THE PHENOMENA OF ANGEL HAIR

by

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ONE approach to the study of u.f.o.s which holds some promise of significant attainable knowledge of the character of these objects is the analysis of the nature of the so-called angel hair. In numerous instances the fall of large quantities of this fibrous material has been noted in connection with the observation of disc-shaped and cigar-shaped u.f.o.s. There appears to be sufficient evidence to prove to a reasonable-minded person the reality of these falls of material from the sky and the close association of these falls with the observation of u.f.o.s. To give a complete account of all the interesting details associated with the many different reports would require a good-sized source book. Such a compilation would indeed be a valuable reference work and should be prepared by some agency in the interests of scientific knowledge.

From the standpoint of a preliminary study, however, it might be worth while to make an attempt to investigate those features of the character of angel hair which are most commonly noted. These are (1) the simultaneous sightings of u.f.o.s in connection with the fall of angel hair from the sky and (2) the unstable character of the material as evidenced by its rapid disintegration soon after the fall.

The accompanying table, with dates of sightings, localities, and notes, comprises such a study in brief. The material of the table with the notes includes a record of sightings involving angel hair for the period from October, 1952, to October, 1955. The table is not to be considered a complete record of such happenings, but probably does include those which are at least the best known of such events. The reference notes in every case represent quotations from newspaper reports, magazine articles, books, and personal letters describing the events. In three cases, those of Auckland, New Zealand, Melbourne, Australia, and Horseheads, New York, no u.f.o.s were reported as seen. However, in these three

The Table of Angel Hair Incidents

Date of Sighting	Locality	Note References	
		Associated with u.f.o.s	Rapid disintegration
October 17, 1952	Oloron, France	1	a
October 27, 1952	Gaillac, France	2	b
April 15, 1953	Auckland, New Zealand		c
May 30, 1953	Palmerston North, New Zealand	3	
October 9, 1953	Melbourne, Australia		d
October 13, 1953	Pleasant Hill, California	4	
November 16, 1953	San Fernando Valley, California	5	e
February 1, 1954	San Fernando Valley, California	6	f
February 1, 1954	Puente, California	7	g
October 22, 1954	Jerome School, Marysville, Ohio	8	h
October 28, 1954	Rome, Italy	9	
November 8, 1954	Florence, Italy	10	
November —, 1954	Tucson, Arizona	11	
November —, 1954	Kankakee, Illinois	12	
February 21, 1955	Horseheads, New York		i
October 2, 1955	Uhrichsville, Ohio	13	
October 27, 1955	Whitsett, North Carolina	14	

instances the fibrous materials which fell from the sky appeared to have the peculiar property of angel hair most commonly noted, namely its tendency to rapid disintegration. Among the fourteen instances where angel hair was associated with u.f.o.s there were six occasions where the rapidly-disintegrating character of angel hair was noted.

It should be pointed out as a significant fact that the author has personal letters from two school teachers and six school children as witnesses in the Jerome case, two letters from school teachers in connection with the Whitsett case, and one letter from a lady observer of the Uhrichsville incident. The author regards all of these testimonies as absolutely true statements and correctly descriptive of the phenomena which took place. No doubt additional testimonies in large numbers could be secured for most of these events, were one to take the time and make the effort to go about such an undertaking.

Notes on the Table

Angel Hair associated with u.f.o.s :

1. " A cigar-shaped object—dropping a great quantity of fibres in its wake."
2. " The spectacle lasted for about twenty minutes before the cigar and its saucers disappeared over the horizon. By this time masses of white threads were beginning to fall—just as at Oloron. They continued to fall for a long time after the disappearance of the objects."
3. " Saw a small bright blue object—with an irregular motion quite unlike that of an aircraft. Later saw large number of filaments of a substance resembling spider webs, white in colour and ashy in texture, floating down to earth."
4. " Four round objects glistening in the sun threw off some kind of whitish substance—a white silky strip about twelve feet long settled on a tree."
5. " We saw a huge silvery ball—a long streamer of white stuff almost like a vapour trail—spewed out its back end—it drooped down all over the neighbourhood like cobwebs."
6. " The ball was about three times the size of a full moon—suddenly a stream of white lacy substance flowed from the ball."
7. " After ten or fifteen seconds, the object turned reddish. Then it emitted some shining cobweb-like substance which began to drift to earth."
8. " The cigar-shaped object was hanging motionless—then it took off quite rapidly. In its wake was a trail of webs that later were strung from one side to the other of wires along the road all the all the way to the Columbus road."
9. " These objects dropped white cottony stuff that hung from telephone wires."
10. " 15,000 spectators at a football match watched a flight of saucers which dropped candy-floss type streamers."
11. " A bright object was sighted, then disappeared. Then we saw round objects drifting downward. One became entangled in a TV antenna and floated in the air as a streamer. Later hundreds of smaller streamers—catching on trees and branches."
12. " After a flying saucer had passed over Kankakee, Illinois, angel hair was collected." (A photo of this angel hair was printed in the January 31, 1955, issue of the *Chicago American*.)
13. " Several disc-shaped objects bunched at high altitude. Almost immediately after the saucers disappeared, the air became filled with silver cobwebs."
14. About ten saucers were sighted: " The angel hair started falling about the same time the saucers were sighted."

Rapid disintegration of Angel Hair :

a. " When rolled up into a ball, they rapidly became gelatinous, then sublimed in the air and disappeared."
b. " Became gelatinous, then sublimed and disappeared."
c. " Quickly disintegrated when handled."
d. " On handling, rapidly disintegrated until no trace was left."
e. " Held between the fingers, it dissolves into nothing."
f. " When I picked it up in my hands, it disappeared."
g. " It vanished when I tried to touch it with my hands."
h. " The part we held between our fingers very quickly seemed to just go to nothing."

i. After two days the "web was rapidly disintegrating and disappearing."

Special Properties Noted :

At Oloron, France : "These fibres resembled wool or nylon. When rolled into a ball, they rapidly became gelatinous, then sublimed in the air and disappeared. The fibres burned like cellophane when ignited."

At Jerome School : "We handled this material; it was very fine and soft to touch. It did not stick to our hands, but when we held two ends and pulled, it stretched without tearing. Where it stretched it had a shiny appearance. The part we held between our fingers very quickly seemed to just go to nothing. However, we could roll it between our fingers into a very, very tiny ball. In a short time our hands had a green stain on them. I soon washed my hands in warm water and the stain rinsed quickly off. Mr. Warrick said he was leaving his on his hands to see what would happen—he later said his hands became clammy and finally the colour disappeared of its own accord."

In most of the incidents where there were falls of cobwebby substance from the sky, shiny disc or cigar-shaped bodies were observed, and the substance appeared to be dropped from these bodies. In the case of the cobwebby substance that fell over a half-mile square area near Horseheads, New York, the material was first discovered in the early morning of February 21, 1955. Since this material strongly resembled that observed in connection with shiny aerial objects in the fact of its having fallen from the sky, being fibrous in character, and having the property of rapidly disintegrating, it might be assumed to have been produced under similar circumstances. Granting this fairly reasonable assumption, it would seem that the results of a chemical analysis of the Horseheads fibre might throw some light on the nature of angel hair.

Since different attempts were made to analyse this material and the report of these attempts reached the Press it seems worth while to include a record of them here. The results of analysis by several different professional people are strangely contradictory. *It is a significant fact, however, that none of the scientists identified the material as the web of the ballooning spider.*

The following analyses are noted:

Dr. Francis A. Richmond, professor emeritus at Elmira College, described the material as "short, weak fibres that looked and felt like cotton or wool."

Dr. Charles B. Rutenber, professor of chemistry at Elmira College, declared that, based on chemical analysis, the material was "cotton, either waste or fibres, that had been in explosion and were heavily damaged." Tests with a geiger counter showed it to be radio-active. These findings were supported by Dr. Richmond and Mrs. Hans Bernt, assistant professor of art. Later, Dr. Rutenber suddenly reversed his decision; he said the material was a protein product created by the escape of a hot milk product at the local milk plant.

Mr. John B. Diffenderfer, manager of the chemistry section of the local Westinghouse plant, held to the milk theory. The Westinghouse test showed thirty per cent. carbon with various metals present.

Mr. Louis R. Hermann and Mr. Robert L. Mix, chemical technicians at the Westinghouse plant, said that the material consisted of cotton and wool fibres with pieces of fine copper wire mixed in.

Assumptions might also be made as to the origin of angel hair. Aimé Michel, in his book *The Truth About Flying Saucers,* calls attention to the Plantier theory on this point in the following words: ". . . as Plantier thinks, the 'angel's hair' results from the alteration of the chemical properties of atoms and molecules of the air, effected by the ultra-heavy particles projected by the field . . ." (of the u.f.o.). Alongside of this reference the following fact might be noted: It was definitely established by Dr. Willard F. Libby, of the University of Chicago, in 1947 that Carbon 14, known as radio-active carbon, is produced by cosmic rays in the atmosphere from atoms of nitrogen. The fibrous material, cotton, is nearly pure cellulose and contains atoms of carbon, hydrogen, and oxygen. Conceivably angel hair could be forms of what chemists call a chain polymer of cellulose, containing radio-active Carbon 14 combined with the hydrogen and oxygen from moisture in the air, the three elements combining under the action of the ultra-heavy particles referred to by Plantier.

But this is probably too much speculation. At any rate it would be very desirable to have the benefit of detailed scientific tests of the real angel hair definitely observed to have been associated with u.f.o.s. When this is once accomplished, a

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From an Astronomer's Notebook

by W. Schroeder

January

1	New Moon.
3	Moon in Apogee.
8	Moon: First Quarter.
	Algol Minimum, 5 a.m.
	Moon nears Mars.
10	Mercury in Inferior Conjunction.
11	Algol Minimum, 2 a.m.
13	Algol Minimum, 11 p.m.
16	Full Moon.
	Algol Minimum, 8 p.m.
17	Moon in Perigree.
	Geminid Meteors.
19	Algol Minimum, 5 p.m.
20	Moon near Jupiter.
23	Moon: Last Quarter.
26	Moon near Saturn.
29	Moon near Mercury and Venus.
30	New Moon.
31	Algol Minimum, 4 a.m.
	Moon in Apogee.

February

1	Mercury in Western Elongation.
3	Algol Minimum, 1 a.m.
5	Moon near Mars.
	Algol Minimum, 10 p.m.
5-10	Aurigid Meteors.
7	Moon: First Quarter.
8	Algol Minimum, 6 p.m.
14	Full Moon.
	Moon in Perigee.
16	Moon near Jupiter.
20	Algol Minimum, 6 a.m.
22	Moon: Last Quarter.
23	Moon near Saturn.
	Algol Minimum, 3 a.m.
25	Algol Minimum, 11 p.m.
27	Moon in Apogee.
28	Algol Minimum, 8 p.m.

Sun, Moon and Planets

During the first part of the year the sun travels towards more northerly parts of the ecliptic, and the length of the days increases correspondingly from 7 hours 40 minutes on January 1 to 8 hours 45 minutes on January 31, and to 10 hours 15 minutes on February 28.

The Moon always presents an interesting aspect when near a particularly bright star or planet, and such times are given in our diary. There, we also find the times when the Moon is in Perigee and Apogee, that is those points of her orbit which are respectively nearest to and farthest from the earth. It so happens that the Full Moons in January and February fall near the times when the Moon is in Perigee, and an observant star gazer will quite easily notice the apparent difference in the size of the Moon. The Full Moon, when in Perigee, is about one-fifth larger than the Full Moon in Apogee.

The narrow crescent of the waning Moon will help us to locate Mercury on January 29, when this planet will put in one of its fleeting appearances. Venus is also nearby, but as the sky will be fairly bright by the time the planets become visible above the horizon, it may not be very easy to locate them.

Jupiter and Saturn are also morning stars, situated in the constellations Virgo and Scorpio. Both are gradually increasing in brightness, indicating their approach to opposition later in the year.

The only planet visible in the evening sky is Mars, now in the constellation Pisces. Although it has lost much of its brightness since last September, it still is a conspicuous object in the field

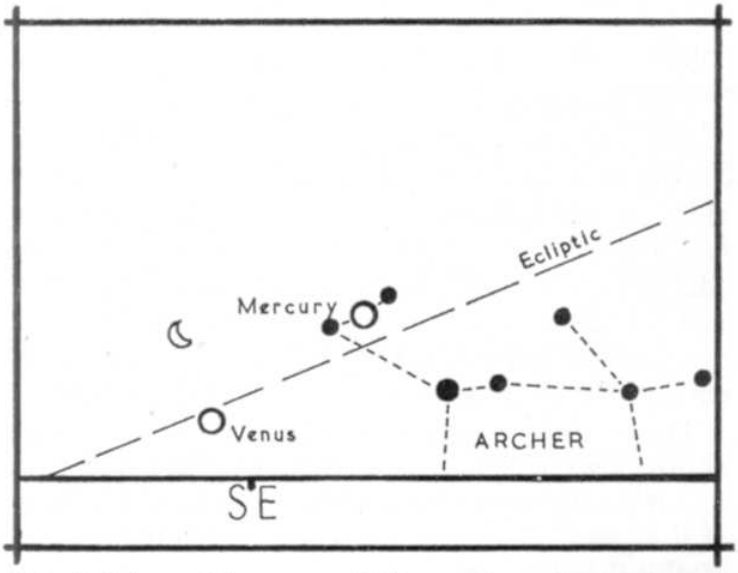

Fig. 1. Moon, Mercury and Venus above the horizon in the south-east at 7.30 a.m. on January 29, 1957.