

UFOs AND THE EVIDENCE

"We are in no position to assert what is or is not possible for some extraterrestrial technology . . ."

By FREDERICK J. HOOVEN

THE subject of UFOs is a vast one. At least 20,000 reports are on record of sightings of some kind of flying object not identified, and it has been estimated that from five to ten times as many observations have not been recorded. The reports come from all periods of history (the Old Testament book of Ezekiel is a typical flying saucer, or UFO, report) and from all parts of the world, the highest concentrations corresponding with the times and places of most effective communication.

Roughly 95 per cent of these reports can be readily attributed to misinterpretations of such common objects as planets, stars, satellites, meteorites, weather balloons, and aircraft. It is astonishing how many people have never studied the sky, and when their attention is called to it they become greatly excited by a sighting of Venus, Jupiter, Mars, or the star Sirius. An additional fraction of the reports turn out to be hoaxes, pranks, or psychopathic phenomena.

Frederick J. Hooven is a consultant to the Ford Motor Company and adjunct professor of engineering at Dartmouth College.

This leaves a residue of reports that have resisted any of these explanations, and that have originated with solidly credible witnesses, some of them professionally skilled. Of this residue a small proportion share common aspects that are difficult to attribute to anything but some kind of objective reality.

About 1950, it was suggested that UFOs were vehicles from another world that were observing Earth. There was something about this suggestion that tickled the fancy of almost everybody, even those who felt certain it was not true. Since that time people have taken positions on the subject, their beliefs varying along a spectrum, or scale of 100, with the absolute unbelievers at the zero end, the utterly faithful enthusiasts at the 100 end, and the majority somewhere between. Most scientists are clustered around the zero mark.

In October 1966, the U.S. Air Force commissioned the University of Colorado to conduct a thorough study of the UFO question. The study was conducted by a group directed by Dr. Edward U. Condon, a scientist and public figure of the first rank, and its official report, *Scientific Study of Unidentified Flying Objects*, was issued last January.

I served as a consultant to the Colorado group along with David F. Moyer; we were both working for the Ford Company. There had been a great number of reports that included accounts of automobiles malfunctioning in some way in the presence of UFOs, and, when the project was initiated, Dr. Condon requested assistance from the automobile industry in evaluating these reports. With the assistance of Ford engineers and scientists, a painstaking analysis was conducted of a car that had figured in a UFO report. In the process, techniques were developed and described for analyzing automobiles for possible after-effects of radioactive and magnetic phenomena, neither of which was found in the car examined.

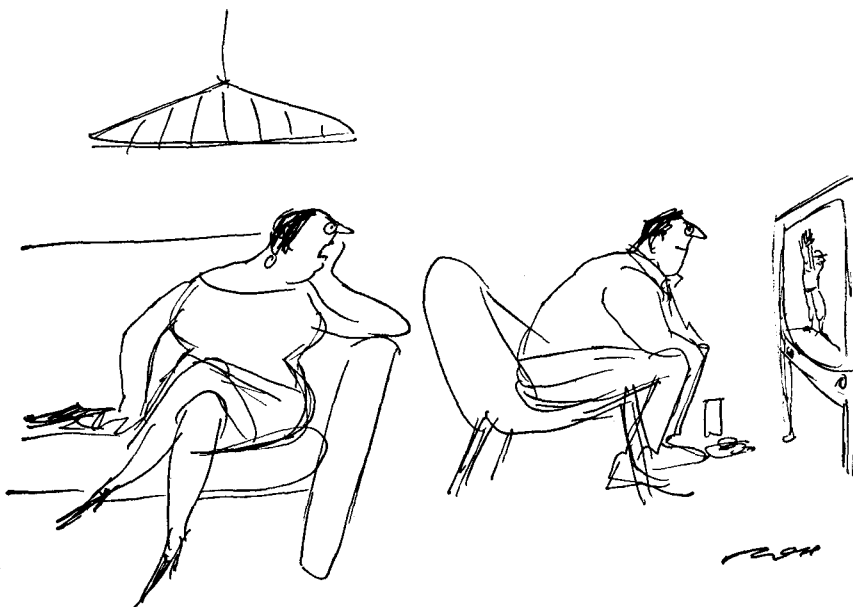
The report begins with an introduction by Walter Sullivan, science editor of *The New York Times*, and a fairly complete picture can be obtained by reading it along with the report's conclusions and recommendations, and a summary, written by Condon. The body of the report is voluminous, with detailed analyses of fifty-nine case studies, buttressed by extensive discussions of the physical and perceptual phenomena involved. Special attention is given to radar anomalies, visual illusions, and some of the aspects of common objects likely to be mistaken for UFOs. There is historical background, and extensive documentation. The quality of the writing and the editing is outstanding.

THE report concludes that inasmuch as there is no positive evidence of extraordinary phenomena, it can safely be assumed that UFOs are not anything extraordinary, and that the subject does not warrant further scientific study. The logic of this particular approach is defended in the following passage, quoted from the report's summary:

As a practical matter, we take the position that if an UFO report can be plausibly explained in ordinary terms, then we accept that explanation even though not enough evidence may be available to prove it beyond all doubt. This point is so important that perhaps an analogy is needed to make it clear. Several centuries ago, the most generally accepted theory of human disease was that it was caused by the patient's being possessed or inhabited by a devil or evil spirit. Different diseases were supposed to be caused by different devils. The guiding principle for medical research was then the study and classification of different kinds of devils, and progress in therapy was sought in the search for and discovery of means for exorcising each kind of devil.

Gradually medical research discovered bacteria, toxins and viruses, and their causative relation to various diseases. More and more diseases came to be described by their causes.

Suppose now that instead, medi-



"Howard, play me or trade me."

cine had clung to the devil theory of disease. As long as there exists one human illness that is not fully understood in modern terms such a theory cannot be disproved. It is always possible, while granting that some diseases are caused by viruses, etc., to maintain that those that are not yet understood are the ones that are really caused by devils.

There are two shortcomings inherent in the quoted passage. First, those who hold that some of the UFO reports might possibly be extraordinary phenomena will be affronted by the implication that their view is comparable with that of holding diseases to be caused by devils. Second, of the fifty-nine case studies reported, a number could not be "plausibly explained in ordinary terms."

One cannot demand that positive proof be shown that all UFO reports are ordinary phenomena, as such proof will obviously never be possible. Neither is it reasonable to demand positive proof that a phenomenon is extraordinary in order to conclude that it is worthy of additional study. The ordinary individual, looking for some guidance in forming his opinions, will become impatient with such extreme views, and he is likely to reject the advice, also given in the report's conclusions and recommendations, that he should believe what the scientists tell him about UFOs.

I do not hold that UFOs are visitors from outer space. For one thing, I cannot believe that such visitors could be so numerous or present in so many different aspects. I do, however, hold that a visitor from outer space or other extraordinary phenomenon are of sufficient possibility to warrant continuing investigation of UFOs. Any discussion of interstellar space travel is predicated on our own far-distant prospects, and illustrates why we cannot accept uncritically what the scientists tell us about the possibility of visitors from outer space.

It is generally agreed today that there are probably planets other than our own which may be populated by intelligent creatures, more or less like ourselves, but it is highly unlikely that they are anywhere in our own solar system, since our other planets are so inhospitable to life as we know it. Condon, in examining this possibility, points out that planets belonging to any star other than our own sun are so inconceivably far away that no living creature could make the trip by any means we now could foresee. He also points out that in order to suppose that any civilization comparable to ours is presently in existence elsewhere, it is necessary to assume that such a civilization has lived to a very great age, because time is so vast, and our own brief civilization has existed for only a millionth of the probable lifetime of Earth, which is already showing signs of de-



stroying itself with nuclear energy before it gets really started.

It can therefore be reasoned that if any other civilization such as ours does now exist in our galaxy, it must be many times older than ours, just as any one-day-old infant must recognize that most living people are many times older than he is. We can speculate on the present capabilities of a technology that is, say, 50,000 years ahead of ours only in terms of what our own might be capable of 50,000 years from now. About all that can be said of such a possibility is that it would be largely incomprehensible to us, and, as Arthur C. Clarke has said, it would appear to us to be magic, since it would violate the laws of physical science as we know them today. We are consequently in no position to assert what is or is not possible for some extraterrestrial technology vastly older than our own.

Speculation is so firmly discouraged in science that scientists generally show no talent for it, or more probably they are inhibited by fear of ridicule or disapproval by their colleagues. Consequently, when they are invited to prognosticate, they predict prodigious feats of technology, all of which are built on the foundation of today's physical sciences, implying that the future will bring no more of the kind of scientific discovery that has in the past changed our views of the physical world and the course of our technology.

This attitude is expressed in an article by William Markowitz in *Science*, entitled, "The Physics and Metaphysics of Unidentified Flying Objects." Under the physics heading he demonstrates that interstellar travel is impossible by today's laws of physics. Under the heading of metaphysics he then purports to discuss the possibilities of considering that today's laws of physics do not hold. However, he fails to give serious attention to the subject. Instead, he contents himself with demolishing some of the fantasies of the writers of science fiction, and then impatiently proclaims that such exercise is "magic" and that he does not believe in it.

IT is much more difficult to be serious about projecting the capabilities of technologies on the order of 50,000 years ahead of ours today. It has been less than 140 years since Michael Faraday discovered electromagnetic induction, which might be called the first truly scientific discovery to result directly in new technology. It has been less than eighty years since we first began to support science in the supposition that it would result in technology, and since that time science and technology have grown and progressed almost exponentially. It is scarcely possible to extrapolate from such a short base over so long a span, as far as the laws of physics are concerned, beyond observing that our science is in its

(Continued on page 62)

Saturday Review

Editor: NORMAN COUSINS
Publisher: WILLIAM D. PATTERSON

Associate Editors: IRVING KOLODIN, HORACE SUTTON

Associate Publisher
RICHARD L. TOBIN

Science Editor
JOHN LEAR

Layout & Production
PEARL S. SULLIVAN

General Editor
HALLOWELL BOWSER



Poetry Editor
JOHN CLARKE

Travel Editor
DAVID BUTWIN

Managing Editor
ROLAND GELATT

Education Editor
JAMES CASS

Book Reviews Editor
RACHELLE GURSON

Art Editor
KATHARINE KUIH

Editors-at-Large

CLEVELAND AMORY • HENRY BRANDON • HARRISON BROWN • JOHN MASON BROWN
CHARLES FRANKEL • FRANK G. JENNINGS • JOSEPH WOOD KRUTCH
ELMO ROPER • PETER SCHRAG • THEODORE C. SORENSEN • PAUL WOODRING

Contributing Editors

GOODMAN ACE • HOLLIS ALPERT • JEROME BEATTY, JR. • JAMES F. FINX
HENRY HEWES • GRANVILLE HICKS • ARTHUR KNIGHT
MARTIN LEVIN • ROLLENE W. SAAL • ROBERT LEWIS SHAYON • ZENA SUTHERLAND
WALTER TERRY • MARGARET R. WEISS • JOHN T. WINTERICH

John Mason Brown

JOHN MASON BROWN, critic, essayist, author, lecturer, died last week at the age of sixty-eight. He was a key figure in the development of *Saturday Review*, serving as drama critic and editor-at-large over the span of a quarter-century. He was vastly gifted. He turned his creativity in many directions, but his main bent was the theater; he was probably its leading authority and certainly its best friend. He was pre-eminent as a lecturer. His book on Robert E. Sherwood won him recognition as biographer and historian. He was a member of the board of judges of the Book-of-the-Month Club. He had few peers as a writer and none as a public speaker. He was a man of infinite charm and unsurpassed wit. He was as creative and artistic about his **friendships** as he was about his work.

Like the founding editors and present editor of *Saturday Review*, John Mason Brown was a product of the old *New York Evening Post*, for which he was drama critic for more than a decade. He was only twenty-nine when he started writing for the *Post*. It soon became apparent that he was a critic and writer of prodigious ability. His broad knowledge of the theater was combined with a felicitous command of the English language. He used words with painstaking artistry and occasionally with devastating effect. He was first of all a man of taste, a presiding fact about his criticism that everyone connected with the theater came to recognize and respect.

John Mason Brown's career on the old *Post* began some four years after

Henry Seidel Canby, Amy Loveman, William Rose Benét, and Christopher Morley took their weekly supplement out of that newspaper and launched it as a separate weekly journal called *The Saturday Review of Literature*. I remember hearing Dr. Canby say in 1940, shortly after I came to the magazine, that he knew of no young writer who had greater natural flair for criticism and the essay. One of Dr. Canby's ambitions, which he passed along to me, was to get John Brown to write for the magazine regularly.

THE war intervened. Here I plagiarize from my brief history of the magazine in *Present Tense*. John was aide to Admiral Alan G. Kirk on the USS *Augusta*, flagship of the American invasion fleet at Normandy. His natural abilities floated to the top. Admiral Kirk put him to work as a teacher and morale-builder. John lectured regularly to the crew—not just about the life of the theater but about world affairs, history, and the arts. During the invasion of Normandy, he did a running commentary for the men on board, connecting them to the historical enterprise in which each had a major role. His words enabled the men to penetrate the constricted field of vision imposed by war on the individual warrior. He lifted the men below decks out of their interior limbo and made them integral to the battle.

Some years later Admiral Kirk told me that, for sheer brilliance of observation and ability to convey the essence of an incredibly complex and fast-changing

situation, he had never seen the equal of John Mason Brown's dramatic performance at Normandy on June 6, 1944.

Such an evaluation would come as no surprise to anyone who heard John Brown on the public platform. Within a short time after he began his lecturing career, John Brown became the most popular speaker in the country, a distinction he retained for more than thirty years. I know of no contemporary critic who used words more adroitly and colorfully. He had complete control of the quintessentials, whether in describing a play, a person, or an event. The pictures he painted in the listener's mind had far greater substance and vitality than those which the eye alone could perceive. John Brown demonstrated that the most potent theater could be staged within the human imagination—without curtains, props, or special lighting effects. And so he went around the country, a composite performance by himself, providing not only dramatic criticism of a very high order, but a versatile sampling of the plays themselves.

All credit for persuading John Mason Brown to join *SRL* as drama critic belongs to Amy Loveman, whose place in the history of the magazine is no less vital and central than that of Dr. Canby. Dr. Canby designed and gave direction to the magazine, but Amy Loveman gave *SRL* its tone and spirit.

It was difficult for any writer, whatever his age, eminence, or previous condition of literary servitude, to resist Amy Loveman. She invited John Mason Brown to join us at lunch one day. I sat enthralled by her extraordinary skill as a listener and by John Brown's skill as a verbalizer. I don't think Amy Loveman spoke more than four or five minutes out of the two hours we were together. By the time the lunch was over, John Brown had talked himself—brilliantly and beautifully—into accepting the job.

John Mason Brown's column for *SR*, *SEEING THINGS*, revealed that his interest in the theater was exceeded only by his interest in the human drama. He paid his readers the compliment of believing that their concerns were as wide-ranging as his own, their sensitivities no less keen, their feelings no less deep. What he once wrote of Edith Hamilton, for whom he had total admiration, was no less true of himself. He said that Miss Hamilton was "a popularizer but not a vulgarizer, a liaison officer between the finest that has been and the finest that is." She "wrote from the heart as well as the head." Her "learning and living are linked. Large as is her erudition, her vision is larger." The passage was not intended as self-description, but it will serve.

John Mason Brown's writings in the magazine widened progressively until they embraced the world of the creative