

issn 0391-111 x

UPIAR RESEARCH IN PROGRESS

*EDITOR IN CHIEF
VICENTE J. BALLESTER OLMOS*

AN INTERNATIONAL JOURNAL PROVIDING A FORUM FOR RAPID
COMMUNICATION IN UFO RESEARCH

*1982
URIP
Vol.I No.2*

Cooperativa Studi e Iniziative UPIAR S.r.L.

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SECTION IV - PSYCHOLOGICAL AND PERCEPTIVE ASPECTS
SECTION V - EPISTEMOLOGY OF THE RESEARCH

EDITORIAL

FIRST INTERNATIONAL UPIAR COLLOQUIUM

In this issue we welcome Roberto Farabone's invited Editorial. Dr. Farabone is an Italian physicist whose outstanding contribution to scientific ufology has been the editorship of UFO PHENOMENA INTERNATIONAL ANNUAL REVIEW (UPIAR), the parent journal of our own UPIAR RESEARCH IN PROGRESS.

V.J. Ballester Olmos
Editor-in-Chief

Criticism and selfcriticism are the two most effective tools at our disposal to contribute towards the construction of the scientific thought, therefore we must thoroughly use them if we decide to face, analyse and seriously exhaust whatever argument.

Why this premise?

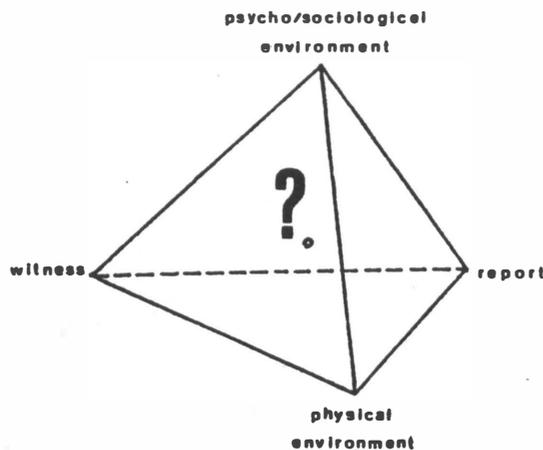
Because we want to have it coherently in our mind in order to examine the reasons and the results of the FIRST INTERNATIONAL UPIAR COLLOQUIUM, held in Salzburg (Austria) from July 26 to July 29, 1982.

It is not our intention in this Editorial to examine in depth the contents of the papers discussed there (UPIAR Cooperative Society will publish the Proceedings of the Colloquium later on). We rather intend to focus on the main reasons for such an initiative and to explain precisely why we have made our choices, as well as to show specially the imprint we have produced with this initiative.

The main reasons of the Colloquium go back some years and they are specially related to the fact that real research has had an inadequate incidence in UFO Congresses. During a typical UFO Congress, even if it was seriously organized and the organizers themselves tried to remove that fringe of people pertaining to the folkloristic milieu associated to the UFO environment, it has always been very difficult to face critically and constructively a restricted and accurate set of thematics. There have always been a lot of arguments to be discussed and it was necessary to satisfy very heterogenous people who had dissimilar interests and backgrounds. This fact often involved a lot of problems: mainly waste and lost of time and effort. Even if proper working sessions were organized to analyse some specific problems, those seldom proposed a true and careful examination of the subjects.

Therefore, the UPIAR team concurred to organize a working seminar centered on one specific theme, and to invite people interested and involved in that theme. All of us know that the UFO phenomenon is a very complex problem, with many facets and implications not yet examined, so it was important to evaluate which theme should be a significant one for this first seminar.

In order to make this choice we brought to mind the approach to the study of the UFO phenomenon recently proposed by the GEPAN, an approach summarized in the "GEPAN tetrahedron", whose drawing has been the symbol of our seminar.



We can see the stimulus at the centre (stimulus which we can never test directly and at the vertices the working areas in which we can act: the witness, the report, the psycho-sociological environment, and the physical environment. In our view, the state of the art at this moment pushes towards the psychosociological environment (we were specially thinking of those stimulating contributions that recently appeared in this area of research. The FIRST INTERNATIONAL UPIAR COLLOQUIUM ON HUMAN SCIENCES AND UFO PHENOMENA came about from those considerations.

Once we have explained why we chose the general subject, let us now describe the "structure" of the Colloquium. First of all, it was not open to everybody, we only invited people and interested in researches in this area.

Furthermore, the admission of participants to the meeting was subject to the matching of some characteristics related to the argument chosen. Such characteristics were attained from all probable participants by asking them for a curriculum vitae. The final audience was not particularly large, but we can say that it was highly qualified, and it gave us the chance to hear many selected opinions. In fact, we had Alex G.KEUL and Luis SCHONHERR from Austria, Marcel DELAVAL and Jacques SCORNAUX from Belgium, Don C. DONDERI from Canada, Hilary EVANS from England, Claude MAUGE, Bertrand MEHEUST and Thierry PINVIDIC from France, Enrico BERNIERI, Massimo GRECO, Francesco IZZO, Edoardo RUSSO, Paolo TOSELLI and myself from Italy, and finally Alvin H.LAWSON from U.S.A.

The Colloquium was structured in four sessions related to four themes which were to be covered on different days. The theme of the first session was Experimental Psychology and UFO/IFO Phenomena, and it included the papers "What could be this?" by A.G. KEUL, and "Examining the IFO Cases: the Human Factor " by P. TOSELLI; the second session's theme was UFO/IFO Phenomena and Perception: Theory and Experiments, which allowed us to listen to D.C. DONDERI's paper "Signal Detection Theory as a Method for the Retrospective Evaluation of UFO Witness ", and that of A.H. LAWSON " A Testable Hypothesis for the Origin of Fallacious Abduction Reports: Birth Trauma Imagery in CE-III Narratives"; the third session, whose title was Problems of Method: the Epistemological Context, featured the paper "Inside the Window" by A.G.KEUL; and the fourth session's subject was Case Histories: the Psychiatric and Sociocultural Involvement, with the papers "Abducted by an Archetype: Alleged UFO Abduction Accounts in the Light of the Theory and Experiments" by H.EVANS, and "Five Selected Cases" by A.G. KEUL.

The Colloquium, as its very name explains, was really structured as a "discussion". First of all, the lecturer read his own paper, then it was followed by a debate on the work presented. On the morning of the last day, in order to conclude it, a "round table" session was organized for the harmonization of the themes and papers discussed during the previous meetings: this final session should have been considered the main and most important event of the Colloquium itself.

Actually, during the Colloquium a lot of very interesting contributions came out and some of them were practically feasible: a big interest was aroused also for the various "Short Communications " presented, authored by W.P. MULACZ, L. SCHONHERR, and C. MAUGE.

Generally speaking, we can be really satisfied with the results of this Colloquium: discussions were lively and precise, and the arguments highly stimulating. There were also three critical points that should be noted in our attempt at selfcriticism: 1) the limited number of participants with respect to the wide possibilities of the argument proposed; 2) the majority of attendees did not realize that we were examining one aspect of the UFO phenomenon and not the best and most exhaustive interpretation of the phenomenon itself; and 3) an insufficient capability of synthetising on occasion of the "round table" session, especially without having adequately in mind the main matrix formed by the "GEPAN's tetrahedron".

As to the first point, we can assume our responsibility: we are still giving shape to our basic mailing list, so that we can receive, directly from the people involved, information related to the areas of competence and interests of researchers. This failure has also been caused by the fact that initially we were only a few at UPIAR and we had, therefore many problems. During the last year some people have joined our team and each one brought new vitality into the team itself. Even in Salzburg, on occasion of informal meetings held with Belgian and French people, we could single out their availability to cooperate with an initiative such as UPIAR which has been, at last, fully understood and accepted.

The second point has probably been caused by a naiveness on our part: the discussions held amongst us do not necessarily mean that they must become part of common knowledge on the part of people acting in the UFO environment. Acting in such a way, we did not focus enough on the importance of the methodological approach of the "GEPAN's tetrahedron", whilst we did not seriously consider that the ufological environment is still psychologically linked to the search of what everyone thinks to be the answer to UFO enigma.

The third point has various causes: work sessions had to conclude because some participants had to go away and therefore certain bewilderment arose amongst some people when they had to find out, in a very short time, the aspects which were to become practical in their proposals. For our part, the difficulty was to underline the necessity to reduce what transpired during the Colloquium into applicable facts, if we wanted to become something different rather than the simple reading of papers.

Nevertheless, most of what we wanted to reach was successfully achieved. We think that succeeding in having all the people gathered and working in Salzburg was a happy occurrence not to be forgotten, mainly if we bear in mind that people attending had the chance to concretely and directly witness that the guidelines we are following are worthy of being pursued. In fact, a certain number of them joined us in this UPIAR initiative that seemed to be interrupted by the difficult situation of our journal UFO Phenomena (2 years delay already, but now happily restarted).

If the worthliness and value of an initiative is not judged only by the dimension of its success, but also by its capacity in analysing its own problems and bypassing them, we can certainly state that UPIAR initiative has full vitality and validity. I now call th UPIAR RESEARCH IN PROGRESS readership to support the UPIAR ideas with actual actions: subscriptions, papers, and UPIAR membership. For fuller details you are asked to contact our adress (UPIAR S.r.L., P.O. Box 11221, I 2011 Milano, Italy)

Roberto FARABONE

NOTE FROM THE EDITOR-IN-CHIEF
1982 URIP SUBSCRIPTION CONTENT

UPIAR RESEARCH IN PROGRESS is scheduled to be released threetimes a year: April, August, and December. As our journal has been born in the middle of the 1982 year, no April issue ever existed. URIP I,1 was released in August 1982 and the present URIP I,2 is dated December 1982.

In order to complete the 3-issue subscription coverage every subscriber has paid for, UPIAR Cooperative Society, the publisher of URIP, has decided to release the proceedings of the Salzburg UFO colloquium (see Editorial in this issue) in the first quarter of 1983; and send this publication to all URIP subscribers to complete their 1982 subscription. I believe everyone will be satisfied with this decision, one which will improve readers' knowledge about UPIAR activities and philosophy.

In 1983, URIP II,1 is planned to be published in the month of April, well within the established URIP timing. Let me finish this message by encouraging you all to put in writing your own research ideas and the results of your personal UFO work in the form of papers, and have them submitted to URIP for publication.

SCOPE AND PURPOSE

This journal publishes original papers regarding the following fields of research:

- 1) PHYSICAL ASPECTS OF UFO PHENOMENA
- 2) GATHERING AND PROCESSING OF DATA CONCERNING UFO PHENOMENA
- 3) THE "CE" (ACCORDING TO HYNEK'S TERMINOLOGY) IN THE UFO EXPERIENCE
- 4) PSYCHOLOGICAL AND PERCEPTIVE ASPECTS IN THE UFO EXPERIENCE
- 5) EPISTEMOLOGY OF THE RESEARCH ON UFO PHENOMENA

EDITORIAL POLICY

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such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Before their potential approval all manuscripts submitted to UPIAR RESEARCH IN PROGRESS will be refereed by some members of the Editorial Board in order to insure the proper attainment of scientific reporting.

PUBLICATION FREQUENCY

UPIAR RESEARCH IN PROGRESS will be released three times a year: in April, August and December.

INSTRUCTIONS TO AUTHORS

The following will be mainly taken into consideration for publication:

- 1) Research papers
- 2) Short communications stressing experimental results and discussing previous papers published in URIP
- 3) Research projects

In addition the journal plans to consider for publication bibliographies of technical references related to UFO phenomena research. Please inquire for related instructions.

UPIAR RESEARCH IN PROGRESS will hold the following columns for which manuscripts will also be considered:

- a. Announcements: on meetings, symposia, workshops, etc. They

should be sent to UPIAR address no later than February 1, June 1, and October 1, of every year.

b. Read in the Literature: reviews and criticisms of papers published elsewhere with specific scientific treatment or potential importance to UFO research. No book review will appear in such a section.

Editorial papers dealing with subjects of general informative interest are published upon request by the Editor-in-Chief.

SUBMISSION OF MANUSCRIPTS

Authors should send three (3) copies of their manuscript, typed and single-spaced on white paper to:

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P.O.Box 11221
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The original - which will be used for the conclusive print - must be very clear. The other two must be also good photostatic reproductions.

The submitted manuscript will be sent from UPIAR RESEARCH IN PROGRESS to the qualified referees. A fourth copy should be retained by the Authors for their own use.

Only original papers written in English will be considered. As an exception, papers written in French will be also accepted. But, they will have a full English translation of the title and the abstract.

For the interdisciplinary nature of the journal, which is addressed to the scientific community as a whole, but also to those who are not familiar with the Author's discipline, the contributors to UPIAR RESEARCH IN PROGRESS are requested not to use technical terms or jargon as well as to define the meaning of any technical term used throughout the text.

All accepted manuscripts will be published by a direct photographic reproduction process, excluding every possibility of subsequent alterations. Therefore either the form or the content of the paper should have been carefully checked to exclude the need for corrections in proof.

Thus it is fundamental to follow the above and following instructions so that unpleasant misunderstandings may be avoided.

The publisher stresses that every contribution to this journal is published free of charge.

PRESENTATION OF MANUSCRIPTS

All papers should be typed, single-spaced on one side only on good quality white paper, (the maximum length of each line must be 17 cm.), preferably of size A4. The papers should have a length of max. 2500 words with an abstract of 100-150 words.

The abstract should not be a mere summary of the work comprehensible only to people working in the area. Papers exceeding the requested length will be considered anyhow. Depending on the importance of the contribution the Editor-in-Chief will decide upon its possible approval for UPIAR RESEARCH IN PROGRESS. Authors -in this case- may be requested to pay a certain fee for extra pages. Emphasis should be given to the fact that longer papers (e.g. reviews) can be addressed for submission to UFO PHENOMENA INTERNATIONAL

ANNUAL REVIEW always released by Cooperativa Studio Iniziative UPIAR S.r.L. on an annual basis.

TITLE: The title should be chosen so that it conveys to the informed reader the particular nature of the contents he/she can expect from the paper. The first page of each paper should carry the title (main title underlined), the Author's names and the name of Department, Institute or Association in which the research work was done.

ABSTRACTS: Each paper must include a summary of 100-150 words, as stated above. Papers in French should have also full English summary, with an English translation of the title. To expand our audience we plan to publish also full abstracts in French, German, Italian, Spanish.

KEY-WORDS: A list of 5-15 key-words for indexing purposes must be given by the Authors, after the abstract. Webster's dictionary defines key word as "...a significant word from a title or document that is used as a index to content."

Through proper key-words Authors supply within their papers both the Subject Index and the information retrieval system can be prepared accordingly.

Some scientific journals point out the index terms have to be chosen from a THESAURUS (i.e.: a list of subject headings with a cross-reference system). Thus we find the Index Medicus which collects the subject headings. All the same the Chemical Abstracts Service Source Index (American Chemical Society) is used in chemical and biochemical literatures.

In UFOlogy we lack a Thesaurus even if words as "abduction", and "entity", or "teleportation" and so on are by now widespread and therefore potential index terms. One of the UPIAR RESEARCH IN PROGRESS goals is the foundation of a uniform terminology for descriptions and evaluations of UFO reports. The creation of a Thesaurus in UFOlogy is a

legitimate part of this aim.

But for the actual accomplishment of this purpose we ask for the close cooperation of both contributors and members of the journal's Editorial Board.

Suggestions and outlines in this sense are urged and should be sent to UPIAR address.

CHAPTERS: All research papers must be divided into chapters in the following order:

- a) Abstract
- b) Introduction
- c) Material and Methods
- d) Results
- e) Discussion
- f) References

ILLUSTRATIONS: All illustrations (photographs, diagrams or graphs) should be in the desired final size. The proportions of the printed page (12x18 cm) should be borne in mind when Authors are preparing the format of illustrations. Several figures should be grouped into a plate on one page.

LINE DRAWINGS: Submit good-quality glossy prints. The inscriptions should be clearly legible. Letters 5 mm. high are recommended.

HALF-TONE ILLUSTRATIONS: Submit well-contrasted photographic prints, trimmed at right angles. Inscriptions should be about 5 mm. high.

CAPTIONS: Each figure should be briefly and clearly described. Remarks like "For explanation, see text" should be strongly

avoided.

Captions are a part of the text and should be appended to it. Any lettering or annotation should be indicated on a tracing overlay or a photocopy of the original. All figures should be numbered in sequence.

REFERENCES: References must be limited to publications quoted in the text; they must be listed in alphabetical order, according to the surname of the first Author, and be cited as numbers in the text according to the quotation. For Journal Papers, the following data must be successively reported: Surname and initial(s) of the first name(s) of the Author(s), year of publication in brackets, full title of the publication underlined (or abbreviation of it, according to international usage), volume, issue and page(s) number.

For example:

Poher C.(1976) - LUMIERES DANS LA NUIT 19, No.158,3.

-- or --

Poher C.(1976) - L.D.L.N. 19, No.158,3.

When a paper with more than two Authors is quoted, all Authors will be mentioned in the first quotation, but afterwards the first only will be mentioned, for ex.: Schwarz et al.(23).

For Books Citations: surname and initial(s) of the first name(s) of the Author(s), year of publication in brackets, full title of the book underlined, publisher, city of publication, and page(s) number.

For example:

Webb D.(1976) "1973- YEAR OF THE HUMANIDS" Center for UFO Studies: Evanston, 33-36.

Responsibility for accuracy of references rests with the Author(s).

SYMBOLS AND TERMINOLOGY: With regard to the abbreviations, symbols and technical terms, the Authors must use the international rules when they exist. If they do not exist, one may use the terminology of well known Authors or treatises.

The Editor of UPIAR RESEARCH IN PROGRESS strongly recommends the development of a uniform terminology for descriptions and evaluations of UFO reports. Meanwhile, Authors should always mention explicitly the terminology used, e.g. "The terminology followed is that used by...", or "According to the classification of...".

A list of uncommon abbreviations could be placed by the Author(s) as a footnote on the first page of the article.

FOOTNOTES: They should be avoided; if essential, they should appear on the first page of the article.

REPRINTS: Fifteen reprints will be sent to the Authors free of charge. Other copies will be available on request, the cost depending on the number of their pages.

PUBLICITY: UPIAR RESEARCH IN PROGRESS is opened to technical, scientific, and book advertisements, provided that they meet full approval by the Editor - in - Chief. An up to date list of publicity rates is available and can be requested to Cooperativa Studi e Iniziative UPIAR Srl.

CALL FOR PAPERS

Authors are kindly requested to send as soon as possible their manuscripts to be considered for publication in UPIAR RESEARCH IN PROGRESS.

Manuscripts accepted for publication will be published within 120 days from the approval date.

A careful reading and application of the Instructions to Authors is strongly recommended. In fact it will be one of basic principles used in the final approval of any paper submitted for publication in the journal.

SECTION I
PHYSICAL ASPECTS

UFOs WITH INTENSE BRIGHT LIGHTS

by Adolf SCHNEIDER

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Received June 16, 1982

ABSTRACT

In various reports concerning unknown aerial phenomena or unidentified flying objects there are references to extraordinarily bright lights or rays. In some cases the witnesses are fully blinded, frequently there are also such physiological symptoms as eye irritation, skin inflammations, etc. The objective of this presentation is to numerically estimate the energies necessary to cause the reported symptoms. On the basis of these results it can be determined whether the reported incidents conform to known natural occurrences or can be attributed to technical apparatus, or whether the origin and mechanisms of these phenomena cannot be satisfactorily interpreted.

KEYWORDS

UFOs - lights - blinding sources - radiation -
illuminance - adaptation - physiological effects -
flash blindness - sunburning - conjunctivitis -
power estimate - ball lightning - heat waves

INTRODUCTION

It is a general belief in the scientific world that most of the evidence for the existence of UFOs consists mainly, but not exclusively, of subjective human testimony. Therefore, it would appear to be of prime importance to learn more about the people who have this kind of experience, if we are to learn as much as we can about the nature of the UFO experience. Perhaps not surprisingly, many authors have felt it to be unlikely that eye-witnesses, however well motivated, can be relied upon to give accurate descriptions of short-lived events.

Therefore, even the most strange and unexpected reports given by reliable observers seem to be unacceptable for some notorious 'sceptics' and 'debunkers'. They decline to use any single subjective description or a statistical summary of reports as a convincing argument for the existence of a really new and separate phenomenon (Schneider, 1982a).

In this paper I would like to concentrate on very bright unidentified lights - perhaps UFOs in the strong sense - and their physiological effects. Despite some uncertainties, I hope to demonstrate a suitable method for extracting 'objective data' from witness reports and medical examinations.

METHODS

It is our aim to calculate or estimate the power limits of the light sources described by the witnesses. The following steps are considered to be essential:

- 1) Determine the ambient luminance from mean light level and reflection factors.
- 2) Find the brightness of the blinding source based on known psycho-physiological relationships.
- 3) Calculate the electrical equivalent (in Watts) of the light source with a given sensitivity of the human eye.
- 4) Find out the electrical power input and compare it with known natural sources like ball lightning or high efficiency lamps.

We are fully aware of the fact that estimates of luminance will be heavily dependent upon the preadaptation of the observer's eyes. It should be expected that bright objects seen in daylight would generally tend to be described as less bright than those seen at night, a conclusion that Rayle (1966) substantiates from his data on ball lightning.

But if reliable information about the adaptation light level is available and the observer claims to have been 'blinded' we can find out some raw estimations of the light energy emitted by bright objects with a given diameter and known distance from the observer (Haines, 1980).

From the bulk of evidence catalogued I have selected three cases which seems so be representative for similar events. These cases have been chosen because they contain some helpful data like distance and size estimations which are essential for some raw calculations.

The first one (Menton, France, 1964) is an example of 'relative blinding'. The second one (Wanaque, USA, 1966) contains strong evidence of a light source which had an

absolute blinding effect on the observer. The third one (Massachusetts, USA, 1979) presents some electromagnetic and physical effects as often reported by close encounter witnesses: the feeling of heat, reddening of the face, watering of the eyes and the peeling of skin some hours after the main experience. The latter effect gives strong evidence for an intense ultraviolet power source as demonstrated below.

MATERIAL

1. Mysterious engine on ground near Menton, France, 1964.

This incident happened early in January 1964 and has been seriously investigated by the French research specialist J.C. Fumoux, author of the theory named "l'Isocelie". The witness is a trained acupuncteur and psychiatrist, now retired.

During one of his routine visits and meteorological tests above Garavan Bord-de-mer - near the super-highway Nice to Genes - he heard some unidentifiable voices. Stepping high over a slope he was confronted by a very large bluish metallic rim which surrounded a central sphere. The surface of the rim shined brilliantly, like palladium, and the lower part had a blue tint. The witness repeatedly touched the metallic disk and could not detect any reaction - except for a tinkling after each slap. No openings and no windows were discovered and - strangely - no physical being outside or inside the craft.

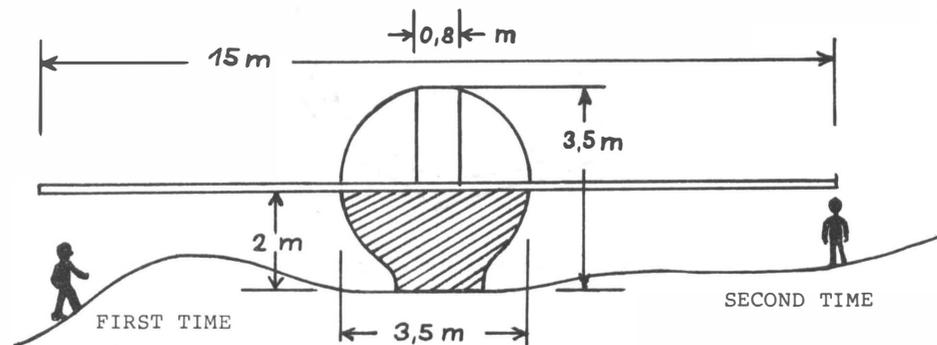


Illustration by M. Planard (Fumoux, 1981)

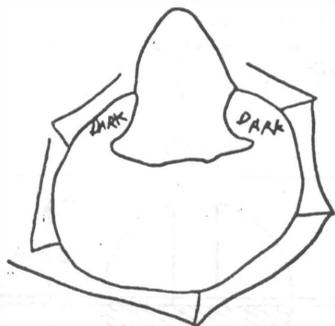
The upper part of the sphere was transparent - like a canopy - and inside he discerned a sort of tube of polished metal. After some time the witness heard a faint bee-like humming sound followed by the "opening" of the rim. Between a split of some 10 centimeters there could be seen a bright light. And after that, he was completely blinded by an additional intense light coming from the vertical tube in the center of the

transparent sphere. It seemed as if the whole object was bathed in this intense illumination, so the witness closed his eyes for his own protection. Some seconds later - after reopening his eyes - he realized that the strange machine had departed with increasing speed. No further sound has been heard, only a violent displacement of air could be felt (Fumoux, 1981).

2. Sergeant Benjamin Thompson blinded some minutes by powerful UFO flashlight over the Wanaque Reservoir, New Jersey, Oct. 11, 1966.

The American journal 'Medical Times' published an in depth study of B. E. Schwarz, with the headline 'UFOs: Delusion or Dilemma'. Schwarz, Assistant Attending Psychiatrist, Montclair Community Hospital, New Jersey, focussed his research in this paper on the medical aspects of some UFO caused injuries and related the effects to the psychopathological and health conditions of the witnesses.

One case which has been studied carefully by Schwarz concerned the high-school graduate Sergeant Benjamin Thompson. He had been a security guard for 20 years at an E.I. Dupont plant and served for the last six years on the police force of the Wanaque reservoir.



Facsimile of object seen and drawn by B. Thompson, 1966

While on patrol car duty on the night of October 11, 1966, about 9:15 p.m., he received a radio message from a fellow police officer in a nearby community, reporting observation of an UFO. The sergeant drove to the area the UFO was approaching. Later on, he described the object as a basketball with a hole cut in it and a football set in it, so that maybe a quarter of the football was sticking out. It made no sound, but left a heavy mist as it went away, making square turns and shooting straight up in the air - nothing like an airplane. According to Thompson's estimations the object had been as big as an automobile (some 5m) or bigger, and was diagonally 250

feet from him on the same height of 250 feet (76.25 m) in the air (Schwarz, 1968).

3. Close encounter of Anmarie Emery, Massachusetts, Jan.5, 1979.

The third case is a close encounter with electromagnetic and physical effects. It has been well researched by Raymond E. Fowler in Massachusetts, U.S.A.

The Sturbridge State Police Barracks had received several UFO sighting reports on the evening of 5 January 1979, and shortly after midnight, in the early morning hours of 6 January 1979. One caller identified himself - Tom Emery, who lives with his parents in Springfield. His sister Anmarie departed from a hotel in Cambridge at about 18:20, 5 January 1979, to visit her parents home in Springfield. Shortly after passing the Auburn area, at the junction of Route 90/120, she noticed 3 red-glowing, triangular-appearing objects flying over the woods to her left (South) in precise formation about 1/4 mile from the road.

Several other cars had slowed down and their drivers seemed to also watch the objects. When Anmarie reached the Route 90/86 interchange, all other traffic exited to Route 86 (Sturbridge/Connecticut/New York) and she found herself traveling alone.

About a mile further on she rounded a corner and sighted the 3 glowing red crafts again hovering over the road directly in front of her car. Simultaneously, her radio stopped playing, the CB radio light blinked out and its indicator needle dropped, and the car slowed smoothly to a full stop.

Anmarie became totally paralyzed and could not move, except that her hands shook a bit as she gripped the steering wheel. The accelerator remained depressed, the standard transmission was in 3rd gear, but despite the engine's continuing the car would not move! The red light from the closest object was so bright that she felt the heat on her face. A strong pungent odor filled the car, which she described as a "sweet skunk smell".

The closest object was only 20 feet away and 10 feet above the road. The second hovered to its right, at the same height, but about 40 feet away. The third hovered to the first's left, at the same height, but about 60 feet away.

During the encounter, which was only 2-3 minutes in duration, Anmarie's face felt hot and flushed and her eyes watered. As soon as the objects left, Anmarie's radio began playing, the CB radio light blinked on and the needle swung up, and her car began to move. And she could also move again ...

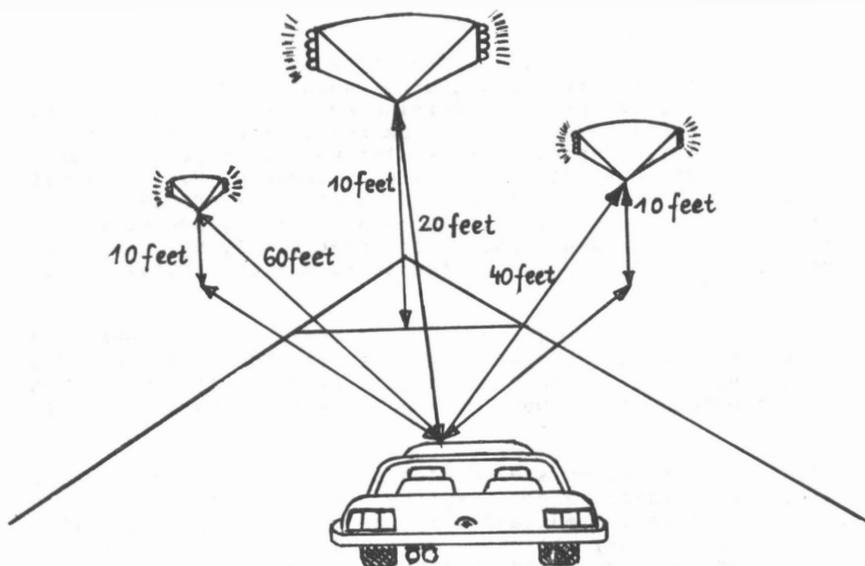


Illustration by Fowler and Schneider, 1979

Arriving home sometime after 20:00 her mother saw her flushed face (like a mild sunburn or high fever) and the dazed look in her eyes and immediately asked what was the matter with her. She told her what had happened and informed her brother Tom (who then phoned the Sturbridge State Police Barracks).

The flushed appearance/feeling of her face disappeared later. There was a bit of a rash and a peeling of the skin around her eyes and above her nose on the following day, which healed quickly (Fowler, 1979).

RESULTS

1. Analysis of the close encounter reported by J.C. Fumoux, Menton, France, 1964.

This case is a very useful and suitable one if we try to analyse the light power of the illuminated object. The following data are given:

- 1) Distance witness - light source: some 10 m

While touching the peripheral rim the witness was 7.5 m near the center, but during the illumination phase we suppose he moved back to some 10 m.

- 2) Dimensions of the illuminated part of the light tube:

0.8 x 1.50 m

Concerning the data specified by the witness it can be assumed that he should have been able to give rather correct measures at that small distance.

- 3) Duration of the illumination phase not specified, but evidently constant for some seconds.

- 4) Date not exactly given, but around Jan. 10., 1964

- 5) Adaptation light level and daytime not specified. (Geogr. coordinates: 43.8 deg. LAT., 7.5 deg. LONG.) From the description given above we can assume that he managed his routine meteorological test during daylight. We use the following limits for January:

- a) 8 a.m. or 4 p.m.

This gives some 5 degree sun elevation according to Albertz/Kreiling (1975). To minimize the light level the sky should have been cloudy. Under this conditions the illuminance (E) has a value of some 100 foot-candle (ft-c) according to Haines (1980: 232).

(1 ft-c is the amount of illuminance produced by 1 candle upon a surface of 1 square-foot area all points which are one foot from the candle.)

- b) noon

For a maximum light level we assume a clear sky. With a sun elevation angle of 25 degree according to Albertz/Kreiling (1975) the illuminance (E) value is found to be some 2,500 ft-c according to Haines (1980: 232).

6) Physiological effect:

The witness was temporary blinded

Assuming that the witness looked directly at the center tube (before the illumination began), then the lateral and vertical distance of the sight line would both be zero and the 'position index' is "1" according to Haines (1980: 236).

The solid angle that was subtended by the very bright luminous source can be calculated to be $0.8 \times 1.5 \text{ sqm} / (10\text{m} \times 10\text{m}) = 0.012 \text{ steradian}$. (The steradian is the solid angle at the center of a sphere of radius r units which subtends an area of r^2 square units on the surface of the sphere.)

The determination of the blinding point is based on the test results of fifty subjects maximum and minimum BCD Brightness (BCD for borderline between comfort and discomfort) (Luckiesh/Guth, 1949 and annex).

It may be assumed that the effective light level had been somewhat higher than the BCD point, but - to be conservative - it is limited here to the average BCD range.

To calculate the approximate power range of the light source it is essential to know the ambient luminance, the reflection factors and BCD-point for the witness.

The ambient luminance (L) can be calculated by the formula:

$$L = (r \times E) / \pi$$

r = surface reflection factor
 E = illuminance (ft-c) (Haines, 1980:171)

Assuming the visual field is determined by the sky and the landscape (each by 50 %) the combining reflection factor is:

$$r = (0.5 \times sk) + (0.5 \times ls)$$

sk = 1.0 for clear atmosphere
 sk = 0.5 for cloudy sky
 ls = 0.2 for meadows (Dirmhirn, 1964: 128)

r = 0.6 clear atmosphere
 r = 0.35 cloudy sky

With the illuminance values $E = 100 \text{ ft-c}$ or $E = 2,500 \text{ ft-c}$ the background luminance can be calculated to be:

$$L = 11.2 \text{ ft-L or } 478 \text{ ft-L}$$

Referring to the diagram in Luckiesh/Guth (1949: 661) or Haines (1980: 237) we find the following values (see figure 1):

For 8 a.m. or 4 p.m., cloudy and 100 ft-c, the blinding source will have a brightness (B) of some $400 \text{ ft-L} = 1,370 \text{ cd/sqm}$

For noon, sunny day and 2,500 ft-c the blinding source will have a brightness (B) of some $2,000 \text{ ft-L} = 6,852 \text{ cd/sqm}$

(1 ft-L = 3.426 cd/sqm; 1cd/sqm = 1 candela per square meter)

If we assume that the shining tube had a uniform light distribution around its perimeter - we do this because the whole object seems to have been bathed in light, and not only one part of it - then the total luminous intensity for a cylinder barrel can be calculated to be:

$$J(\text{cd}) = 2 \times \pi \times R(\text{m}) \times l(\text{m}) \times B(\text{cd/sqm})$$

with $2R = 0.8 \text{ m}$
and $l = 1.5 \text{ m}$

$$J(\text{cd}) = 3.77 (\text{sqm}) B (\text{cd/sqm})$$

The luminous flux - which is attached to the electrical energy - has the definition:

$$1 \text{ lm} = 1 \text{ cd} \times 1 \text{ steradian}$$

That means:

1 lumen equals the luminous flux which is emitted by a point light source of the candlepower of 1 Candela in the solid angle $\Omega = 1 \text{ steradian}$.

Therefore a point light source with a uniform intensity in all directions - that means in a complete sphere of 4π steradians - would emit the flux of:

$$P' = 4 \pi J \text{ lm} \quad P' = \text{luminous flux in the visible range of the human eye}$$

$$P' = 47.4 B \text{ lm}$$

$$P' = 0.649 \times 10^5 \text{ lm} \quad (\text{lm} = \text{lumen})$$

or $3.248 \times 10^5 \text{ lm}$

The mean sensitivity (V) of the human eye for white light is:

$$V = 340 \text{ lm/watt} \quad (\text{Mende/Simon, 1971})$$

(That means you need 1 Watt electrical power to produce 340 lm in the visible range of the human eye.) Therefore the total power output of the light source is:

$$P = P' / V \quad \text{or} \quad \frac{P}{P'} = \frac{0.19 \text{ kW}}{0.96 \text{ kW}} \quad (1 \text{ kW} = 1000 \text{ W electrical power})$$

This result depends upon the spectral light distribution for 'white light' - a fact the witness had not further specified.

In practice, a normal luminous source will also have light energies outside the spectral window of the human eye. Artificial lamps like the XENON High Pressure lamp XBO 1600 W need additional electrical input power, so that the overall efficiency of the lamp is in the range of only some 25 lm/W. That means you need some 2.6 kW to 13 kW electrical power to get a visible luminance comparable with that of the illuminated tube seen by the witness near Menton in 1964.

2. Analysis of the B. Thompson case (Wanaque, USA, 1966)

The visible cross-section of the illuminated sphere can be calculated to be $(5/2 \times 5/2)$ sqm. Therefore, the solid angle under which the witness saw the object in a distance of 76.25 m is:

$$\begin{aligned} & (5/2 \times 5/2 \text{ sqm}) \pi / (76.25 \times 76.25 \text{ sqm}) \\ & = 0.0034 \text{ steradian} \end{aligned}$$

The background luminance responsible for Thompsons eye-adaptation level can be attributed to the car's headlights. With a typical mean value of 1 ft-L (Hentschel, 1972: 226) we find in the diagram of Haines (1980: 237) (see annex) for the brightness of a blinding source: 225 ft-L (= 771 cd/sqm).

According to Haines (1980: 247), a temporary but fairly complete loss of visual function due to a very high luminous source is referred to as 'flash blindness'. Referring to Thompson's account, the white object had a constant high luminosity - he compared it with looking directly into a light bulb and trying to see the socket. The vision, which faded for some minutes, seemed to be irritated by a very powerful light source.

Such conditions suggest the visual brightness of the blinding source to have been in the range beyond some 10,000 cd/sqm (Hentschel, 1972: 65).

The total luminous intensity for the globe-like object can be calculated taking into account the limiting brightness values of 771 and 10,000 cd/sqm:

$$\begin{aligned} J \text{ (cd)} &= 4 \pi R^2 \text{ (sqm)} \times B \text{ (cd/sqm)} \quad \text{with } R = 2.5 \text{ m} \\ &= 0.61 \times 10^5 \text{ cd} \quad B = 771 \text{ cd/sqm} \\ &= (7.85 \times 10^5 \text{ cd}) \quad (10,000 \text{ cd/sqm}) \end{aligned}$$

The luminous energy is:

$$P = 4 \pi J = \begin{matrix} 7.7 \times 10^5 & \text{lm} \\ (98.6 \times 10^5 & \text{lm}) \end{matrix}$$

With the mean sensitivity of the human eye to be $V = 340 \text{ lm/Watt}$ (Mende/Simon, 1971), the total power output of the light source has been, at a minimum: $P = P'/V = 2.2 \dots 29 \text{ kW}$

Taking into account the efficiency rate of electrical to optical power conversion in artificial light sources (some 25 lm/Watt), we can guess that the 'unidentified object' might have been illuminated by a power source of 31 ... 400 kW!

3. Analysis of the Emery case, Massachusetts, USA, 1979

Based on the witness's description of the 'sunburn' effect, we need a raw estimation of the object's light energy emitted in the ultraviolet domain. In the wintry days of January 1979 it can be assumed that the skin of Anmarie had not been preexposed to any relevant amount of ultraviolet rays.

Under these conditions there is a maximum efficiency for a spectral line of 297 nm, and a mean threshold of 40 mWs/sqcm necessary to cause an 'erythem', or reddening of the skin (Muench/Schroeder, 1967: 315). (1 nm = 10^{-9} meter, 1 mWs = 10^{-3} Wattsec)

The rash and the peeling of skin in the face of Anmarie is a strong indication that she had been exposed to a non-ionizing radiation level some 5-8 times the 'erythem' threshold, or some 200...320 mWs/sqcm (Meyer/Seitz, 1949: 229). This is also confirmed by the 'conjunctivitis' of her eyes. The maximum sensitivity of the human eye has been found on the spectral line of 259 nm (Muench/Schroeder, 1967: 318).

We can compare the 'ray effect' of the UFO to being exposed to the sun for about 100 to 160 minutes on a mean summer day. This corresponds to the radiation of a quartz lamp (AH-6, 1000 W) at a distance of 2 feet for 15 to 24 seconds (Koller, 1952: 200). At a distance of 20 feet - comparable with the witness's position in relation to the UFO - an exposure time 100 times greater, i.e. 25 to 40 minutes, is necessary. But, according to the witness, the whole experience lasted only 2-3 minutes. Thus the radiation source would have been about 10 times stronger than a 1 kW standard quartz-lamp in a distance of 2 feet.

DISCUSSION

Now let us compare the radiation energies of UFOs to the light power of some natural phenomena of constant brightness, e.g. ball lightning. A wide range of descriptions are applied to the luminosity of these events, from 'difficult to see' to 'blinding bright'. Rayle (1966) substantiates this from his data that balls seen in daylight would generally tend to be

described as less bright than those at night. On this basis a luminance roughly similar to that of an ordinary 60 W-bulb may be typical (Jennison, 1969: 895).

From theoretical viewpoints some authors postulate a sphere with an initial central temperature of 10,000 degrees Kelvin. The luminance would be comparable with that of an 400 W-bulb (Lowke et al., 1969). In any event, the luminosity of 'ball lightning' seems to be definitively smaller than that of the mysterious objects seen near Menton (1964) or Wanaque (1966). Only the lamps in floodlight systems with maximal 6 to 20 kW power input and light efficiencies of some 25 lm/W (Hentschel, 1972: 171) - that means 0.15 to 0.5 x 10⁶ lm - are comparable with the 0.649 to 98.6 x 10⁵ lm as calculated above.

If UFO's represent such powerful radiation sources, we should also find some side-effects like heat waves and perhaps electromagnetic interference. This is manifested by numerous cases (e.g. Falla, 1979, Rodhegier, 1981, Schneider, 1981a).

We can compare this attribute with corresponding reports on 'ball lightning'. W.N. Charman (1979: 272) pointed out that only about 5% of the balls - generally referred to by the observers as 'fireballs' - seem to radiate some noticeable heat.

The skin is, in fact, a relatively poor detector of heat radiation (Hendler/Hardy, 1960) and, considering the reported luminance of the balls in the visible region, one would not expect radiation to be detected if the radiation spectrum were roughly that of a black body with a color temperature of a few thousand degrees.

'Heat waves' are a common feature of some 'UFOs', as noted by McCampbell (1973: 60). Therefore, it is not surprising that in the Massachusetts case (Jan. 5, 1979) the witness felt heat on her face when the closest UFO hovered some 20 feet away and 10 feet above ground level. This effect suggests either strong infrared rays or a relevant amount of ultraviolet radiation. The latter seems to have been the main component, taking into consideration the 'sunburn' effect on her skin and eyes.

In summary, we can learn the following lessons from our study on 'intense bright UFO-lights':

- 1) Sometimes it is possible to extract from the data given by the witnesses and the field-investigators special parameters which are not very sensitive to subjective distortion and interpretation (e.g. blinding, sunburn, conjunctivitis, etc.).
- 2) With proper description of the light source and the reference illumination, we can obtain some raw estimations of the energies which have been responsible for the reported effects. This can be checked against known light sources (ball lightning, moon, sun, lamps, etc.)

- 3) Based on the medical diagnosis and the development of the health process, we should estimate the exposition time and the spectral characteristic of the rays which influenced the witness(es).

This kind of investigation and computation could be applied to other parameters like special sounds (taped or described by comparisons), strange electrostatic effects (hair crackling), electromagnetic effects, etc. With proper statistical evaluation (Chi square test, see Rodeghier, 1981) we can expect to discover more significant patterns and internal correlations between some primary or secondary effects of the so-called 'UFO phenomena'.

I would like to encourage other interested researchers to check - and even reinvestigate if necessary - all available case reports involving hard core data which cannot be interpreted through or induced by the psychic or social-psychological behavior of the witness(es).

If all physical aspects are adequately analyzed we should solve the basic questions:

- Is there really an 'objective' stimulus behind the UFO phenomenon?
- or do they represent only 'subjective' experiences, as some field investigators and theorists suspect?
- or are most of the reports based on incorrectly-interpreted data?

I hope that more people will be prepared to discuss this fundamental questions in the near future.

* * * *

In addition to the three sample cases I have discussed in this paper, there has been prepared (Schneider, 1982b) a list of 86 cases with bibliographic data and short descriptions of the light phenomena. This case list is available from the author. (Please remit to the address given above five international coupons for Europe or six coupons for overseas).

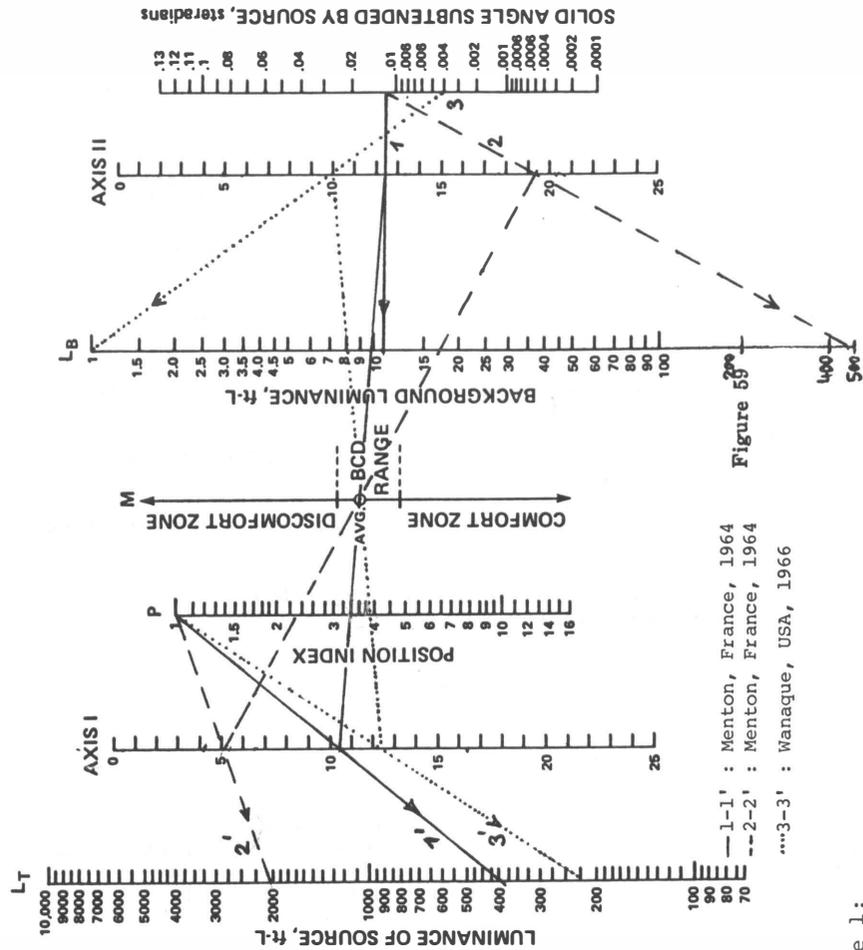


Figure 1:
 ---1-1' : Menton, France, 1964
 ---2-2' : Menton, France, 1964
3-3' : Wanaque, USA, 1966

Figure 1:

Nomogram for calculating the factors which combine to determine the BCD brightness of a source (Luckiesh/Guth, 1949: 661) as applied to cases discussed in text.

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OVNI AUX LUMIERES EXTREMEMENT BRILLANTES

par Adolf SCHNEIDER

Dans divers documents traitant les phénomènes lumineux inconnus ou les "Objets Volants Non Identifiés" (OVNI) il y a des témoins qui parlent des lumières ou des rayons extrêmement brillants. On trouve en partie des témoins oculaires qui sont aveuglés totalement et qui souffrent aussi des symptômes physiologiques comme ophtalmies, inflammations de la peau etc. L'objectif de cette étude est la calculation et l'estimation des énergies qui seraient nécessaires pour provoquer les symptômes rapportés. Consultant les résultats on pourra décider si les manifestations 'OVNI' sont comparables soit aux phénomènes naturels soit aux machines techniques ou que l'origine et la direction des phénomènes résiste à une interprétation adéquate.

Traduit par Adolf SCHNEIDER

UFOS MIT INTENSIV HELLEN LICHTERN

von Adolf SCHNEIDER

In verschiedenen Berichten ueber unbekannte Leuchterscheinungen oder unidentifizierte Flugobjekte ist die Rede von ausserordentlich hellen Lichtern oder Strahlen. Teilweise werden die unmittelbaren Beobachtungszeugen voellig geblendet, oftmals zeigen sich auch physiologische Symptome wie Augenbeschwerden, Hautroetungen etc. Ziel der vorliegenden Arbeit ist es, rechnerisch die Energien abzuschuetzen, die zur Ausloesung der berichteten Symptome notwendig sind. Aufgrund dieser Ergebnisse kann entschieden werden, ob die Erscheinungen bekannten Naturphaenomenen bzw. technischen Geræeten zuzuordnen sind oder ob sich fuer die Herkunft und Steuerung dieser Phaenomene keine befriedigende Erklarung finden laesst.

Uebersetzt von Adolf SCHNEIDER

UFO CON LUCI INTENSAMENTE BRILLANTI

di Adolf SCHNEIDER

In vari rapporti relativi a fenomeni aerei sconosciuti o ad oggetti volanti non identificati si fa riferimento a luci o raggi estremamente luminosi. In alcuni casi i testimoni sono del tutto accecati e spesso ci sono anche sintomi fisiologici come irritazioni agli occhi, infiammazioni della pelle, ecc. L'obiettivo di questo lavoro è calcolare le energie necessarie a causare i sintomi riportati. Sulla base dei risultati si potrà determinare se gli incidenti riferiti si conformano ad eventi naturali noti o possono essere attribuiti a una qualche tecnologia o invece l'origine e i meccanismi di questi fenomeni non possono essere interpretati in modo soddisfacente.

Traduzione di Edoardo Russo

OVNIS CON INTENSAS LUCES BRILLANTES

por Adolf SCHNEIDER

En algunos informes relativos a desconocidos fenómenos aéreos u objetos volantes no identificados hay referencias a luces o rayos extraordinariamente brillantes. En algunos casos, los testigos han quedado totalmente cegados; frecuentemente se dan así mismo síntomas fisiológicos tales como irritación ocular, inflamaciones de la piel, etc. El objetivo de este trabajo es la estimación numérica de las energías necesarias para causar los aludidos síntomas. Sobre la base de estos resultados puede determinarse si los incidentes en cuestión tienen que ver con sucesos naturales conocidos o si pueden ser atribuidos a aparatos técnicos, o bien si el origen y mecanismos de estos fenómenos carecen de interpretación satisfactoria.

Traducido por V.-J. BALLESTER OLMOS

UFOs, SOCIABILITY AND ETI

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Received September 11, 1982

ABSTRACT

In order to study the feasibility of an eventual UFO-ETI correlation, the concept of sociability is introduced in the analysis of the probability of extraterrestrial visits to the Earth. The number of spacecraft launches per civilization and year in function of the rate of sociable planets in the Galaxy is calculated, resulting in a more optimistic assessment than previous estimates.

KEY WORDS

Sociability. ETI. Interstellar contact. Advanced civilizations. Spaceflight.

INTRODUCTION

Some theorists have correlated UFO sightings with the eventual activity of extraterrestrial vehicles operating in the Earth atmosphere and in the land environment. In short, UFO has been equated to ETI (extraterrestrial intelligence). One of the various problems raised by the mentioned correlation refers to the necessary volume of traffic that should exist in the interstellar medium for our planet to receive such ETI visits with the observed frequency.

In this paper we hope to cancel this problem by presenting a reasonable scenario where UFO landing reports and possible ETI visits are compatible.

According to an estimate by Carl Sagan (1), the number of advanced civilizations in the Galaxy which may have developed spaceflight technology is $N = 10^6$. Based upon the most favorable case that hypothetical visits to the Earth were solely one per year, Sagan has written the following:

" Let's assume that each of these million technical civilizations launches Q interstellar space vehicles a year, so that $10^6 Q$ interstellar space vehicles are launched per year. Let's assume that there's only one contact made per journey. In the steady-state situation, there are something like $10^6 Q$ arrivals somewhere or other per year. Now, there surely are something like 10^{10} interesting places in the Galaxy to go visit (we have several times 10^{11} stars) and, therefore,

an average of $1/10^4 = 10^{-4}$ arrivals at a given interesting place (let's say a planet) per year. So if only one UFO is to visit the Earth each year, we can calculate what mean launch rate is required at each of these million worlds.

- The number turns out to be ten thousand launches per year per civilization, and ten billion launches in the Galaxy per year."

This argument is not valueless, certainly. The vastness of the Universe imposes some restrictions to spaceflight, but the very definition of such limitations is a subject for debate. In this paper we pretend to show how Sagan's reasoning is untenable by exposing a fundamental deficiency within, and to contribute alternative calculations based on coherent argumentation from which opposite conclusions can be drawn.

MATERIALS AND METHODS

We affirm that the weakness of Sagan's logic lies in the vague concept of "interesting place", which is artificially introduced in the deductive mechanism. We will centre our critique on this point since Sagan's calculation depends finally on the quotient between two factors, one of which is precisely the number of interesting places existing in the Galaxy. The magnitude of that number will show whether it is reasonable or not to expect encounters with cosmic visitors. The second factor involved, the number of technical civilizations in the Galaxy, may be calculated with some objectivity, whereas the first factor is a completely subjective guess.

Something is interesting when it interests someone in particular. But to presuppose that what could be interesting for a highly advanced extraterrestrial civilization must be equal to what is interesting for our mankind, is obviously anthropocentric. Sagan estimates that there is at least one "interesting place" which could motivate a space mission in one out of ten stars. This statement can raise serious criticism and we take it with suspicion; although it is true that the number of possible interesting places will always be higher than the number of possible inhabited planets, as the second is a subset of the first. However, any application of the concept of "interesting place" must be compatible with the historical experience of the only planetary civilization we know know, ours. And from the analysis of the sociological dynamics since the oldest times, it becomes evident that -in spite of the plurarity of potential interesting places-, explorers and travellers have always had the primary tendency to establish contact with other communities, so favouring the social evolution and the cultural exchange.

We think that the original discussion has missed the very important concept of sociability. Any sociable civilization might certainly launch its spacecrafts towards other places of interest, i.e., planets with amazing geologies or abundant precious minerals resources, planets located in peculiar

positions in the space, etc. Nevertheless, with the passing of time -and calculations assume time spans of millions of years-, the search for new social horizons will undoubtedly be the reason which determines and motivates any risky spatial adventure. If we on Earth had an accurate knowledge on the localization of another inhabited world, it is quite sure that most of our astronomical projects would be vectored to that planet rather than to any other deep space target.

RESULTS

We will now recalculate the probability of extraterrestrial visits within the conceptual framework of sociability. Let us consider the set of sociable civilizations in the Galaxy. We will call S the sociable fraction of the interstellar technical civilizations, so that NS is the total number of sociable technological civilizations in the Galaxy. The number of launches performed by these civilizations per year will be NSQ , where Q is the average number of launches per year over the NS civilizations. If Q' is the average number of launches directed to cosmic contact, the average number of spacecraft to reach any of these inhabited planets per year is

$$\frac{NSQ'}{N} = SQ'$$

which is independent of N . In other words, the number of possible visits from extraterrestrial sources is the product of the sociable fraction of the existing civilizations multiplied by the number of launches intended to interstellar contact.

We feel that the value of S may be very high, as the very idea of the technological evolution requires and is linked to that of cooperation and social interrelationship. It is reasonable to expect that most of the advanced civilizations in the Galaxy must be sociable. Table I provides numerical assessments of the factor Q' , this is, the number of space vehicles launches to be destined to cosmic contact by every sociable civilization for at least one spacecraft to arrive to the Earth per year, as a function of the factor S (fraction of sociable civilizations).

CONCLUSIONS

According to the values reflected in Table I, the following conclusions can be extracted:

1. In the case that only 50% of the galactic technical civilizations had developed a sense of sociability, only 2 launches per planet and year would be required.
2. In the most negative circumstances, considering that the sociable fraction in the Galaxy were just 1%, it would be necessitated 100 launches per civilization and year.

3. In the best circumstances, assuming that every civilization is sociable, only one annual launch per planet would be required.

These figures provide a much more optimistic scenario than the one facilitated by Sagan's calculations, which estimated a requirement of 10,000 launches per civilizations/year for the Earth to receive one visiting interstellar vehicle per year.

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TABLE I

Number of launches of spacecrafts (Q') in relation to the rate of sociable planets in the Galaxy (S), for the Earth to be visited at least once per year by an extraterrestrial civilization.

<u>S</u> <u>Rate</u>	<u>Q'</u> <u>Launches</u>
1.0 %	100.00
10.0 %	10.00
20.0 %	5.00
30.0 %	3.33
40.0 %	2.50
50.0 %	2.00
60.0 %	1.67
70.0 %	1.43
80.0 %	1.25
90.0 %	1.11
100.0 %	1.00

UFO, SOCIALIBILITE' ET ETI

par V. J. BALLESTER OLMOS et M. GUASP

Le concept de sociabilité est introduit dans l'analyse de la probabilité de visites extraterrestres sur la Terre, afin d'étudier la possibilité d'une corrélation UFO-ETI éventuelle. Le nombre de lancements d'engins spatiaux par civilisation et par année est calculé en fonction du nombre de planètes sociables avec des évaluations plus optimistiques que certaines estimations précédentes.

Traduit par Marcel Delaval

UFOs, GESELLIGKEIT UND ETI

von V.-J. BALLESTER OLMOS und Miguel GUASP

Um einen möglichen Zusammenhang zwischen UFOs und extraterrestrischer Intelligenz (ETI) zu ermitteln, wird bei der Betrachtung extraterrestrischer Besuche auf der Erde das Konzept der Geselligkeit eingeführt. Die Berechnung der Zahl der Raumschiff-Starts pro Zivilisations und Jahr in Abhängigkeit des Anteils sozial miteinander in Kontakt stehender Planeten in der Galaxis ergibt gegenüber früheren Schätzungen optimistischere Werte.

Uebersetzung von Adolf Schneider

UFO, SOCIABILITA' ED ETI

di V. J. BALLESTER OLMOS e M. GUASP

Allo scopo di studiare la possibilità di un'eventuale correlazione tra UFO e intelligenze extraterrestri (ETI), nell'analisi della probabilità di visite extraterrestri sulla Terra si introduce il concetto di 'sociabilità'. Viene calcolato il numero di lanci di astronavi per civiltà e per anno in funzione della proporzione di pianeti sociabili nella galassia, con risultati più ottimisti di stime precedenti.

Traduzione di Edoardo Russo

OVNIS, SOCIABILIDAD Y ETI

por V.J. BALLESTER OLMOS y Miguel GUASP

Con el propósito de estudiar la verosimilitud de una correlación eventual entre los OVNIS y la inteligencia extraterrestre, se ha introducido el concepto de sociabilidad en el análisis de la probabilidad de visitas extraterrestres a la Tierra. El número de lanzamientos de naves por civilización y año en función de la proporción de planetas sociables en la galaxia queda calculada, resultando una valoración más optimista que anteriores estimaciones.

Traducido por V.-J. BALLESTER OLMOS

SCIENTIFIC INVESTIGATION OF A CE-2 CASE

By Steuart CAMPBELL

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Received November 22, 1982

Abstract

A lone forester encountered a large hemispherical object in a clearing and was dragged towards it by two 'spiked' spheres. He collapsed and suffered temporary ill effects. The spheres tore his clothing, and all the objects left strange marks in the ground. Local police investigated and recorded the ground marks, but found no conventional explanation or cause to reject the witness' account. Full medical details of the witness are available, and it is deduced that he suffered an isolated epileptic fit. Some scientific tests have been conducted, with little positive result. Evidence points to the cause being a rare natural phenomenon related to ball lightning.

Key words

CE2; ball lightning; energy; epilepsy; forester; gases; Livingston; magnetic anomaly; odour; Taylor, Robert; traces; X-ray fluorescence.

The witness

Robert Taylor (51) was a foreman forester with Livingston Development Corporation, employed by the Corporation's Forestry Department. (Livingston is a new town 24 km west of Edinburgh with a population of about 70 000.) He is known to be honest and responsible and has a phlegmatic disposition. He had no prior interest in UFOs, and is not studious. He drinks very little alcohol, none during working hours, but does smoke cigarettes occasionally. His liver is not in good condition; he suffered mild hepatitis in 1977. In 1965 he suffered viral meningitis, from which he made a good recovery. He has had two operations, a herniorrhaphy and an operation on his neck for cervical spondylosis. He has no history of head injury, and does not normally suffer from headaches, dizziness or blackouts, although earlier in 1979 he had complained of severe headaches. He does suffer from angina and high blood pressure, but at the time of the incident he was not taking medication for this condition. He weighs 73 kg and is 1.8 metres tall. His hearing is good and he needs spectacles only for reading.

The encounter

On 1979 November 9, at about 1000 GMT (UT), after a short break, Taylor left his house to inspect a forest to the north of the town adjacent to the M8 motorway. For most of the journey he drove a Departmental pick-up truck, but due to the state of the ground he had to leave this and walk.

He was accompanied by his dog, an Irish setter bitch. At about 1015 he rounded a corner in the forest track and was confronted by the large object shown in Figure 1. It was a hemisphere about 6 m diameter, with an equatorial flange, and it stood or hovered in a small clearing. There was neither visible rotation nor audible sound. The colour was uniformly dark grey with a rough texture, although periodically the appearance of different parts changed to become transparent (or reflective). Protruding from the upper edge of the flange were what appeared to be regularly spaced stems surmounted by 'propellers', although the latter did not rotate. Just above the flange, on the surface of the hemisphere, were regularly spaced patches darker in tone than the surrounding surface. No other features were visible.

Not many seconds after first seeing this object, two smaller (diameter 0.5 to 1 m) spheres rushed towards him. They came from behind, under or inside the hemisphere. Their colour and texture were identical to those of the large object. Attached to each sphere were several (5 -10) 'spikes' or 'legs' on which the spheres rolled (see Figure 1). As each 'spike' touched the ground it made a sucking or plopping noise. The spheres stopped one each side of him and he found that each had a 'spike' attached to his trousers, just below the pockets. Immediately he felt himself being pulled towards the hemisphere. As the spheres reached him he was overwhelmed by an acrid choking smell which he likened to that of burning brake linings. Struggling for breath and trying to resist the pull of the spheres, he lost consciousness and collapsed facedown.

The aftermath

After about 20 minutes (period determined from subsequent timing of events) Taylor recovered consciousness and found that he was alone, except for his dog which was barking excitedly. The dog had not been beside him when he encountered the strange objects, which had now disappeared. He found that he had neither the power of speech nor any strength in his legs. He was forced to crawl back along the track for 90 m until he could stand. He had a dry throat and was very thirsty for the next two days, and he had a frontal headache which lasted for several hours. He had a burning pain on his chin and felt nauseous. Lacking speech he could not use the two-way radio in the truck, and he had to abandon the vehicle when it became stuck in soft ground. Consequently he walked home (1870 m via a short cut across fields and woods) and found that his speech returned en route. He arrived home about 1115 GMT.

At home he was interviewed by his superior, and head of the Forestry Department, Malcolm Drummond, and his family doctor Gordon Adams. Dr Adams found little wrong with him, except a graze on his chin and others on the outer aspects of each thigh. There was no evidence of head injury or neurological disorder. Blood pressure, heart, lungs and nervous system were normal. Dr Adams arranged for a skull X-ray and examination by a psychiatrist at a local hospital, but Taylor discharged himself after being kept waiting too long. Meanwhile, Mrs Taylor had examined her husband's trousers and had found that there were two tears in them,

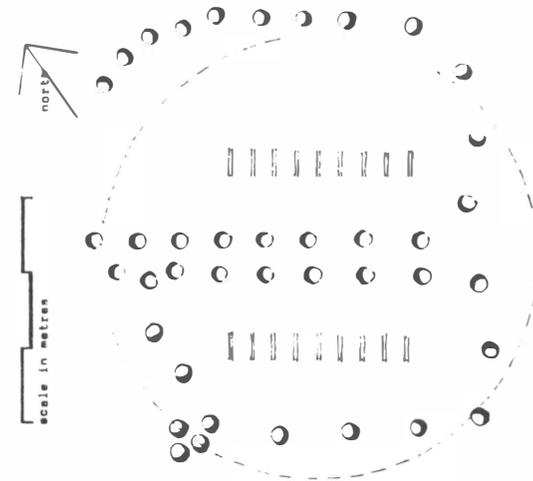


Figure 2
LIVINGSTON UFO INCIDENT

Plan of ground markings from Police measurement
Shading in circles shows top edge on each hole
6 m ϕ circle is assumed position and size of UFO

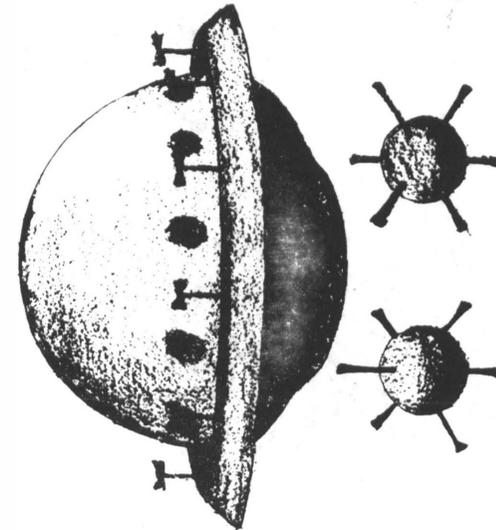


Figure 1
LIVINGSTON UFO INCIDENT

Appearance of the UFO and accompanying spheres

one just below each pocket. There was also a hole in one leg of the long-johns which Taylor had been wearing. Taylor and Drummond went with other foresters to the clearing and discovered strange marks in the ground where the UFO had been seen. The area was fenced off, and the police called. I learned of the encounter, and the marks, that evening from a press reporter.

The ground marks

The marks were of two types (see Figure 2). There were two isolated parallel 'tracks' each about 2.5 m long and the same distance apart. Each indentation of the 'track' was 2 or 3 cm wide and deep, and about 30 cm long, and the area of grass between each indentation was evenly flattened. Although the 'tracks' appeared to be impressions made by a heavy object, they were a feature of the grass alone; the ground beneath the grass was not at all indented or crushed (noted after grass had withered). It was as if the grass had been sucked into a vacuum-mould, and it held its shape for at least 24 hours. No grass was burned or discoloured.

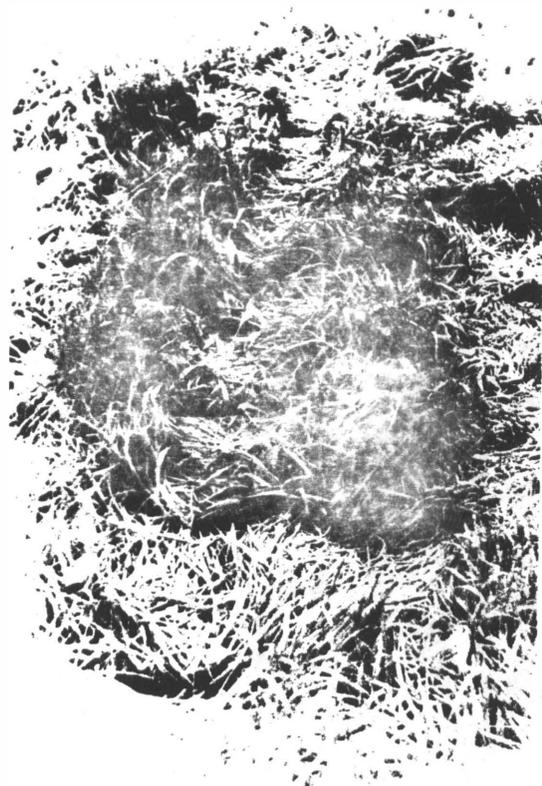


Figure 3

Photograph by Alisair Sutherland of one of the 'tracks'. The light tone is due to a hoar-frost. The north-point shown is incorrect, but the scale represents 30 cm.

Surrounding the 'tracks' were 40 holes exposing fresh earth. Each hole was about 10 cm across and no more than 10 cm deep. But they were all at an angle to the vertical (approximately 60°), and they were angled to follow each other (as Figure 2 shows). This angling shows that there were two distinct rings of holes and that the direction of each ring is opposite to that of the other. The holes did not have any particular shape and did not appear to have been made by any artefact or tool. The earth in the holes was not compressed. New growth in 1980 showed no sign of the marks nor any other defect.

The investigation

Forensic examination of the trousers showed that the tears must have been caused by tension via a broad attachment upwards, i.e. towards the head. The cloth had not been cut and showed no sign of heat. There were some small holes associated with the tears. The hole in the long-johns was compatible with one of the trouser tears, and the grazes on Taylor's thighs were compatible with both tears. Examination of Taylor's route home showed no cause to believe that the clothing was torn in undergrowth or on a fence.

Soil samples, one from one of the holes and one from a molehill several metres away, were subjected to X-ray fluorescence. Although the concentration of Mn, Rb and Pb was higher in the sample from one of the holes, this difference was thought to be a natural variation.

Samples of O_3 , H_2S , NO_2 and SO_2 were offered to Taylor for comparison with the choking smell. None was selected, although the SO_2 was closest.

At the time of the encounter, the air temperature was $3^\circ C$ (RH 85%), with a 2.5 m/s wind from 260° , and 3/8 cloud. There was no precipitation, although snow fell within a few days.

No conventional cause was found for the ground marks; there was no equipment or machinery in the area. Nor has there been any cause to believe that the UFO was a secret man-made craft, or indeed that it was a spacecraft. No helicopters were operational in the area at the time.

The location of the incident is not significantly related to any natural magnetic anomaly; at epoch 1955.5 the local total force magnetic anomaly was 125 nT (0.2% of normal field strength).

Conclusions

Despite the existence of only one witness, his reliability has not been questioned, and it must be concluded that his account is true. The anomalous marks, whose exact cause has not been established, corroborate his story. In particular, the trouser tears are consistent with the force vector of the spheres when the witness was prone. They indicate that after the collapse the spheres continued to pull until the cloth broke. The sucking noise indicates that the method of attachment may have been by vacuum. Tests will be

arranged to determine the force necessary to tear the cloth.

Two hypotheses have been advanced to explain the physiological symptoms. One is the transient ischaemic attack, but this should have left a one-sided weakness. The other is an epileptic attack. The latter could explain the length of the period of unconsciousness, the loss of control of vocal chords and some limbs (Todd's paralysis), the headache, and even the acrid smell (an olfactory hallucination as part of the aura). The witness' previous meningitis left him prone to such a fit, although he does not suffer from chronic epilepsy. An EEG examination showed normal brain behaviour. We may speculate that some unknown influence induced an isolated complex partial epileptic attack centred in the temporal lobe. Further research is required. The influence may have been a strong electric and/or magnetic field.

The ground marks give no cause to estimate the mass of the object, which may not have touched the ground. But there is evidence of electromagnetic activity. An obvious explanation for the holes is that they were the result of electric discharges. If the object was (say) 0.33 m above the ground, then the electric potential of the object cannot have been less than 1 MV. This is two orders of magnitude less than the potential in normal cloud to ground lightning. If the current is similarly scaled, then it should have been about 100 A (min.). Assuming the discharge took 1 second, this is equivalent to the transfer of 100 MJ. Fourty such transfers give a total energy transfer of 4 GJ, which compares well with estimates of the total energy release of ball lightning (1). More energy was needed to make the 'track' marks and to propel the spheres. The two opposed rings of holes are reminiscent of the circulation of magnetic field in a solenoid, and the 'track' marks may be evidence of a very strong localized magnetic field.

It is noted that the description of the spheres resembles accounts of 'black' ball lightning, which has been reported to have protuberances (2). This suggests that the objects were, collectively, an unusual and unidentified natural phenomenon somehow related to ball lightning. The absence of a thunderstorm is not particularly significant.

Investigation and research continues, but an interim report has been issued by The British UFO Research Association (3).

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ENQUETE SCIENTIFIQUE D'UN CAS DE CE-II

par Steuart CAMPBELL

Un garde-forestier rencontra un grand objet semisphérique dans une clairière et fût entraîné vers lui par deux sphères garnies de pointes. Il s'effondra et souffrit de maux temporaires. Les sphères déchirèrent ses vêtements et tous les objets laissèrent d'étranges traces sur le sol. La police locale enquêta, prit note des traces au sol mais ne trouva aucune explication conventionnelle ou raison pour rejeter le récit du témoin. Les détails médicaux complets du témoin sont disponibles et on déduit qu'il souffrit d'un accès de crise épileptique isolé. Certains tests scientifiques ont été effectués avec des résultats très peu positifs. L'évidence laisse supposer qu'il s'agit d'un phénomène naturel rare en relation avec la foudre en boule.

Traduit par Marcel Delaval

WISSENSCHAFTLICHE UNTERSUCHUNG EINES CE-II-FALLES

von Steuart CAMPBELL

Ein einsamer Waldarbeiter begegnete in einer Lichtung einem grossen halbkugelförmigen Objekt. Er wurde zu diesem Objekt durch zwei weitere Kugeln hingezogen, die mit "Spikes" versehen waren. Der Arbeiter verlor das Bewusstsein und litt vorübergehend an schlimmen Nachwirkungen. Die örtliche Polizei führte Untersuchungen durch und nahm Bodenspuren auf. Eine konventionelle Erklärung oder Ursache, die den Bericht des Zeugen widerlegen würden, konnte nicht gefunden werden. Aus den verfügbaren medizinischen Daten wurde ein isolierter epileptischer Anfall abgeleitet. Die verschiedenen wissenschaftlichen Tests führten zu keinem positiven Ergebnis. Die Ursachen der Ereignisse dürften in einem seltenen Naturphänomen zu suchen sein, das mit Kugelblitzen in Zusammenhang steht.

Übersetzung von Adolf SCHNEIDER

INDAGINE SCIENTIFICA SU UN CASO DI CE-II

di Stewart CAMPBELL

Una guardia forestale incontra un grande oggetto semisferico in una radura ed è trascinato verso di esso da due sfere coperte di "spine". Sviene e soffre di effetti fisiologici temporanei. Le sfere strappano i suoi abiti e tutti gli oggetti lasciano strani segni sul terreno. La polizia locale indaga e rileva le tracce al suolo ma non trova alcuna spiegazione o causa convenzionale per rigettare il racconto del testimone. Sono disponibili tutti i dati medici del testimone, dai quali si deduce che egli ha sofferto un attacco epilettico isolato. Sono stati effettuati alcuni esami scientifici, con scarsi risultati positivi. I dati indicano come causa un raro fenomeno naturale collegato al fulmine globulare.

Traduzione di Edoardo Russo

INVESTIGACION CIENTIFICA DE UN CASO CE2

por Stewart CAMPBELL

Un guarda forestal tuvo un encuentro con un gran objeto semiesférico en un claro del bosque y fue arrastrado hacia él por dos esferas dotadas de "espinas". Se desmayó y sufrió efectos fisiológicos temporales. Las esferas desgarraron su ropa y los objetos dejaron marcas en el suelo. La policía local investigó el caso y registró las huellas, pero no halló ninguna explicación convencional ni causa para rechazar el testimonio del testigo. La totalidad de los informes médicos están disponibles, y puede deducirse que el testigo sufrió un ataque epiléptico aislado. Se han llevado a cabo algunas pruebas científicas, sin demasiado resultado positivo. La evidencia señala la causa del hecho como un raro fenómeno natural relacionado con el rayo en bola.

Traducido por V.-J. BALLESTER OLMOS

SECTION V

EPISTEMOLOGY OF THE RESEARCH

CRITERIA FOR A RATIONAL INVESTIGATION OF THE UFO PHENOMENON

by Miguel GUASP

1°de mayo, 40, Valencia-17, Spain

(Translated by V.J. Ballester Olmos)

Received October 29, 1982

ABSTRACT

A critical study of the stages that must be followed in order to reach the knowledge about any fact or phenomenon is applied to the UFO phenomenon. Conclusions are positive and new criteria which permit the creation of a stable approach to the investigation of UFO phenomena are advanced.

KEY WORDS

Philosophical criteria; Knowledge; Physical laws; Testimony; Impossibilities; UFO definition.

INTRODUCTION

I have written this essay under the conviction that its reading will be fruitful for all those who feel themselves involved in the study of the enigma we call UFO phenomena. During my research experiences with the UFO phenomenon, I have realized that the difficulties we find in its study are born, in my view, from ambiguous definitions and the use of terms poorly understood, in addition to the lack of a 'declaration of principles', or absence of sincerity on what really motivates our own involvement in the UFO subject. Thus, the first question we should pose to ourselves is to find out what makes us to keep our association to this field, because if we do not provide a due answer, we will hardly be able to feel ourselves satisfied when reaching one or another point in the investigation.

I maintain that just as our motivations are, so will be the end that we pursue, and, therefore, by isolating that goal, the road to follow will appear clearly. For those persons who do not feel as a priority the imperative necessity to know and to do something to obtain that knowledge, there will probably be few reasons to worry about our present deficient knowledge of the UFO phenomenon. It cost me a big moral effort having to reach the conclusion that the main reason of the obscurantism in which Ufology is sunk arises from the fact that the internal motivations of most people involved in the UFO field are already satisfied. In that case, no investigative advancement is needed or required by them. That's why I am addressing this paper to those researchers who feel themselves compromised with the enrichment of our knowledge on this baffling phenomenon of UFOs, as the true scientific work belongs only to them.

POSSIBILITY OF THE UFO PHENOMENON

The Spanish philosopher Jaime Balmes (1) enumerated in the XIX century the steps that should be followed in the course of our pursuit of the knowledge about a fact or phenomenon, with which I fully concur. He wrote that if we wish to obtain the knowledge of a phenomenon, we must inquire:

1. Whether it is possible or not;
2. Whether it exists or not; and
3. What its nature, properties and relationships are.

It has been argued quite often that one of the insurmountable objections posed to the UFO phenomenon is that it presents some aspects that make its existence impossible, as they are in flagrant contradiction to known physical laws. In principle, such objections are worthwhile; nevertheless, they should be handled with extreme care. For instance, it has been argued that the instantaneous changes in the UFO flight trajectories (in apparent defiance of the law of the inertia), the immaterial behaviour of UFOs (in apparent defiance of the law of gravitation), and the absence of sonic booms are such impossible parameters.

Sometimes the skeptics' errors lie in their ignorance of the data base, the UFO sighting reports, as in the case of the sonic boom problem, since it has been documented that there exists no evidence that UFO reports contradict the physical laws associated with the sonic boom (2). In other cases, the fault is the mere usage of some terms without considering their implications, e.g. the word impossible.

I agree that, if the existence of a certain phenomenon is impossible, then it can not occur and any testimony supporting the contrary must be disregarded; however, the term impossible has been used without pondering its meaning enough. For instance, saying that "it is impossible for a 2000-Kg vehicle to climb a mountain with only half a liter gasoline" (a phrase recently heard from an astronomer in a TV debate), is an example of imprecise statement as the term impossible is used with an absolute value regarding to a natural impossibility.

Philosophy defines three classes of impossibility:

1) metaphysical or absolute impossibility, which is the one that, if were not such, would lead to logical contradiction; 2) natural impossibility, which is the one that if it were not such, would violate an established law of Nature; and 3) moral impossibility, which has no relevance in this context. Many of the objections posed against the existence of UFOs are based on apparent natural impossibilities, which are then extrapolated to absolute impossibilities - a false procedure.

To me, an absolute impossibility is as follows:

- δ1) It is impossible that the addition of two numbers p and q, real and positive, will produce a number r, likewise real and positive, not higher than p.

This example allows one clearly to see the distinction between absolute and natural impossibilities. Thus, if we assume δ1 is an absolute impossibility, it will suffice to enter δ1 into the physical world and define p, q and r as physical quantities, instead of mere arithmetical ones, for the statement δ1 to cease being an impossibility. Let us see. First, we take the classical example:

$$p = 3 \times 10^5 \text{ Km.}, \text{ and } q = 3 \times 10 \text{ Km}$$

then we have $r = 300,030 \text{ Km}$, which is higher than p. Although nobody has taken the trouble to count them first separately and then jointly, I do bet the above statement is infallible. But sometimes that would be dangerous. If we change units and use speeds instead of longitudes, the above statement is no longer valid. However, prior to the Michelson-Morley experiment and the birth of the Theory of Relativity, everybody would have supported its validity. If we make

$$p = 300,000 \text{ Km/seg (speed of light)}, \text{ and } q = 30 \text{ Km/seg (speed of Earth in space)}$$

Then the mentioned experiment proves that $r = 300,000 \text{ Km}$; and consequently, the statement in discussion ceases to be a natural impossibility.

The basis of a conceptual error like this is to be imputed to the assumption - later proved false - that the composition of velocities should be represented by an algebraic law of the same type that is reflected by δ1. The validity of a known natural law was taken for granted: the one represented by the group of the Galileo transformations. Statement δ1 contradicted said natural law; thus it represented a natural impossibility. Nevertheless, it is not so. It shows that, in order to be sure of a real natural impossibility, it is not enough that we are aware of the existence of a certain law which negate a given event; we must also insure that there does not exist any other natural law which offsets or opposes the effect of the first one. There lies the inaccuracy of many of the objections posed to UFO reports.

Personally, I am sure that many of the objections raised by orthodox scientists are valuable and must be seriously considered, but not as much as to allow them to use the term 'impossible' endowed with all its gravity. Not even in the most established disciplines can we be absolutely sure of knowing - in an exhaustive way - the related laws of nature, and there always exists the possibility of finding a second law which is in perfect harmony with the first one (as Relativity is with the Galileo group in the range of small velocities).

Confronted with a UFO experience with apparent physical content, we should react by thinking that it is very unlikely that the story is truthful, but admitting at the same time that we should not dare to characterize it as an impossible event, because it is well known that every scientific advancement comes from the discovery of data which contradicts established physical laws. If it were not so, we would never feel compelled to create new paradigms.

EXISTENCE OF THE UFO PHENOMENON

If by 'UFO phenomenon' we mean the mere accumulation of reports on strange events coming from various sources - whether official, derived from media, or private - then it is plainly evident that such a phenomenon does exist. We realize its existence on a daily basis. But such definition leaves us unsatisfied: we already know that UFO cases exist, and what we want to know is whether or not these are valid.

In other words: what do we mean when we say that UFOs exist? In this context, I personally mean that the testimony's narrative content is true, that it is exactly a faithful transliteration of an observation, that it is a faithful reproduction of the reality and, if a witness says he observed a circular disk, it truly was a circular disk and no other thing. It does not suffice to speculate that, if it was not circular, perhaps it was oval. Such interpretation of testimonies should not satisfy us, because if - to start with - the testimony is not truthful, which will be our willingness to investigate it if, despite being false, is still interesting? The same will apply to any other testimony.

The truth is that, in order to state that a given event occurred, we must require that the testimony is acceptable. Then, what are the conditions that must be required to make the human testimony acceptable? V.J. Ballester Olmos and myself have proposed a set of criteria for the acceptance of any testimony (3), which can be summarized (in a generalization) by two remarkable criteria proposed by Balme (4), who wrote that, for human testimony to be acceptable, it is necessary that

1. The witness is not deceived, and
2. The witness does not deceive.

In order to apply Balme's proposal to the UFO problem, it is necessary that by 'witness' we do not mean only the human being who is the subject of the sighting, but all the conceptual environment attached to any UFO report. However, above Balme-style simplification is useful because of its clarity and conciseness.

Whilst the scientific ufology makes sensible efforts at the methodological level to minimize the possibility that the human testimony irreversibly represents a deforming filter of reality (3), we must recognize in the meantime that, deep inside, we have the impression that human testimony may be erroneous and that feeling inclines us to think that, in the presence of unrepeatable events, human testimony may always prove to be unreliable and uncertain.

NATURE OF THE UFO PHENOMENON

Commonly, expressions such as "the origin of UFOs", "the solution to the problem", "the truth behind UFOs", etc. are used to designate the same thing: the internal nature of the phenomenon, although the use of one or another term presupposes a different nature of the phenomenon. In fact, what should describe its intimate nature is the definition of the phenomenon, yet that nature being unknown, the definition, which should help us to find the truth, is imprecise and only relates to the phenomenon's external

appearance. In ufology, not only is there no acceptable definition of the UFO phenomenon, but its absence makes impossible a significant advancement in its knowledge. Today, the most accepted definition of the UFO phenomenon is the one proposed by Dr. J. Allen Hynek: "We can define the UFO simply as the reported perception of an object or light seen in the sky of upon the land of appearance, trajectory, and general dynamic and luminiscent behaviour of which do not suggest a logical, conventional explanation and which is not only mystifying to the original percipients but remains unidentified after close scrutiny of all available evidence by persons who are technically capable of making a common sense identification, if one is possible" (5).

In general, every definition of this phenomenon describes it as something intrinsically unknown. Such way of thinking contains a gross mistake, as there does not exist anything which is intrinsically unknown; what is unknown, is so for someone in particular not in itself. For the lay public, a UFO is anything unfamiliar to the observer's eye. For Hynek and scientific ufology in general, a UFO is what it is unknown to present science, its limit being defined by a few characteristics related to its observable features. But this is untrue. There exists no phenomenon which can be defined by the fact that it is not known.

Besides, all phenomena studied by Science's vanguard are unknown to it, but it is easily understood that they have different natures and refer to distinct physical phenomena. The obstinacy to present the UFO phenomenon as pictured by the accepted definitions (which are a mere description of its initials) can only convey confusion.

To be described, a physical phenomenon must be defined through the exact knowledge of its essence, or in the absence of it, through the quantitative description of the effects it produces on its close physical environment, including the appearance and features that the phenomenon displays while being observed. Thus, before we had an exact knowledge of the essence of electricity, this phenomenon was defined by Physics as the actions among charged bodies; in Astronomy, phenomena like meteorites, shooting stars and fireballs were separately described by their external features until a deeper knowledge about them allowed Science to unify them in only one definition. Historically, we have seen how a unique phenomenon has been defined as several until its further integration, contrary to what happens in ufology, where a great variety of phenomena is being grouped and described under the unique label of "unknown". Such position represents a dense curtain which prevents us from finding the truth.

Because of the insufficiency of the actual definitions, UFO reports accumulated in the researchers' archives must be related to multiple phenomena, and no a priori connection is discovered among them. Accordingly, the ufologist's motivation cannot be equally satisfied by all the set of the gathered material. If we are willing to acquire rational knowledge in harmony to our intimate motivations, we should proceed in a quite different manner:

The vast set of the 'unknown' should be assimilated to the field of existence of a certain function which has an indefinite number of solutions. The theory of algebraic equations shows that, in order to correctly solve an equation, we must obtain, in the first place, a general expression of the solutions and then to divide its field of existence into as many intervals as existing solutions, such that for every interval there exists one and only one solution. We should learn this message. This means that we should proceed to divide the mass of reports into so many groups that each one of them corresponds to one and only one phenomenon. UFO students should then select their preferred set in line with their intimate motivations, so that it would respond without ambiguity to their interest. Yet how can we select a set of cases so that all of them correspond to a unique identity? Truly, this is not easy at all, as the information available to us is poor and imprecise, and it is not comparable to reliable data obtained through laboratory analyses, for instance.

If that difficulty could be overcome, the procedure would consist in the grouping of cases having similar parameters, cases which only differ in the quantitative measurements of their parameters. We should then be guided by the established classical sciences, and attempt to test the sciences, predictions with the empirical material we have selected and isolated. That is the route to follow.

Finally, I will add a few words on that known attitude which pretends to obtain a unique solution for all the material being catalogued as 'UFO': that approach does not really pursue to gain knowledge of the reality of what has been reported, but it is concerned exclusively with the sociological side of the problem - perhaps searching to go deeper into the origins of mythology - or maybe trying to ascertain which are the sociological foundations of the rumor.

CONCLUSIONS

Some events seem to contravene our current formulation of physical law, this is something that cannot be dismissed; however, the probability that testimonies describing those events are wholly reliable is, to be honest, very low: such events are highly improbable, as only the frequent is probable. It would violate common sense to suppose that rare events (anomalies) are probable, because if they were so, the laws of the Nature would have been built around those events and they would not be anomalous at all. Accordingly, the most judicious position to take is that of skepticism, but an interested and constructive skepticism, as we should bear in mind that the likelihood of finding a genuine phenomenon is as great as of finding radium in a mass of pitchblende.

All this does not constitute sheer negativism. On the contrary, it perfectly suggests the route for us to follow: we should stick to the orthodox sciences established in our own vocational fields and consider the precious material accumulated as anomalous data which should be incorporated in the body of the discipline in

which we work. We cannot advance by considering the unknown as a common body of discipline: I cannot imagine a biologist making advancements with new data relative to the non-conservation of parity in disintegration β , or a nuclear physicist working with new and surprising data referring to certain radiosources. We must bear in mind that to reach knowledge requires the will to submit ourselves to the criteria of Science.

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CRITERES D'ENQUETE RATIONNELLE DU PHENOMENE OVNI

par Miguel GUASP

Une étude critique des étapes à suivre a fin d'atteindre la connaissance d'un fait ou d'un phénomène est appliquée au phénomène OVNI. Les conclusions sont positives et des nouveaux critères permettant une approche stable dans l'enquête sur le phénomène OVNI sont présentés.

Traduit par Marcel Delaval

KRITERIEN FUR EINE VERNUNFTIGE UNTERSUCHUNG DES UFO-PHANOMENS

von Miguel GUASP

Eine kritische Untersuchung der einzelnen Stadien, die bei der Erforschung irgendeines Tatbestandes oder eines Phänomens zu berücksichtigen sind, wird auf das UFO-Phänomen angewendet. Die Schlussfolgerungen sind positiv. Neue entwickelte Kriterien erlauben eine stetige Vorgehensweise bei der Untersuchung des UFO-Phänomens.

Uebersetzung von Adolf Schneider

CRITERI PER UN'INDAGINE RAZIONALE DEI FENOMENI UFO

di Miguel GUASP

E' applicato al fenomeno UFO uno studio critico delle tappe che si devono seguire per raggiungere la conoscenza di qualsiasi fatto o fenomeno. Le conclusioni sono positive e si propongono nuovi criteri che permettano la creazione d'un approccio stabile all'indagine sui fenomeni UFO.

Traduzione di Edoardo Russo

CRITERIOS PARA UNA INVESTIGACION RACIONAL DEL FENOMENO OVNI

por Miguel GUASP

Un estudio crítico de las etapas que deben seguirse para alcanzar el conocimiento acerca de cualquier hecho o fenómeno se aplica al fenómeno OVNI. Las conclusiones son positivas y se proponen nuevos criterios que permiten la creación de un enfoque estable para la investigación del fenómeno OVNI.

Traducido por V.-J. BALLESTER OLMOS

READ IN THE LITERATURE

Solid lights

Walter Bucher

Summary

In many UFO-sightings peculiar beams of light have been observed. These special beams of light are called "solid lights". A solid light looks like a compact cylinder or cone radiating much more light to the sides than an ordinary light beam. Frequently a solid light has an abrupt end and the length of the beam can be varied.

The appearances and the effects of solid lights are described. Some possible conventional explanations are discussed and considered as insufficient.

1. Introduction

The peculiar properties of a solid light may be best described by comparing it with an ordinary light beam. An ordinary light beam is usually invisible. Since in a homogenous medium the light propagates rectilinearly, the beam itself cannot be seen from the sides. Only where the beam hits the surface of a solid body and is scattered can the light be seen. The beam itself can only be seen if the light is scattered from inhomogeneities (e.g. smoke particles in the air). If the density of the scattering centers is high, the beam may become clearly visible. If however the air is free of smoke, haze or fog, the light beam is practically invisible.

Now a solid light is a beam that radiates much more light to the sides than can be expected from light scattering. Very often the solid light looks like a compact cylinder or cone. Sometimes a solid light has an abrupt end so that the beam has a definite length, a property which is obviously impossible to explain for ordinary light. The length can vary, which gives the impression of a luminous rod, the length of which is varied by a telescoping mechanism.

2. The properties

2.1 Source

In most cases the source of the beam was an UFO and no special projector was observed. Sometimes, however, the source is a portable device operated by an UFO occupant. In most of these cases this device is obviously a sort of a weapon.

In a lot of cases the source is not seen at all.

2.2 Number of beams

Usually there is only one beam but sometimes several, or even many, beams are observed.

2.3 Length

In most cases the length of the beam is not reported. Sometimes the length of the beam can be deduced from the height of the source above the ground, or the distance of the source from the witness. In the cases in which the beam had an abrupt end, and therefore a definite range, the length varied between 2 m and 3 km.

2.4 Diameter

The observed diameters range mainly between 30 cm and 3 m.

2.5 Colour

Practically all colours of the spectrum are observed.

2.6 Brightness

Most solid lights are described as bright, very bright, or even blinding.

2.7 Shape

Most beams are cylindrical or conical. The conical beams are partly divergent, partly convergent. There are beams with an abrupt end - an especially characteristic property of a solid light. In some cases the beam is described as hollow. Some beams are bent, a property which is particularly difficult to explain.

2.8 Direction

Usually the beam is directed against the ground or against the witness. Sometimes the beam is directed against the sky.

2.9 Telescoping

In some cases the beam varies its length. The velocity of the changing of length is usually described as slow.

2.10 Penetration

Sometimes it has been observed that the beam penetrated solid objects. In at least one case no attenuation of the beam was thereby observed.

2.11 Illumination of the surroundings

Some reports state that the surroundings are brightly illuminated by the solid light.

However in some reports it is asserted that the bright beam does not illuminate the surroundings at all. The question arises if this is a real effect. According to our knowledge it is impossible that visible light is not scattered by its surroundings. This may be a misconception. For instance, a laser beam in smoky air can appear rather bright, although it does not illuminate its surroundings appreciably.

2.12 Mechanical effects

In a number of cases rather great forces are observed in connection with solid lights. Witnesses have been thrown to the ground or hurled away and cars have slowed down and stopped.

2.13 Thermal effects

Thermal effects are frequently observed. They vary from a feeling of heat on the skin to ignition of haystacks and cars.

2.14 Electromagnetic effects

When the well known electromagnetic effects like stalling of motors, dimming of headlights and radio interferences are observed it is mostly not evident if the effects are caused by the solid light itself or by the source of the solid light.

2.15 Levitational effects

In some cases the solid light is used as a sort of lifting device, aliens and sometimes also witnesses being lifted from the ground and elevated to the hovering UFO.

2.16 Influence on animals

Animals often show unusual behaviour. In some cases they seem very excited, in other cases they seem stunned.

2.17 Physiological and psychological effects

Various physiological, psychological and also parapsychological effects are reported in connection with solid lights. Frequently the witness is paralysed.

2.18 Aftereffects

Persons who are hit by a solid light sometimes show rather peculiar aftereffects. Symptoms of radiation sickness, temporary indispositions, different diseases, but also remarkable, almost unbelievable, spontaneous healings have been reported.

2.19 Strange effects

There are also some very strange effects that seem to defy any attempt of classification and explanation.

2.20 Purpose

In a lot of cases the purpose of the solid light remains completely mysterious. However, in some cases the purpose seems to be evident. Some beams obviously serve to paralyse a too curious witness. Other beams of light are used as a means of transport (see 2.15). Some reports about the behaviour of solid lights suggest a sort of inspection device, although it seems completely hopeless to try to understand what, and how, could be inspected with such a beam.

UFO RESEARCH BIBLIOGRAPHY

(PART II)

3. Attempts of explanation

3.1 Particle beams

Since a beam of protons with an energy of a few MeV shows in air an appearance somehow similar to that of a solid light, one may be tempted to explain solid light as particle beams shot into the air.

However, a more detailed calculation shows rather quickly that to explain the observed brightness the beam intensity would have to be so high that thermal and radiation effects would occur which were not observed.

3.2 Microwaves or ultrasound

The same discrepancies show up if one tries to explain solid lights as intense beams of microwaves or ultrasound. To produce the typical brightness of a solid light the power density of the beam would have to be so high that the thermal effects would be much greater than what was reported in a lot of cases.

3.3 Unknown physical concepts

It will be extremely difficult to explain the great number of different colours the solid lights can have, especially since the colour of a solid light is not at all correlated with its other properties.

In any case it seems hopeless to try to explain the observed levitational effects (see 2.15) within our known physical laws. It seems very probable that the solid light phenomena are based on physical principles still completely unknown to us.

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MAJOR ACKNOWLEDGMENT:

TO ADOLF SCHNEIDER OF MUNICH,
WEST GERMANY
FOR THE PROCESSING
OF THE PRESENT BIBLIOGRAPHY

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RESEARCH PROJECTS

PROJECT UFOMD

1. TERM: October 1, 1981 to October 1, 1983.

2. INVESTIGATOR: Richard C. Niemtow, M.D.
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3. TITLE OF PROJECT:

National Investigation of Medical Injuries Associated
With Alleged UFO Close Encounters.

4. RATIONAL:

Following the United States Air Force Project Blue Book and the Condon Report which essentially negated the existence of unidentified flying objects, reports still continue of this phenomenon. In the majority of cases, an intense light is observed with variable geometric configurations. Curiously enough, associated with these observations are medical injuries and apparently related sequelae.

These injuries may be classified into three categories. The first category is of a temporary nature dealing with paralysis, dizziness, temporary blindness, headache, perception of odors, audio frequency sounds, and parapsychological activity. The second category deals with the more chronic effects usually associated with skin lesions, gastrointestinal disturbances, and abnormal psychological manifestations. The third category is slow healing and a return to normal health. The stigma of the experience may cause long term life style and socio-psychological changes that may or not be tied to the medical injuries.

As a private citizen, I feel justified based on the frequency of pathological reports associated with close encounters and the existence of excellent investigating media and experts, to undertake the acquisition of serious medical data. This information, respecting the privacy of the individual, would be evaluated and placed at the disposition of the scientific community.

Hopefully, this study will assist in a better understanding of the phenomenon as it interacts both physically and psychologically with man. It may be feasible to describe physiological mechanisms that are repetitive with the phenomenon.

5. PLAN OF RESEARCH:

SPECIFIC GOALS:

- A. Investigate and assess a minimum of twelve (12) cases dealing with medical injuries as a result of UFO close encounters.
- B. If possible, produce a catalogue correlating injury and the UFO mishap.

6. EXPERIMENTAL DESIGN AND METHODS OF PROCEDURE:

- A. A medical doctor of the patient's choice will interview and evaluate. Dr. Niemtow will act as consultant to the primary physician.
- B. The existing UFO organizations have the needed expertise to evaluate the non-medical data.
- C. Medical Guidelines:

CLINIC EVALUATION

Complete medical and psychiatric history.
Physical Examination (include weight)

LABORATORY TESTS

complete blood count with differential
serum and urine electrolytes: sodium, potassium, chloride, calcium and phosphorus.
serum glucose
serum cortisol to determine 24 hour peak
urine ketones
chest x-ray
biopsies of skin lesions
photographs of external injuries

7. COMMUNICATIONS:

- A. The witness must be examined by a physician of his choice immediately.
- B. The "patient" must have his physician call Dr. Niemtow. Telephone: 707-446-5050
Mail: Richard C. Niemtow, M.D., 532 Merchant St., Vacaville, CA., 95688.
- C. Please respect the anonymity of the patient in all reports. Otherwise medical legal problems will forbid the publication of medical information and the case will be excluded.
- D. All cases may be published in any journal at the discretion of the field investigator.

E. Medical data will be published in the journals of organizations that endorse the study.

8. RESULTS TO DATE:

A. UFO organizations and private investigators have generated data sufficiently useful for this study.

B. No thorough medical investigation of injuries produced by the phenomenon has been attempted on a national scale.

9. SIGNIFICANCE OF THE PROPOSED PROJECT:

This investigation may prove very fruitful in identifying the phenomenon and determining its possible detriment or benefit to the American population.

10. REPORTS:

Every three months or at the instance of a case.

11. PUBLICATIONS:

Medical information to be published in the journal of supporting UFO organizations.

12. INTERNATIONAL PARTICIPATION WELCOMED

NEW CATALOGUE OF UFO LANDING REPORTS IN
THE IBERIAN PENINSULA (SPAIN AND PORTUGAL)

The research project to be described below has been funded by the FUND FOR UFO RESEARCH (Box 277, Mount Rainier, Maryland 20822, USA).

1. INVESTIGATOR: Vicente-Juan Ballester Olmos
Guardia Civil, 9
Valencia-20
Spain
2. TIMING: The project is expected to be finished 2 years after receipt of funds. (Funding was effective on Spring, 1982).
3. BACKGROUND: The investigator is doing specialized research on the problem of landing reports since 1969. In 1971 his first results materialized, and the investigator and Dr. Jacques Valleé jointly published "Type-I Phenomena in Spain and Portugal", Flying Saucer Review, 2nd Special Issue, August 1971. Based on that preliminary 100-case catalogue (unprecedented in Europe), a few analyses were performed:
" Sociology of the Iberian Landings ", Flying Saucer Review, 17, 4, July-August 1972.
" Record and Analysis of the Spanish Negative Landings ", Flying Saucer Review, 17, 4, July-August 1972.
" Biometric Data in 19 UFO Occupant Cases ", Flying Saucer Review, 19, 3, May-June 1973.

The above essays provided, for the first time, an appraisal of the magnitude and general features of the phenomena of alleged UFO landing activity in Spain.

In the following years, the investigator devoted considerable resources and time to the consolidation of an updated census of Iberian landings, and finally 200 reports were selected. The resulting catalogue was published in the USA as a CUFOs Technical Report: A Catalogue of 200 Type-I UFO Events in Spain and Portugal, Center for UFO Studies, Evanston, Illinois, 1976. A descriptive study and a computer-aided analysis of the catalogue was then released as a 382-page hardcover book: OVNIS : el fenómeno aterrizaje (UFOs : The Landing Phenomenon), Plaza & Janés, S.A., Barcelona, Spain, 1978.

4. CURRENT OBJECTIVES: The investigator has done much research work in the past by compiling, studying, cataloguing, computer processing and analyzing UFO landing reports generated in the Iberian Peninsula (Spain and Portugal).

Recently, the investigator has made a series of improvements in this area of research: a standard summary has been designed, a coding system has been prepared, and mathematical formulae to establish Strangeness, Credibility, Information Quality, and Certainty indices have been devised.

The present working project will cover the following objectives:

1. Re-evaluation of the existing catalogue of 200 cases.
2. Gathering and study of around 200 additional reports.
3. Writing technical summaries for some 400 cases.
4. Development of a separate catalogue of explained sightings.
5. Codification of 53 parameters by case on the appropriate coding sheet.

The ultimate end of the construction of this databank is certainly to facilitate its further analytical treatment, as computer recording and analysis of the coded information will be the natural following stages.

5. SPECIFIC PROPOSAL AND AIMS: The investigator's present aim is both to refine and expand the catalogue of Iberian landing reports, according to the following lines:

- 5.1 To review on an individual basis the existing census of landing reports. To perform direct or indirect reinvestigation and re-inquiry of all cases, looking for reasonable conventional explanations. Maximize the signal-to-noise ratio.
- 5.2 To compile all informations generated since 1975 (cut-off-date of previous catalogue) up to end of 1980, plus any other older cases now known. It is estimated that 200 new cases have been gathered by some 40 different sources in Spain and Portugal.
- 5.3 To create a subcatalogue with those cases subjected to a proper identification (negative catalogue).
- 5.4 To prepare technical abstracts of the available information of all amassed reports, following the guidelines set up by a common format design.
- 5.5 To codify 53 parameters by report, according to a recently devised codebook, in a coding sheet which has just been developed. Including quantification of 4 indices: Strangeness, Credibility, Information Quality, and Certainty.

- 5.6 The resulting catalogue (collection of summaries) and the machine-readable input will have an unparalleled level of sophistication, and it will be the investigator's following research program to process by computer and analyze in depth the massive volume of accumulated data. (It will be covered in a future working project).

SHORT COMMUNICATIONS

ON UFO REPORTS' DYNAMICS

" Time Distribution in Iberian UFO Activity ", the paper by Fernandes and Ferreira published in the very first issue of UPIAR RESEARCH IN PROGRESS (1) is most interesting. As a sociologist, I can add little to it, except one or two obvious points.

1. UFO catalogues, by its very nature, are compiled from a variety of sources (investigation organizations, etc.). Each of those sources may possess somewhat different dynamics - tempo of investigation, etc. -, thus the final tally of sightings represents a composite (i.e. a summation) of several different channels of information. Each channel might well be studied in terms of its own temporal development. The U.S. UFOCAT, for instance, clearly reflects several sets of dynamics, including U.S. Air Force reports, the French wave of 1954, etc.

2. In the United States, virtually all UFO investigative activity is conditioned by press publicity, such as: a) when people report sightings, b) when they are published, and c) the number of personnel available to investigate UFO events. For reasons I have dealt with in my paper "The Human Factor in UFO Sightings" (2), there is some reason to believe that most UFO waves are due to the press behaviour rather than the dynamics of the phenomenon itself.

3. The Fernandes & Ferreira paper is very ingenious in removing trend and seasonal variations, but the "cycles" which remain may well be due to a sub-class of UFO events which represent unknown natural phenomena. Many nocturnal lights may be of this character.

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The Centrality of the Witness

by Francesco IZZO
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There has been a one-way trend in UFO studies for the past since thirty-five years. In spite of a number of books which appeared in the last three years on the international market (2,3) most of the general interest is still focused on the folklore elicited by the stimulus(i) rather than on the experimental hints offered by the human percipient.

Even the late Condon observed how "...reports of UFOs offer interesting challenges to the student of cognitive processes as they are affected by individual and social variables"(1). I agree that Condon's endeavour to relate UFO reports to psychology and sociology cannot be considered genuinely scientific, to say the least. In fact several of Condon's critics have exposed the underlying reasons for such a psychological approach to UFO reports. The aim of the Colorado Group's study on the witness was to destroy -through witness fallibility and with the complicity of human sciences- the scientific respectability of the whole subject.

Anyhow it is worthwhile to re-read today, in the eighties, the so-called Condon Report. As unbiased reader I must admit to having a different feeling from twelve years ago. As a matter of fact and aside from the negative philosophy which permeates that volume it summarizes the gist of the present controversy on UFO phenomena.

Imagine somebody who claims to see something extraordinary. Still imagine a scientist eager to investigate such a claim. What would he/she study? The answer appears trivial and self-evident. His/Her attention would (or better should) be turned to both elements of that intimate relationship: the stimulus(i) which apparently hit the perceptual machinery of the brain of the claimant and the person who claims to have perceived it(them).

After thirty-five years of ignorance, prejudices, stupidity, and a priori we have come to possess tiny drops of scientific interest about that somebody from whom all reports originate. It has been shown with indignation and surprise that only 0.7% of the worldwide literature available on the subject of UFO phenomena has been produced on the role of human perception in the generation of a UFO report (4).

A legitimate question arises: who cares about the witness? And a second more urgent question ensues: why should we care about the witness?

In my opinion the answer to the first question is essentially one: nobody cared about the witness -up to 1979- because nobody could scientifically deal with the witness in UFO studies. The nearly total absence of university-trained specialists involved in a direct survey of UFO reports since the beginning of the controversy brought about the taking up of the subject by those amateur investigative journalists to use an ironic description of the picturesque category of UFOlogists(7).

Browsing through the Condon Report one can discover a prophecy that is sadly true when compared to the subsequent development of the controversy on UFO reports. In Hartmann's words: "...if

a 'flying saucer' story is investigated too completely, and is found to be a misperception or a hoax, its interest and sales value are reduced"(6).

That statement applies pretty well to the present state of things in UFOlogy because of the continued prevalence of the sensational aspects of the problem over the methodological ones. For example, every good scientist knows that the results he/she gets on a certain topic are relevant and significant provided they can be compared to a suitable control.

This remark by itself can explain why an UFO case should deserve enormous importance and attention and full right of citizenship in UFO research. Indeed it is a must to gather a series of controls which take in account the manifold aspects of a reported phenomenon.

As to physical aspects good candidates "eligible" to controls would certainly be the fireballs, ball lightings, advertising planes, meteors, and other similar events.

As far as psychological aspects are concerned one could hardly avoid considering dreams, hallucinations, and schizophrenia as major controls.

Pertinent complaints in this regard abound. Hendry, for instance, writes: "Why had none of the national groups (of UFOlogist, FI) developed a list of the sixty-odd ad plane companies in the United States such that I had to make one myself from scratch?" and later on "...if radar is such a valid adjunct to UFO sightings, why in thirty years have none of the national groups prepared publications on the different kinds of radar system in the country? (the USA, FI)"(8).

Hendry referred to the situation of the United States but

unfortunately his comments can easily be extended to all over the world.

It looks really difficult to conceive of any future of research on UFO phenomena without a radical change in the current trend, a change that can embody the afore-mentioned indispensable tools of measure and comparison of our data. I have elsewhere stated (10) that the real qualitative leap in UFO studies means to switch the attention of the serious students to other -apparently far- research fields such as neurochemistry, pharmacology, and perceptual psychology.

My basic assumption is that as soon as we realize the centrality of the witness in the moulding of a UFO report we will be able to develop a number of potential techniques, hypotheses, and experimental procedures that will permit a better understanding of what is going on when somebody claims to see something.

The concept of centrality does not exclude the fundamental importance of the physical conditions in which a claimed UFO experience takes place nor the socio-cultural milieu affecting the memory retrieval of the witness in shaping a report after the event. Centrality simply means that we must begin with the witness in examining a UFO report. Centrality means that it is mere nonsense to pretend to evaluate the strangeness rating of a UFO report when the reliability index (a direct function of the personality of the witness) derives from just an ordinary interview.

As emphasized by Haines "there are a great many, often overlooked, visual factors which are involved in every UFO sighting. These factors should be understood before (Haines italics, FI) an interpretation of the visual phenomenon is attempted."(5).

UFO reports are not mirror images of the original stimulus(i), if any stimulus(i) existed. Therefore it is literally mad to raise hypotheses and theories based upon the reports per se without screening the main source of data (i.e. the witness). Who is still sceptical in this regard is recommended to read a volume explaining in details why (11).

Two feasible alternatives remain in front of us: either to conclude with Hendry that "if a UFO disappears, leaving only human testimony in its wake, there will be nothing of compelling scientific value to be gained"(9) or to join Keul when he naively states (with the naiveté of L'Ingénue) "the more we learn about ourselves the more we will learn about the true meaning of the UFO".(12)

As for me I have chosen the second route.

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Here follow the German language abstracts of the articles in URIP Vol. I No. 1, as well as the Spanish language abstract of A. G. Keul's article, all of them having not arrived in time for inclusion in last issue.

DAS STUDIEN-PROJEKT UBER DIE OESTERREICHISCHEN UFO-ZEUGEN
von Alexander G. Keul

Die Schrift umfasst die Methoden und die Ergebnisse eines offiziell finanzierten Studien-Projektes über die persönlichen Variablenmerkmale, sowie über die Kontrolle der Realitäts-Übereinstimmung der UFO-Berichte in Oesterreich.

Die Zeugen von zehn nicht identifizierten Fällen wurden einer ganzen Serie von psychologischen Tests unterzogen, wobei die Ergebnisse die bedeutende Rolle der Psychopathologie der überprüften Fällen zu bestätigen scheinen.

Es wird eine Fortsetzung der Analyse mit einem signifikanteren Personenkreis angekündigt: mit einer Kontrollgruppe von NICHT-UFO Zeugen, sowie von NICHT-Oesterreichischen UFO-Zeugen.

ZEITLICHE VERTEILUNG DER UFO-AKTIVITAET AUF DER IBERISCHEN HALBINSEL
Von Fernando FERNANDES und Jose Mario FERREIRA

Diese Arbeit stellt ein Versuch einer Analyse der zeitlichen Verteilung des UFO-Phänomens auf der iberischen Halbinsel dar. Die Angaben, welche das Zeitraum von 1950 bis 1977 umfassen, wurden dazu verwendet um die eventuelle Periodizität der gemeldeten UFO-Sichtungen zu erforschen.

Eine auf die Autokorrelationsfunktion basierende Methode hat verschiedene, bedeutende Merkmale gezeigt, wobei sich ergeben hat, dass die zeitliche Struktur der Iberischen Daten eine verblüffende Analogie mit der zeitlichen Gesamt-Struktur, welche sich aus den aus aller Welt kommenden Sichtungen ergibt, zeigt.

VERWENDUNG DER PHOTOGRAPHISCHEN BEURTEILUNGS-TECHNIKEN DURCH
EDV-ANLAGEN

Wie solche Methoden vom GSW zur Analyse der Photographien von
Vermuteten UC angewandt werden.

Von William H. SPAULDING, Direktor, GSW, Inc. Fred APPIAN, Pho-
tographischer Berater des GSW, Inc.

Die Verstärkung des Bildes durch EDV-Anlagen (Computer Image
Enhancement=CIE) ist eine fortschrittliche Methode der elek-
tronischen Verarbeitung der photographischen Aufnahmen dank
der Anwendung von superschnellen digitalen Computern, welche
weitere und sinnvollen Informationen zu erhalten erlauben, um
die Photos der UC (Unidentified Objects=Unidentifizierte Obj-
ekte) analysieren zu können.

Es gibt eine grosse Zahl von UFO-Photographien, diese sind
aber von schlechter Qualität. Diese Bilder haben immer ein
Problem für die Ausdeutung seitens des Forschers dargestellt.

Die für Photos von UFO-Erscheinungen angewandte Verstärkung
des Bildes durch EDV-Anlagen, wird erörtert. Darüberhinaus
werden einige der vom GSW, Inc. verwendeten Techniken sowie
Beispiele der Vor- und Nachteile dieser EDV-Technologie im
Raumfahrt-Zeitalter, vorgestellt.

Man bezweckt die Subjektivität der konventionellen Beurtei-
lungstechniken zu verringern.

Graphische Beispiele der CIE-Methodik, zusammen mit ihren
Anwendung für Photos von vermuteten UC, werden erörtert.

Uebersetzer: Manfredi Orgera

EL PROYECTO AUSTRIACO DE TESTIGOS OVNI

por Alexander G. Keul

**Este trabajo da a conocer los métodos y resultados de un proyecto
de investigación financiado oficialmente sobre el control de la
realidad en los informes de testigos OVNI austriacos. Se les dio
a los testigos de diez casos no identificados una batería de pruebas,
los resultados de las cuales parecieron confirmar el consirable
papel jugado por la psicopatología en los casos examinados. Se
anuncia una continuación del análisis sobre una muestra más repre-
sentativa y con un grupo de control de no-testigos OVNI, sobre otra
muestra de testigos austriacos.**

Traducción por V.-J. Ballester Olmos

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PRINTED IN ITALY

© 1982 by "Cooperativa Studi e Iniziative UPIAR S.r.l.", Corso Vittorio Emanuele II n.108, Torino - Reg. Trib. Torino n. 2101/82 - Partita IVA n. 04146110012

URIP - UFO PHENOMENA INTERNATIONAL ANNUAL REVIEW - UPIAR RESEARCH IN PROGRESS
Direttore responsabile: Renzo Cabassi - Registrazione Tribunale di Bologna n. 4798 del 17 marzo 1980 - Stampa Litomaster, Via S. Antonio da Padova 12, Torino

Vol. I No. 2

December 1982

Abbonamento L. 21.000 (\$ 15.00)

UPLAR

RESEARCH IN PROGRESS

COOPERATIVA STUDI E INIZIATIVE UPIAR S.R.L.
P. O. BOX 11221 - I 20110 MILANO (ITALY)

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