

FANTASTIC
UNIVERSE
SCIENCE FICTION

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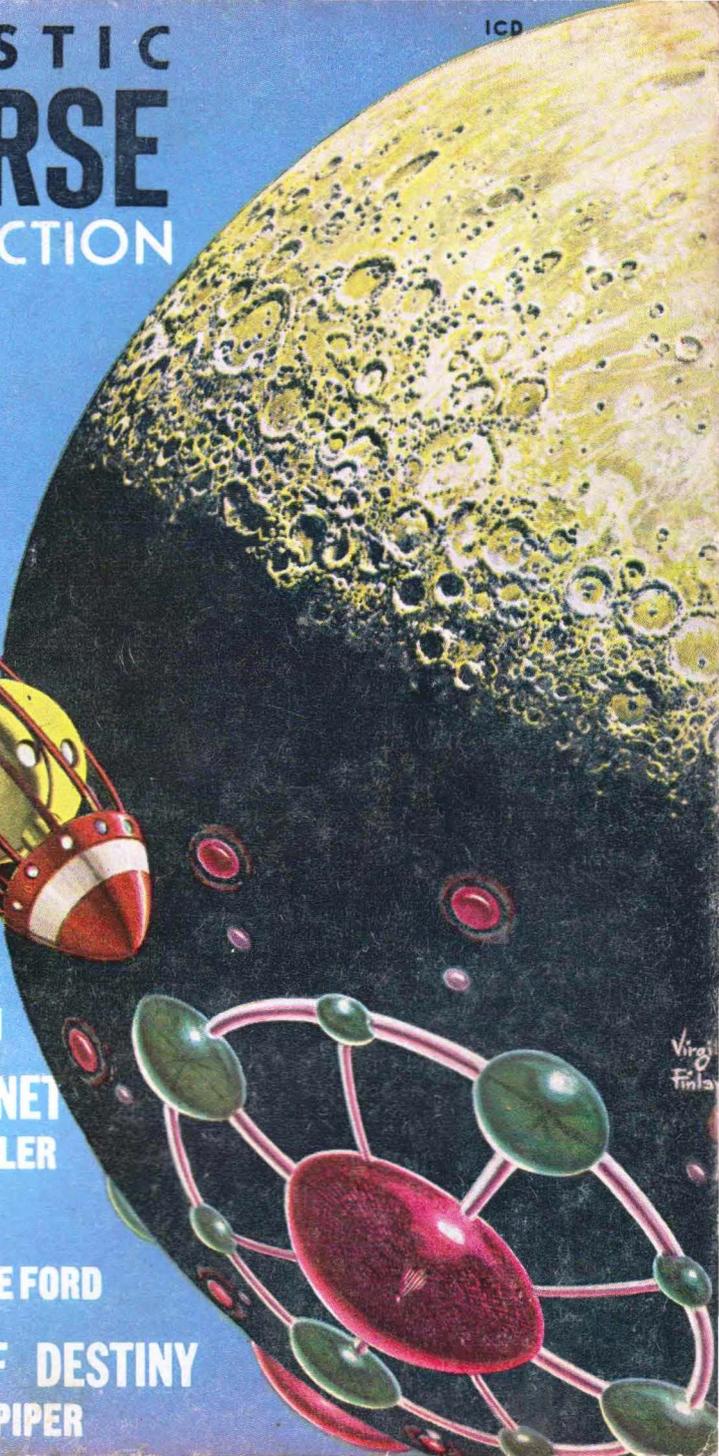
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Virgil
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what
could
they
be
?

by . . . *Ivan T. Sanderson*

Unidentified objects have been observed in our skies. What are the overall possibilities of their identity?

WE ARE now going to assume that not only are there as yet unidentified objects seen in our skies but that these are reported to be of an apparently endless variety of shapes, sizes, and proclivities. If you choose to disagree with this assumption or even if you feel that there is nothing mysterious about the concept by inclining to the view that they are all explicable as meteorological or astronomical phenomena, that is your prerogative. Nevertheless, neither should be cause for abandoning or ignoring other possibilities, and on proper consideration these are obviously of almost if not altogether unlimited range.

It appears that there is a very strong reluctance on the part of most people to do this. Curiously, I have found this attitude to be most pronounced among intelligent folk with technological training but lacking any proper grounding in true scientific methodology. Technologists and technicians—usually but quite erroneously referred to as “scientists”—are like dogs with bones. They like to be given a theory or a problem of, as far as possible, unit probability and then

Ivan T. Sanderson, who has been interested in Ufology for many years, concludes his challenging series of articles in which he has explored possible explanations of the phenomena. He is the author of numerous books including the recent MONKEY KINGDOM and LIVING MAMMALS OF THE WORLD (Hanover).

be left alone to worry it until they prove it to be true or false. They seem to be appalled by and quite unable to comprehend anything wider in scope; particularly the mere contemplation of possibilities as opposed to probabilities. As soon as they are asked to consider more than one possibility, they set up a standard howl that invariably goes something like . . . "I can't be expected to waste my time disproving every crazy theory everybody can think up." Ignoring the fact that nobody asked them to do so, we may point out to all people who take this attitude that the totally uneducated often approach the truly scientific attitude much more closely than do the educated—not specifically educated in basic scientific method.

The real trouble with our present western civilization is that it has become so technological it has ceased to think altogether, so that it can only take on one thing at a time. If you go amongst peoples who have not yet adopted our approach, or been subjected to our form of education, you will find that they have a much wider concept of everything, especially nature. In the field of animal life, for instance, a Mayan villager in Yucatan or a Hill Batuk in Sumatra will not only be able to name almost every animal in his country, but will group them very nearly, if not exactly as a zoological taxonomist (a specialist in animal classification) does today after two

centuries of what we call *scientific* studies. On the other hand, to the vast majority of us—including most zoologists, apart from taxonomists—a whale is a whale, a monkey a monkey, and an antelope an antelope. The very idea that there could be and are over 150 different kinds of whales varying in length from a minimum of six feet to 112 feet in length, and divided into at least two quite different categories that may not even be closely related is not only ignored but considered to be extremely irksome. If you suggest that there might be still other kinds of whales still to be discovered in the oceans, or worse, that there might be whale-like creatures on certain planets of other suns, the average person, and particularly the technical specialists, either just give up or become enraged.

To employ a parody that we have used before and will use often again, to say that there is *a thing* in our skies that has not been identified, is just like saying that there is only one kind of animal in the North Atlantic Ocean. It is so illogical it cannot be regarded as just stupid; it is manifestly an example of deliberate non-thinking. Similarly, the idea that theorizing is time-wasting, is not only an indication of mental sloth but also of lack of proper scientific training. The basis of science is the investigation of possibilities; the business of technology is the proving of probabilities, but to state that the investiga-

tion of possibilities is a waste of time is clearly asinine. Before any new subject can be tackled technologically, it has first to be appraised scientifically, and this means a survey of all that is known or alleged to be known and of all possible possibilities and their systematic classification. This is the collecting and sorting (or taxonomic) stage through which all sciences have had to pass. This, as we have pointed out in earlier articles, has not as yet been done in the field that has come to be known as Ufology, or the *logos*, study of, unidentified flying objects. This is our objective in however crude a form, but it must be clearly understood that nobody is asking anybody to spend any time investigating any of these possibilities. That should come only after the possibilities have been reviewed and the most likely probabilities listed, and the most promising technological approaches to each fully considered with a view to proving them true or false, and in the end finding the hoped-for explanation.

Nevertheless, this is not all, for there is ever lurking in the background this deplorable menace to *all* research—the devastating misconception that there is or can be but a single explanation. The Atlantic Ocean is a fairly big place and is filled with many millions of different kinds of things. The Universe is extremely large and may well be filled with an infinity of different things. There is no single

explanation of Ufos, but there is no harm in any number of people holding any number of theories, and there is nothing unscientific about some of them trying to investigate one or several of these, provided one and all bear in mind that the possibilities may be infinite and that the theories for investigation may therefore also be so. What we need to start with is as wide a classification of these possibilities as time and space will permit us to list within the framework of accepted logical imagination. And it is here that Pure Science and Science-Fiction meet: Applied-Science and Pure Fiction have no place in this field and, verily, its proponents show themselves to be incapable of understanding it.

Ufology is not as yet a science. The term itself is a bastard one but it is euphonious, short enough to go into newspaper column-heads, and simple enough for almost any moron to remember. It also, and alone, may have some chance of superseding that snide abomination, *flying-saucer*, which not only means nothing but is also a misnomer since, so far, the saucer shape is about the only one that has not yet been reported. The term *Ufo* is not a happy one, however, since the word *unidentified* automatically implies uncertainty, some of them may not be *objects* in the manner of speaking to which we have become accustomed, and very few of them appear ever to have been *flying*. Charles Fort referred to them as

Osfs or *Objects seen Floating* (in the sky); a better term. If the U. S. Air Force had not beaten us to the punch with the term *Ufo* we might have suggested *Emps*, standing for extramundane phenomena, since this would include everything and anything that is not meteorological, including astronomical or cosmic items not yet claimed by those disciplines. The confines and extent of the subject may, nonetheless, be attempted and it would seem best to state this as anything within our atmosphere that is not claimed and explained by meteorology, or (in the case of birds, pollen, and volcanic ash) by zoology, botany or geology, and anything outside our atmosphere that has not been claimed by astronomy.

This, as will be readily appreciated, is a very vast field and if there is anything in it either physically or hypothetically, any attempt to fill it up with possibilities is going to be quite a task. Before proceeding to this, we must point out one or two side issues that need consideration. The first is to define the word *object*. This is not so easy as the dictionary might imply. For instance, the Universe may be considered to be an object; similarly, a true vacuum (if such exists or could be created) in what we call "space" could also be so regarded. In fact, the whole question at issue resolves itself in this inquiry so that what we really need first is a classification of possible objects. The other point to remember is

that, should any, or as various kinds of *Ufos* are identified, they may well be claimed by other specialties. If some turned out to be life-forms, there would probably be a grand rumpus between the zoologists, botanists, and virologists; if some are machines manned by intelligent entities with solid bodies, anthropologists, chemists, and the engineers will be opening the pages of their textbooks to novelties. If *all* kinds of *Ufos* could ever be identified, *Ufology* would presumably retire into the dictionary. In the meantime, however, there is a vast field of ignorance here, filled with rumors and with other things going on in it, that calls out for investigation.

The question at issue, therefore, is to try to list the possibilities implied in the widest concept of *objects*. Now, this can be done in the form of a fairly compact list that is not overly subdivided as shown below. If you cover the right-hand column of this before reading it through, you may feel that most of it is perfectly whacky. What, you may well ask, can an "animate non-material object" be; what, pray, are *seemingly* (quasi) material objects, especially artificial animate ones; and has anybody made an animal yet? But then, disclose the right-hand column and you will find that with two possible exceptions you have always readily accepted the existence of ten of these twelve major categories, and that you are probably willing to recognize one

of them (No. 4) if the physicists say so, and may have little doubts about No. 5. Further, none of those concepts in any way conflicts with or offends whatever religious principles and beliefs you may have. There is place enough for any of the works of the Almighty in any of the major categories, and should *He* see fit to make those works known to us through either parapsychical or quasipsychical means, that is really no concern of ours nor of our inquiry. What is essential to realize is that not only are there all these possibilities but also that all of them exist already. There is, in fact, only one great problem and

query. This is, does "A" exist?

This question, one might say, is the absolute rock bottom of all philosophy. It is the question that has been approached by all thinkers; and all *great* thinkers and all personages who have seemed to participate in what we call divinity have given the same answer—and *in the affirmative*. It is the teaching of Christ and of the Gautama Buddha; it was the thought of Lao Tze and Albert Schweitzer; it was the expressed opinion of Albert Einstein. Those who call themselves or who are called "scientists" but who lack either any breadth of concept and/or truly scientific mental train-

A CLASSIFICATION OF OBJECTS

A. FROM OTHER SPACE-TIME CONTINUA (Universes)

B. WITHIN OUR UNIVERSE (Our space-time continuum)

I. PARAPHYSICAL (Non-Material)

(a) *Animate*

- (1) Natural. Thoughts, Hallucinations
- (2) Artificial. Induced hallucinations

(b) *Inanimate*

- (3) Natural. Radiation
- (4) Artificial. Induced energy packets

II. QUASIPHYSICAL (Projections)

(a) *Animate*

- (5) Natural. Ghosts, *etc.*
- (6) Artificial. Motion-Pictures

(b) *Inanimate*

- (7) Natural. Mirages, Astronomical observations
- (8) Artificial. Photographs

III. PHYSICAL (Material)

(a) *Animate*

- (9) Natural. Animals, Plants, Viruses
- (10) Artificial. Bioids, Mechanical Brains, Robots that learn

(b) *Inanimate*

- (11) Natural. "Minerals"
- (12) Artificial. Machines

ing, or both, retreat in confusion from any such thought. The very idea that the whole of "B" may be repeated endlessly in other space-time continua, and especially that any of their infinite manifestations may manifest themselves in our universe, so appalls them that they howl for release from their imagined obligation to "prove" the notion. They and all others like them who apparently deny all religion, philosophy, and science should read some Holy Writ, the works of the great philosophers, and the published statements of Albert Einstein. Meantime, the rest of us should contemplate this fact with the utmost solemnity. It could be the answer to much that puzzles us. But let us return to the matter of possibilities of another nature.

Within the universe as we know it, it becomes obvious that there is a distinction—even if not clearly defined—between objects that are material and those that are not. However, the question of *matter* itself is fraught with difficulty as any philosopher or physicist will tell you. Matter, as we know it, itself displays qualities of non-matter, and energy of matter. Resort may therefore be had to the dictionary wherefrom we come up with the idea of the physical, which is defined as "of nature or all matter; material." From this we might infer that the non-physical is "not of nature or all matter; and nonmaterial." Only a little consideration, nonetheless, will demonstrate that

this is not the case, for there are manifestly things like thoughts, hallucinations, and quanta of energy that, while they may not constitute what we normally call "objects" are profoundly of nature but neither all of matter nor material at all. Therefore, if anything is nonphysical it presumably doesn't exist at all; so what to do with thoughts, radiations, and vacua (if they exist)? Being certainly *like* (*para*) physical objects, they may be so-called. To put it more simply—and undoubtedly over-simply, they exist alright, but they cannot be photographed. What then of things that are nonmaterial, non-physical, but exist, which *can* be photographed? Which, in other words, are *seemingly* (quasi) physical?

These are items that have puzzled men since earliest ages and which still do. There are many human beings alive today who are utterly mystified by motion-pictures (*i.e.* films or movies). Many animals are positively horrified and terrified by them, like monkeys seeing snakes on a silver screen. Meteorologists are not a little mystified by some kinds of mirages; I have met intelligent grown men who were quite unable to "see" a still photograph. Few people really believe that the light from some stars entering our giant telescopes today is billions of years old; and, also, there is the perpetual agony about "ghosts." The basis of all this worry is lack of comprehension

of some things we call reflection and opacity. Take these two thoughts before we proceed. Are there any phenomena in the universe more mysterious than a reflection in a mirror or the fact that you can see through glass and other solids?

There remain then the truly physical or material objects. The comprehension of such is what we call "natural" to all of us. This is the world we live in—the world that used so succinctly to be divided into *Animal*, *Vegetable*, and *Mineral*, but which today has become so much more complicated with animals being only mobile forms of vegetables, the latter split three ways and being clearly different from at least two other life-forms known as the viral and the cheminuclear, which in turn merge with one form of the mineral, and in fact even participate in both estates. Then again, there are the robots, the artificial forms of "life," as opposed to mere machines. But all of this comes later.

It thus appears that an object—and thus a Ufo or an Emp—could be of a wide variety of types. It could be inanimate or animate, in various degrees; and, paraphysical (an hallucination), quasiphysical (a mirage), or quite physical (a machine). Let us therefore take each of these possibilities and analyze them in relation to what we know or think we know of our universe, its conception, and function.

Entirely nonmaterial or unmaterial (paraphysical) objects, or perhaps we should say "things," may obviously be in the likeness either of animate or inanimate entities. There are many different ways in which they could be classified but if we follow that which we have chosen, we find that among the former there are, first, such things as thoughts, dreams, and what are often called hallucinations. All may be of the utmost reality and peopled with all manner of life-forms, remembered or imaginary. They have form and color, they move and act, they may even have volition. Then again, there are those who believe that there are also in this category a plethora of disembodied entities, complete in themselves, which they term ghosts, spirits, and so on but which these pragmatic persons prefer to regard as being entirely creations or figments of the mind. (This has nothing to do with the equivalent category of alleged entities or a quasiphysical nature). While the existence of thoughts and dreams can hardly be denied, that of ghosts and spirits can be, and almost universally is so. We prefer not to pursue this particular matter further for there is no evidence of any kind that any Ufo might have been a ghost. The matter of hallucinations is an entirely different affair.

Some remarkable facts have been learned about this phenomenon. Hallucinations may, it appears, be

purely spontaneous or natural manifestations, or they may be induced by drugs such as the now famous mushroom-eating, or by shock, hunger, thirst, or even by excess boredom as disclosed by work carried out at McGill University. Objects occurring in hallucination appear to be of the utmost reality and in appropriate cases they may display all the attributes of animation. They cannot as yet be recorded directly as by photography, but they are alleged to be reproducible through the person concerned in the form of paintings and so forth. To what extent Ufos may be of this nature is at present almost impossible to say, but it may be stated with some degree of certainty that when the identical thing is reproduced by more than two people, it is likely not to be of this nature. There is absolutely no proof of the occurrence of that old pet of the psychologists—Mass-Hallucination.

Turning then to inanimate parapsychical or nonmaterial objects, we enter a realm of absolute reality—that of physics. The distinction herein between natural and artificial objects is a slim one, for while reproduction of many manifestations of such things as radiation can be accomplished by us, it is doubtful if we have ever actually *created* anything of this nature. To do such would conflict with the basic principle of the conservation of energy. However, such possibilities have been mooted in the nucleonic field and time alone will

show whether there is any such possibility. Meantime, of course, other and superior intelligences may have long ago achieved just this, and it is presumably not impossible that machines could be constructed of pure energy. A Ufo of this nature might do some rather surprising things and it might be impossible to capture or even contact it while it might be able to affect us in many ways. Non-artificial, non-material inanimate objects are commonplace and that they might be of composite and complex structure and form individual objects is by no means impossible, highly probable, and possibly actual in the form of such as a magnetic field. There are many Ufological aficionados who favor this explanation of all or some of them, and it is a rather popular idea among serious-minded scientists who feel that while there is something up there, it will prove to be indigenous to our atmosphere and has a simple physical explanation. (A scientist would naturally and rightly class an isolated magnetic vortex as a physical object.)

Coming then to the details of the quasiphysical classes, we again meet first this extreme hypothetical problem of what we term collectively (for want of a better term) "ghosts." Do not forget that our distinction between the para- and the quasi-physical is that the former cannot be photographed, the latter can, but that this is a gross over-simplification. There is a cu-

riously large body of early and ancient reports in the field of Ufology, mostly found in Charles Fort, and records also of what appeared to be vast "animals" seen in the sky. Any such thing would presumably be of a quasiphysical nature—in other words a form of mirage or "reflection" of something existing elsewhere in space or time, rather than a truly material object, though Fort in several instances equates rains of blood and other material substances with such apparitions. These fall into the purely physical or material category. Nonetheless, we can but suppose that if there are "ghosts" or "space monsters" somewhere they could be reflected or projected on to layers of hot air just like material objects on our Earth as seen in mirages. But there comes here an unpleasant thought.

We don't really understand mirages for there are those that can be photographed and others that apparently cannot, though seen simultaneously by large numbers of people. Also, there are alleged to be clear mirages of things that just don't exist on this Earth now but some of which did so in the past. There are several reports of ships of the wrong period in history as having been seen ploughing majestically along in the sky. Nobody has dared to contend that they *are* ancient ships; rather, that they are quasiphysical images of them. Even then, where do they come from and how do they get projected here and now?

Should such phenomena occur and more especially should one be photographed, we would be confronted with some very pertinent questions, one of which is obviously whether the original object is in our universe or in "A" in our list, or in another space-time continuum. Other possibilities would be that it is in our universe but at another time, or in another place *outside* (or *inside*?) the surface of our Earth. There is evidence that there are such mirages though this evidence is not of a nature to be acceptable to science as yet. It would be a splendid explanation of a lot of different kinds of Ufos.

But from this consideration come others, particularly anent artificial animate quasiphysical objects, leading us to speculate as to whether such mirages might not be in the nature of our own inventions in this field—namely, the Motion-Picture. What you view on the screen in a movie theater is a perfect example of a quasiphysical object or series of objects. Very few people have actually met a certain Mrs. Arthur Miller, but millions know one Marilyn Monroe most intimately by sight, sound, and almost when in full panoramic technicolor, by touch. Miss Monroe exists alright, but her image on the screen actually doesn't, although it moves, speaks, and acts, and is, in fact, most actively animate, and this is *not* a semantic quibble. Suppose that some Ufos might be but super-projections on layers of our atmos-

phere technically devised by intelligent entities elsewhere? And let us hope that some photographic technician doesn't start screaming that he hasn't got time to disprove the notion.

Inanimate quasiphysical objects are of quite another ilk. Both natural and artificial examples exist aplenty. The simplest example again is photography, but still photography which is artificial. However, it is here that we really have to come to grips with two monumental conundrums, the first of which is again mirages.

Now, if you look up this business in any good textbook of optics or meteorology you will read the standard schoolbook explanation which sounds very simple and convincing. However, it does not always work, as a technical group to which I was once attached demonstrated to my complete satisfaction. The case was as simple as this. Mirages are supposed to be reflections in the sky—or, of course, on the ground or on surface water—of objects elsewhere and categorically beyond—*i.e.*, in a straight line, or more or less so allowing for some distortion and/or refraction; it could also be behind you. I was present when a large number of mirages were most scientifically observed on the open sea and their position fixed relative to the ship's known position, and not one of them (islands of various kinds, seen in great detail) existed anywhere either beyond or behind ac-

ording to any chart, and they had the best. Where did they come from? Nonetheless, mirages do exist and can often be demonstrated to be reflection of known objects elsewhere in space.

The other conundrum is one that puzzles almost everybody but the professional astronomers. It is simply that a very large number of all astronomical sightings and photographs taken of them are nothing more than mirages—but time-mirages! A photograph of a star that is really a billion light years away may well be a picture of something that has not existed for ninety-nine million years; worse still, even if it still exists it may be halfway round the universe by now. It isn't there and yet one can see it and photograph it. This is quite unnerving. What if we can photograph Ufos that aren't there? Nor is this either a mere semantic quibble; it is a perfectly realistic supposition. And it is bad enough if there is an absolute upper limit to the speed of light. What if Einstein's suggestion that this speed is only a theoretical one at which there is a turn-over in the space-time relationship, is correct? How are we to know then just when the light rays that carry the image left and where from, for they might have originated in another space-time continuum and just "dropped through" into our universe by exceeding the speed of light as we know it. But here we get into the outer reaches of cosmology on the one hand and what

is popularly known as metaphysics on the other. Be it noted, however, that there are many possibilities in the quasiphysical field.

So finally we come to the possibility that all or some Ufos might be properly physical material objects. There are here three distinct schools of thought when it comes to the question of Ufos. First, which is in the vast majority and includes almost all scientists, are those who consider them all to be inanimate natural phenomena and, for the most part indigenous to our planet. Second, there are many who believe—and usually very fervently at that—that they are mostly, if not all, artificial inanimate objects (*i.e.* machines) made by animate entities with intelligence somewhere outside this planet. The third are composed of a small but rapidly growing group who are beginning to feel that at least some of them are themselves natural, animate, physical entities (or Life-Forms) indigenous either to our upper atmosphere and/or to space itself.

I have, in addition, heard one man with proper scientific training and an extremely logical and sensible mind, suggest that they could be artificial animate life-forms (*i.e.* Bioids)—not just remotely controlled robotic machines like drones, planes or radio-controlled lawn mowers, but a thinking entity constructed by another thinking entity. Robots are no longer merely products of the imaginations of science-fiction writers. We already have, as

everyone knows, machines that imitate thought but which do not as yet think; however, we also have at least one that somehow discovered, all on its own, how to *learn*. This was a mechanical tortoise-like device that fed on light and had a built-in circuit to make it go to meals but which also happened to have a simple circuit for certain sound reception also. To its manufacturer's amazement it learned when "soup was on" by sound alone, which it had *not* been built to do. The possibility of truly thinking robots as well as Bioids amounts to a probability of a high order and will certainly have to be taken into account.

Up to this point our whole discussion has been based on the assumption that there are *Ufos*, or *Emps* or whatever you choose to call them, or at least some material objects in the skies. As I said at the outset, you may choose to deny the fact—that is your prerogative—but to refuse to even consider the evidence is not. Furthermore, nobody has the right to decry investigations of the possibilities. Theorizing is neither a crime nor a waste of time, and nobody is asking you to do anything about it.

But ask yourself whether there is any factual evidence for the occurrence of these things and, if so, whether this evidence would indicate the existence of these three basic types.

And where do we go from there?