads the inside front cover! — that members wishing to visit call several days in advance.

Also, we are happy to report that Member No. 944 has not disappeared. His failure to communicate after his 'last' trip to the Ringing Rocks was due to various personal difficulties. Further, in self defense, Upper Black Eddy, Pa., is just across the Delaware River from Milford, N.J., which is just a bit north of Frenchtown, N.J., and southeast of Easton, PA. U.B.E. is on Rt. 32, known as the River Road, and the ringing rocks are reached by following a blacktop about 1 mile north of U.B.E. There is a small (defaced, the last time we saw it) sign indicating this turn-off; the rest of the way is well marked. Be warned: it is now illegal to remove rocks from the site or to carry in metal hammers (let alone sledge-hammers). Take a wooden mallet with you. And do wear good climbing shoes. We append a small map. (If anyone else writes in to ask where Upper Black Eddy is Marion Fawcett will probably scream.)



BOOK REVIEWS

by Marion L. Fawcett

John Godwin. Occult America. New York: Doubleday & Company. 1972. \$7.95

John Godwin is an Australian journalist, formerly a crime reporter and foreign correspondent, with several books to his credit. He will have difficulty in writing a better book than this one, which is an absolute 'must' for every fortunean — and non-fortuneans as well.

While on a cross-country tour to advertise his previous book, This Baffling World, Mr. Godwin became intrigued with and by the rather incredible upswing in interest in mysticism and the occult in the United States and set about looking for books that would explain this phenomenon. He notes in his prologue that "The one thing I was looking for—a dispassionate inquiry into the motivations and working of America's occultism—seemed not to exist at all. If I wanted one I would have to write it myself. Which, in the course of events, I decided to do." He has done it very well indeed.

The author points out that there are plenty of books on the "occult", generally divisible into two categories, the debunkers and the boosters, "both so preoccupied with effects that they devoted hardly any space at all to . . . the causes". In his opinion the debunkers win, though he adds that "They appeared sincerely convinced that, by pointing out the irrationality of a particular belief, they were abolishing it. Which is similar to proving the biological impossibility of the Resurrection and expecting Christianity to evaporate as a result". Godwin's book probably won't change many minds either, but any rational person will learn a lot from it. Under the cold light of reason, some of the beliefs held in this country provoke nearly hysterical laughter, underlain by a feeling of considerable horror that such things are actually believed in by supposedly intelligent, rational, and educated people.

Godwin begins with the astrologers and works his way through 'prophets', witches, Ron Hubbard's vassals, Edgar Cayce's disciples, and a host of others, all the way to the satanists, which are actually a rather mild bunch compared to some other groups. He also devoted a chapter to the "occult goldmine":—books, a vast assortment of spiritualist "supplies", dubious (to put it mildly) degrees, and a wide variety of "self-help", get-rich-quick, and other offers, which bring in heaven knows how much money. The astrologers alone are estimated to rake in more than \$150,000,000 a year! This I find appalling; and particularly because there are, as John Godwin points out in Chapter 13, a number of individuals and organizations which are studying some of the things believed in by the occultists, but doing it properly and scientifically, and they have the chronic problem of financing their efforts. If one adopts some oriental-sounding name, and spouts unintelligible garbage with plenty of references to the uplifting of the soul; a direct pipeline to God, etc., money will be forthcoming from a vast horde of gullibles who are dissatisfied with their present state and the state of the world. Announce that you wish to study any of the phenomena which defy our present understanding from a scientific standpoint, and the orthodox scientists will probably ignore you (if they don't vilify you); but the "average citizen" will gladly spend his money anywhere, and on any charlatan's suggestion.

John Godwin is not simply a debunker. He realizes full well that there are unexplaineds and that it is often difficult to draw a definite line between the fraudulent and the genuine, the real and the un-real. His book may help a lot of people to draw a more certain line between the two. He is not infallible, but he makes few mistakes in this book; and these are minor and forgivable in view of the overall value of Occult America. Also, the author did his own research and search, interviewing over 300 persons, from astrologers to the far-out ufologists, to gain a clear picture of just what is going on in America. It makes fascinating reading. And there is an excellent index plus a glossary of terms.

Tim Dinsdale. Monster Hunt. Washington, D.C.: Acropolis Books Ltd. 1972. \$6.95.

This is an expanded and thoroughly updated edition of The Leviathans, originally published in England in 1966 but never, so far as I know, available in the U.S. Anyone interested in Loch Ness 'monsters'—or in other freshwater and sea monsters—will want this book. Though parts of it do resemble what we call a "seed catalogue", i.e. long series of reports by those who say they have seen Nessie (or other monsters), there is enough general material and new information to satisfy all but the crustiest reader.

Tim Dinsdale, one of the most delightful people we have had the privilege to meet, has been chasing Nessie for ten years and has had the greatest success to date. His film of a monster, taken in 1960, was studied by the Joint Air Reconnaissance Intelligence Centre of the RAF and pronounced by them to show an animate object. He has been trying ever since, along with some hundreds of other people, to get a truly definitive film which will leave no doubt in anyone's mind that there are monsters in Loch Ness.

We have received innumerable letters asking "Why don't they [Nessie 'hunters'] just. . .?" From here on we will simply tell them to read Tim Dinsdale's book. There is an all too common notion that all one has to do is sit on the edge of Loch Ness with a camera ready and everything will work out in a week or so. "Not bloody loikly!" Tim Dinsdale several times almost lost his life during the course of his search, and his de-

scription of the hazards and difficulties involved in trying to gain evidence proving the existence of 'monsters' in Loch Ness (and elsewhere) leave one with the greatest admiration for these devoted seekers. As for why they seek, I can not do better than to quote a quotation in *Monster Hunt*: this is taken from the "Personality Book" kept by the Loch Ness Investigation, in which each expeditioner entered a brief biography on arrival and, at the end of his stay, about half a page of comment of whatever variety the person chose. What follows was written by the youngest member of the team, a 17-year-old boy: —

"Someone recently asked me why we hunt these creatures. It is easy to answer, but difficult to explain. We believe in them—not only the individuals themselves but what they in the large sense represent. They are a not-so-impossible dream and an enigma almost answered. On this world bound by technological complexities they are a return to nature, and a subtle reminder to man that he is not a master of all creation. It is a quixotic search for truth in a scornful world—a tedious search which someday must have it's end. And when we do place the final piece of the puzzle in position perhaps men will stop momentarily to gaze at inscrutable nature, and wonder about the deeper natural truths . . ."

Whether it is the exceptionally high calibre of those keeping watch on Loch Ness, as exemplified by this 17-year-old who is wise far beyond his years, or whether it is part of the growing consciousness of Science that the neat boundaries they have set have been breached on every side, we cannot say. But it is heartening to read of the increasing assistance from the 'orthodox' in this most unorthodox pursuit. There are still those who deny vehemently that there even could be 'monsters' in Loch Ness, i.e. they are impossible; but we firmly believe that this pursuit will have a happy ending, not just for Nessie fans but for science as a whole. If one "impossible" of this nature is proved to be not just possible but real, it may open a great many doors. In the meantime, the investigations at Loch Ness are adding considerably to our knowledge of the ecology and geology of that lake.

The book is illustrated and, fortunately, there is a list of plates, some of which are badly placed (not the author's fault), e.g. Plate 15, referred to on page 123, will be found facing page 85. Also, the publisher has seen fit to reduce the map of the Scottish Northwest Highlands to microscopic size, making it extremely difficult to read. A couple of other maps with far less detail are given a whole page each. There is an index, though it is not as complete as one might wish.

One final point, Tim Dinsdale rightly includes the Le Serrec monster filmed off the coast of Australia. However, it should be noted that subsequent investigation strongly suggests a hoax and the photographs should be viewed with considerable suspicion. They may be genuine, but we would like to see similar ones taken by someone less suspect than Mr. Le Serrec.

The book is not flawless, but it should be in every fortune teller's library.

Vincent and Margaret Gaddis. The Curious World of Twins. New York: Hawthorn Books. 1972. \$6.95.

No one bats an eye if a cat has six kittens, but multiple births in humans have always aroused considerable interest and curiosity. Even fraternal twins, who are no more alike than any other brothers and/or sisters, get special attention of the "Oh, you're twins, are you?" variety. I happen to be a twin, labelled identical, though I have now learned from the Gaddis's book that a single placenta does not necessarily mean identical twins; thus, various doctors and others who have questioned the label applied to my sister and myself may well be right. (Frankly, I don't think we look identical — I can tell which is which even in baby pictures.) But, personal reminiscences aside...

Vincent and Margaret Gaddis have put together another excellent book, and a very readable one, and have, as always, included proper documentation, a bibliography, and a good index. After an opening chapter designed to whet the reader's appetite with a selection of 'hors d'oeuvres', the biological basis of twinning is discussed at some length in terms understandable to anyone. This covers not just fraternal and identical twins but some of the more unusual types of twinning that have been discovered, e.g. "mosaics" or "twins in one body". Some of the really unusual biological oddities are discussed in a later chapter — so-called Siamese twins, teratomas or 'dormant' twins, parasitic fetuses and the like. Some of these are real "lulus", though the reasons for their occurrence are now fairly well understood. There is also considerable information on truly multiple births, i.e. everything from triplets on up to the fertility-drug multiples (the record here seems to be 15, all smothered within the womb), and the problems they cause and encounter.

The other major section of the book deals with the sometimes most extraordinary 'links' between twins, whether reared together or separately — twins who die simultaneously though one is not ill, parallel existences led by twins separated at birth and who don't even know they have a twin; telepathy and other 'psychic' phenomena exhibited by twins; pain-sharing, and such. These are documented case histories, along with some "anecdotes" not so easily pinned down. But perhaps the most interesting part of the book is that

which concerns exact doubles who are not related to each other; also 'phantom' doubles — called autoscopic hallucinations (formerly called doppelgangers) — seen only by the person whose image is being 'projected'. There are theories about this latter but it is not really understood.

Lastly, for the benefit of twins and mothers of twins, there is a chapter on clubs "where God chooses the members", with addresses to which interested (and qualified) persons may write.

Philip S. Callahan. Insect Behavior. New York: Four Winds Press, 1970. \$4.95.

Although ostensibly a perfectly straightforward "introduction" to certain aspects of entomology (the study of insects), of which there are known to be about 900,000 species, it does contain some really rather purely fortean material and makes most fascinating reading in any case. It is written for the layman, and specifically the "amateur" (his quotes) entomologist. Professor Callahan notes: "The field of entomology is full of opportunities for amateurs. In earlier years, most of the greatest contributions to the field came from gifted amateurs who pursued the study because they enjoyed it. Often, such enthusiasts were considered crackpots for associating with lowly insects and, worse, enjoying it!"

As the title indicates, it is insect behaviour that is dealt with here, not a catalogue of "whats"; and the author includes a lengthy and eminently practical section on projects and experiments, with detailed instructions on building insect traps and more sophisticated 'instruments' such as a chamber designed for photographing insects in flight — an apparatus that can be built by anyone. A degree in optical and/or other engineering is not required!

The book also contains a list of selected readings, a glossary, and an index.

Charles Berlitz. Mysteries From Forgotten Worlds. New York: Doubleday & Company. 1972. \$8.95.

Although the author apparently did his own research, he comes up with very little that is new in the "were there advanced civilizations on earth in the remote past" genre. Much of his material is also covered in Von Däniken's and others' books on this subject. Also, though the jacket blurb, and the subtitle of the book, suggest that it deals pretty exclusively with an ancient civilization in the Americas, Mr. Berlitz jumps all over the globe for archaeological, linguistic, and other evidence, and again spends considerable time on the problem of Atlantis, the subject of his previous book. He is on his surest ground in regard to linguistics, and would be well advised to concentrate on this; he is not so good at zoology, and rather indiscriminating in the field of geology, apparently being as enthusiastic about Hugh Auchincloss Brown's very dubious theories as anyone else's. (He also misspells Jack Ullrich's name throughout.)

The book is quite well illustrated except for two appallingly redrawn and inaccurate line cuts of the "little gold dozer" featured in Ivan T. Sanderson's book Investigating the Unexplained. This really is inexcusable; we sent Mr. Berlitz the original tracings by Mr. Sanderson.

There is no index, which makes the book virtually useless as a research tool. This lack of an index may be stupidity on the part of the publisher; many publishers refuse to be "bothered" with indices, but if the author screams loud enough and is willing to do it himself, they usually capitulate. There is a brief bibliography but it is unfortunately not keyed into the text.

Robert R. Lyman. Forbidden Land. Coudersport, Pa.: The Potter Enterprise. 1971. \$4.50 (paperback, \$2.50); add 25¢ for mail orders (plus 6% tax for Pennsylvania orders).

This, the first of two volumes, chronicles ninety-one unusual, strange, and unexplained events in the Black Forest of northern Pennsylvania from 1614 to 1895, collected by Mr. Lyman who is extraordinarily knowledgeable concerning local history and has that rare knack of knowing where to 'dig'. His book is quite charming and will be of particular interest to those interested in folklore, though 'pure' forteans will find items in it to interest them also. We look forward to volume two, which presumably will bring this unusual history of Pennsylvania's Black Forest up to date. Mr. Lyman has the happy faculty of being able to get even reluctant witnesses to talk, and some of the most recent tales are fortean indeed.

Roy Pinney. Slavery: Past and Present. New York: Thomas Nelson Inc. 1972. \$4.95

There is nothing fortean about this book, but it is well worth reading and should certainly be read by anyone who thinks slavery is a thing of the past. The history of slavery is also not exactly what most people think it was.

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