

AUG.
35c

FANTASTIC UNIVERSE

SCIENCE FICTION

ICD



SUBSTITUTE GOD by JOHN BRUNNER

ARM OF THE LAW by HARRY HARRISON

KA THE APPALLING by L. SPRAGUE DE CAMP

THE AMAZING MRS. MIMMS by DAVID G. KNIGHT

shapes
in
the
sky

by . . . *Civilian
Saucer Intelligence*

A discussion of hitherto unsuspected UFO flyways and their behavior in keeping to certain lines.

IT MUST have occurred to many students of flying saucers that their research seems to make singularly little *progress*. We are now entering the twelfth year of the UFO era; what have we learned from the tens of thousands of sightings reported during the past eleven years?

The list of discoveries is short, and shorter still when we consider that most of the phenomena now familiar to UFO students, and several of the theories now advanced to explain them, were first described by Charles Fort long before 1947. In a future article we intend to review the advances in "UFOlogy" since Fort's time; although they are significant, it can hardly be claimed that our infant science has grown with breakneck speed. For something really new to be discovered about UFOs is no everyday occurrence.¹

But this rare event did take place last year. Something that no one else had ever observed was discovered by Aimé Michel, the French acoustic engineer and UFO researcher, author of *The Truth About Flying Saucers* (Criterion Books, New York, 1956). He calls

Civilian Saucer Intelligence of New York discuss, in their latest monthly column—written especially for this magazine, a particular behavior of the saucers which Aime Michel, author of the forthcoming FLYING SAUCERS AND THE STRAIGHT LINE MYSTERY (Criterion Books) described as "orthoteny."

this something "orthoteny" (pronounced or-THOT-e-ny), and he discovered it almost accidentally while he was studying the great French sighting wave of the fall of 1954. In the behavior of these flying saucers he was able to demonstrate a simple but surprising pattern.

On September 24, 1954, a number of saucer observations were reported in France. At Vichy, in the center of the country—the city that was the nominal capital of the country during the occupation years—football players and their audience saw a cigar-shaped object cross the sky during the afternoon.

At Gelles (department of Puy-de-Dôme) in the early evening, a luminous cigar crossed the sky.

At Ussel (department of Corrèze), late in the evening, a red-luminous object approached so close that M. Elie Cisterne jumped off his tractor in terror and "hit the dirt." The object hovered for several minutes before speeding off again—hovered so low that it scorched all the topmost leaves of an ash tree directly beneath it. There were confirmatory witnesses.

At Tulle (Corrèze), about the same time, a draftsman saw a rapidly-moving reddish object

which he was able to follow for some minutes with binoculars.

In the village of Lencouacq (department of Landes), shortly after sunset, Mme. Vignolles saw a luminous object arrive at a very low altitude, hover for several seconds just above the ground, behind the rectory, and then start off again at high speed.

And at Bayonne, in the southwestern corner of France, during the afternoon, many people saw three elliptical, metallic-looking objects which remained motionless in the sky for about a minute before departing rapidly.

What makes these six reports on a single day so remarkable? Not their details, certainly, for all of them except Ussel were run-of-the-mill UFO observations. But when Michel pinpointed these six sightings on the map of France, a striking relationship emerged: all six of them lay *on one straight line*. A line drawn from Bayonne in the southwest to Vichy in the center of France—a distance of 300 miles—also passed through Gelles, Ussel, Tulle, and Lencouacq.

To complete the picture, one more fact must be mentioned: there were only three other saucer observations in France that day.

Now what is the probability that six out of nine points on a map just *happen* to lie along a straight line? Michel, by comparing areas of actual and possible distribution, estimated the probability as less than 1 in 200—probably very much

¹This generalization excludes, of course, the numerous accounts of persons who claim to have had extensive communication with extraterrestrials and to have received from them full information about UFOs. These "discoveries" based on alleged personal revelations are not to be classed with observations of an objective and factual nature and reasoned deductions therefrom; they are chiefly or wholly the products of imagination.

less. Using a different method, we have figured it as less than 1 in 500,000. There is no hard and fast "right answer" here. The probability depends, for one thing, on how precise the straight-line alignment is. For these sightings of September 24 the precision is great; in fact, an estimate of 1 in 10,000,000 would probably be closer than 1 in 500,000.

Obviously, this straight line was decidedly not the result of pure chance. We can also rule out another explanation: the line certainly did not represent the path of some one object traversing the country that day. Not only were the details of the sightings different (for example, three objects were seen at Bayonne, one object elsewhere), but the sightings were made over a period of several hours, and not in the order in which the towns occur on the line.

All during the fantastic saucer "invasion" of France in the autumn of 1954—without doubt the most spectacular period in UFO history—this theme of the straight line is repeated. The lines were not permanent; the pattern seemed to change about midnight or shortly thereafter each night. For whatever mysterious reasons of their own, the UFOs that frequented the sky of France in such numbers in late 1954 restricted themselves almost entirely, with more than military discipline, to travel along sharply-defined straight-line paths.

These hitherto unsuspected fly-

ways of the saucers are technically not true straight lines, but segments of "great circles" on the sphere of the earth. Michel has invented for them the new term "orthotenic lines" (from the Greek *ortho-*, meaning "straight," and *tenein*, meaning "stretch" or "extend"). And the peculiar behavior of the saucers, in limiting themselves to these lines, is "orthoteny."

The theme of orthoteny pervades Michel's new book,² which is the first complete account to appear in English of the 1954 wave in France and western Europe. He describes dozens of extraordinary cases as they were reported day after day: showers of angel hair, landings of objects that left evidence in the form of scorched vegetation and marks on the ground, stalled cars, paralyzed witnesses, dumfounded peasants (and others) who encountered creatures not wholly human. But among these astonishing reports, and others of a more "ordinary" kind, day after day there appeared on the map of France the cryptic orthotenic alignments.

Consider another day, for example—September 27.

That afternoon, around the Mediterranean resort of Perpignan in southernmost France, near the Spanish border, there were many reports of disks. A high school boy there never got to school. He said

²*Flying Saucers and the Straight-Line Mystery*, by Aimé Michel (New York, Criterion Books, to be published in May or June 1958); translated and edited by the Research Section, Civilian Saucer Intelligence of New York.

he had seen a round object land in the road; two grotesque little creatures emerged, but after a few minutes re-entered the object, which flew off. The boy may have been a joker; nevertheless he appeared to a doctor to be in such a state of shock that absolute rest was prescribed.

At 2:30 in the morning before these events, near Foussignargues in the department of Gard, Mme. Julien and her son Andre had been walking home when they saw a red-luminous object disappear behind a hill; the friends whose car they had just left also saw the object from the automobile. Ten minutes later Mme. Louis Roche, living close by, went out on her terrace and was stupefied to see something "like a luminous tomato" sitting beside the road a hundred yards away. "Five or six rather thick little stalks came out of the center of it on top." She waked her husband, who confirmed that she was not dreaming. It was still there an hour later, but was gone by dawn. Neither of them had dared to approach it.

At 10:15 p.m. a farmer of Lemps, 12 miles north of Valence, called his daughter to watch a green light zigzagging about in the south; it finally traveled to the northeast and disappeared. It was followed by something like "a curtain of luminous smoke," which came close enough for them to hear a humming sound, and disappeared in its turn to the northeast. Half an hour later, they saw nearly a dozen lu-

minous objects congregate in the southeast, then head away to the northeast, "crossing and recrossing each other's paths." Finally a party of three stragglers assembled and brought up the rear of the strange procession. From Valence, south of Lemps, these "swarming" objects were also seen, to the north.

At 8:30 p.m., in the mountain hamlet of Prémanon near the Swiss border, four children were playing in a barn when their dog began to bark. Raymond Romand, 12, the eldest, went out and was confronted by a rectangular metallic object, in shape "like a sugar lump standing on end and split at the bottom," which had not been there before. It did not occur to the boy at the time that this enigmatic object might be a living creature. He tossed some pebbles at it, which bounced off with a tinny clink, and shot a rubber-tipped toy arrow at it. Then he went up to touch it—and was flung to the ground as if by "an ice-cold invisible force." Fear came then, belatedly, and he ran back into the barn with a cry of terror. All the children saw the "thing" move off with a waddling or swaying motion; and as they fled to the farmhouse, they all saw a big red luminous ball balancing a few feet above an adjacent meadow.

Investigators the next day found that in a circular area 12 feet in diameter the grass had been pressed flat in the pattern of a counterclockwise vortex; within the circle were four triangular holes arranged

in a square. Those who investigated the case (including the police) were unanimous in rejecting the suggestion of a hoax. None of the children had ever heard of flying saucers; in first telling of their experience—after urging by their school teacher—they said they had seen a "ghost."

Later that night, at Rixheim in northeastern France, two people watched through binoculars "a long cigar-shaped object, motionless in the sky, around which ten or more luminous points were maneuvering in every direction."

On a large map of France, draw a straight line from Perpignan to Rixheim. This line passes through Foussignargues, passes southeast of Lempis at a distance of a couple of miles, and passes through Prémannon. Five points aligned—three of them landing reports.

What about the other sightings of September 27? There were three: about 10 p.m., a group of observations in eastern Paris of a "neon-lighted" disk that paused and then went off to the northwest; at 1:15 p.m., a shiny object that moved off to the northwest in successive jerks, seen by M. and Mme. Kapps at Froncles, 130 miles east-southeast of Paris; at 8 p.m., a red-luminous disk moving to the south, seen by three witnesses at Lanta, near Toulouse in southwestern France. When we go to the map, we find that the Paris and Froncles observations are also directly aligned with Rixheim. So, of the eight

observations of the 27th, no less than seven belong to this pair of orthotenic lines radiating from Rixheim. Only one, that of Lanta, stands solitary upon the map.

As September passed into October, day by day the number of sighting reports multiplied, and so did the number of orthotenic lines on the map of France. The pattern for October 2 resembles the spokes of a giant spiderweb, with all but two lines meeting in the village of Poncey-sur-l'IGNON, near Dijon; while the pattern of 28 sightings for October 7 bears much resemblance to a map of the canals of Mars.

Actually, however, these later days with many sightings forming complex orthotenic networks furnish less conclusive evidence for orthoteny than do days with few sightings, all or nearly all of which turn out to lie along orthotenic lines. This is because of the curious fact—predicted by theory and easily verified by actual trial—that the number of purely accidental alignments among a group of points scattered at random increases rapidly with the number of points.

If you scatter six radish seeds (for example) over a sheet of paper, the chances are poor that any three will lie in a straight line. If you use nine seeds, you will find among them, more often than not, one accidental three-point line; with eleven seeds you will probably find two such lines; and so on. If you scatter 28 seeds, our home-made

theory predicts that you will find (if you are patient with the ruler) something like 30 three-point alignments, and 3 four-point alignments, all purely accidental. We have tried this repeatedly, with approximately these results.

But there is one striking difference between these "pseudo-orthotenic" lines and any of the sighting patterns found by Michel: namely, the *kind* of pattern produced. A pattern consisting of these pseudo-orthotenic lines produced purely by chance gives an effect of confusion; it is haphazard, jumbled, and unsystematic in a way that the true orthotenic pattern is not.

Michel draws other generalizations from his data, and some of them can be related to the orthotenic lines. A type of UFO which Michel calls "the great cloud cigar" was often seen. As its name indicates, it was an elongated object that appeared to be surrounded by cloud, smoke, or vapors. From this "cigar" there frequently emerged smaller objects; in other cases the smaller objects were seen entering it; in at least one case the same object left the cigar and returned. Unmistakably this represents a form of the "mother ship" which has become such a familiar concept in UFOlogy.³

Sightings of the great cloud cigar were made chiefly at places where orthotenic lines met or crossed each

other; Michel calls these points "dispersion centers," since they seemed to be "junctions" from which smaller UFOs departed, or to which they returned, along the orthotenic lines.

If the saucers flew in these strangely rigid orthotenic patterns over France in 1954, do they always do so? What about other countries and other sighting waves? The November 1957 wave in the United States, which took place while we were translating Michel's book, offered a golden opportunity to find whether American observations would also conform to Michel's orthotenic principle. We plotted the November sightings on a gnomonic-projection map of the United States (this projection, available from the U. S. Coast and Geodetic Survey, is needed for large areas, though not for a smaller area like France), and linear patterns *did* appear. But we found none that were clearly distinguishable from pseudo-orthotenic patterns. Does this mean that orthoteny was not operating in the United States in 1957?

Not necessarily. If all of the numerous erroneous "sightings"—of Venus, for example—could have been recognized as such and subtracted; and if the numerous cases that never came to our attention could have been added, we might have seen clear-cut orthotenic patterns rather than mere tantalizing suggestions.

Or perhaps the United States

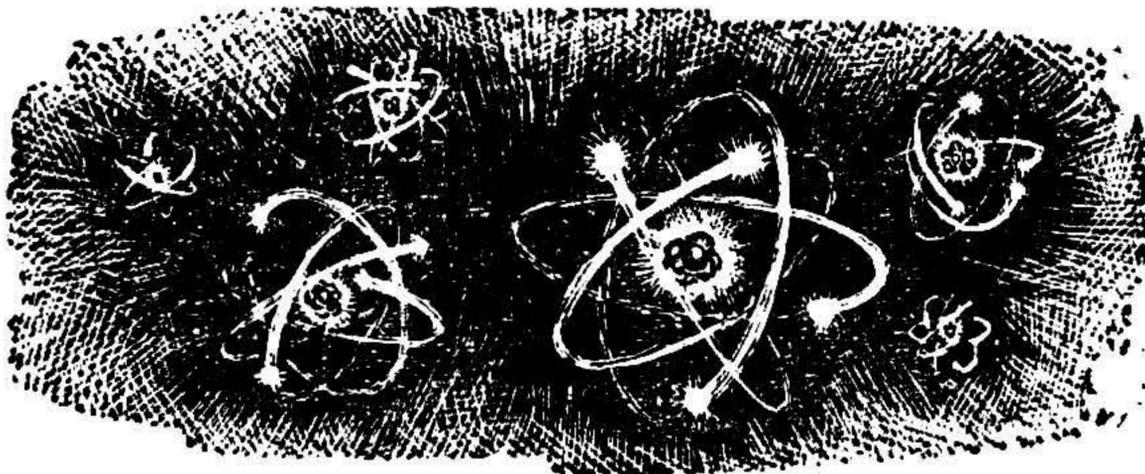
³This idea is often associated with Adamski's spurious photographs, but he was by no means its inventor; it was in circulation as early as 1948.

saucers of 1957 were really a different breed of cat from those in France in 1954, or perhaps in 1957 they were no longer operating under the orthotenic system. There is plenty of precedent in UFO history for inconsistent behavior of this kind; as we have emphasized in previous articles, the things seem to take positive pleasure in violating generalizations about what they always do, or never do, or usually do.

And yet, the similarities between 1957 and 1954 were startling. For example, the electrical effects first reported in France in 1954 turned up again in many (but not all) of the 1957 sightings in this country—sightings made, we might add, by people who could not conceiva-

bly have known of the European phenomena three years before. On both sides of the Atlantic, the UFO that produced these effects was described with impressive unanimity as luminous neon-red and egg-shaped.

Whether or not flying saucers still operate under the "laws of orthoteny," the occurrence of these orthotenic lines in France in 1954 seems indisputable, and what has happened once will probably occur again. They constitute one more baffling riddle for UFOlogists—all the more tantalizing because, as Michel points out, they may contain, in plain language of their own, some vital clue that we are as yet unable to decipher.



MOTHER SHIPTON

Four hundred years ago, Martha ("Mother") Shipton, who lived between 1488 and 1561, prophesized:

Carriages without horses shall go,
 And accidents fill the world with woe.
 Around the world thoughts shall fly,
 In the twinkling of an eye.
 Under water men shall walk,
 Shall ride, shall sleep, and talk.
 In the air men shall be seen
 In white, in black, and in green.