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EDITORIAL

The word breakthrough has been in the dictionary for some time but it is only during the past two decades that it has become popularly understood and used. It was originally a military term but is now officially listed as meaning also: "A sudden advance in knowledge or technique". To this we feel should be added: "or a major discovery". A discovery is not quite the same as an advance though one may indeed give rise to the other. Then again, not all advances or discoveries are breakthroughs, and this term has a rather subtle connotation. It means, in fact, not just a sudden jump in knowledge but literally a break, through what had appeared before to be a barrier. Thus, it connotes a hoped-for "break" — as the slang expression has it for luck — in proving, confirming, or truly advancing some already projected possibility.

However, some of the most outstanding breakthroughs have not been expected, except in a most general sense. The classic example was the landing of a freshly killed coelacanth fish on the coast of South Africa in 1938. There had been those who had been suggesting for many years that not all animals, or types of animals, thought to be totally extinct need be so. Among such optimists were those who hoped for what is called generally a dinosaur, however small, to turn up; or for somebody to return from the Himalayas with an abominable snowman. Curiously, and yet as is the way of life generally and of what we call nature in particular, it must needs be a large, brightly colored kind of fish that first did pop up. We still have to hear of anybody — palaeontologist or mystic — who had ever even wished for a coelacanth fish, alive and kicking or even stinking. But that is what they got; and it hit not just the orthodox zoologists but the whole of the scientific fraternity a really stunning blow. All kinds of things had to go into complete reverse. General theories on what could or could not be, collapsed first. Then, more special theories and beliefs as to the evolution and history of animate life on this planet had to be drastically revised. Finally, a lot of things that had been confidently stated about the actual constitution of the Coelacanth or Crossopterygian fishes had to be either junked or rephrased.

This "breakthrough" had its funny side. There is a maxim which, like Occam's famous razor, should be elevated to the status of a Law. This is that, in the case of a breakthrough in any scientific matter, scientists react in the three following phases: - (1) It's impossible; (2) It's a case of mistaken identity; and finally, (3) We knew it all the time. In this case, a certain Doctor of Piscology, i.e. Ichthyology, in one of, if not the, greatest scientific institution in this country stated for the record, and to none less than the Associated Press, on the hearing of the initial announcement of such a fishy thing having been obtained by a Dr. Latimer of the Port Elizabeth Museum in South Africa, that it was impossible, because "we all know" that all coelacanths have been totally extinct for some 70-million years. That was in August, 1938. In August, 1948, the same great expert stated, and to AP again, plainly, clearly and categorically that: "This is probably the greatest zoological discovery of all time, but we (who are these wes) have always expected it because it is, after all, a shallow-water fish." (Incidentally, it is a deepwater fish.)

We have now a breakthrough of a most singular status and one, moreover, that far transcends the gallant ichthyologist's assess-

ment of the poor coelacanth. This is not just "the greatest zoological discovery of all time" but the greatest discovery of all kinds — reverse polarity and antimatter not excluded — because it concerns us personally, and every aspect of our history, ethics, morals, religion, and general thinking. What is more, it is quite useless anybody stating on this occasion that they knew it all the time because they manifestly did not do so, while one and all have gone on record saying that it was absolutely, definitely, and for all time No. 1 above — i.e. impossible. The simple fact is that we now have a fresh cadaver of one of our more primitive ancestors that, on even preliminary examination, is obviously a true "missing link".

It may be somewhat gratifying to know that this discovery was made by members of our Society through the enterprise of other members of our Society. The story itself is grotesque and will be on the stands, as the saying goes, in the man's magazine ARGOSY just about the time that this issue reaches you. We will not, therefore, reiterate these aspects of the case here. Further, there is already a technical paper on the specimen in a scientific journal — namely The Bulletin of the Royal Institute of Natural Sciences of Belgium, entitled "Note Préliminaire sur un Specimen Conservé dans la Glace, d'une Forme encore Inconnue d'Hominide Vivant", by our Advisor for Zoology, Dr. Bernard Heuvelmans. This describes the specimen in considerable detail. But there is also a story behind the story, the incredible aspect of which is that this specimen (which it must be clearly understood is NOT an example of what has come to be called an "Abominable Snowman") has been on exhibit on the carnival, midway, and fair circuits in this country for two years. During this time, not one single person of the tens or hundreds of thousands who paid 35¢ each to view it, suspected, knew, or cared what it was.

As told in the ARGOSY piece, Dr. Heuvelmans and the Director went to inspect the specimen and saw immediately what it was. However, the caretaker requested that the latter not publicize his findings until specific permission was given by the owner who was alleged to be a "very prominent but eccentric man on the west coast". Dr. Heuvelmans gave no such assurance. The director later obtained permission to publish, but the parties concerned with the ownership of the specimen refused to answer half a dozen most pertinent questions as to its origin and history. As a result, Dr. Heuvelmans' paper, together with his photographs, was circulated among leading physical anthropologists who immediately pronounced it to be an authentic record of a specimen of a type of Man, let alone a mere hominid. It was therefore reported to the authorities. They in turn requested answers to the essential questions mentioned above. The caretaker refused to answer these, while we could not do so since we had been unable to obtain any information. The moment official enquiries were initiated, the owner came to the place in Minnesota where the specimen was stored for the winter on the caretaker's land, and removed it in a refrigerator truck, substituting for it some form of copy made in wax. It later transpired that the original (which we have code-named "Bozo" incidentally) is now alleged to have been hidden for a year. This information was given in writing to certain authorities. This exhibit had always been billed as a curiosity and probably a fake, but it had the subtitle on its exhibit truck of "Possibly a medieval man (sic) left over from the ice age (again sic)"! Yet, the owner went to great lengths to ascertain what it was when he first got it, and then to even greater lengths to hide it and all trace of its origin when confronted with a proper request to allow it to be examined scientifically. These facts and many other even more weird aspects of this case will be published in due course.

The point we wish to make here is editorial. Actually, it is multiple in that several whole matters are brought to light by it. First, there is the clear demonstration of the abysmal depths of plain stupidity and lack of comprehension into which our so-called culture has fallen. That not one single person out of tens of thousands even knew what they were looking at or its significance until an herpetologist — a Mr. Terry Cullen of Milwaukee, Wisconsin — happened to visit this sideshow, is not only tragic but extremely alarming. Just what else, may we ask, is now lying around? Second, if anybody did know what it was — and the owner seems to have at least suspected the truth — but failed to report upon it, shows only that there is something awfully wrong with those who are supposed to know what is what. Reversing the coin, we come to the inevitable impact of this item on the world as a whole. This sounds grossly pretentious, but we had better consider the matter.

Modern scientific thinking runs upon the roadbed of the evolutionary principle. So does philosophy. Everybody, except a few dreary holdouts like the remaining fundamentalists, gives lip service to this notion, but just how many really either understand or believe in this principle; and more especially when it comes to the matter of ourselves and our origin? Now comes Bozo, and from now on it is absolutely useless anybody even trying to argue with what has come to be called "The Darwinian Theory". Evolution may not have worked the way he suggested, or you may still argue that the whole idea is wrong, but you now have a (circa) 250-lbs corpse to explain. Perhaps the best guide to the readjustment that everybody is now going to have to undergo is to reread the Old Testament, and preferably in an edition as near as possible to the original old Hebraic or Aramaic, for if you do this, and ignore all the rubbish that has been laid upon this ancient pragmatic exercise in clear thinking, you will get a very pragmatic explanation of just what poor Bozo most likely is.

CURRENT EVENTS

I. MATHEMATICS

(The Structure and Behaviour of Mensuration)

Number, Quantity, Probability, Arithmetic,
Algebra, Geometry, Trigonometry, Calculus,

Topology, the Theory of Games, and such related matters of calculation.

SQUARING THE CIRCLE

We are constantly asked for some expression on the age-old saw of not being able to "square the circle". Many people seemed to feel that this is not a true statement, while others pointed out that all you have to do is place a thread around a circle, then lift it off and, using four pins, form it into a square by pulling it as tight as possible. This is an old trick used by surveyors for getting a rough estimate of odd-shaped areas into convenient, measurable blocks on a grid. Why, some people asked, if this can be done mechanically — or geometrically, if you will — cannot the method be refined and expressed in precise mathematical terms? According to the other old adage: if you ask a damnedfool question you can expect to get a damnfool answer. So we passed this one on to our advisor, Dr. Martin Kruskal, Chairman of the Applied Mathematics Program at Princeton. His reply was most enlightening and in some respects hilarious, but it also contained a simple lesson in logic that we might all take to heart. First off, the whole 'question' per se is a misnomer and nothing more than a semantic irrelevance. The problem is not a matter of turning a circle into a square, the four sides of which add up to the linear length of said circle. This can indeed be done by the purely mechanical method mentioned above. The real question is can you construct a square that contains exactly the same area as is enclosed by any circle. At which point you may well say: "So why in the heck didn't they say so?"

But then come the interesting angles to this conundrum. First, what we will call the four-pins-method results in an area which is short by 21.5% less than that of the circle of the periphery with which you started. This is not so hot, even for rough estimates, and in surveying may well be the reason why there are so many disputes over old land titles! The reason for this in turn is that a circle is the most economic configuration — in two dimensions, that is — for area. This means simply that you can get more into a circle than into any other outline or shape of equal perimeter. The real trouble arises when you try to determine just exactly, precisely, and mathematically how much area you have got in any circle. This cannot be done, due to an annoying little factor to which the designation π (pi) has, as everybody knows, been given. This may be expressed as $22/7$ and thus is not a precise figure, since you can keep on dividing 22 by 7 forever.

We have all accepted this, but it is nonetheless very mysterious and definitely unexplained. Further, even this 22 over 7 is itself only an approximation, the real π being expressible only in the decimal, duodecimal, or other such system. In this case, however, it still cannot be made to "come out", as the schoolboy expression has it, any more than can the dividing of 22 by 7. What is more, it is interesting to note that the string of figures following the decimal point are not the same in these two cases; due, of course, to $22/7$ being a mere convenience and only an approximation. So the next question is naturally what is " π " and who invented it?

Nobody really knows who first defined it but it is simply the length of the circumference of a circle divided by its diameter, and thus such a simple notion that it was rather naturally assigned to the Ancient Greeks. Why those mixed peoples get the credit for so many things, in view of some of their basic ideas, has always been beyond us, but is probably due to the fact that the Hebrew scholars of Alexandria usually wrote Greek versions of their expositions of Mesopotamian, Egyptian, and Indian science and technology. Just because the beastly thing has got a Greek name does not, moreover, explain it, any more than the practice of assigning anything else of which we do not know the real origin to the Chinese. Whoever first got onto this was undoubtedly a very bright boy as it was one of, if not the first true paradox to be set down logically. There is of course a reason why you cannot so divide the circumference of a circle by its diameter — in the current most commonly used mathematic, that is — but it cannot be given within this framework. Of course, if somebody comes along and does just this, everybody will be very happy — except mathematicians.

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II. COSMOLOGY

(The Structure and Behaviour of Existence)
Ontology, Metaphysics (classical), Space,
Locus, Time, Coincidence, etc.

ENDS CONDON

We regret having to allocate this much space to this subject but, as we said in our previous issue under the appropriate head, the subject has, still is, and will continue to be a very vital part of history. It does not matter in the least whether this whole business is real or imaginary. The basic fact is that it exists; and as a problem that must engage the attention of everybody — politicians (international and national), scientists, religionists, the press, and all other citizens. We are speaking of what have come to be called UFOs.

We are fully aware of the fact that only a small percentage of you are in any way interested in this business, but certain current events show only too clearly that it is the single most important problem of today — and for all of us. Even if the whole thing is based on unreality, the fact remains that the problem is very real. Unidentified Aerial (Flying) Objects have persisted in turning up throughout the ages, and with increasing frequency during the past two decades. The public demanded to know of both officialdom and 'sciencedom' what they were. They got no satisfactory answer; and so, with the latterday help of the press, they forced the former into taking action — at least in this country. The result was a contract between the USAF's Department of Research and the University of Colorado — see PURSUIT No. 3 — which enjoined the latter to conduct a scientific survey of the evidence for the alleged existence of these things.

This injunction was accepted in late 1966; and its recipients, under the chairmanship of one Dr. Edward Uhler Condon, have recently published their findings. If you are interested in such matters, you must read the book listed in our cumulative bibliography, entitled "UFOs? YES!", by David R. Saunders and R. Roger Harkins. Be warned, however, that you will obtain from this such an unbiased view of the underlying menace in this whole sad affair that you may miss the real significance of the overall "story". There is an unwritten but seldom stated maxim along Publishers' Row that, while good (i.e. pro) reviews may sell books, bad ones (i.e. con) almost invariably do so. The corollary is even less often mentioned. This is that bad reviews never do any real harm but that too many good ones can kill a potential best-seller. We are not giving Dr. Saunder's book either a good or a bad review; we are simply reporting on its existence and suggesting that it should be read. But when we come to its counterpart — entitled, "SCIENTIFIC STUDY OF UNIDENTIFIED FLYING OBJECTS" — we are only too happy to give it the worst review possible in the hope that as many people as can find the time to do so will try to read it, because not even a bucolic moron could fail to learn something really valuable just from making the effort. The lesson? The deplorable state into which intellectual integrity has fallen, and the preposterous imbecility of the proponents and practitioners of what the public has been led to believe is — but which most definitely is not — "Science". These two books are the outcome of the boondoggle that has become popularly known as the "Condon Committee", set up at a cost of over half a million dollars ostensibly to study scientifically the UFO problem. Together, these two books should be required reading for all students entered in or proposing to enter any courses in matters scientific (or technological, for that matter), so that they may know just what they are getting into.

We said in our previous issue that it has been ufology that — sense or nonsense — has caused the world to start truly thinking again. From reading of the outcome of the University of Colorado effort in this sphere, our remarks have perhaps become somewhat prophetic. But what the world has been forced to think about is the exact opposite of that which "sciencedom" intended. By its deplorable shenanigans and its near blithering report, with its endless contradictions and statistical gobbledygook, the Colorado effort should alert everybody to the menace that this sort of cant poses, both intellectually and physically. It is a "crime" against real scientific endeavour and methodology.

THE CAPTURED CAPTAIN

We must admit to being sorely tempted to transfer this item to Section III on the grounds that it is apparently a clear case of a "disappearance" and, what is more, neatly within one of the most prominent of the world's ten "Vile Vortices" — for a full exposition of which you will have to await a number of articles in ARGOSY Magazine, and, if it ever sees the light of the bookstores, a large volume to which the title has not yet been assigned, on this subject. These vile vortices have been

identified and are being studied primarily on account of their seeming voracity for planes, ships, and subs, though they admittedly appear to engulf the human crews of such devices just as readily so that one might perhaps have to add people to their menu. In this case, however, not only was the disappearance highly selective, being of a single "people", and leaving the rest of the ship entirely untouched, but it is alleged to have had an extremely ufological aspect. At the same time, there are almost as many cases of crews vanishing off ships as there are ships themselves vanishing; while, to worse confound the issue, other animals — pet canaries, cats, dogs, and such — seem never to be touched, provided the ship is left for them to ride on. This could indeed form a separate subject but the mere mention of ufos being involved, as in the case herein under review, gives us pause. An intelligently controlled ufo is much more likely to be selective in this manner than is some mere physical anomaly. So what is the story?

On the night of the 30th to 31st of October of last year, one Captain Charles G. Reid of the Moore-McCormack Line's luxury liner Argentina disappeared from his cabin around three o'clock in the morning. His disappearance was officially listed as "apparent suicide". This incident took place smack in the middle of the infamous so-called Bermuda Triangle.

This was dashed rum to say the least; but when we came to investigate the circumstances, it turned out to be not just forteen but a little terrifying. First off, the initial reports of the incident as given, and all that was said at the official hearings and investigation later, were shot full of inconsistencies, and appeared to have been deliberately contrived to circumnavigate the most pertinent facts in the case. There were also a number of unexplaineds, and some not-askeds, and several unanswered. For instance, no mention was made of a series of events that had preceded the captain's being found missing, though they had stretched over several hours and had involved his circulating among the passengers with words of assurance that are normally for use only in rather extreme emergencies. Second, it was stated that when his officers had gone down to awake him to report still another inexplicable and potentially dangerous event, he (the captain) was found missing — from his locked cabin with one of its "portholes" open. By some oversight, a photograph of the captain's cabin was submitted in evidence and this showed clearly no "portholes" in his cabin but instead large, square, double-glass windows with roll-down handles. Such windows are not emplaced in the outside hulls of ships and the captain's cabin was not below the main deck, so that its windows were not over the water, but were a considerable distance in from the ship's main hull-line and on an upper deck. Thus, if the captain committed suicide, he took the risk of being spotted by the watch or patrolling officers, by climbing out of his window, crossing one deck, going down a companionway to the next below, crossing this, and then taking a running dive off the side. Suicidals do many strange things but this is getting a bit exaggerated.

Before coming to the really hairy part, however, we should perhaps ask why nobody in the news business seems to have gone into Capt. Reid's background; or, if they did, why they did not publish on it, and particularly in deference to the feelings of his family. If they did do so, and found some record of recent serious worry or distress, they should have said so, or the court of enquiry should have mentioned it. Supposing the poor man had, for instance, been told by the ship's surgeon that very day that he had a dread form of cancer? But then, a man in his position with a lifetime of responsibility to his crew and passengers would surely not take that way out just before reaching his home port and leave his First Mate to dock his precious cargo. No, this is not likely. No more is any previous record of mental ill health. People with such simply do not rise to being captains of luxury liners. Yet, nary even a suggestion as to the cause of the man suddenly deciding to take his life in such a bizarre way and at such an unlikely time.

Turning then to another side of the picture, we find a most remarkable full-page article (p3) in the 17th February, 1969 issue of a weekly newspaper called MIDNIGHT, which purports to be a straight reporting job on this incident. In substance, this states that this newspaper became equally mystified by this incident and assigned a reporter to further investigate. In his report it is stated that: "Passengers and crewmen on the ship were strangely silent about the fate of Captain Reid, and it was subsequently learned that U.S. military authorities were taking steps to play the incident down." And, it goes on to say that all those aboard at the time had apparently been rather strongly advised to, as the reporter put it, "keep mum about what they witnessed on the evening of the 30th Oct." The reporter then reports that he did a lot of legwork and finally unearthed several crew members and passengers who were not just willing but rather eager to give factual accounts because they were most distressed.

The sum total of all these interviews was very simply that around 10 o'clock that evening a huge aerial object approached the ship. It was enormous, cigar-shaped, glowing, and had rows of portlights. The passengers milled out on deck and members of the crew went to report to the upper deck. The ship's radio then went dead. The Captain duly appeared on the double, and went around for some

time assuring the passengers that there "was nothing to worry about" (1), and suggesting that it was probably an illusion created by electricity in the air. (That's one of the neatest ones we have ever heard — and with due apologies to Philip Klass). And the good captain seems to have lived up to the great tradition of ship's masters, so that his passengers slowly wandered back into the bar or went to bed. But some did not. They stayed on deck watching and, about midnight, the thing came back again but much farther away and higher up. Several people then saw a number of smaller lighted objects detach themselves from the big boy, and these swooped towards the ship so that the watchers thought there would be a collision. These jobs were lenticular in form. There were three of them oncoming, but at the last moment they shot up into the clouds.

After this episode, all the passengers seem to have gone to bed so that it was only a man on watch who was almost blinded by a similar object that later suddenly appeared within yards of the ship. It came almost to the hull and then dropped down to water level, paced the ship for about 50 seconds, and then swished away into the sky. Where it had hovered was apparently immediately below the Captain's cabin windows.

So much for the story unearthed by the MIDNIGHT reporter: but what of the story itself? One cannot state anything for certain. We were not there; we have not even interviewed any crewmen or passengers; and we are not even sure that the so-called 'official' reports are true. But there is one question we would like to ask. If this sensational story is not true; and all the quotes in it, with names, ages, addresses, and places of occupation of those quoted, are fabrications, why has it not been refuted? We are not advocating censorship or any kind of 'big-brotherism', but surely somebody ought to have some humanitarian regard for the victim's family; and ought not somebody give his employers at least an assist in refuting anything so utterly bizarre. And what of the "U.S. military authorities"? Are they going to sit by and see still another pernicious ufological Pelion piled on their mile-high, crumbling Ossa? Frankly, we don't believe this. We rather tend to take this MIDNIGHT at its word on this occasion. So here indeed is a "pretty state of affairs".

III. CHEMIPHYSICS

(The Structure and Behaviour of Matter)

Nucleonics, Chemistry, Physics (classical),
Electrics, Electromagnetics, Magnetism,
Gravities, Mechanics, and such related
technologies as Engineering, etc.

MESSY LITTLE BOY

This case would really be more appropriate under Section VIII — The Structure and Behaviour of Intellect!; but, as it is based on allegedly physical facts, it must remain here for now. Actually, these facts are almost irrelevant, being so commonplace. It is, rather, the unexplained behaviour of the people concerned that is relevant. Perhaps, indeed, there just might be something to psychology after all, and maybe we really do need a science to cope with it. One thing is certain though, and this is that the "art" (useful or otherwise) that is now called psychology is absolutely and wholly useless for the pursuit of a matter such as this. But read what follows and then judge for yourself. This gem came to us from the files of Richard Crowe (215) and Richard Grybos (173) and must as of now stand as the classic example of both The Wipe, and of human assinnity as a whole. It goes as follows, in toto and in quotes: —

"Chicago SUN-TIMES, Oct. 11, South Bend — St. Joseph County sheriff's deputies moved into two suburban Osceola homes Monday night to see whether Walter Szlanfucht and his uncle really are the victims of unidentified flying objects. Szlanfucht and his uncle, David Cobert, who live half a mile apart, complained to deputies over the weekend that for three weeks their furniture had defied gravity. Chairs, tables, lamps, vases and other household items, they said, had been 'flung about by an unseen force'. The reports might have been treated as a hoax, a sheriff's department spokesman said, except that one member of the department visited Szlanfucht's home Sunday and confirmed the unnatural occurrences. Capt. William Handley said that among other things, he saw a rock rise up and strike the home's aluminum siding. Handley also reported to Sheriff William J. Locks that he saw a picture fly off Szlanfucht's wall, a heavy ashtray shatter and a table rise from the floor and flip over at his feet.

"Szlanfucht, an employee of Goodwill Industries, said that when vases and potted plants began flying about the home on Greenlawn Av., he at first thought his 9-year-old son Jack was responsible.

Then, he said, as he and his wife lay in bed Friday night, Mrs. Szlanfucht's iron flew off the sink and clattered to the kitchen floor, vases fell, a candelabra tumbled down and a key case sailed the length of the house. Sunday night, glass, foodstuffs, furniture, records and other items took similar flight and stones rising from the ground cracked two windows and shattered another, he said. Uncle David Cobert, a salesman, meanwhile was reporting similar happenings, and Elmer Key, Szlanfucht's 80-year-old neighbour, said that Sunday night he investigated a thumping and found that his home had been pelted by some 'plastic things'. The 'plastic things', described as objects slightly larger than a robin's egg, Monday were in a box in the safekeeping of Captain Gus Shuttrow, in charge of investigations for the sheriff's police. 'I've got a carton of stuff all busted into little pieces, and a little box with some stones in it', Shuttrow said. He said that each of the homes was to be guarded by two deputies Monday night, one inside each house and one outside. 'We'll stay there till we are satisfied there either is nothing happening or something happening', said Shuttrow, who confessed a certain amount of skepticism. Both the Szlanfucht and Cobert families, however, have packed up and gone to live with relatives in Michigan until the problem is solved. Szlanfucht said his wife and son are too afraid to go home. Cobert said his family feels the same way.

"Sheriff's police said they have enlisted the help of some experts from the University of Notre Dame to determine whether seismographic movements could be at the bottom of the incidents."

"Chicago DAILY NEWS, Oct. 11. (Repetition of information given above eliminated). ...But Sheriff Locks is not laughing. 'This is serious', he said. 'Something mighty strange is happening here.' So he invited men from the physics department of the University of Notre Dame...

"The sheriff disclosed that three weeks ago there were at least three separate reports of strange lights in the sky in the southern part of the county. That's when goofy things began to happen in the Szlanfucht home.... Things really began to come out around the Szlanfucht home Saturday... Capt. Richard Hanley, along with Deputy Leonard Golba went to the scene. The captain's official report contains this statement: 'If I had not been witness to them I certainly would not believe such things could happen.' He then recounted how he stood in the living room of the cottage and heard strange popping noises. He suggested that they all leave. As he walked away, according to Golba, a table began to follow Capt. Hanley and then turned itself upside down. Golba said that Mrs. Von Hospek's portrait (Szlanfucht's late grandmother) then fell to the floor. And, he added, as Capt. Hanley went onto the front porch, a box of tools there flew off a stove. As they turned to investigate the stove, it fell over. 'They looked for wires or strings,' the sheriff said. 'They found none.' About then the Szlanfuchts went to visit an uncle, David Cobert, half a mile down Greenlawn Av. The messy ghosts, or perhaps it was one, followed them there. Some plates flew around the Cobert living room. An ash-tray took to the air and exploded....

"(Szlanfucht was asked) Was the house haunted? Had anyone died there? 'Well, many years ago a man who lived here shot himself to death.'"

"Chicago DAILY NEWS, Oct. 13. The ghost of St. Joseph County (if that's what he be) obligingly bloomed for a Daily News reporter and photographer.... (making) a noise that could be heard 15 feet from the house...also heard by Walter Szlanfucht,... Meanwhile, a team of six University of Notre Dame scientists, including a psychologist and members of the chemistry and physics departments began an investigation. They spent an hour in and around the house of mystery and even searched - fruitlessly - with a Geiger counter. Prof. B. J. Farrow, speaking for the group, reported: 'We have found no logical explanation for what has happened in this house.' He said they wanted to consider the matter further and would report later... The sheriff said he continued his investigation by visiting a library in nearby South Bend. He dug into books about poltergeists,... (and was) also looking into the backgrounds of Szlanfucht,...his wife Jessie, 26, and son Jack, 9."

"Chicago DAILY NEWS, Oct. 14. Sheriff's Official Word: INDIANA GHOST 'A MESSY LITTLE BOY'. Sheriff William J. Locks (on) Friday unmasked the supposed ghost of St. Joseph County. The sheriff reported that this was no messy little ghost. It was a messy little boy. He refused to say which little boy had been responsible for furniture and other household items flying through the air at the home of Walter Szlanfucht, 32. But he called the case 'closed'. Locks said he would have a talk with the parents of the boy. He consulted scientists, including a psychologist,...before announcing: 'It would appear that all the things that happened in this house were caused by the actions of a juvenile, not by any phenomena.' The boy, whoever he was, made a mess of the Szlanfucht home for three weeks. In his ghost role he succeeded in fooling a lot of people, including some hardheaded sheriff's deputies. The sheriff declined to elaborate on how the lad pulled off the messy kid stuff."

So incredible are the statements made by presumably sane people in these stories that we do not feel any comment is called for in this journal.

NOW IT'S MICE

Again we find ourselves having to explain why an item pertaining to anything so biological as in this case should crop up in the chemophysical department. To reiterate therefore, we must repeat that the poor mice are only of secondary importance and that it is their alleged behaviour that is of the essence; and this behaviour is a purely physical item. They could just as well be stuffed mice or statues of mice — we believe. Anyhow, animate or not, these worthy rodents on this occasion seem to add another chip to the funny business of teleportation. The report comes from a Mrs. Frederick J. Beam, of Manasquan, N. J., and goes as follows: —

"Three or four years ago we had a similar experience (the rat palaver mentioned in one of our earlier issues). When my son was in the 9th or 10th grade he planned a science project involving sending mice thru a maze. He got the mice but it didn't take long to discover he knew nothing about constructing mazes or training mice and he gave up the whole thing for a simpler project. Meanwhile we were stuck with the mice. Since we had three pet cats I kept the mouse cage shut in a small unused bedroom. One day when I went in to feed them I was horrified to discover the cage was empty, tho the door was still closed. Having a typical woman's aversion to mice I left hastily as I caught sight of one running behind the radiator. I waited for the children to come home from school and they somehow rounded them up and shut them in the cage again. We thought perhaps they had forced the door open and then pushed against it and locked themselves out. We wired the door shut but the next day one or more mice were outside the cage again — and this continued as long as we had them. Eventually we just left the door open and gave them the run of the room — since they had it anyway. I don't remember that we gave the mice credit for possessing supernatural powers. Our only explanation was that they somehow squeezed their fat little bodies thru the narrow bars of the cage; it didn't make sense but it was all we could think of."

Perhaps we were a bit hasty in saying that the animation of the mice was only of secondary import because a most curious pattern is beginning to emerge in this business. First, it was rats above all; then dogs, cats, horses and cows; and, along with these, grave suspicions were entertained of certain monkeys and members of the raccoon family. Now, the two last are known champion "escape artists"; but there is something else. While neither is domesticated, they have become rather common pets, and they have even begun to breed in captivity. The other members of the coterie named above are all truly domestic animals. Domesticity is a very hard estate to define precisely, as we know from nearly forty years of struggling with the matter scientifically; but this is another matter which we cannot go into here. What we can and must go into is as follows.

During the last two decades a number of otherwise more or less previously unknown small mammals have come into rather wide use in laboratories. Following the South American Guineapig, of long ago, came such things as Elephant-Shrews from Africa for the U.S. Navy, the now famous little Palestinian Golden Hamster, and now, Spiny Mice (*Acomys*) and a form of so-called Sandrat (*Psammomys*). Going back over the records, we now find that the first importers of all of these exotics, and of several other small mammals, complained to dealers that the damned things were constantly "getting out". Also, hamsters were alleged to be "turning up" all over the place. Note therefore that all these animals have one thing in common; namely, that they are either fully domesticated or they are now coralled in large quantities for breeding experiments or as pets. This is the sort of forfean observation that warrants study.

Could coralling result in some enhanced ability to escape by the employment of teleportation? If so, is it confined to lower animals, and particularly to the rodents? And, if some monkeys have the ability — which is by no means certain — why not human beings? Or do "escapees" from heavily guarded prisons, and more especially from 'prison-camps', in part at least develop this ability? There seems to be a growing drift among people like the so-called parapsychologists towards a notion that as yet unidentified abilities like their ESP are suppressed but tend to surface when a real necessity for them arises; as when what we call more normal means of alleviation are stopped. Should domestic animals, and especially semi-domesticated ones, have a lingering corporate urge for "freedom"; and might they then be able to dredge up special, latent potentialities to overcome or circumnavigate the annoyance to them of being so coralled? Think this one over, and please let us have more reports of this nature.

PENNIES FROM HEAVEN

At least that's what the headline said, and it went on, after a comma, to state "to coin a phrase". You think we're "cute"; watch the Limeys; all the best squibs come from their territory, but their 'heads' are perfectly ghastly. This one went on: — "Pennies from heaven fell on this Kent-community.

The 40 or so coins fell in scattered bursts for about 15 minutes well away from high buildings and there were no aircraft seen in the area." This was datelined Ramsgate, England. So what have we here? Another alleged case of ITF, methinks, because one cannot suggest any valid reason for "space people" manufacturing English pennies — they are larger than half-dollars — just to drop on, of all places, Ramsgate, admirable coastal resort that it is.

This whole bit is, of course, considerably frivolous but, despite the perfectly legitimate sneers of practically everybody, it needs at least some considered contemplation. Anybody and everybody is perfectly entitled to pooh-pooh any and all cases of unorthodox items falling from the sky but the damned things persist in continuing to be reported as doing so. Further, even professional — which means paid for working — scientists have been literally 'clobbered' by such items, notably by quite splendidly fresh fish of various species in Marksville, Louisiana, as reported by an ichthyologist in SCIENCE for the 22nd April, 1949.

The notion of solid objects falling from the sky was readily accepted by the ancients it seems, and even by the primitive savants of the Dark and Middle Ages in the West, while all Africans, Amerindians and Asiatics — and even the Australoids — took the matter as a matter of course, and quite calmly. Finally, meteors broke through our obtuseness — as it were; but other things have not yet done so. The matter of what fortune tellers call 'Falls' is, as a matter of fact — and this word "matter" is becoming excessive — exceedingly aggravating to everybody. It is also, it appears, most complex. We cannot go into it in depth here but if any of you are interested, you should apply to Mr. Ron Calais (42) who has spent many years collecting such reports and knows more about this than anybody else we have heard of.

Nonetheless, there is one aspect of it that can be brought up here. This is the fact that the great majority — in fact, very close to 99% — of all items said to have fallen from the sky are perfectly ordinary and commonplace earthly items. (We are not speaking of meteorites, tektites, and such.) British (i.e. U.K.) pennies are not readily come by and they are of rather a special size, being among other things quite unique. Be that as it may, the list of items both animate, like fish and frogs, and inanimate like statues and pennies, seem almost if not always to be identifiable as known earthly objects.

This would seem to us to indicate that said items don't really fall from the sky but are teleported, though indeed this performance may involve not only spatial transference but time transference. How else come Roman coins and beastly old human skulls? Of course there are numerous items said to have plumped to earth that are not known on the surface of same but, "to coin a phrase", these must be classed separately from such things as "Pennies (U.K.) from Heaven (sic)".

IV. ASTRONOMY

(The Structure and Behaviour of Gross Bodies)

The Universe(s), Galactics, Stellar and Solar Astronomy,
Planetology, Selenology, Meteoritics, Astrophysics, etc.

MACHINES ON THE MOON

This one came to us from Europe but we learned subsequently that it was reproduced in substance in a monied, fairly new, pulp magazine, published in Hicksville, New York, named "BEYOND". The way we got it read: — "It seems that a former Soviet space scientist, Professor Mohilyn, who escaped from Russia and is now living in Paris, claims that Russia has already landed two cosmonauts on the moon, and that they were attacked there by a machine or machinelike creature which came up out of the moon's surface. One was killed by it but the other got back to earth. This scientist claims he was director of craft-to-earth communications and monitored all the conversations between the cosmonauts and earth. He says their space ship was launched on the 5th of June of last year (1968)." As we have said elsewhere, the so-called western world is completely schizophrenic when it comes to anything emanating from Russia; anything official being disbelieved on the grounds that it must be propaganda; anything alleged, such as this, immediately being pounced upon as some sort of dire revelation. What defecting officials say, often sounds more like science-fiction or pure fantasy.

In this case, we would like to hear more about this Prof. Mohilyn, and just why our informant added the rider; "He claims he has tried to interest the European and American press in the story but they did not believe him". We can understand their reasons, even if the good gentleman actually exists and actually did hold the position that he says he did in the U.S.S.R.; but not for the reasons you might suppose. The most incredible rubbish is invariably spouted — and has been since the dawn of history — about any place which has not yet been properly explored. Some of the things that were

prognosticated about the surface of the moon up till only a few years ago, and sometimes by perfectly sober, serious-minded scientists, now look in retrospect quite mad; and the same thing has now started all over again with Mars, as we recorded in our previous issue. One wonders why these people so spout when everything they say may be disproved at the drop of a capsule. Everybody worries so much about their precious reputations that one would have thought they would avoid making such statements. For instance, one clown repeatedly asserted, and in print, that the Moon was covered with a layer of ultra-fine dust to a minimum depth of two hundred feet; and then had the audacity to state that this had been proved by some form of spectroscopic analysis. Almost everybody clamoured for "canals" on Mars until our fly-by disposed of the notion and substituted a surface as pock-marked with craters as that of the moon. So then, we get some close-up photos of the moon's surface, taken actually on that surface, and what do we find? Sand, gravel, ordinary looking stones and boulders and bare rock just as on earth — and without even the sands of the Nile or the dust of the great loess plains. There was another fellow, as we also remarked before, who insisted that the moon was clothed in a 400-foot-tall, closed canopy of vegetation! But this is not our point in this case.

In addition to these buffoons, there have also been another group of moon devotees. These folk have always suggested — not asserted, be it clearly understood — that the moon, if not having indigenous life, has for long been used as a way-station to and from earth by intelligent space-travellers. Their expressions are much more cautious than those of the "great experts" and they are founded on a much more possible, though still improbable, assumption; to wit, that said life-forms have always lived, or taken up residence there, below the surface. Actually, such a notion is not by any means impossible; in fact, it is quite possible, and there are even those who have either deliberately or unwittingly presented evidence that could well be construed as enhancing the probability. We are thinking of the extraordinary history of events observed on the moon that do not conform to the notion that it is a completely lifeless, sterile, and inert body — see: the CHRONOLOGICAL CATALOG OF REPORTED LUNAR EVENTS, NASA Technical Report R-277, as listed in our previous issue. Then again, there is something awfully odd about many of the moon craters. Some kinds are just too perfect. And what of the rectangular and regular rhomboidal disposition of straight things thereupon? And again, what of the towering towers and arches casting their vast shadows; and the rays extending from some features like the scattering of subterranean blasts, and the "fans" that look more like tailings from quarrying operations? All very mysterious.

But then consider life on our planet. Ninety-nine percent of it, quantitatively, lives under water. About 85% of the remainder, which lives in air, spends the whole or the great part of its time under-ground. This is particularly noticeable in desert areas where the variation in temperature during any one 24-hour day is excessive. Why wander about on such a surface, when only two feet below it you have an even temperature (of about 52-degrees incidentally and everywhere except in the subpolar and polar frozen-ground belts) throughout the year? If you evolved on a planet like Mars or the Moon, or you got ditched on one of this ilk, or you wanted to set up a service-station on one, why go to all the trouble of building such gross inefficiencies as domes, or anything else, on its surface? Both nature, and all really intelligent intelligencies, would never dream of doing anything so stupid; they'd start off by going below; and especially if there was no water or other liquid to duck into on the surface. Only Man could be so abysmally obtuse as to plan cities — and even motels, so help us — under plastic domes on the surface of anything so unlike its (our) home environment as the surface of the Moon.

SUBJECT: GREEN CHEESE

The average American — i.e. citizen of those United States of North America lying between the southern Canadian border and the Rio Grande — is considerably puzzled as to why anybody should have likened the visible surface of the Moon to green cheese. Its pockmarked appearance more resembles that of Gruyere. Further, we have blue Cheese. Truth be told; we just don't have "green" cheese, which is Gorgonzola; while our so-called "blue" cheese is not just an imitation of but a very fair improvement on the European Roquefort-Stilton family. (Incidentally, nobody seems to realize that both Liederkrantz and Limburger are in final analysis American discoveries or inventions, albeit by citizens of German origin in Minnesota and Wisconsin respectively.) So what does all this have to do with Astronomy?

During the first week of February a large international group of selenologists opened a symposium at the Douglas Advanced Research Laboratories in Huntington Beach, Florida. At this confab a number of observations of the Moon, all somewhat commonplace to astronomers specializing in the subject, were given a good airing. The most outstanding lot concerned what were dubbed "light flashes". Some very pertinent remarks were made on this subject at this symposium, notably by

astronomers from Mount Wilson Observatory, which are herewith quoted. According to Clark Harris, an associate of Wallace Calkins on the staff of that observatory: "The events (were described) as changes in light levels in certain areas of the moon, sudden reddish glows in some craters, and bright, beacon-like flashes of white light. The 'startling' flashes were the most commonly noted phenomena, occurring up to 25 times hourly in a small part of the crater Alphonsus, and lasting from one to five seconds."

Further remarks made at this symposium are taken from a report in The Long Beach Telegram for the 18th February. They are most enlightening, and we quote: "Harris said a sighting of a 20-minute reddish glow in the same crater by several California observers was later confirmed by astronomers in the East and in England. A possible explanation of the lunar flashes was given by R. K. Vincent, spokesman for a group of scientists at the Air Force's Cambridge Research Laboratories. He said a study of moon craters showed some were similar to those formed on earth by gaseous eruptions, and suggested the flashes could be discharges of static electricity caused by lunar gas emissions. Dr. Jack Green, Douglas geologist and chairman of Monday's session, favors the theory that many of the events are of volcanic origin, with the possibility that water, as well as warmth, may exist beneath the lunar surface."

The curious facts are that even the merest suggestion of anything "alive", which is to say indicative of any kind of physical change or action and, in the case of our sister planet, other than the completely inert, was rigorously stamped upon by astronomers until only a decade ago. Then, NASA came out with the "Chronological Catalogue of Reported Lunar Events", as listed in our Cumulative Bibliography in issue No. 1, Vol. 2, which made most startling reading. Since then, observations of activities — today rather too cutely called "happenings" — on the moon have been increasing noticeably. We wonder if this might be due to a frantic desire to climb aboard the bandwagon or, rather, moon-probe capsule (or wagon) — by selenologists before positive and concrete evidence of just such things as both astronomers and the poor amateurs have been describing for centuries are brought back to earth. This is an old trick exactly equivalent to the one Mr. Low of the Condon Committee's staff was so proud to include in his preliminary recommendations to the University of Colorado anent their taking on the Air Force's investigation of UFOs. It's the old: "If you can't get into bed with them any other way, marry them", to which we might add the forteen rider: "There's always divorce or annulment."

That the Moon is not completely inert would seem to have been obvious for a century but just what the signs of activity thereupon may be indicative of is quite another set of questions. There is something awfully odd about its craters as we pointed out in the previous note. We have the possibility of their being caused by meteor impacts, volcanic activity, or the action of subterranean life-forms. And this is where the green cheese comes in. We happened to be the recipients of a Gorgonzola cheese as a present from some well-wishers in Europe. Now, the thing to do with such a cheese is to obtain a sort of cylindrical spoon and drill large holes with it, chop off the bottom half of the resulting plug, up-end the cheese, pour beer into it, and then replace the balance of the plug. When you have done this all around, hang up said cheese in (naturally) cheese-cloth in a cellar which never gets above 50 degrees F. and with an air-current. That gives you a good cheese.

When we were operating on our cheese, we noted the butt of the inner part of the plugs we had extracted. They are about 1½" in diameter, and, so help us, they displayed just exactly the sort of surface appearance as the moon. There were craters of three distinct kinds; 'rays' from some of same; rills, strange cracks in a rhomboidal pattern, and other items most familiar from the new master photographic moon-maps. This is of course all pure coincidence, but it does explain a semantic mystery. And, we would point out that while a lot of the markings were green, there were patches of pink in some of the "craters". Moreover, if the perfectly round smooth-edged little craters were caused by cheese-mites — or even small fly larvae — we would have another analogy; while all we would then need would be some luminous bacteria in some of the larger craters and we would have a pretty fair approximation of the traditional concept of the moon for youngsters. We are working on getting some color photographs of the cheese — just for fun, please understand — for comparison with some moon-shots.

But there is a serious note to be rung here; to wit, chemiluminescence. The light given off by a single luminous bacterium is, proportionate to its size, hundreds of times more powerful than that of our best electrical power-distribution plant. When we've worked through static electrical discharge, volcanic gas emissions, and the other suggestions, might we not consider chemiluminescence?

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V. GEOLOGY

(The Structure and Behaviour of the Earth)

The Atmosphere, Hydrosphere, Lithosphere, and
The sublithic core. Geophysics and Geomorphol-
ogy; Geology (classical); Geography, Geodesy,
Mapping and Dating; and all related studies.

NOISY CLOUDS

We are always suspicious of a K^2 , namely a coincidence to the power of only two, and anything short of a K^4 does not warrant discussion under the heading of "K" in the general category II. Nevertheless, when the time factor crops up on such a tight schedule as this — two outlandish items of a similar nature in a month — and the matter has not been heard of in over half a century, we consider this feature of the matter should at least be noted. Also, there is the spatial separation of the two items to be considered. These reports go, and in toto, as follows: —

(1) Jacksonville Beach, Florida (AP), 3rd Feb., 1969: "Hundreds of persons — including Police Chief James Alford — reported strange sounds coming from two clouds. One man described the sound as like 'someone rattling cellophane'. A woman said it was more like 'someone walking on pebbles'. Alford ordered Capt. Harold Bryan to follow the first cloud. Bryan did so — to the edge of the Atlantic where the cloud dissipated. The listeners started to go back inside their homes when, they said, another cloud repeated the performance. Bryan also followed it to dissipation over the Atlantic. Officials at the Mayport Naval Air station said they could offer no explanation; neither could other officials."

(2) Miami, Florida (AP), 10th Feb., 1969: "Flapping, crinkling, crackling clouds were reported over Miami Sunday. 'It sounds like a big bird flapping its wings and trying to get off the ground', said William Ward. 'No, it's more like huge sheets of wax paper being crumpled', said his wife, Charlene. The clouds were reported over Jacksonville last week, but no one there could explain the sounds. Neither could the U.S. Weather Bureau in Miami."

Now, there are various possibilities here. The first is obviously chemophysical in that the phenomenon could be due to such things as a purely mechanical sort of "Brownian Movement" of ice crystals, or such as the release of micro-electrostatic exchanges. But, before we come to further consider these we should try to clear away an unpleasant suggestion that comes from ufologists. This is that a really very considerable percentage of ufo reports and especially of daytime ones speak of these unidentified aerial objects either giving rise to, surrounding themselves by, or using clouds in which to do their disappearing act. Further, there are the UAPs, or Unexplained Aerial Phenomena which are themselves, diaphanous or cloud-like. The general idea here seems to be that some ufos either are (to us) "clouds" per se, or they can create and dissipate clouds at will. Should either suggestion be valid, it would seem to be quite likely that some of them might be rowdy, and for either of the chemophysical reasons mentioned above, or for any of a host of others.

The most interesting aspect of these two little reports is that a captain of police followed the cloud and witnessed it dissolve or evaporate. This would seem to indicate that it was a special type of cloud only in that it made noises. Clouds drifting off land over the ocean very often so dissipate but this prods our memory of the late Dr. Rolf Alexander from New Zealand who demonstrated the deliberate dissolution of clouds by "taking thought upon the matter" from the roof of a large department store in Miami in 1960, and in the presence of a lot of people, including a police officer and a radio crew. (For a full discussion of this see Walter J. McGraw's *THE WORLD OF THE PARANORMAL*, listed in the Cumulative Bibliography.) Further to that one, one of our most honoured members (No. 55) became greatly intrigued with that experiment and set about doing a lot of his own. He claimed to have been able to so dissolve clouds and we must admit that he gave a rather satisfactory demonstration one day in Charleston, West Virginia. He, in company with twelve others including the writer and Kent Wilcoxson (152), a geologist and a profound sceptic of all matters such as this, were in that state on an archaeological mission. It had rained torrentially for three days before our arrival and continued to do so all night. Purely kidding we asked No. 55 to do something about it. He went out onto a verandah alone for a time and, lo and indeed behold, a large break appeared in the dense dark overcast precisely over Charleston. It stopped raining there and the hole continued enlarging until the sun shone through from a perfectly clear blue sky. The weather remained almost perfect over about a hundred square miles of the Kanawha Valley for the two days while we conducted our operations, though it continued to rain all around. Within an hour of completing our field work, the sky clouded over and it began to rain again!

Try this some time. It is a great game. All you have to do is lie in a deck chair on a sunny day with, preferably, puffy, fairly well spaced cumulus clouds. Pick one of notable shape that all of you agree you can identify; then shut up and concentrate on it in whatever way you may feel best. It is really quite alarming how your particular cloud appears either to dissolve within minutes or to do one or other of all manner of strange things, like changing color and turning into a wisp, and so on. Mind you, we are not suggesting that this is a practicality; rather, that it is a fine demonstration of "k", and also to a very high power. What might cause a cloud to crackle, fizz, or go pop is probably another matter, but it is of even greater fortune import. We do hope that some of you will be able to dig out some previously published and documented cases of noisy clouds, or let us hear of any personal experiences you may have had connected with same. Decent, pragmatic, chemophysical explanations would be even more welcome.

THE GREAT EXTINCTIONS

It is a real pleasure to report on this as it is wholly pragmatic, concerns recorded facts, and is altogether in the realm of reality. Pleasure is also occasioned by the absence of kookery, though we have to admit that there is a quota of the usual imbecility overlarded with not a little misinterpretation. This matter is also most extremely interesting from another point of view, being as it is, a near classic case of what we have come to call a cross-over, in that it has most pronounced chemophysical as well as geological aspects, and even cosmological and astronomical links, together with an anthropological implication. We present it under the general heading of biology for two reasons. First, this is the way it has been set out in current scientific literature; and, second, because we are going to concentrate on its biological aspects.

Last year, and starting early in January — see *SCIENCE* for the 26th January, 1968, Vol. 159, page 421 — a considerable debate was initiated upon a very old question by the publication of an abstract by Messrs K. D. Terry of the Department of Comparative Biochemistry and Physiology of the University of Kansas, and W. H. Tucker of the Department of Space Science of Rice University of Houston, Texas, in that periodical (*Science*). This was entitled: — "Biological Effects of Supernovae". There were numerous come-backs from many sources, which were published both in subsequent issues of *SCIENCE* and elsewhere, ending with one of the great Dr. George Gaylord Simpson's classic evaluations. And it is this that we will discuss primarily herewith.

For the benefit of those not specifically interested in palaeontology, or conversant with this field, we should explain that Dr. Simpson is not only the dean of that whole department of knowledge but is in just about every other way a captain of true science, a commander of erudition, and a positive commodore of literate expression. For our money, you can take all the literary lights of American, British, and other current forms of "English" and toss them into either the etymological or epistemological trashcans. Further, he writes so that anybody can really understand what he is saying even on highly technical scientific matters. Also, unlike so many so-called experts, he really knows what he is talking about. It is his comments on this matter that we wish to present. But, first, a brief statement of what this is all about.

Palaeontological history as it has been pieced together since the commencement of the proper study of fossil life forms a little over a century ago, has clearly displayed a sort of cyclical progress, in at least one respect. This is the comparatively (from the point of view of geochronology) sudden appearances and disappearances of the larger groups of life forms; moreover, those mass disappearances seem to have more or less coincided with appearances, or upwellings, of newer and higher types of organisms. Four of these sort of changeover periods are recognized: — (1) at the beginning of the Cambrian, (2) at the end of the Permian, (3) at the end of the Cretaceous, and (4) at the end of the Tertiary; namely, during the so-called Pleistocene that immediately preceded the present. At the first change-over, the major types of backboneless animals appeared and gave rise to the fish-like; at the second, terrestrial forms, like the amphibians and then the reptiles, came on the scene; at the third, the mammals, birds, and flowering plants suddenly "flowered", while the majority of the previously dominant reptiles vanished; at the fourth, a considerable number of mammals became extinct and man got going as a quantitatively dominant form. The question that has always been asked has been — Why?

All manner of suggestions have been put forward, and this theory is only the most recent. It comes from the astronomers and astrophysicists. In a nutshell, it suggests that the extinctions, as well as the sudden outbursts of new types, are presumably due to mutation and might have been caused by the type of exploding stars called supernovae, which the advocates of the theory endeavour to show should have occurred within a certain distance of this solar system, at set periods, and with peaks

of individual intensity on just about the periodicity of these changeovers in the dominant life forms of this earth. The suggestion was, further, that deleterious radiations (particularly various cosmic rays) would arrive massively over comparatively (or actually) very short periods, and might so adversely affect some creatures as to cause their extinction, while so stimulating others that they went into wild mutation, proliferation, and numerical multiplication quantitatively. Then the argument began.

First, the cosmologists, astrophysicists, and astronomers had their innings by questioning those aspects of the theory and its foundations that fell within their provinces. Then the biologists got in the act, ending with a brilliant survey and critique by Dr. G. G. Simpson in a letter to *SCIENCE* which was published in their 4th October, 1968 issue, Vol. 162. In this the author put forth his usual string of utterly logical observations which showed that even if said deleterious radiations did hit this earth they would more likely have done so spread over a considerable time, even geologically speaking; while he presented equally cogent reasons why no such outside influences are really needed to explain the rise and fall of the major taxa of both plant and animal life on this planet. However, even this masterful analyst made some strange inferences; notably by combining two distinct types of extinction — that of groups of forms of familial or higher order, and that of a number of specific forms (in individual masses), such as the mammoths during the Pleistocene. These two processes need not necessarily be the same, though the causes of latter could have been one of the methods by which the former was achieved.

No more satisfactory explanation of or for the Pleistocene individual extinctions has been given than has been for the great taxas, disappearances. For instance, there is absolute evidence that many of the former were catastrophic (though intermittent) in that almost countless numbers of individuals of various species of all ages are found fossilized, or partially preserved in arctic muck, in vast aggregates, but most often not in situations where they might have accumulated over the years, by some such cause as floods. There are equally massive accumulations of more ancient forms, such as dinosaurs, fishes, shellfish, and other aquatic forms but there are several alternate and ready possibilities for these. There is thus considerable reason for supposing that the two types of extinction are not the same.

There comes then the matter of the opposite of extinction — namely, creation. And here a remark made casually some years ago by an engineer on being shown a series of fleshed-out reconstructions of extinct mammals that so suddenly appeared at the beginning of the Tertiary Era, as if ready made, and just after the equally sudden disappearance of the so-called dinosaurian reptiles, keeps repeating itself. He took a long look and then said simply — and with particular reference to these lumbering beasts "But those look like radiation-induced mutations".

There comes finally the very sticky problem of what stratigraphists among geologists call "unconformities". This means one strata of a sedimentary rock type, lying upon another totally different one of obviously much earlier age, but with no zone of blending between them, as displayed by their contained fossils or anything else. Such unconformities are attributed to the older of the formations having been elevated and their topmost layers eroded before sinking again under water where an entirely new set of sediments could be laid down on top of them. Such time-breaks occur all over the world between just about every group of strata and also, of course, between most formations, but there are some unconformities that, age-wise, seem to be universal. The most notable of these is between the uppermost (or youngest) Cretaceous deposits and the lowest (or earliest) of the Palaeocene which lies at the bottom of the Tertiary. Nowhere yet discovered are the bones of late dinosaurs found associated with the earliest tertiary mammals. (Of course, there were mammals during the Cretaceous period, and many large reptiles like the crocodilians that are actually relic dinosaurs in the general sense, have lived on through the Tertiary until today.)

Having always been both intrigued and mystified by this, we once wrote to Dr. Simpson on the subject and were the recipients of one of his remarkable letters. (How this scientist finds the time to read practically everything that is published and not only in his own bailiwick, and also answer letters from outsiders is one of the greater mysteries of life!) This ripped apart all the arguments upon which we had based the particular enquiry in our letter and thus put a major slice of tectonics, geochronology, and stratigraphy on a sounder basis. However, it included the bland and positive statement that there is no universal unconformity between the Cretaceous and the Tertiary.

Perhaps this was a matter of mere semantics, and Dr. Simpson was referring to geologic nonconformity, in that certain strata are alleged to have been found, and particularly in southern South America, that do seem to blend upwards, one into the other. However, the biologic unconformity is absolute, and worldwide, even if it may not be chronologically precise all over. Thus, we are still left with the question; Why did whole groups of animal life just vanish, while new ones so suddenly sprang into being, or proliferated so rapidly and enormously? Further, and even more questionable, is

why, for instance, did all dinosaurian-type reptiles, both great and small and the aquatic lacertilians known as Mosasaurs, vanish, while the crocodilians, the rest of the lacertilians, and more so the chelonians (or turtles) and the little Tuatara, both of which antedate the dinosaurs, survive? And, conversely, where in the heck did such enormities as the vast herds of primitive ungulates spring from at the very beginning of the Tertiary, while only a few inches of sediment were being laid down? THERE IS A VERY REAL TIME GAP HERE.

All in all, it would seem that some outside influence is called for, and the most likely explanation for this might indeed be radiation. So, let us keep our eyes on these astrophysicists.

VI. BIOLOGY

(The Structure and Behaviour of Animate Entities)

Protogeanology, Botany, and Zoology, and their related parts, as Histology, Physiology, Anatomy, etc. Also Exobiology; and Physical Anthropology.

BARTHING VERSUS BAYTHING

Here indeed is an hilarious one; but once again, not because the fact itself is odd but because of the fact that the fact is a fact, yet seems only just now to have dawned upon the medical mystics. Honestly, words for once almost do fail us. But let us quote the item in toto. It came from POPULAR SCIENCE for February, 1969, and went as follows: —

"Youngsters who balk at taking a bath have science on their side. Incredible as it seems (italics ours), people who scrub themselves remove an insignificant (sic) proportion of bacteria and may irritate the skin, inviting an even greater bacterial invasion. This, at least, is the conclusion of Dr. Ralph C. Richards of the University of Utah, the most recent participant in a research project dating back 30 years. Among the findings: Campers who stay in the field for a week or two without taking a bath have a lower bacterial count at the end than when they started."

Man, like any other animal, takes fairly naturally to water — sometimes — and provided it is not too hot or too cold. On the whole, however, all terrestrial animals avoid it generally, unless they get their living, or part thereof, by going into it. Reason? First, it 'says nothing' and it "does nothing" for you unless to cool you off. Ninety-nine-point-nine-nine-percent of terrestrial animals never go near it. Second, it may be harmful or even lethal. The danger is not from drowning or even suffocating from lack of oxygen in other ways, but simply that water — and even without "scrubbing" and/or soap — washes out, and in many cases actually dissolves out, the essential exudates of your skin. These are mostly oils and high esters and they are extremely potent and absolute death on fungoid spores, bacteria, and other single-celled unpleasantnesses. They are our and other animals' — and even those that do not 'sweat' — first line of defense against the countless billions of these potential parasites that surround us from birth to death. All our exudations are almost equally potent as repellants. Take a single drop of tear. It will just about sterilize a million parts of its volume of water with respect to the normal hazards to be encountered in that medium. Our so-called 'sweat' is even more powerful.

The trouble with us is clothes. These are not needed except in cases of extreme emergency to protect us hairless ones from excessive and sudden changes of temperature. Worst of all are hats and shoes. All they do is absorb sweat, including any bacteria it may not have killed, and then hold it until it rots. Change your clothes as often as you want but, if you don't change them often enough, you will — to your fellow citizens, at least — stink. Washing or "barthing" your hair is even worse. Soap and all the other fancy goos for so-called cleaning are detergents, and they eliminate the natural oils (or rather lanolins) that literally feed your hairs and protect them from resident fungi and such. Encase your feet in shoes or boots, and then keep wearing them day after day, and you set up a perfect medium for the proliferation of all manner of parasites like that which causes what we call "athlete's foot" and even macroparasites like worms. Frankly the whole thing is not only asinine but extremely dangerous.

Ask any Forest Officer or other person who has really to go into the bush or forest, and he will make polite noises about "The Boy bringing the evening bath". But what does he do if you are not around? He does what the benighted natives do. Gets rid of every piece of clothing prescribed by convention the moment he is out of sight of his peers, and throws off whatever he retains the moment he stops active movement. Further, said clothes go into the nearest running water or are put to soak. And, when away from the possibility of hookworm infection, shoes are the first to go. Sandals — Yes. Bare feet — much more often than anybody admits. Take a cooling 'baythe' in a stream or river —

Yes. But never, on any account, take a 'barth'. Soap — and even that violent majenta-colored bar-soap for washing linen which is so common in the tropics — must of course be used to get off pure grime; but then a complete 'baything' in clean water should be indulged in afterwards.

So, it's taken the good Dr. Richards and his colleagues thirty years to discover some of these basic facts. This, indeed, is a mystery. Perhaps somebody some day will re-discover the simple fact that heels — other than the correct three-inchers which simply make us bipedals walk on the balls of our feet like deer — cause many of our eye troubles. Ask any ophthalmologist who happens to have been interested in general neurology. But that is another matter. Meantime, let it be put on record that we refuse absolutely to have anything to do with human 'medicine' or pathology; but the simple little facts described above are a purely biological matter, in the wider sense. "Baything" is splendid, but 'barthing' is a bloody menace. Besides — and this might be of special interest to you younger people — it destroys, along with our first line of defense against micro-organisms, the "stinks" that your opposites "smell", and which are the basis of what we call sex. Think that one over.

GIANT SNAKES

The following most excellent report came to us from Mrs. R. L. Pollard (97) who is resident in Venezuela. It comes from a newspaper named THE DAILY JOURNAL — "Venezuela's English-Language Newspaper", which is a most excellent publication, beautifully written and maintaining extraordinarily high journalistic standards. The account is datelined Rio de Janeiro and is an AP report with no less than Silvia Landau's byeline. This too is a model of journalism since, unlike even our best newspapers, all the facts, names, and figures check out; and this after translation from Portuguese through Spanish, into English. And we Anglos still sneer at the Ladinos! But then, how many of us know that they had universities two centuries before this country declared its independence. The story goes as follows: —

"An international hunt is underway in the wilds of the Amazon for a legendary giant snake which may be the last of its species. Brazilians and foreigners are chasing after the 'cobra grande' as several jungle expeditions try to outrace each other to capture the giant snake, which in captivity could be the main attraction of any zoo. Until two years ago, the snake was believed to be just a part of the Amazon jungle mythology, but then the huge animal was seen by Italian ichthyologist Bruno Falci in the south of the territory of Rondonia. As he did not have the equipment to capture it, he decided not to kill it either. He took some photographs of the animal while it was taking a siesta. The giant snake had apparently just eaten two calves for lunch. The snake is part of the Indian and regional legends about 'boluna' and 'cobra grande' that would appear here and frighten men and animals. It would shake houses just by rubbing against them, while crawling by. Another story tells of six members of one family being killed by the giant snake.

"Sometime, later on, comparing the pictures taken by Bruno Falci to tracks left by the snake, it was estimated to measure between 100 and 130 feet (30 to 40 meters) and weigh one ton. It is believed to be of the 'securi' or 'anaconda' species. They usually are much smaller, and hunters and scientists believe the giant might be, if not the last, one of the last of a species. In a museum in Belem there is one securi that although 12 meters long (38.4 feet) and weighing hundreds of pounds is less than half the size of the 'cobra grande' now being chased. Falci has returned to Brazil to join the hunt. This time he is equipped to capture the snake and take it to a European zoo. But he is only one among the several expeditions searching for the 'cobra grande'."

The matter of giant snakes stems from three tropical areas — Malaya, the Congo, and the Amazon Basin, and with particular emphasis on the last. The business was covered in considerable detail by Dr. Bernard Heuvelmans (58) in his book ON THE TRACK OF UNKNOWN ANIMALS which was first published in 1958. Quite a lot has happened since that date and notably some extraordinary photographs taken from low altitude in the Congo by a Belgian military aviator. The Society owns the originals of these, and we had them blown up and submitted to the Eighth Reconnaissance Technical Squadron, U.S.A.F. experts in Massachusetts for analysis. A most interesting fact emerged; namely, that there were two possible interpretations, depending upon, of all things, certain botanical matters. The point at issue was simply identification of the vegetation so clearly shown in the photographs. Were these little herbs, or forty-foot trees?

Now, there happened also to be a number of termites' nests of a very distinctive type in the photographs. These can be built as high as twenty feet by the insects but this particular species of termite has the uncanny facility of knowing how to orientate the longer axes — they are like four-sided pyramids but with two very wide sloping sides and two very narrow ones, and a flat top — so that their larger faces receive the greatest amount of sunlight first in the morning and then in the afternoon. (These insects live precisely on the equator.) Of course, all termites' nests have to start small but

it is astonishing how minute a percentage in any one area are small. By the same token, most are near maximum height. Judging from the intense cast-shadows from the nests in these photographs, the Air Force technicians estimated them to be between 15 and 20 feet tall and, moving then to the surrounding vegetation, they found that it must have been between forty and fifty feet tall. Trouble was, should this be so, the snake so clearly shown, (even to the sheen on its scales) would have had to have measured about 200 feet in length, with a girth-diameter of some five feet. And, we repeat; two hundred!

This snake looks like one of the burrowing snakes of central Africa and it is clear that its head is in the process of going down into the ground. Some of these burrowing snakes are termite-eaters and have been found only in termites' nests, but they are only a few inches long. If, then, it just so happened that this reptile was caught above ground in a little bare patch of soil with only "baby" termite nests and surrounded by some small herbs that look like trees, everything would fit neatly into the alternative pattern suggest — but for one fact. Photographs of that clarity would have had to have been taken from a tripod standing on the ground; but analysis of the shadows of the termites' nests made it almost, if not absolutely, certain that they had been taken from the air and from just about 500 feet altitude as the flier had stated!

There is then a rather nasty come-back to the assumption that there are 200-foot-long burrowing snakes. Just what do they eat? Despite the profuseness of termites and the ability of snakes to maintain health and growth on an astonishingly small amount of food with long intermediate periods of fast, the notion that they could be insectivorous is most dubious. Could they subsist on burrowing animals of which there are many of fair size even unto the pig-sized Aard-Vark and other purely subterranean dwellers? Almost all size-groups of life have appropriately sized predators to contend with, and the idea of an aard-vark-eating blind-snake is rather delightful. But there is a third alternative that we suggest might have been overlooked.

Might we, in fact, suggest that this snake was photographed from only about fifty feet up, and simply be a large python going back into its hole? In this case, the termites' nests would be only about a quarter built and the vegetation modest bushes. In fact, we have only the flier's word for the altitude from which the thing was photographed.

SUPERSENSORY PERCEPTION

This is another case of a near "cross-over" and very nearly a three-way one at that, since the mentology boys in the guise of so-called parapsychologists have long wished to grab it for their beloved ESP. The real link, however, in this case comes between chemiphysics and biology, and the latter wins on this occasion because, while the procedure is plainly physical, the effects are not only primarily but uniquely biological. As a matter of fact, it is becoming increasingly doubtful as to whether there is any Section VIII since of the four aspects of a living entity — body, brain, intellect, and identity — three have now been shown to be either entirely, or at least as far as we have so far been able to find out, chemiphysically based. Who's to say that the last stronghold of the "mental" — i.e. the identity, individuality, psyche, id, or whatever you want to call "it" — is not founded on and controlled by the same forces acting upon the same principles? Be all this philosophical conjecture as it may, let us present still another case of SSP chopping a slice out of ESP.

For over a century naturalists, plain country folk, and other keen observers of wildlife and even working scientists have reported extraordinary behaviour on the part of animals prior to earthquakes. Oriental peoples have accepted this fact for millenia. The matter has cropped up once again currently in reports from Peru. Seabirds that normally fish close inshore suddenly moved miles offshore in some hurry and confusion along a three-hundred mile coastline. Ten hours later a series of modest earth-tremors shook that coast and apparently shocked (mechanically) a lot of fish to death that later floated to the surface. The seabirds who took evasive action were divers!

This is a massive subject on which there is equally massive documentation, so we will give only three examples before commenting. These are: —

(1) In a letter from T. L. Boye of Denver; concerning the severe quake which hit Seattle, Washington, in April, 1959: "The following excerpts from the letter I received from a friend there may be of interest to you: 'I was in the kitchen when it hit and I looked out from there and it was just raining dead birds. I saw one pheasant die. It just came running around the house and fell dead on the front walk.' I enclose also a piece published in the Denver Post at the time of the big quake in Yellowstone National Park in 1963; the wild fowl duplicated this phenomenon from west of Denver to as far north as Saratoga, Wyoming."

(2) Denver POST, Aug. 26, 1963: "Waterfowl and other birds apparently sensed the coming of the Aug. 17 earthquake in southeastern Montana, and left before the first shocks, according to a university professor. Dr. Edgar W. Spencer of Washington and Lee University, who has been studying the area, said the birds mysteriously disappeared from the major quake area the afternoon before the first shocks were felt. He said the departure of the birds was not noticed at the time but their absence since has been remembered."

(3) The same year also the same thing was reported from Yugoslavia. According to press reports, animals in Skoplje sensed the oncoming disastrous earthquake which hit that city early on the 26th of July. At 4:30 a.m. keepers and officials were awakened by a tremendous uproar among the animals in the zoo. Wildly trumpeting elephants charged the barriers of their enclosures; lions and tigers roared and paced, etc., etc. Patrolling policemen noticed that there were no birds about, while those at central headquarters struggled with their two bloodhounds which howled and leaped at the windows trying to escape. One couple was awakened at 5 a.m. by scuffling and fluttering noises downstairs. On investigating they found that their pet canary had beaten itself to death against the bars of its cage. With more sense than most showed, the husband packed up his wife and two children and immediately fled the city. At 5:17 a.m. the earthquake struck, devastating over 80% of the city. A few birds returned to Skoplje the next day.

These are, as we say, but three examples out of hundreds of reports of animals showing evidence of prior warning of earth-tremors and also of being seriously injured or killed by them. There is also evidence that human beings are likewise affected and it has been shown that up to 80% of mental patients appear to be upset by geomagnetic disturbances; and in some cases in advance of detectable aberrations. It is, in fact, now demonstrable that such events start long before they are detected even by our most sensitive instruments and that these effects may be other than purely seismographic, which is to say mechanical. Evidence of this recently came from a somewhat unexpected source.

In the 15th September, 1967, issue of the JOURNAL OF GEOPHYSICAL RESEARCH (Vol. 72, No. 18), Messrs. L. Mansinha and D. E. Smylie of the Department of Geophysics of the University of Western Ontario, London, Canada, published a paper entitled "Effect of Earthquakes on the Chandler Wobble and the Secular Polar Shift". Their summary of this work starts off: "The representation of the displacement fields due to the faults associated with major earthquakes by the elasticity theory of dislocations shows that these fields are very extensive, both laterally and vertically.... It is shown that...the results are compatible with the hypothesis that earthquakes excite the Chandler Wobble." Perusal of this fascinating paper brings to light the simple fact that there is good evidence that the wobble of the axial pole seems to be linked to earthquakes, and with particular emphasis on those caused by major fault slips.

Then, in the 13th September, 1968 issue of SCIENCE (Vol. 161, p. 1127) the same authors presented a subsidiary paper, the abstract of which reads: "Observational evidence is presented in support of the hypothesis that large earthquakes excite the earth's natural wobble and produce the observed secular polar shift. Previous theoretical calculations based on elasticity theory and earthquake statistics had predicted a significant effect. There appear to be some premonitory signs of large earthquakes in the pole path." Translated into laymen's terms this means simply that there is direct evidence that the so-called Chandler Wobble has been shown to be possible of detection before or in advance of the earth tremors to which it is subsequently attributed.

Now, the earth is — to us at least — a colossal flywheel with enormous mass, and to tilt its axis-of-spin takes an enormous force. Such force could be applied from 'outside' or from within the body itself and this work seems to show that it comes from the inside, as it were. This force would seem, further, not to be released suddenly but to be a build-up; and such that truly sensitive mechanisms like animals indigenous to this earth should surely be able to detect them. Birds are particularly sensitive creatures in many respects. So also, it appears, are human beings in certain states, some of which we call "insane". Perhaps what we have come to call human "sensitives" are equally so, leading to such (misinterpreted) announcements as the "End of the World". In fact, it does look as if all this is chemophysical.

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VII. ANTHROPOLOGY

(The Structure and Behaviour of Human Enterprise)

Archaeology, Pre-history, History, Ethnology, Sociology,
Folklore, Philology, Economics and the Arts,
Architecture, Agronomy and other useful arts,
and their related technologies.

EARLY EUROAMERICANS

In the NEW YORK TIMES of Sunday, October 20th 1968, there appeared a brief but very pertinent article by our member Andrew E. Rothovius (100), who is also Secretary of that most excellent society N.E.A.R.A. — the New England Antiquities Research Association, of New Hampshire. This was entitled "Mystery Hill's Riddle: 1600's or 3000 B.C.?" — meaning, we assume, "The Riddle of Mystery Hill; A.D. 1600 to 1699, or circa 3000 B.C." This described present work at a site of that name near North Salem, N.H., which has puzzled scholars and laymen alike for several decades. It comprises a number of small but massive structures with tunnels, drains, what appears to be an altar slab, and other curious features that could possibly be interpreted as either some sort of colonial cider-press, a maple-syrup refining plant, a potato storage, or suchlike. On the other hand, the history of the place is very garbled and obscure; there are records of its having been much larger in colonial times, and of masses of other constructions having been vandalized for their stones; also there are reports of many other nearby sites of similar odd construction.

The really interesting paragraph in this article is, however, and we quote: "At the 33rd annual meeting of the Society for American Archeology (sic), Robert A. Kennedy of the Pembrokeshire County Museum, Wales, reported that 'a substantial body of sound archeological (sic) evidence can be presented to demonstrate that such early trans-Atlantic contacts actually took place between 3500 and 2000 B.C. The pottery evidence alone is irrefutable.' "

This would seem at last to bring us face to face with not only pre-Columbian but also pre-Erikson infiltration of the Americas from the east. It has always seemed strange to us that the general consensus of opinion, both popular and even scholarly, should be that nobody "discovered" America prior to the Norse; when, at the same time, everybody has accepted the fact that the Amerinds came from east Asia and the Eskimos later by the same route across the Bering Strait. The very idea that an endless stream of Korean, Japanese, and Chinese ships, sometimes with survivors aboard, could have drifted around the north Pacific via the Kuro Siwo and east-wind-drift-currents, has always put everybody into a tizzy; but that Europeans could have deliberately boated over here when still in what is termed a neolithic stage of civilization invariably produced much more dire repercussions. Now, however, facts are beginning to make themselves felt, and an increasing number of scholars on both sides of the Pacific and of the Atlantic are, one by one, taking a quite different view of the matter. And, N.E.A.R.A. for all its youthfulness has played not a small part in this, since they and their members from long before they became associated have been just ploughing along investigating, mapping, and describing one after another of a seemingly endless list of neolithic type massive stone structures scattered all over both North and South America.

This has meant that not only have other old myths, such as that the Northern Amerinds did not build in stone, have fallen by the wayside, while a whole host of alternatives have come to light. First went the Columbus myth; then came the Norse; next the Phoenicians; and finally the copper and early bronze age folk with their hill-forts, bison corrals, megalithic graves, and other monuments. We've had Phoenician inscriptions — and in both of their scripts, and even with the names of certain of their kings in both — from the Amazon since the 1870s; now we have Bronze Age (of Europe) type pottery in the northern hemisphere.

The Phoenicians in South America constitute a matter that we will have to take up at greater length later, but let us just quote from that most excellent publication THE LOG, Vol. II, No. 6, of June, 1968. On page 103, the news editor reports: "Prof. Cyrus Gordon of Brandeis University thinks a tablet he has translated proves that Phoenicians touched the New World 2000 years before Columbus. An inscription on the tablet, left by a crew of 12 men and 3 women, tells how their ship left the Gulf of Aqaba in the company of nine other ships during the reign of a Sixth Century B.C. king of Sidon named Hiram. Dr. Gordon feels the ship was blown off course on a trip around Africa before 500 B.C. and ended up on the shores of Brazil. The tablet bearing an inscription was first discovered in Brazil in 1872." Shades of poor Prof. Ramos of Brazil.

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(This is not a paid advertisement.)

NOTE: We continue to list books which we consider will or may be of interest to members — in print, 'out of print', and forthcoming. This is arranged alphabetically by author. However, in Vol. 2, No. 4, we propose to publish an amalgamated bibliography of all titles by (a) author and (b) subject. At the same time, a subject index of the first two volumes will be issued. Books by members are indicated by an (*).

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Saunders, Dr. David R., and Harkins, R. Roger (1968). UFOs? YES! New York: New American Library.

Trench, Brinsley LePoer (1960). The Sky People. Hackensack, N. J.: Wehman Bros.

Turnbull, Colin M. (1961). The Forest People. New York: Simon and Schuster.

Vasil'yev, L. L. (1967). Mysterious Phenomena of the Human Psyche. Clearinghouse for Federal Scientific and Technical Information, No. AD 661 891, \$3.

The Clearinghouse collects reports from Government laboratories and industrial firms and private institutions under contract to Federal Agencies. It receives about 40,000 each year, and they are available either in paper copies (\$3 each) or on microfiche (sheet microfilm) at 65¢ each. New reports are announced semi-monthly in 46 separate categories; thus one need subscribe only to announcements covering those fields of particular interest. Complete information on the services available and subscription rates may be had by writing to Clearinghouse (410.61), U.S. Department of Commerce, Springfield, Va., (22151).

The Government Printing Office, Washington, D. C., also has an astonishing variety of documents in all fields, for nominal prices (5¢ and up). 'The Government' has available information which it is not only willing but eager to pass on to the public. If you have a question or need information in a specific field, try writing to the Department involved; you may have to wait a bit, but you will probably be inundated with relevant free material.

*Wilcoxson, Kent A. (1966). Chains of Fire: The Story of Volcanoes. Philadelphia: Chilton Books.

As to whether titles are actually "in print" (as is technically known in the trade), those interested should apply to their library for search in the two standard works Books in Print, and The Cumulative Book Index.

FURTHER NOTICES

- * BE IT NOTED THAT ALL CONTRIBUTING AND CORRESPONDING MEMBERS WHO JOINED US PRIOR TO THE END OF JUNE OF LAST YEAR, 1968, WERE DUE TO RENEW THEIR ANNUAL SUBSCRIPTIONS AS OF LAST JANUARY THE FIRST, 1969.
- * Those joining after the 30th of June, 1968, were granted the balance of last year, gratis, and a free copy of PURSUIT, Vol. 1, No. 3 (incorporating Newsletter No. 3). Their membership subscriptions are not due until the 1st January, 1970.
- * New membership is solicited; but, to this end, the Society does not "promote". Therefore, it is up to members and friends to disseminate information on us, our objectives, and the services we offer.
- * We do not solicit membership or contributions unless respondents have satisfied themselves that we offer services that they feel may be of real interest to them, and until they have also satisfied themselves of the validity of our intent, as in our Journal and elsewhere.
- * We are still in the process of building (physically) so that, while making ourselves as available to members as possible, we cannot offer residential facilities to others than Contributing Members at this time; and arrangements even for their residence must be by prior arrangement.
- * The reason for our regular statement — under NOTICES on the inside front flap of this journal — should be elaborated. It is simply that, with limited staff and a great pressure of work, we are physically unable to respond to requests from any but members.

PUBLISHING RECORD

The Society for the Investigation of the Unexplained was founded at the beginning of 1968 by a bequest from the Ivan T. Sanderson Foundation, which was set up by the Sanderson Estate in mid-1965. The Foundation issued regular reports to the founders, of an entirely intra-organizational nature, but it published one Newsletter (No. 1) for distribution to those who subsequently sponsored the enterprise.

The first quarter of 1968 was occupied with organization of the new society and the establishment of a journal which was named PURSUIT. To cover this period and the organizational work during the previous year, a second Newsletter (No. 2) was issued in March of 1968. The first issue of PURSUIT was distributed in June, 1968, to members only. This contained what would otherwise have been Newsletter No. 3, and was numbered Vol. 1, No. 3, both to preserve continuity, and in order to make a start at bringing serialization into conformity with an annual quarterly schedule of four numbers to be issued in January, April, July, and September.

During the second quarter of 1968 it was decided to offer the journal to subscribers, libraries, and other non-members at an annual rate of \$5, including postage. The response was so considerable that it was then further decided to divorce the purely intra-Society news and affairs from the journal, for circulation among members only. To this end, a single-fold sheet entitled "SITU NEWS" was initiated for distribution concurrently with PURSUIT, Vol. 2, No. 2, in April, 1969. The first issue of SITU NEWS is actually the sixth newsletter published by the Society and its sponsors, and is therefore numbered accordingly — No. 6.

The publishing schedule as now envisioned is four quarterly issues of both PURSUIT and SITU NEWS, dated January, April, July, and September each year, and numbered, in the first case, as annual volumes — Vol. 1 being 1968 and before; Vol. 2, 1969, and so on — and in the second case serially, starting with No. 6, dated April, 1969.

NEWSLETTER	DATE	JOURNAL
NEWSLETTER No. 1 *	May, 1967	
NEWSLETTER No. 2 *	March, 1968	
(contained in)	June, 1968	PURSUIT, Vol. 1, No. 3 *
(contained in)	Sept. 1968	PURSUIT, Vol. 1, No. 4
(contained in)	Jan., 1969	PURSUIT, Vol. 2, No. 1
SITU NEWS, No. 6	April, 1969	PURSUIT, Vol. 2, No. 2

* These are out of print and not available.