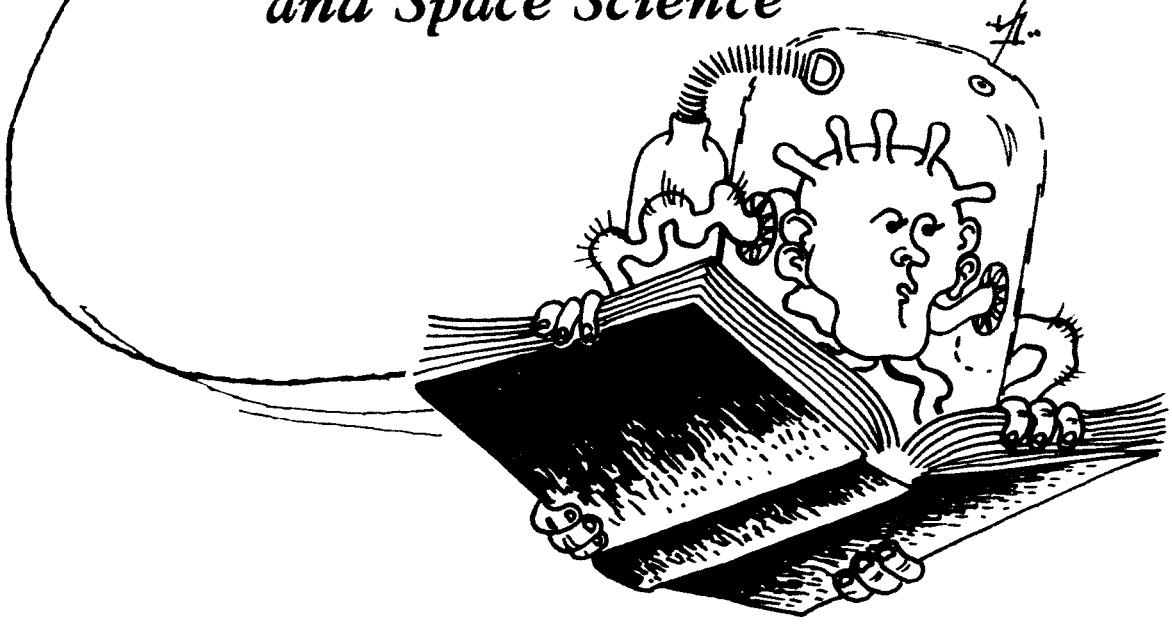
The Explorer's Guide to the Universe

A Reading List for Planetary and Space Science



NASA

Planetary Materials
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Revised Edition

THE EXPLORER'S GUIDE TO THE UNIVERSE

A Reading List for Planetary and Space Science

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CONTENTS

		Page
	PREFACE	i
1.	ASTRONOMY AND SPACE SCIENCES - Reviews, General Textbooks	1
2.	NASA SPACEFLIGHT - History	6
3.	MAN IN SPACE - Apollo, Skylab, Others (history, science results)	8
4.	SOLAR SYSTEM - (Origin, History, Planetology): reviews and general textbooks	15
5.	SUN	22
6.	MERCURY AND VENUS	26
7.	EARTH (from space)	28
8.	MOON	31
9.	MARS	36
10.	JUPITER	41
11.	SATURN	43
12.	URANUS, NEPTUNE, AND PLUTO	45
13.	ASTEROIDS, METEORITES, TEKTITES, AND COSMIC DUST .	46
14.	COMETS	51
15.	SPACE HABITATS AND NONTERRESTRIAL RESOURCES	52
16.	ORIGIN OF LIFE, EXTRATERRESTRIAL LIFE	56
17.	UFO's	61

PREFACE

During the last decade, both scientists and the public have been engulfed by a flood of discoveries and information from outer space. Distant worlds have become familiar landscapes. Instruments in space have shown us a different Sun by the "light" of ultraviolet radiation and X-rays. Beyond the solar system, we have detected a strange universe of unsuspected violence, unexplained objects, and unimaginable energies. We are completely remaking our picture of the universe around us, and scientists and the general public alike are curious and excited about what we see.

The public has participated in this period of exploration and discovery to an extent never possible before. In real time, TV screens show moonwalks, the sands of Mars, the volcanoes of Io, and the rings of Saturn. But after the initial excitement, it is hard for the curious nonscientist to learn more details or even to stay in touch with what is going on. Each space mission or new discovery is quickly skimmed over by newspapers and TV and then preserved in technical journals that are neither accessible nor easily read by the average reader.

This reading list is an attempt to bridge the gap between the people who make discoveries in space and the people who would like to read about them. The aim has been to provide to many different people--teachers, students, scientists, other professionals, and curious citizens of all kinds--a list of readings where they can find out what the universe is like and what we have learned about it. We have included sections on the objects that seem to be of general interest--the Moon, the planets, the Sun, comets, and the universe beyond. We have also included material on related subjects that people are interested in--the history of space exploration, space habitats, extraterrestrial life, and UFO's.

The list is intended to be self-contained; it includes both general references to supply background and more specific sources for new discoveries. Although the list can be used by a wide range of people, it has been compiled with the nonscientist specifically in mind. As a general rule, we have not included technical symposia or the special issues of

ASTRONOMY AND SPACE SCIENCES

Asimov, I. (1982) Exploring the Earth and the Cosmos, Crown Publishers, New York, NY, 339 p.

Feldman, A. (1980) Space, Facts on File, New York, NY, 336 p.

Ferris, T. and Landry, S. (Illus.) (1980) Galaxies, Sierra Club, San Francisco, CA, Charles Scribner and Sons, New York, NY, 182 p.

Friedman, H. (1975) The Amazing Universe, National Geographic Society, Washington, D.C., 199 p.

An excellent introductory book about current astronomy for the non-scientist. Beautifully illustrated in a typical National Geographic style, this book describes in entertaining, non-technical language the astonishing and violent universe that surrounds us. After briefly introducing the history and instruments of astronomy, the book describes new discoveries about a variety of familiar and unfamiliar things: the Sun, families of stars, neutron stars, black holes, galaxies, the Big Bang, and the search for extraterrestrial life. There are brief, but clear, descriptions of the new astronomy that uses other kinds of "light" -- radio waves, X-rays, and gamma rays. The author, a noted astronomer himself, also includes photographs and anecdotes that give a feeling of how astronomers actually do their work.

French, B.M. and Maran, S.P. (Eds.) (1982) A Meeting With the Universe, NASA Educational Publication EP-177, 221 p.

Written and edited by a group of NASA scientists, this lavishly illustrated book is ideal for the general reader. It describes the amazing and often unexpected discoveries that we have made about the solar system and the universe by going into space. The simply-written, easy-to-read chapters present a new picture of the universe in many different fields -- the Moon and planets, distant stars and galaxies, the Earth's space environment, life in the universe, the present and future role of humans in space, and some of our plans for the future. A beautiful, readable book for anyone --

ASTRONOMY AND SPACE SCIENCES (cont'd)

Moore, P.A. (1979) The Guinness Book of Astronomy: Facts and Feats, Sterling Press, New York, NY, 288 p.

NASA EP-120 (1977) Quasars, Pulsars, Black Holes, and HEAO'S, 24 p.

Astrophysics, the physics of the stars, takes on exciting new dimensions as the result of recent discoveries in the visible high energy universe, where physical processes are so powerful they cannot be reproduced on Earth.

NASA EP-126 (1977) The Supernova, 48 p.

This curriculum project is one of four prepared by the American Astronomical Society for use by secondary school science teachers. It discusses some of the most spectacular events in our universe, events that may lead to such phenomena as neutron stars and black holes.

NASA EP-127 (1977) Chemistry Between the Stars, 72 p.

One of four curriculum projects for use by secondary school science teachers. Prepared by the American Astronomical Society, it discusses gases and other phenomena in interstellar space.

NASA EP-128 (1977) Atoms and Astronomy, 32 p.

One of four curriculum projects prepared by the American Astronomical Society for science teachers in secondary schools, this book covers the subject of astronomical spectroscopy. Spectroscopy, the means by which astronomers acquire information about celestial phenomena, is based on the fact that atoms emit and absorb electromagnetic radiation in different ways.

NASA EP-129 (1977) Extragalactic Astronomy, 48 p.

One of four curriculum projects prepared for high school science teachers by the American Astronomical Society, this booklet covers the universe beyond our Milky Way Galaxy.

NASA EP-167 (1980) High Energy Astronomy Observatory, 36 p.

Page, T. and Page, W.L. (1976) Space Science and Astronomy: Escape from Earth, Macmillan Publishing Co., New York, NY, 467 p.

ASTRONOMY AND SPACE SCIENCES (cont'd)

Walker, J. (1980) Light from the Sky: Readings from Scientific American, W. H. Freeman Co., San Francisco, CA, 78 p.

Weinberg, S. (1977) The First Three Minutes, Bantam Books, New York, NY, 177 p.

A fascinating account of how we have been able to provide an answer to one of humanity's oldest questions -- "How did the universe begin?" Written in a clear, simple style by a Nobel Prize winning physicist, this book describes the exciting merger of astronomical observations and nuclear physics theories into the "Big Bang" model of how the universe began in an incredible cosmic explosion about fifteen billion years ago. The book traces the evolution of the universe from a dense, expanding fireball of light and elementary particles until the first atomic ingredients of the stars were formed some three minutes later. The text is in simple and non-mathematical terms, but the reader will feel more comfortable if he or she has a little background in astronomy and physics.

NASA SPACEFLIGHT (cont'd)

Hanle, P.A. and Chamberlain, V.D. (eds.) (1981) Space Science Comes of Age: Perspectives in the History of Space Sciences, Smithsonian Inst., Washington D.C., 194 p.

NASA EP-155 (1979) This is NASA, 52 p.

Newell, H.E. (1980) Beyond the Atmosphere: Early Years of Space Science, NASA SP-4211, 497 p.

Nicholson, I. (1979) The Road to the Stars, New American Library, Inc. (Mentor Books, ME 1780) New York, NY, 230 p.

An entertaining, informative book about space exploration, the accomplishments of the past, and the possibilities of the future. The book is a well balanced mixture of history, techniques, philosophy, and entertaining speculation. The first part is a useful review of methods and missions of space exploration up to the present. This introduction forms a basis for sober and informed speculation about future possibilities -- space habitats, terraforming, solar sailing, interstellar arks, SETI, the "light barrier", time dilation, and possible faster-than-light travel. A well-written, readable introduction to space travel -- past and future -- for the general reader.

Poynter, M. and Lane, A.L. (1981) Voyager/The Story of a Space Mission, R.R. Donnelly and Sons, Harrisonburg, VA, 160 p.

MAN IN SPACE (cont'd)

Cooper, H.S.F. (1970) Apollo on the Moon, Dial Press, Inc., New York, NY, 197 p.
A journalist's account of the details of the Apollo 11 mission and the first manned exploration of the Moon.

Cortright, E.M. (Ed.) (1976) Apollo Expeditions to the Moon, NASA SP-350, 324 p.
Written by the astronauts and officials involved, this impressively illustrated book tells in fascinating detail the story of the Apollo program: the decision to go to the Moon, the building of the machines, the Earth-based network that supported the men on the Moon, the lunar discoveries, and the heritage that the Apollo program has left us.

Engle, E. and Lott, A.S. (1979) Man in Flight: Biomedical Achievements in Aerospace, Leeward Publications Inc., Annapolis, MD, 414 p.

Ezell, E.C. and Ezell, L.N. (1978) The Partnership: A History of the Apollo-Soyuz Test Project, NASA SP-4209, 570 p.
Correspondence, interviews, official documents, and other published materials were used to trace the evolution of the project from the initial proposal for international cooperation in space use and exploration until the successful completion of the joint Soviet - American mission. Conceptual drawings of proposed docking modules and mechanisms are presented and discussed. Black and white photographs taken during mission planning and in-flight activities are included with color photographs of the Earth taken during the mission. Joint meetings are summarized and the scientific experiments and launch vehicles are discussed in the appendices.

Grey, J. (1979) Enterprise, William Morrow and Co., Inc., New York, NY, 288 p.

Hallion, R. P. and Crouch, T.D. (Eds.) (1979) Apollo: Ten Years Since Tranquillity Base, Smithsonian Inst., Washington, D.C., 174 p.

Joels, K.M. and Kennedy, G.P. (1982) Space Shuttle Operator's Manual, Ballantine Books, New York, NY, 154 p.

Kaplan, M. (1982) Space Shuttle: America's Wings to the Future, Aero Publishers, Inc., Fallbrook, CA, 216 p.

MAN IN SPACE (cont'd)

NASA EP-106 (1971) Information for Teachers/Skylab Student Project, 44 p.
A brief description of the Skylab Program and the NSTA-NASA Skylab Student Project, including selection for flight experiment performance and summaries of each of the 25 national winning student experiments. Includes related classroom activities.

NASA EP-107 (1973) Skylab Guidebook, 256 p.
A detailed description of the Skylab program, missions, and equipment. Prepared by scientists and engineers that worked on the project.

NASA EP-109 (1977) Apollo-Soyuz, 132 p.
The full story of the Apollo-Soyuz Test Project in which American astronauts and Soviet cosmonauts joined their spacecraft and conducted scientific experiments. ASTP was the first international manned space mission.

NASA EP-110 (1973) Skylab Experiments, Volume 1, 92 p.
Physical science, solar astronomy. The Skylab solar astronomy program is described. Includes a brief description of the Sun's energy characteristics.

NASA EP-111 (1973) Skylab Experiments, Volume 2, 116 p.
Remote sensing of Earth's resources. All major aspects of remote sensing are covered. Descriptions of Earth resources sensors and experiments.

NASA EP-112 (1973) Skylab Experiments, Volume 3, 72 p.
Materials science. Investigations dealing with the effects of weightlessness on melting and resolidification of metal alloys and semiconductor materials and the combustion of flammable materials are described and related to the classroom curriculum.

NASA EP-113 (1973) Skylab Experiments, Volume 4, 118 p.
Life Sciences. Covers a wide spectrum of studies pertaining to mineral and hormonal balance, hematology and immunology, cardiovascular status, energy expenditure, neurophysiology, and biology.

NASA EP-114 (1973) Skylab Experiments, Volume 5, 94 p.
Astronomy and space physics. Stellar and galactic astronomy, including the mysteries of pulsars and quasars, are coupled with other categories of space research such as phenomena within the Solar System and the analysis of near-Earth space.

MAN IN SPACE (cont'd)

NASA SP-412 (1977) Apollo-Soyuz Test Project, Volume 1: Astronomy, Earth Atmosphere and Gravity Field, Life Sciences, and Materials Processing, 570 p.

The joint US-USSR experiments and the US-conducted unilateral experiments performed during the Apollo-Soyuz Test Project are described. Scientific concepts and experiment design and operation are discussed along with the scientific results obtained during the mission and from post-mission studies.

Oberg, J. E. (1981) Red Star in Orbit, Random House, New York, NY, 272 p.

A fascinating and illuminating story of the Russian space program, from before the "beep-beep" of Sputnik 1 to the enduring and still successful Salyut space stations. Packed with details, names, and dates --- many of which didn't make the newspapers --- this well-written book is a thoughtful description of how a very different political system from ours attacks the same physical challenges of outer space, and the story is both strange and familiar at the same time. Oberg deftly explores the various threads in the USSR space program --- triumph, disaster, concealment, propaganda, political expediency, and scientific discovery. The Russians certainly intend to stay in space, and this book is an ideal introduction for anyone who wants to know how they got there, what they are doing now, and where they intend to go next.

Summerlin, L. B. (Ed.) (1976) Skylab, Classroom in Space, NASA SP-401, 190 p.

The results of Skylab experiments that were proposed by talented high school students through the Skylab student project are presented. The experiments and demonstrations covered a broad range of the physical and biological sciences.

Wilford, J. N. (1969) We Reach the Moon: The New York Times Story of Man's Greatest Adventure, Bantam Books, New York, NY, 331 p.

A detailed and readable account of the history of the Apollo program and the landing of Apollo 11.

Wolfe, T. (1979) The Right Stuff, Farrar, Straus, and Giroux, New York, NY, 436 p.; (1980)(paperback), Bantam Books, New York, NY, 367 p.

Lively, feisty, irreverent, sarcastic, brilliant, realistic --- all the adjectives apply to this well-written and entertaining book about the process by

THE SOLAR SYSTEM

Alfven, H. and Arrhenius, G. (1976) Evolution of the Solar System, NASA SP-345, 599 p.
Presents the physics and chemistry involved in analyzing the origin and evolution of the solar system. A technical text for serious students.

Beatty, J. K., O'Leary, B., and Chaikin, A. (Eds.) (1981) The New Solar System, Sky Publishing Co., Cambridge, MA, and Cambridge Univ. Press, New York, NY, 234 p.
Edited and produced by the publishers of the popular magazine Sky and Telescope, this book is a good introductory text for the serious reader (high school age and older) who is interested in the more technical details of what our solar system looks like after nearly a generation of space exploration. Separate chapters, written by active space scientists and beautifully illustrated, describe our current pictures of the Sun, the Moon, the planets, their weird and numerous satellites, and the small bodies -- asteroids, comets, and meteorites. An excellent one-volume text for the science-minded reader.

Briggs, G. A. and Taylor, F. W. (1982) The Cambridge Photographic Atlas of the Planets, Cambridge Univ. Press, New York, NY, 255 p.
Spectacular photographs and paintings, accompanied by an easy-to-read yet complete text, make this one of the best books for the novice in planetary science. The reader travels outward through the solar system and is presented with brief historical accounts of our explorations, the knowledge we have obtained about the planets, and the mysteries that remain to be solved.

Burns, J. A. (Ed.) (1977) Planetary Satellites, Univ. of Arizona Press, Tucson, AZ, 598 p.
This book contains 27 papers on orbital theory, origins, available data, and observation of the physical properties of the solar system's 30-plus moons as we understood them before the Voyager encounters with the moons of Jupiter.

THE SOLAR SYSTEM (cont'd)

of the planets. Also included are excellent chapters on comparative planetology, the origin of the solar system, extraterrestrial rocks, meteorites, cosmic dust, and the baffling tektites. An excellent beginning text for the would-be planetary scientist, and a useful, well-organized source book for practicing geologists and space scientists of all kinds.

Guest, J., Butterworth, P., Murray, J., and O'Donnell, W. (1979) Planetary Geology, John Wiley and Sons, New York, NY, 208 p.

This is a beautiful book that will delight a much wider audience than just planetary geologists. It is not a textbook; it is an exciting guided tour through the terrestrial planets, as they have been revealed in the last decade by astronauts and robot spacecraft. The aim of this book, and it succeeds, is to tell people in words and pictures what the new discipline of "comparative planetology" is all about.

Hartmann, W.K. (1983) Moons and Planets, 2nd ed., Wadsworth Publishing Co., Inc., Belmont, CA, 509 p.

Hodge, P. (1981) Interplanetary Dust, Gordon and Breach, Inc., New York, NY, 280 p.

A good introductory textbook on the nature, observation, origin, and successful collection of the "space dust" that makes up an important but poorly understood part of the solar system. This well-written and informative book provides a thorough review and introduction to the subject for the serious reader. The book is especially useful for its treatment of such often neglected subjects as the history of past (and mostly unsuccessful) dust collection attempts, the collection of "fossil" extraterrestrial material from ocean sediments and the polar ice caps, and the possible use of such dust as markers for catastrophic meteorite impacts on the Earth.

Kaufman, W. J., III (1978) Exploration of the Solar System, Macmillan Publishing Co., New York, NY, 575 p.

A well-written introductory text book for serious students. It includes brief review chapters on the history of astronomy and the nature of stars and galaxies, but it emphasizes the solar system and our exploration of it by spacecraft and telescope. Separate sections describe in detail the Sun, the planets, and the vagabonds -- asteroids, comets, and meteorites. Useful

THE SOLAR SYSTEM (cont'd)

Miller, R. and Hartman, W. K. (1981) The Grand Tour: A Traveler's Guide to the Solar System, Workman Publishing Co., Inc., New York, NY, 192 p.

This book takes the reader on a profusely illustrated tour of worlds in our solar system. The tour itinerary is based on the size of each world visited, beginning with massive Jupiter and ending with the tiny Martian moon Deimos, the asteroids, and comets. Over 80 original paintings by the authors are supplemented with photographs taken by unmanned probes and Apollo and Skylab astronauts, together with relief maps of many of the planets and their moons. A glossary of terms and statistical charts with data on the discovery, diameter, orbital period, gravity, surface composition, and atmosphere of each world on the tour are also included. An invaluable book for the would-be space traveler.

Murray, B. (Ed.)(1983) The Planets: Readings from Scientific American, W. H. Freeman and Co., San Francisco, CA, 132 p.

Murray, B., Malin, M. C., and Greeley, R. (1981), Earthlike Planets: Surfaces of Venus, Earth, Moon, and Mars, W. H. Freeman and Co., San Francisco, CA, 387 p.

Intended for the serious student of geology or planetary science, this well-illustrated book traces in detail the common themes in the histories of a very diverse group of terrestrial (or Earthlike) planets: Mercury, Venus, Earth, Moon, and Mars. Written as a textbook on the Space Age field of comparative planetology, this book explains the forces that shape all terrestrial planets from inside (volcanism, mountain building), on the surface (gravity, water, wind), and from space (meteorite impact). Within this common framework the different natures and histories of our neighbor planets are described in detail. A good text for a reader who has a solid scientific background.

NASA EP-122 (1974) Exploration of the Solar System, 72 p.

Planetary Exploration Through Year 2000 (1983), A Report by the Solar System Exploration Committee of the NASA Advisory Council, in several parts, Washington, DC, U.S. Government Printing Office.

An exhaustive examination of the future of planetary exploration by a prestigious scientific advisory committee, this series of documents reviews our current understanding of the planets and provides a

THE SOLAR SYSTEM (cont'd)

may erupt molten water onto worlds whose surface temperatures are far below freezing. A brief but well-written book about a common solar system process in its various forms.

Urey, H. C. (1952) The Planets, Their Origin and Development, Yale Univ. Press, New Haven, CT, 245 p.
A fundamental textbook that laid the foundation for the modern study of the solar system.

Von Braun, W. and Ordway, F. I. (1979) New Worlds: Discoveries from Our Solar System, Doubleday and Co., Garden City, NY, 284 p.

Whipple, F. L. (1970), Earth, Moon and Planets, 3rd edition, Harvard Univ. Press, Cambridge, MA, 297 p.

Wood, J. A. (1979) The Solar System, Prentice-Hall, Inc., Englewood Cliffs, NJ, 196 p.
A readable and well-illustrated textbook on the nature of the solar system and its inhabitants. This book introduces the new science of planetology, a mixture of astronomy, geology, chemistry, and physics. Concepts and principles are well described, and the book is especially suited to college students and interested laymen who have some science background.

THE SUN (cont'd)

Goodwin, J. et. al. (Eds.) (1981) Fire of Life: The Smithsonian Book of the Sun, Smithsonian Inst., Washington, DC, 262 p.

Gibson, E. G. (1973) The Quiet Sun, NASA SP-303, 330 p.
A textbook, written by one of the Skylab astronauts, which presents the observational and theoretical basis for our understanding of the solar interior, the solar surface, and the solar corona in their quiet, undisturbed phases.

Herman, H. R., and Goldberg, R. A. (1979) Sun, Weather, and Climate, NASA SP-426, 327 p.
A study of the literature of sun/weather/climate relationships by two scientists who state the possibility that fluctuations in the energy output of the Sun may affect Earth's climate and weather. They believe that such an effect could prove beneficial if the linking mechanisms can be understood. This book addresses scientific questions that may lead to an understanding of the linking mechanisms between solar activity and climatological and meteorological responses. Such an understanding, say the authors, may make possible improvements in prediction of weather and climate, which in turn could contribute to the solution of related social problems.

Meadows, A. J. (1970) Earth Solar Physics, Pergamon Press, London, England, 280 p.
A history of ideas about the nature of the Sun, spanning the time from the early speculations of Galileo and Herschel, to the rise of spectroscopy and astrophysics in the nineteenth century, to the detailed understanding of the twentieth century.

NASA EP-119 (1973) Skylab and the Sun, 56 p.
Leading scientists and experts on solar physics are contributors to this highly readable book describing the Sun, the Skylab space station solar experiments, and what mankind stands to gain from the Skylab experience.

NASA EP-118 (1974) Our Prodigal Sun, 12 p.

NASA SP-366 (1975), Possible Relationships Between Solar Activity and Meteorological Phenomena, 261 p.
A collection of papers resulting from a symposium on this subject held at the NASA Goddard Space Flight

societies, and the moving spirit behind the 200-inch Mount Palomar telescope. The book explores the life of one dedicated and driven scientist and, at the same time, provides an interesting picture of how astronomy (and indeed, all science) was carried out in the days before the development of large scientific communities, huge team projects, and massive federal funding. It is also the story of the process by which the things we now take for granted about the universe were slowly and painfully discovered by a small number of striving human beings.

Zirker, J. B. (Ed.) (1977) Coronal Holes and High Speed Wind Streams, Colorado Univ. Press, Boulder, CO, 454 p.

A detailed account of the discoveries, made during the Skylab Earth-orbital mission, about coronal holes, their importance in the overall structure of the Sun's magnetic field, and their association with high speed particle streams in the solar wind.

MERCURY AND VENUS (cont'd)

Jastrow, R. and Rasool, S. I. (Eds.) (1969) The Venus Atmosphere, Gordon and Breach, New York, NY, 604 p.

Murray, B. and Burgess, E. (1977) Flight to Mercury, Columbia Univ. Press, New York, NY, 162 p.

NASA SP-382 (1974) The Atmosphere of Venus, 198 p.

THE EARTH (FROM SPACE) (cont'd)

NASA SP-380 (1977) Skylab Explores the Earth, 536 p.
This publication presents the scientific results of investigations that used the Skylab missions to study our own planet from orbit. The book describes the pre-launch training of the Skylab crews, the quality of photographic and observational data that could be acquired from orbit for many kinds of Earth features, and the scientific interpretation of the data after the mission.

Nicks, O. W. (Ed.) (1970) This Island Earth, NASA SP-250, 192 p.
An early collection of color photographs of our own world as seen through the eyes of the first orbiting astronauts. The text and photograph captions provide details about one of the most exciting discoveries of the space program -- a new vantage point from which to explore and understand our own planet.

Pierson, W. J. (Ed.) (1978) Skylab EREP Investigation Summary, NASA SP-399, 378 p.
The problems in the areas of agriculture, range, and forestry; land use and cartography; geology and hydrology; oceans and atmosphere; and data analysis techniques were investigated and summarized using EREP data.

Sheffeld, C. (1981) Earth Watch, Macmillan Publishing Co., Inc., New York, NY, 160 p.
This book is a stunning presentation of Landsat imagery of the Earth. The beauty, variety, and richness of the Earth's structure and appearance from space become apparent through the 70 color photographs. The photos and the accompanying descriptive texts give the reader a new sense of perspective on this planet we call Earth. The book is for anyone interested in the Earth. It is also a valuable text for courses and studies in geology, geomorphology, land use, and related fields.

Short, N. M., Lowman, P. D. Jr., Freden, S. C., and Finch, W. A. Jr. (1976) Mission to Earth: Landsat Views the World, NASA SP-360, 926 p.
A stunning collection of panoramas of the Earth as viewed from the automated LANDSAT spacecraft, this book presents the results of the investigation of our own planet from space. The photographs display the beauty of the Earth's surface and also illustrate specific examples of how the view from space is providing us with better information about agriculture, mineral resources, and the spread of our own civilization across the face of the Earth.

MOON

Baldwin, R. B. (1963) The Measure of the Moon, Univ. of Chicago Press, Chicago, IL, 448 p.
The standard textbook on the nature, history, and origin of the Moon as it was known before the Apollo program.

Barbour, J. (Ed.) (1969) Footsteps on the Moon, Associated Press, 214 p.
A pictorial history of the lunar program and the landing of Apollo 11.

Bowker, D. E. and Hughes J. K., (1971) Lunar Orbiter Photographic Atlas of the Moon, NASA SP-206, 723 p., 675 plates.

Cadogan, P. H. (1981) The Moon: Our Sister Planet, Cambridge Univ. Press, Cambridge, England, 389 p.

Collins, M. (1976) Flying to the Moon and Other Strange Places, Farrar, Straus, and Giroux, New York, NY, 159 p.
Entertaining tales of an astronaut's journeys, written especially for younger readers.

Cooper, H. S. F. (1970) Moon Rocks, Dial Press, Inc., New York, NY, 197 p.
A journalist's record of the arrival of the Apollo 11 lunar samples and of the first scientific results obtained from them. A very interesting and readable presentation of both scientific information and personalities.

French, B. M. (1976) What's New on the Moon, NASA EP-131, 24 p.
A concise and entertaining summary of what we have learned about the Moon by landing astronauts on it and by bringing back moon rocks to study here on Earth. Written for the non-scientist, this well-illustrated booklet tells what the Moon is made of, how old it is, what its history has been, and how we are using it as a "space probe" to determine the histories of the Sun and the stars.

MOON (cont'd)

Lowman, P. D. (1969) Lunar Panorama: A Photographic Guide to the Geology of the Moon, Weltflugbild Reinhold A. Muller, Zurich, Switzerland, 133 p.
A beautifully illustrated collection of Lunar Orbiter photographs of the lunar surface, with detailed discussions of lunar geology and descriptions of lunar surface features. An attractive and informative guide to the pre-Apollo Moon.

Mason, B. and Melson, W. G. (1970) The Lunar Rocks, John Wiley and Sons, New York, NY, 179 p.
A brief technical description of the first lunar samples returned by the Apollo 11 mission, including their chemistry and mineralogy and their implications for the origin and history of the Moon.

Masursky, H., Colton, G. W., and El-Baz, F. (Eds.) (1978) Apollo Over the Moon: A View from Orbit, NASA SP-362, 263 p.
The Apollo metric camera system was flown to acquire photographic data with accuracy to aid the effort of moon mapping. The panoramic camera was selected to provide high resolution photography of lunar surface features for detailed analysis and photointerpretation. A portion of these photographs is presented. Various views and subjects include the following: (1) Regional views; (2) The Terrae; (3) The Maria; (4) Craters; (5) Sinuous and Straight Rilles; and (6) Unusual Features.

Moore, P. (1981) The Moon, Rand McNally, New York, NY, 96 p.

Moore, P. (1976) New Guide to the Moon, W. W. Norton and Co., New York, NY, 302 p.

Mutch, T. A. (1970) Geology of the Moon: A Stratigraphic View, Princeton Univ. Press, Princeton, NJ, 325 p.
A detailed presentation of how geological methods were applied to understand the origin and history of the Moon before the Apollo landings. This new edition contains information about the nature of the Moon obtained by the Apollo missions.

Newton, R. R. (1979) The Moon's Acceleration and its Physical Origins, Johns Hopkins Univ. Press, Baltimore, MD, 559 p.

Royal Society of London, The (1977) The Moon - A New Appraisal from Space Missions and Laboratory Analyses, 606 p.

MOON (cont'd)

Taylor, S. R. (1975) Lunar Science: A Post-Apollo View, Pergamon Press, New York, NY, 372 p.
An extensive textbook that describes in detail the scientific results from the Apollo program and the state of present knowledge about the nature, origin, and history of the Moon.

Zim, H. S. (1980) The New Moon, William Morrow and Co. (Morrow Junior Books), New York, NY, 62 p.
A simple well-written presentation of lunar science discoveries for young readers.

MARS (cont'd)

Burgess, E. (1978) To the Red Planet, Columbia Univ. Press, New York, NY, 181 p.

Carr, M. (1976) The Volcanoes of Mars, Scientific American, Vol. 234, No. 1, January 1976, pp. 32-43.
A detailed discussion of the huge volcanoes discovered on Mars in 1971 by the Mariner 9 spacecraft, their size and appearance, their differences from terrestrial volcanoes, their ages, and what they tell us about the history and internal structure of Mars.

Carr, M. H. (1981) The Surface of Mars, Yale Univ. Press, New Haven, CT, 232 p.
This well-written book summarizes the results of the 5-year Viking Mission to Mars that returned an enormous amount of new information about the Red Planet, with its surprisingly diverse geology and evolutionary history. According to Carr, the leader of the Viking Orbiter Imaging Team, "The facts about Mars turned out to be almost as bizarre as fiction." Several recent maps of the planet, charts, diagrams, and over 150 Viking pictures illustrate the text.

Carr, M. H. and Evans, N. (1980) Images of Mars: The Viking Extended Mission, NASA SP-444, 35 p.

Carr, M. H. and Greeley, R. (1980) Volcanic Features of Hawaii: A Basis for Comparison with Mars, NASA SP-403, 216 p.

Collins, S. A. Jr. (1971) The Mariner 6 and 7 Pictures of Mars, NASA SP-263, 168 p.
A comprehensive set of high-quality reproductions of the final, computer-processed television pictures of Mars is presented. The genesis and unique characteristics of the pictures are explained, interesting features are pointed out, and some indication of their significance in the history of Mars investigations is provided.

Cooper, H. S. F. (1980) The Search for Life on Mars: The Evolution of an Idea, Holt, Rinehart, and Winston, New York, NY, 254 p.
An experienced and meticulous science journalist reviews the history of one of humanity's oldest and most-debated questions about the universe -- "Is there life on Mars?" -- and traces its progress from

MARS (cont'd)

Mutch, T. A., Arvidson, R. E., Head, J. W., Jones, K. L., and Saunders, R. S. (1976) The Geology of Mars, Princeton Univ. Press, Princeton, NJ, 400 p.

A graduate-level textbook on the surface features, geological processes, and rock formations of Mars as determined by spacecraft observations. The book provides a detailed scientific summary of our current knowledge about Mars. It also provides good comparisons of how the same geological forces operate in different ways on Earth, Moon, and Mars.

NASA SP-425 (1978) The Martian Landscape--Viking Mars Mission and Photographs, 160 p.

A first person, anecdotal account of preparation for photographing the Martian surface is related by the leader of NASA's Lander Imaging Science Team. Particular attention is given to the design of the facsimile camera. Imaging sequencing, picture calibration, reconstruction of color, and the search for motion on Mars are discussed. Over 200 color and black-and-white photographs taken by both Viking landers are included, along with a table showing the camera settings used. A stereopticon is included for viewing 19 stereographs in three dimensions.

NASA SP-329 (1974) Mars as Viewed by Mariner 9, 279 p.

A detailed picture book of Mars as seen through the cameras of Mariner 9, this document contains several hundred captioned illustrations of the craters, volcanoes, canyons, dunes, clouds, and ice caps that make Mars a fascinating and complex planet, partly like Earth and partly like the Moon.

National Geographic, January, 1977, Mars: Our First Close Look, Vol. 151, No. 1, pp. 2-31.

Handsomely illustrated presentation of Viking results for the general reader. Scientific results are combined with beautiful color panoramas of the surface of Mars.

Oberg, J. E. (1982) Mission to Mars: Plans and Concepts for the First Manned Landing, Stackpole Publishing Co., Harrisburg, PA, 221 p.

Mission to Mars is a detailed and scientifically accurate scenario of the first manned mission to another planet. Oberg incorporates what we already know of Mars, the technologies we will use for flight and surface activities, and he then looks at the implications, both

JUPITER

Bonestell, C. and Clarke, A. C. (1972) Beyond Jupiter: The Worlds of Tommorrow, Little, Brown and Co., Boston, MA, 89 p.

Beautifully illustrated with imaginative paintings and actual photographs, this book is a fine layman's guide to the worlds of the outer solar system. The text is easy to follow and artfully presents what we know about these distant, mysterious planets and the possibilities for new discoveries. A classic book for the amateur enthusiast.

Branley, F. M. (1981) Jupiter, Elsevier/Nelson Books, New York, NY, 89 p.

Burgess, E. (1982) By Jupiter: Odysseys to a Giant, Columbia Univ. Press, New York, NY, 156 p.

Fimmel, R. O., Swindell, W., and Burgess, E. (1977) Pioneer Odyssey, NASA SP-349, 217 p.

The story of the Pioneer 10 mission which sent an automated spacecraft far out into the solar system to swing around the giant planet Jupiter and then become the first manmade object to leave the solar system. This well-illustrated book also contains details of the close-up scientific discoveries made about Jupiter: its color bands, its historic Red Spot, its magnetic fields, and its mysterious radio noises.

Fimmel, R. C., Van Allen, J. A., and Burgess, E. (1980) Pioneer: First to Jupiter, Saturn, and Beyond, NASA SP-446, 293 p.

Gehrels, T. (Ed.) (1976) Jupiter: Studies of the Interior, Atmosphere, Magnetosphere, and Satellites, Univ. of Arizona Press, Tucson, AZ, 1254 p.

Morrison, D. (1982) Satellites of Jupiter, Univ. of Arizona Press, Tucson, AZ, 972 p.

A thorough, rigorous, and detailed collection of scientific papers that could not have been written before

SATURN

Alexander, A.F.O.D. (1980) The Planet Saturn: A History of Observation, Theory, and Discovery, Dover Publications, Inc., New York, NY, 474 p.

Asimov, I. (1979) Saturn and Beyond, Lathrop, New York, NY, 222 p.

Asimov begins by orienting the reader to the geometry of the solar system and the immense distances involved, then concentrates on Saturn, its satellites, its ring system, and the outer planets. The text is well illustrated and easy to understand. This book is especially suited to the amateur in astronomy and astrophysics as well as the interested layman. Provides an easily-understood review of our picture of Saturn before the Voyager spacecraft encounters.

Cooper, H. S. F. (1982) Imaging Saturn, Holt, Rinehart, and Winston, New York, NY, 210 p.

A readable and informative journal kept by a reporter who covered one of the greatest events in the history of exploration -- the Voyager spacecraft flybys of the ringed planet Saturn. Cooper not only describes the incredible discoveries made by the Voyager TV cameras and instruments, but he captures the feverish excitement of hundreds of scientists as they operated the complex instruments on Voyager from a billion miles away and then watched as an almost-unknown planet revealed its details to human eyes -- banded clouds, thousands of rings, and a fleet of strange and diverse moons. The book is ideal reading, not only to learn about a strange and wonderful planet, but to understand something of the even greater miracle of how human beings can explore the distant regions of the solar system.

Morrison, D. (1982) Voyages to Saturn, NASA SP-451, 225 p.

A well-presented documentation of the Pioneer and Voyager missions to the Ringed Planet. The text introduces the reader to the logistics of the missions and describes the wealth of knowledge that we have gained and the new questions that are now being asked. Numerous color plates and a photographic atlas of Saturn's moons accompany the text.

URANUS, NEPTUNE, AND PLUTO

Grosser, M. (1979) The Discovery of Neptune, Dover Publications, Inc., New York, NY, 172 p.

Hunt, G. (Ed.) (1981) Uranus and the Outer Planets, Proceedings of a Colloquium, Bath, England, Cambridge Univ. Press, New York, NY, 308 p.

Moore, P. and Tombaugh, C. (1980) Out of the Darkness: The Planet Pluto, Stackpole Books, Harrisburg, PA, 221 p.

ASTEROIDS, METEORITES, TEKTITES, AND COSMIC DUST (cont'd)

Dodd, R. L. (1981) Meteorites: A Petrologic-Chemical Synthesis, Cambridge Univ. Press, New York, NY, 367 p.
A detailed, modern textbook on the mineralogy, chemistry, and origin of meteorites. Well-organized and informative, this book summarizes current scientific thinking and literature about meteorites. The book concentrates on mineralogical and chemical aspects, but does not go into detail about problems related to meteorites as "space probes": noble gas chemistry, cosmic-ray-produced radioactivity, and so on. Suitable for the serious geochemist and planetary scientist.

Gehrels, T. (Ed.) (1979) Asteroids, Univ. of Arizona Press, Tucson, AZ, 1181 p.
A collection of 45 papers by scientists active in asteroid or meteorite research, this volume is intended to be a graduate level textbook. Topics covered include the history of asteroid studies, dynamical properties, optical properties, composition as inferred by remote sensing, relationship to meteorites and comets, theories of origin, and future exploration, among others.

Heide, F. (1964) (translation) Meteorites, Univ. of Chicago Press, Chicago, IL, 144 p.
An introductory text for non-specialists that covers the basic information about meteorites: their nature, chemistry, mineral composition, history, how they are used as probes to detect cosmic rays, and the craters they make when they fall to Earth. A good book for the general reader.

Hutchinson, R. (1983), The Search for our Beginnings, Oxford Univ. Press, New York, NY, 164 p.
A readable mixture of science, philosophy, and history, this little textbook describes for the serious reader the nature of meteorites, how they have been studied in the past, and what we are now learning from them about the origin of the solar system and ourselves. The author, a well-known meteorite reseacher, discusses how the study of meteorites is really a search for our own cosmic roots, and then describes the exciting ancient past that meteorites have already revealed to us -- a time of great boiling cosmic dust clouds, stellar explosions, and formation of the chemicals of which life is now built.

ASTEROIDS, METEORITES, TEKTITES, AND COSMIC DUST (cont'd)

Nininger, H. H. (1956) Arizona's Meteorite Crater: Past, Present, and Future, World Press, Denver, CO, 232 p.
A detailed description of the world's best-known and most-visited meteorite crater, its history, and the information it has yielded about meteorites and their collisions with the Earth.

Nininger, H. H. (1971) Find a Falling Star, Paul S. Erikson, Inc., New York, NY, 254 p.
The fascinating autobiography of a meteorite hunter whose research career began when meteorites were only curiosities and continues into the present time, when they have become the objects of intense and important scientific studies to decipher the nature and origin of our solar system.

O'Keefe, J. A. (1976) Tektites and Their Origin, Elsevier Scientific Publishing Co., New York, NY, 254 p.
A detailed review textbook on tektites, those much-studied and much-debated glassy objects of possible extraterrestrial origin. The book includes a detailed summary of current scientific knowledge of tektites: their history, geographic distribution, shapes and surface markings, internal structures, physical properties, chemical composition, and nuclear and isotopic characteristics. The book contains arguments against the terrestrial origin favored by many scientists and presents evidence for a possible origin of tektites as the result of volcanic activity on the Moon.

Pejovic, B. (1982) Man and Meteorites, Thames Head, Ltd., Avening, England, 119 p.
A series of essays rather than a complete textbook, this simply written and beautifully illustrated volume provides short discussions of some of the most frequently asked questions about meteorites -- what they are made of, where they come from, how they arrive on the Earth, how they get their names, and how big they are. Also included are more practical discussions about how to find meteorites, what they may be worth, and who owns them. There are also clear descriptions of what meteorites tell us about the solar system, how they provide evidence for extraterrestrial life, and how we may someday mine meteorites from asteroids and rocks from the Moon. A lively, fact-filled introduction to meteorites, especially useful for teachers and their students.

COMETS

Calder, N. (1981) The Comet is Coming, Penguin Books, New York, NY, 160 p.

Delsemme, A. H. (Ed.) (1977) Comets, Asteroids, Meteorites: Interrelations, Evolution, and Origins, Univ. of Toledo Press, Toledo, OH, 587 p.
This book contains 74 technical papers about the small bodies in the solar system, their relations to each other, and what they tell us about the origin of the solar system. Includes information on the nature of comets, comet orbits, meteorites, meteors, the nature of asteroids, primitive meteorites, the primitive solar nebula, and conclusions.

Moore, P. (1976) Comets, Charles Scribner and Sons, New York, NY, 149 p.

Richardson, R. S. (1967) Getting Acquainted with Comets, McGraw-Hill, New York, NY, 306 p.
A well-written and readable discussion of the nature, origin, and history of comets and how scientists study them.

Wilkening, L. L. (Ed.) (1982) Comets: Papers from a Symposium, Univ. of Arizona Press, Tucson, AZ, 766 p.
An extensive volume of technical papers that cover our current scientific knowledge on the nature, behavior, and origin of comets. An excellent sourcebook for the serious student of comets.

SPACE HABITATS AND NONTERRESTRIAL RESOURCES (cont'd)

Calder, N. (1979) Spaceships of the Mind, Penguin Books, New York, NY, 144 p.

Criswell, D. R. (Ed.) (1976) Utilization of Lunar Materials and Expertise for Large Scale Operations in Space: Abstracts -- Lunar Bases and Space Industrialization, NASA CR-156167, 198 p.

The practicality of exploiting the Moon, not only as a source of materials for large habitable structures at Lagrangian points, but also as a base for colonization, is discussed in abstracts of papers presented at a special session on lunar utilization. Questions and answers which followed each presentation are included after the appropriate abstract.

Dalton, C. and Hohmann, E. (Eds.) (1972) Conceptual Design of a Lunar Colony, NASA CR-129164, 529 p.

A system engineering study is presented for a proposed lunar colony. The lunar colony is to grow from an existent, 12-man, Earth-dependent lunar surface base and is to utilize lunar resources, becoming as Earth-independent as possible. An in-depth treatment of some of the aspects of the lunar colony is given. The study found that the use of lunar resources is feasible for oxygen production (both for breathing and for spaceship fuel), food production, and building materials. A program is outlined for recycling waste materials developed at the colony. The plan includes a full program for growth and scientific research activity at the colony up to a population of 180 colonists. Recommendations for the lunar colony are given.

Freeman, M. (1979) Space Traveller's Handbook: An Every Day Guide for the Experienced Astronaut and the Layman Space Traveller, Sovereign Books, New York, NY, 208 p.

A simply-written, detailed, and superbly illustrated manual for any 21st Century space explorer, containing everything you need to know about equipment, training, hazards, the planets, things to do in space, and the history of human exploration and travel through the solar system. The book's brief but thorough descriptions will tell scientifically-minded travellers everything they need to know about the planets before landing on them. More technically-minded space buffs will enjoy the descriptions of classical spacecraft systems from the pioneering days of the 20th Century---Apollo, Soyuz, Skylab, and the Space Shuttle.

SPACE HABITATS AND NONTERRESTRIAL RESOURCES (cont'd)

Oberg, J. E. (1982) New Earths: Restructuring Earth and Other Planets, Stackpole Books, Harrisburg, PA, 283 p.

O'Neill, G. K. (1977) The High Frontier: Human Colonies in Space, William Morrow and Co., New York, NY, 289 p.
Written by the originator of the modern space colony concept, this book describes in simple, readable language how thousands of people might live and work in space in the near future. The book provides discussions about space resources, commuting, family life, living conditions, climate, agriculture, manufacturing, economics, and investment possibilities. A revised edition (1982, Anchor/Doubleday, New York, NY, 342 p.) includes new material about space resources and the status of current planning for their use.

Ruzic, N. P. (1965) The Case for Going to the Moon, G. P. Putnam and Sons, New York, NY, 240 p.
A pre-Apollo discussion of the benefits -- technical, economic, social, and scientific -- to be had by going to the Moon. Written by the editor of the magazine Industrial Research, the book describes in lively, non-technical language the future uses of the Moon as a laboratory for vacuum research, as a collector of solar energy, as a source of raw materials, and as a platform for new instruments to probe the universe and search for extraterrestrial life. Some of the predictions -- especially the theories about the nature of lunar rocks -- have been made obsolete by the Apollo discoveries, but most of the text is still a valuable and convincing statement of why we went to the Moon and why we should go back.

Ruzic, N. P. (1970) Where the Winds Sleep, Doubleday and Co., Inc., Garden City, NY, 246 p.
A post-Apollo mixture of science fiction and technological predictions, this book is a future history of the habitation and use of the Moon. Written in simple, entertaining language by the editor of Industrial Research, the book describes the major activities of humans on the Moon -- exploring a new world, operating cryogenic and vacuum industries, mining raw materials, building cities, and studying the solar system and the universe in ways that are impossible from Earth. Despite the overly optimistic timetable, the book provides a solid summary of the future value of the Moon -- whenever we want to go back.

THE ORIGIN OF LIFE/EXTRATERRESTRIAL LIFE (cont'd)

Cooper, H. S. F. Jr. (1980) The Search for Life on Mars: The Evolution of an Idea, Holt, Rinehart, and Winston, New York, NY, 254 p.

Dickerson, R. E. (1978) Chemical Evolution and the Origin of Life, Scientific American, Vol. 239, p. 70-86, Sept., 1978.

Theories on the origin of life are reviewed, and the synthesis of compounds essential for life is discussed.

Feinberg, G. and Shapiro, R. (1980) Life Beyond Earth: The Intelligent Earthling's Guide to Life in the Universe, William Morrow and Co., Inc., New York, NY, 464 p.

A simply-written and entertaining textbook that looks at three intertwined questions: what is life? how did life originate on Earth? is there life elsewhere? In a nontechnical manner suitable for readers with a minimum science background, the book covers the chemistry of terrestrial life, speculates about other forms of life ("life as we don't know it") that may exist elsewhere, and discusses our past attempts and future plans to detect life elsewhere in the universe.

Folsome, C. E. (1979) The Origin of Life: A Warm Little Pond, W. H. Freeman and Co., San Francisco, CA, 168 p.

A textbook describing the current state of scientific studies about the origin of life on Earth.

Fox, S. W. and Dose, K. (1979) Molecular Evolution and the Origin of Life, Marcel Dekker Inc., New York, NY, 392 p.

Goldsmith, D. and Owen, P. (1980) The Search for Life in the Universe, Benjamin/Cummings Publishing Co., Readway, MA, 436 p.

Hart, M. K., and Lucherman, B., (Eds.) (1982) Extraterrestrials: Where are They?, Pergamon Press, New York, NY, 182 p.

A series of detailed papers that examine the reverse side of the question "Are we alone in the universe?" This handy symposium volume discusses why, if intelligent civilizations are abundant in the universe, we haven't found them yet. The papers focus on one particularly disturbing answer --- they may not be there at all --- and provide useful balance to the more enthusiastic and optimistic speculations of the last couple of decades. This book provides important and

THE ORIGIN OF LIFE/EXTRATERRESTRIAL LIFE (cont'd)

Mallove, E. F., Conners, M. M., Forward, R. L., and Paprotny, Z. (1978) A Bibliography on Search for Extraterrestrial Intelligence, Ames Research Center, NASA, Moffet Field, CA, 135 p. and periodical index.
Entries by first author, with cross reference by topic index and periodical index.

Morrison, P., Billingham, J., and Wolfe, J. (1978) The Search for Extraterrestrial Intelligence, NASA SP-419, 276 p.
A report of the findings of a series of science workshops held to discuss the possible existence of extraterrestrial intelligent life, and the ways in which extraterrestrial intelligence might in fact be detected. Presented in this report are the background and rationale for a SETI program, the implications of such a program, and the significance of the detection of signals (and possibly information) from extraterrestrial sources.

NASA SP-328 (1973) Life Beyond Earth and the Mind of Man, 106 p.
Abridged transcript of a symposium sponsored by NASA and Boston University, exploring the implications of intelligent life existing on the planets of distant stars.

Oparin, A. I. (1953) The Origin of Life, Dover Publications, Inc., New York, NY, 270 p.

Ridpath, I. (1979) Messages from the Stars, Harper and Row, New York, NY, 241 p.

Rood, R. T. and Trefil, J. S. (1981) Are We Alone?, Charles Scribners and Sons, New York, NY, 262 p.

Sagan, C. (1975) The Cosmic Connection: An Extraterrestrial Perspective, Dell Publishing Co., New York, NY, 274 p.
Short and witty essays about other worlds and the possibilities of intelligent life on Earth and elsewhere, with ideas about what extraterrestrial civilizations might be like.

Shklovskii, I. S. and Sagan, C. (1968) Intelligent Life in the Universe, Dell Publishing Co., New York, NY, 509 p.
A thorough and readable description of the solar system, the universe, the origin of life, and the possibility for life on other worlds. A good, solid introductory textbook for the serious reader or science student.

UNIDENTIFIED FLYING OBJECTS (UFO's)

Condon, E. U. (1969) Scientific Study of Unidentified Flying Objects, Bantam Books, New York, NY, 965 p.

This exhaustive and rigorous "Condon Report" is the first attempt to apply scientific analysis to a large number of UFO reports, including many of the best known and most puzzling sightings. The studies are a series of fascinating scientific detective stories, in which one meets unusual atmospheric effects, chemical analysis of "UFO samples", the behavior of migratory birds, the still mysterious ball lightning, sonic booms, Venus, the "Green Flash", and many other phenomena. The study concludes that there is no evidence that UFO's are extraterrestrial, but it does admit that there are a few cases which do not have an obvious explanation. Whatever UFO's are, this study supplies a wealth of surprising data about the natural features of our own planet, including the human beings who see and interpret UFO's. Fascinating detailed reading for the serious UFO student.

Hynek, J. A. (1975) The UFO Experience: A Scientific Inquiry, Ballantine Books, New York, NY, 309 p.

A combination memoir and UFO casebook, written by a veteran investigator of UFO reports. An interesting look at what UFO's may tell us about extraterrestrial travelers, combined with some interesting insights into what the whole UFO phenomenon tells us about ourselves.

Klass, P. J. (1974) UFO's explained, Vintage Books, New York, NY, 438 p.

Not a book to be popular with UFO "true believers", this one describes in meticulous detail how classic UFO reports are the result of natural phenomena and/or human error. Klass' painstaking detective work on UFO's should be read by anyone interested in obtaining a balanced view of the whole UFO controversy. Arthur C. Clarke calls this book "a welcome breath of sanity in a field where it is sadly lacking".