

UFOs and the FOURTH DIMENSION: Part 2

by Luis Shoenherr

IN my article "UFOs and Fourth Dimension" in the March-April, 1963, issue of the FLYING SAUCER REVIEW I outlined four hypotheses concerning the nature of the UFO phenomenon:

1. UFOs are some sort of machine emanating from a region of the cosmos unobservable in our space-time continuum. They use a fourth dimension to travel into regions of the cosmos observable to us.
2. UFOs originate in our space-time continuum but voyage outside it (using the fourth dimension).
3. UFOs are "four dimensional structures" and that part of the UFO observable to us is the three dimensional projection of the structure in that part of the cosmos observable to us.
4. UFOs may be time machines (this assumes that the fourth dimension is time).

At present it seems me that it is impossible to decide which of these hypotheses is correct and, in addition, hypotheses 1, 2 and 3 are not mutually exclusive.

In this article, I should like to consider the concept of a fourth dimension with regard to certain rather enigmatic observational features. At the present stage of our inquiry it will not matter in principle whether the fourth dimension is a special dimension completely imperceptible to us, or whether the seriality which we call "time" is merely the form in which we perceive the fourth dimension. However it appears that the following arguments may especially fit the hypotheses 1, 2 and 3.

The observational facts we are here concerned with are the following:

- a. What appear to be diffuse luminous objects, similar to the phenomenon of ball-lightning, behave as if they were under intelligent control. Classical observations of this type are the so called "foo-fighters."
- b. In some cases, objects of this type have been shot at without any effect. They seemed to be invulnerable.
- c. Benedicks has tried to apply the ball lightning theory to the UFO phenomenon. In order to explain the fact that UFOs often change

course and fly away when fighter planes appear on the scene, he put forward the interesting hypothesis outlined below. If an aircraft is approaching a ball lightning the induced air movement from the propeller will cool off parts of the ball of electrically charged gas. This will in turn cause a static discharge the reaction from which repels the ball away from the aircraft thus creating the impression that the object is "fleeing" from it. Now as everyone can demonstrate for himself at an airport, the air movement does not extend very far ahead of even a stationary aircraft. If the craft is in rapid motion, one might expect its range to be considerably smaller. This means, that a pursuing aircraft would have to come dangerously close to a ball lightning, before the induced air movement could have any effect at all. I therefore suggest that this hypothesis gives too much credit to the effect of the induced air movement since there are very few reports which would lead one to think that such a close approach has occurred. In addition, we must not forget the UFOs have often changed their course to approach aircraft and to accompany them for minutes after slowing down near the plane.

In some cases UFOs of the luminous type have been shot at without any effect. It is impossible to explain this by the ball lightning hypothesis. A lightning ball is a very unstable structure and therefore often destroyed by the slightest disturbance. I can hardly imagine ball lightning being shot at (and hit) and not become unstable and therefore dispersing or exploding. This feature of the UFO reports would be better explained by the mirage hypothesis of Dr. Menzel (2). But according to Menzel the often reported intelligently controlled movements would have to be regarded as almost purely coincidental, an assumption which seems equally far fetched. There are yet other reasons why the mirage hypothesis is not very probable (3). The following two reports clearly indicate that both of the hypotheses mentioned above completely fail to explain the facts.

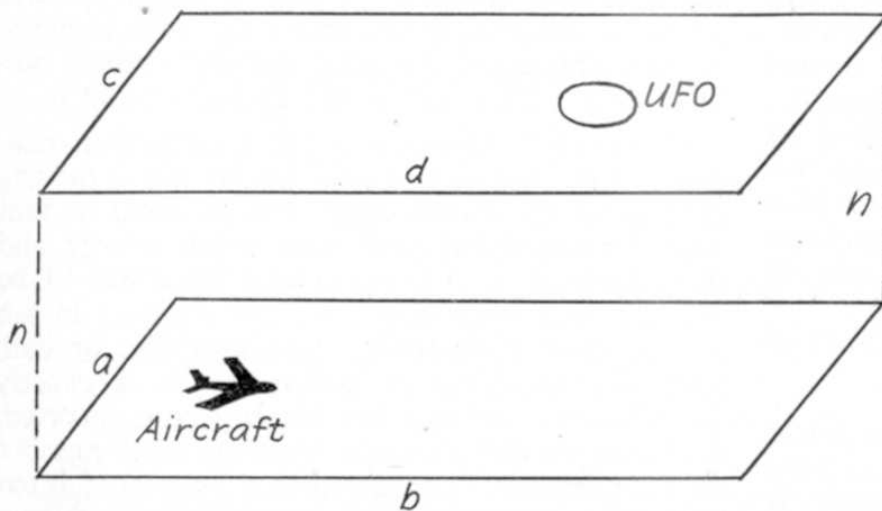
On March 25, 1942 an R.A.F. bomber after having bombed the city of Essen in the Ruhr, was followed for five minutes by an orange glow-

ing object over the Zuider Zee. The rear gunner fired several rounds at it without any effect (4).

Another, even more astonishing report comes from the other of the then belligerent parties. In autumn 1944, some months before the allies on the western frontiers were puzzled by the appearance of the foo-fighters, a German anti-aircraft battery near Warszwa fired at an UFO. The glow-stopped abruptly over the battery whereupon its ing, circular object appeared in the night and light dimmed. The rangefinder indicated its altitude at 10,800 metres. Despite heavy firing from all guns it descended vertically to 3,200 metres. Then, it suddenly became blindingly bright. Flames appeared around its circumference and on

these facts. As we are apparently three dimensional beings and unaccustomed to the conception of a fourth dimension, I shall use a simple analogy to explain my hypothesis. In fig. 1 our space is represented by the plane b and the hypothetical space in which the UFO is moving by the plane c-d. We have for the purpose of our consideration the two three dimensional continuum reduced to planes. The remaining dimension n will be taken as the fourth dimension. If we agree, that all physical events which take place in c-d are strictly confined to this space, the UFO is visible to the pilot of the aircraft in a-b, only if n becomes zero.

This is but one possibility. Now suppose that the force field created by the propulsion system of

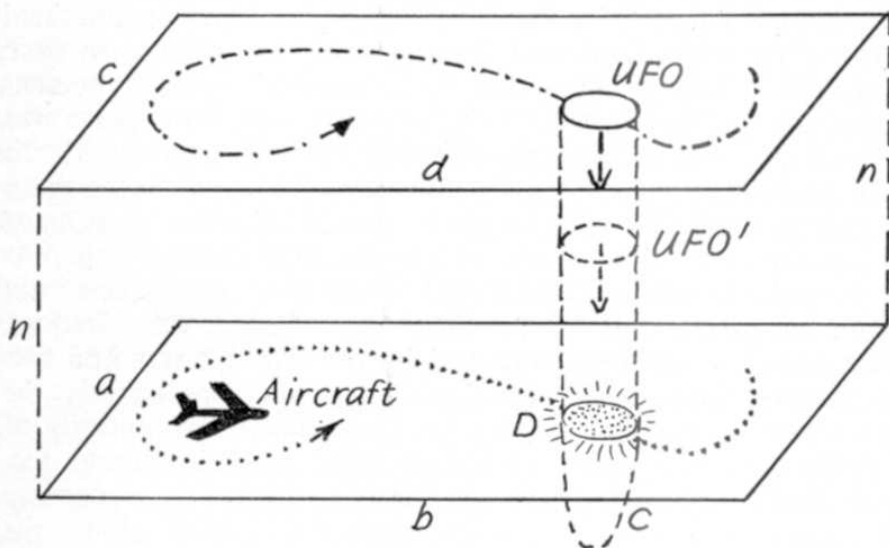


- n = fourth dimension
- $a-b$ = our space
- $c-d$ = space in which the UFO is moving

Figure 1

its underside while it shot upward and withdrew from the battery. Its exact speed could not be obtained because of the extremely high acceleration, but it was in the region of 1,300 kilometres per hour (5). Now let us see how far the theory of a fourth dimension can help us to understand

the UFO is not merely confined to space c-d, but has also a component C extending into the fourth dimension n . We could conceive of this component as of a four dimensional structure as already in hypothesis 3. (see fig. 2). As we know from countless observations, the luminescence in



- n = fourth dimension
- $a-b$ = our space
- $c-d$ = space in which the UFO is moving
- C = force field component extending into the fourth dimension
- D = luminous disturbance within our space
- - - = trajectory of UFO in space c-d
- = trajectory of luminous disturbance within our space a-b
- UFO' = UFO leaving its space and approaching ours

Figure 2

the atmosphere surrounding the UFO alters in colour and brightness with velocity. This indicates that this effect is caused by the propulsive force and this force in turn is very likely a field force (6). It is therefore possible also to attribute the capacity to cause luminescence also to the force field component C (see fig. 2). But this means that the UFO itself does not necessarily need to enter our space a-b in order to produce a visible effect therein. It would be sufficient for n to become small enough for the force field component C to penetrate our space a-b. This would cause a luminescence to appear in our space without the UFO itself being present. If now the UFO exercises intelligently controlled manoeuvres in its space c-d the luminous projection caused by it will perform the transformation of these movements in a-b. The shape of the projection will depend on the four dimensional shape of component C, while its colour and brightness may depend on the intensity of the force field as well as on our atmospheric conditions (air pressure, humidity etc.). As we know these shapes from experience (spheres and discoids are most commonly reported) we should be in the position to draw certain conclusions as to the fourth dimensional geometry of the force field by analytical methods.

The concept of a force field projection could also explain why in some cases such phenomena have not been affected by external influences. It would have practically no effect if the gunner of the aircraft in a-b fired at the disturbance B, because the conditions which produce the luminescence are maintained by the force field, as long as the UFO stays in the vicinity of our space. Only if the UFO withdraws, thereby increasing n will the projection disappear and this disappearance could be as sudden as its appearance on arrival in our space during the approach (4), (7). In the same way we could understand the incredible report from Russia according to which a fireball suddenly expanded, allowing the pursuing fighter to fly right through it. It could have been a UFO, shifting back into the fourth dimension, as the situation became dangerous, leaving in our space only the luminous disturbance caused by its force field (16). It must be remembered, that n in fig. 2 is imperceptible to us. Our perception is confined to space a-b. One must therefore not conceive of the luminous effect or the UFO as approaching from "above" or "below." It will really appear from and disappear into nothing amidst our space, exactly in the same manner as described by several observers. It is perhaps worth mentioning that this phenomenon could in principle even occur within a completely

closed three-dimensional space, e.g. a room, because it is as much "open" with regard to the fourth dimension, as a plane is open with regard to the third dimension (8). As the intensity of the force field component C will gradually increase as space c-d is approached, the luminescence within our space will grow in intensity and diameter as n becomes smaller. But, if the UFO itself is entering our space, its operator will have to reduce the force field intensity, if he wants to stay therein. Thus the luminescence will reach its maximum just before the UFO materialises itself in our space. The observer of such a materialisation would therefore perceive at first a luminous mass appearing in our space. It would grow in diameter and intensity. Then he would perceive a sudden dimming of the light and, as the luminescence decreased in intensity, the well defined outline of the UFOs hull would appear behind it.

If the UFO exercises no parallel motion relative to the dimensions of our space, but is moving only along the fourth dimension (it could be that such movements require very much energy and that therefore all the propelling force has to be directed into this dimension) the observer in a-b will perceive a stationary luminous disc or ball, gradually changing its diameter. It is exactly this phenomenon that has already been reported. As far as we can conclude from the small number of such reports, it seems that it has more often been seen when the UFO was withdrawing from our space than when trying to enter into it (9).

As an illustration I quote here a report from Ehrwald, Tyrol. On March 26, 1950, at 9.45 a.m. an observer on the Zugapitze saw a disc-like object approaching in an undulating flight from the east. Suddenly the object stopped and reduced its size by 50%. After this it accelerated very fast and disappeared to west-north-west. The phenomenon was observed by four persons (10). The same occurrence at the same place was seen on March 27, 1950, at 9.45 a.m. on March 28, at 10.05 a.m. and on March 30, at 9.45 a.m. again. On this occasion, it should also be mentioned that the report, which was from an German AA-battery, also stated that the object had not appeared for the first time when it was fired at. It has been reported by the five spotters and two days before the incident, always at exactly the same time of day ! One thinks involuntarily of the 24-hour cycles detected by Michel and the, perhaps not so speculative, suggestions regarding the repeated appearance of UFOs along the orthotonic alignments made by Charles Bowen (12). Have the observers near Warazwa as well as on the Zugspitze witnessed the luminous effect

caused by the UFOs four dimensional force field during its withdrawal from our space, or during repeated (and perhaps unsuccessful) attempts to enter it?

An alternative and very simple explanation to account for the change in size is that it is only a variation in apparent size. If an object moves along a straight line which intersects with the position of the observer, he would have exactly the same impression as mentioned above, due to the change in distance between himself and the object. But I think that we should not accept this explanation too readily. We know that the vast majority of all UFO observations are purely accidental. If now at the time a UFO is operating

there are indications that force fields are in general of four-dimensional structure.

This concept is not entirely speculative and there is perhaps a possibility of proving of a fourth dimension as well as the existence of four-dimensional fields. There are various reports of radar observations during which the scanner has picked up targets which could not be seen although they should have been within the range of visual observation. Experienced radar operators have definitely ruled out the possibility that there may have been weather targets or ground clutter reflections. Have these mysterious echoes been coming from objects in another space via the fourth dimension? If radar pulses are not confined to

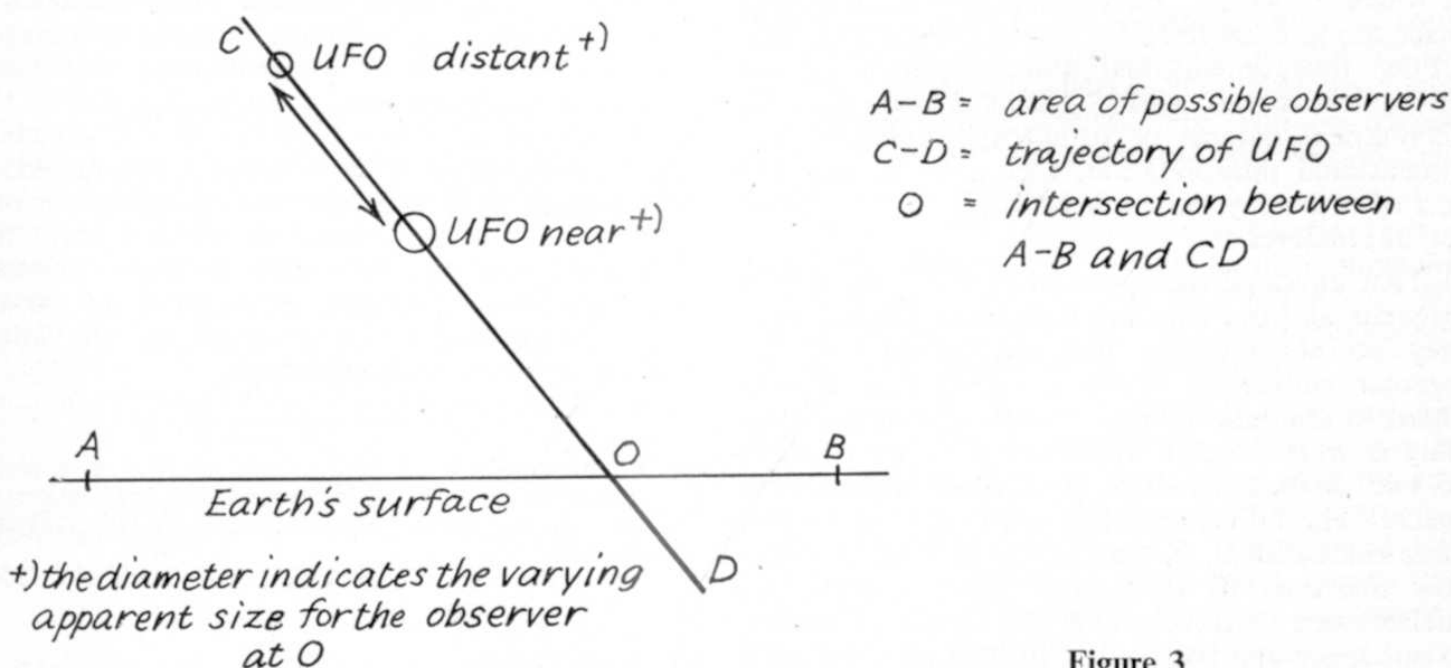


Figure 3

coincidentally along a straight course one person in the area of possible observers between a-b (see fig. 3) is looking to the sky (and coincidentally in the proper direction) it would seem that only rarely would that person be situated at the intersection between AB and CD. However, scientific inquiry into this problem could be based only on statistics or on theodolite triangulations and simultaneous measurements of the apparent size. Unfortunately, we have in the first place, insufficient observations of this type and in the second place, as far as I know, no exact measurements.

There are other arguments which one can quote in favour of the existence of such a four dimensional UFO force field. The first follows from my hypothesis that UFOs travel in the fourth dimension. If the propelling force vector of every craft has to act in the dimension in which the craft is to be moved the force field of a UFO will have to extend into the fourth dimension. Secondly

our three dimensional space we must conclude that a certain amount of the energy emitted by the scanner escapes into the fourth dimension, and is lost.

It may be possible to design an experimental device accurate enough to measure this energy deficit. The experimental arrangement would have to consist of a radar sender and a receiver. Precautions would have to be taken that — as far as our three dimensions are concerned — all the energy emitted by the sender could be absorbed by the antenna of the receiver. Perhaps one could take advantage of a similar arrangement to that for the measurement of luminous flux. Here the light source is placed within a reflecting sphere, and the light energy is allowed to leave it only through a small opening, where the measurements are taken. If, then, a difference between the calculated antenna output of the sender and the antenna input of the receiver

occured, which could not be accounted for by causes already known (losses in the circuits and through reflection, transformation into heat, etc.) this would be a serious challenge for exact science.

Provided that the conditions under which the experiment is conducted are properly controlled, we would, in such a case, have either to drop the law of conservation of energy, or accept the existence of a fourth dimension. I regard the first as unacceptable, so the energy law would have to be extended a further dimension, as it has already been extended in the case of mass.

I have yet to mention the possibility of a connection between my hypothesis and orthoteny. It was suggested in Mr. Bowen's recent article (12) in which he wrote "materialization can only take place along fixed lines, or routes, where their (the UFOs) four dimensional space impinges on our three dimensional world." If it is true, that the geometrical pattern of orthoteny implies a four dimensional interpretation, then I think, that the fact of orthoteny points in principle to the following alternatives :

a) That although the space from which the UFOs originate and our own are both three dimensional, they do not intersect but are curved and are together embedded within a higher four dimensional continuum (whose fourth dimension possibly is what we call "time"), e.g. as the surfaces of two spheres situated in a three dimensional space. The UFOs and their crews are, as we are, three dimensional, but unlike us they have somehow managed to leave their three dimensional environment to travel along the fourth dimension to our space and back. The orthotenic alignments indicate those areas (or chronological sequence of areas) from which the distance to the space occupied by UFOs is a minimum. I also suspect that here we may have the terminations of those UFO-trajectories, which require the smallest amount of energy.

As the extensive research done by Michel has revealed, the great circles along which UFOs appear generally remain stationary for 24 hours. Then, to complicate things further, a changeover takes place. This would indicate a (periodic?) change (13) in the relative position of the two spaces, which would consequently result in a movement of those areas where we could expect UFOs to arrive (or depart) within our space.

b) The alignments of orthoteny are the result of an intersection between two different continua as suggested by Mr. Bowen,

Both of these possibilities present difficult questions as to the relationships between the continua

involved. At the moment, only one thing seems to be certain. Any spatial area (be it the result of an intersection or not) which would permit a UFO to materialise within it, would have to be not less than three dimensional, because a structure of an inferior dimensional order could never manifest any physical reality such as does matter. The orthotenic great circles may therefore be either narrow three dimensional channels, or single, isolated materialisation areas (14), arranged along great circles, either simultaneously or in a time sequence as suggested in (a).

The true form of this arrangement in time and space would depend entirely on the dimensional order, shape, relative angle and motion of the two continua. Although I am no mathematician, I think it should in principle be possible by a proper geometrical analysis of the orthotenic alignments to draw some conclusions as to the structure of the space behind it. Any progress in this direction could be important since if such natural materialisation areas exist (15) they are possibly not one way traffic roads. Indeed, if we can solve the technical problems of travel between different continua, they may some day permit an earthly craft to leave our space in search for the world from which the UFOs are coming.

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- (1) C. Benedicks
"Theory of Ball Lighting and its Application to the Atmospheric Phenomenon Called 'Flying Saucers'".
Arkiv för Geofysik, Vol. 2, Nr. 1, Stockholm 1952.
 - (2) Donald Menzel.
Flying Saucers
 - (3) Aimé Michel
The Truth about Flying Saucers
Part 3 of this book contains a consideration of the mirage-theory of Dr. Menzel.
 - (4) Gordon W. Creighton
"Foo-Fighters"
Flying Saucer Review, March-April, 1962.
 - (5) An eye witness report of this incident was published on April 5, 1950, by the reliable Austrian provincial newspaper *Tiroler Tageszeitung*, Innsbruck. As I was then a hardened sceptic I failed to trace the witness in time. Later, when I became interested in the subject I was told by the editor that the report had been destroyed soon after publication.
 - (6) Leonard G. Cramp
"A Challenge to the Technical Press"
Flying Saucer Review, January-February, 1963.
See also
Plantier
"La Propulsion des Soucoupes Volantes"
A chapter on Plantier's theory can be found in the book quoted under (3)
 - (7) H. T. Wilkins
Flying Saucers on the Moon, Chapter 2.
(The American edition carries the title, *Flying Saucers on the Attack*.
(Continued on page 23)