ED 293 713	SE 049 081
AUTHOR	Fraknoi, Andrew
TITLE	Astronomical Resources. The Solar System: An Introductory Bibliography.
INSTITUTION	Astronomical Society of the Pacific, San Francisco, CA.
PUB DATE	88
NOTE	5p.; Photographs may not reproduce well.
PUB TYPE	Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Astronomy; *Earth Science; *Physical Sciences;
	Physics; Science Education; Scientific Research; *Space Exploration; Space Sciences
IDENTIFIERS	Planets; *Solar System

#### ABSTRACT

This reference surveys resources of astronomical information including books and articles about the solar system, Mercury, Venus, Earth, the Moon, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, Asteroids, Comets, and Meteors. Also included is a list of seven available slide sets about the solar system. (CW)

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### **Andrew Fraknoi**

**An Introductory Bibliography** 

The Solar System:

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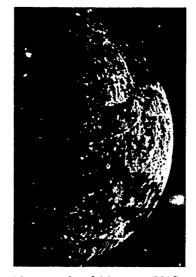
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Jan. 1985, p. 19.

- Esposito, L. "The Changing Shape of Planetary Rings" in Astronomy, Sep. 1987, p. 6.
- Hartmann, W. "Cratering in the Solar System" in Scientific American, Jan. 1977.
- Millman, P. "Names on Other Worlds" in Sky & Telescope, Jan. 1984, p. 23.
- tem?" in Sky & Telescope, May 1985, p. 399.

Cross, C. & Moore, P. The Atlas of Mercury. 1977, Crown.

Davies, M., et al, eds. Atlas of Mercury. 1978, NASA Special Publication # 423.



Photomosaic of Mercury. (NASA photograph)

- Donne, J. & Burgess, E. The Voyage of Mariner 10: Mission to Venus and Mercury. 1978, NASA Special Publication #424, U.S. Gov't Printing Office. Summary of the Mariner mission and discoveries.
- Murray, B. & Burgess, E. Flight to Mercury, 1977, Columbia U. Press,
- Strom, R. Mercury: The Elusive Planet. 1987, Smithsonian Inst. Press.

#### Articles About Mercury

- Beatty, J. "Mariner 10's Second Look at Mercury" in Sky & Telescope, Nov. 1974, p. 307.
- Burgess, E. "The Planet Mercury" in Astronomy, Dec. 1975, p. 20.
- Cordell, B. "Mercury: The World Closest to the Sun" in Mercuty, Sep/Oct. 1984, p. 136.
- Hartmann, W. "The Significance of the Planet Mercury" in Sky & Telescope, May 1976, p. 307.
- Murray, B. "Mercury" in Scientific American, May 1976.
- Weaver, K. "Mariner Unveils Mercury and Venus" in National Geographic, June 1975.

#### **Books About Venus**

- Burgess, E. Venus: An Errant Twin. 1985, Columbia U. Press. A summary of U.S. and Soviet Venus exploration and results.
- Donne, J. & Burgess, E. The Voyage of Mariner 10: Mission to Venus and Mercury. 1978, NASA Special Publication #424, U.S. Gov't Printing Office. Summary of the Mariner mission and discoveries.

Fimmel, R., et al. Pioneer Venus. 1982,

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#### General Books on the Solar System as a Whole

- Beatty, J., et al., eds. The New Solar System, 2nd ed. 1982, Sky Publishing & Cambridge U. Press. A slightly technical series of review articles by noted scientists.
- Briggs, G. & Taylor, F. The Cambridge Photographic Atlas of the Planets, 2nd ed. 1986, Cambridge U. Press. Has many high-quality photographs.
- Chapman, C. Planets of Rock and Ice. 1982, Scribners. A readable introduction to the inner planets.
- Elliot, J. & Kerr, R. Rings. 1984, MIT Press. Guide to our discovery and current knowledge of rings around the outer planets.
- Frazier, K. The Solar System. 1985, Time-Life Books. A colorful survey by a science iournalist.
- Miller, R. & Hartmann, W. The Grand Tour: A Traveler's Guiue to the Solar System. 1981, Workman. Illustrated with excellent photos and paintings.
- Moore, P. & Hunt, G. Atlas of the Solar System. 1983, Rand McNally. Large illustrated atlas; a nice reference book.
- Preiss, B., ed. The Planets. 1985, Bantam. Includes science articles by noted astronomers and science fiction stories based on reasonable science.
- Sagan, C. Cosmos. 1980, Random House. There are several good chapters on planets in this eloquent introduction to astronomy.
- Smolouchowski, R. The Solar System. 1983, Scientific American Library. A concise primer.
- Whipple, F. Orbiting the Sun. 1981, Harvard U. Press. The most recent edition of a classic introductory book.

#### General Articles About the Solar System as a Whole

604908

- Beatty, J. "Planetary Satellites: An Update" in Sky & Telescope, Nov. 1983, p. 405. Ciaccio, E. "Atmospheres" in Astronomy,
- May 1984, p. 6.
- Cuzzi, J. "Ringed Planets: Still Mysterious" in Sky & Telescope, Dec. 1984, p. 511;

- - Young, A. "What Color is the Solar Sys-

### **Books About Mercury**



Venus. (NASA photograph)

- NASA Special Publication #461, U.S. Gov't Printing Office. Summary of the Pioneer mission and discoveries.
- Hunt, G. & Moore, P. The Planet Venus. 1982, Faber & Faber. An illustrated introduction.

#### Articles About Venus

- Beatty, J. "A Soviet Space Odyssey" in Sky & Telescope, Oct. 1985, p. 310. About the VEGA missions.
- Beatty, J. "A Radar Tour of Venus" in Sky & Telescope, June 1985, p. 507. On the Venera 15 and 16 missions. (Also: Feb. 1984, p. 110.)
- Chapman, C. "The Vapors of Venus and Other Gassy Envelopes" in Mercury, Sep/Oct 1983, p. 130.
- Co. dell, B. "Venus" in Astronomy, Sep. 1982, p. 6.
- James, W. "Venus Radar Mapping Mission" in Astronomy, Apr. 1983, p. 16.
- Mims, S. "Revealing the Venusian Secrets" in Astronomy, Jul 1982, p. 66. On the Venera 13 and 14 results.
- Nozette, S. & Ford, P. "A World Revcaled: Venus By Radar" in Astronomy, Mar. 1981, p. 6.
- Pettengill, G., et al. "The Surface of Venus" in Scientific American, Aug. 1980.
- Prinn, R. "The Volcanos and Clouds of Venus" in Scientific American, Mar. 1985.
- Schubert, G. & Covey, C. "The Atmosphere of Venus" in Scientific American, July 1981.
- Weaver, K. "Mariner Unveils Venus and Mercury" in National Geographic, June 1975.

#### A Few Books About Earth

- Calder, N. The Restless Earth. 1972, Viking Press.
- Carr, M. & Greeley, R. Volcanic Features of Hawaii: A Basis for Comparison with Mars. 1980, NASA Special Publication 403, U.S. Gov't Printing Office.
- Cattermole, P. & Moore, P. The Story of the Earth. 1985, Cambridge U. Press. Sheffield, C. Earth Watch: A Survey of
- the World from Space. 1981, Macmillan.

#### Articles About Earth

- Cordell, B. "Mars, Earth and Ice" in Sky & Telescope, Jul. 1986, p. 17.
- Hartmann, W. "The Early History of the Planet Earth" in Astronomy, Aug. 1978, p. 6.
- Jacchia, L. "The Earth's Upper Atmosphere" in Sky & Telescope, Mar. 1975, p. 155; Apr. 1975, p. 229; May 1975, p. 294.
- Maslowski, A. "Geology from Space" in Astronomy, Nov. 1983, p. 7.
- Overbye, D. "The Shape of Tomorrow: Predicting Continental Drift'' in Discover, Nov. 1982, p. 20.
- Wahr, J. "The Earth's Inconstant Rotation" in Sky & Telescope, June 1986, p. 545.
- Wong, C. "Watching the Earth Move from Space" in Sky & Telescope, Mar. 1978, p. 198.



Earth from space. (NASA photograph)

#### Books About the Moon

- Cadogan, P. The Moon: Our Sister Planet. 1981, Cambridge U. Press. A slightly technical but clear introductory text.
- Cooper, H. Apollo on the Moon and Moon Rocks. 1970, Dial. Accounts of the Apollo 11 mission and the material it brought back from the lunar surface; written by a science journalist.
- Cherrington, E. Exploring the Moon Through Binoculars and Small Telescopes. 1984, Dover. An observing guide.
- French, B. The Moon Book. 1977, Penguin. A basic primer.
- Lewis, R. The Voyages of Apollo: The Exploration of the Moon. 1975, Quadrangle. A science journalist's account.
- Moore, P. The Moon. 1980, Rand McNally. A reference atlas.
- Moore, P. New Guide to the Moon. 1976, Norton. A basic book for beginners.



Moon. (Mt. Wilson photograph)

#### Articles About the Moon

- Beatty, J. "The Making of a Better Moon" in Sky & Telescope, Dec. 1986, p. 558.
- Brownlee, S. "A Whacky Theory of the Moon's Birth" in Discover, Mar 1985, p. 65.
- Burgess, E. "The New Moon: Scientific Results of 18 Years of Lunar Exploration" in Mercury, Nov./Dec. 1977, p. 10. Cadogan, P. "The Moon's Origin" in
- Mercury, Mar./Apr. 1983, p. 34.
- Chaikin, A. "A Guided Tour of the Moon" in Sky & Telescope,, Sep. 1984, p. 211. An observing guide for beginners.
- French, B. "What's New On the Moon" in Sky & Telescope, Mar. 1977, p. 164 and Apr. 1977, p. 257.
- Hartmann, W. " The Moon's Early History" in Astronomy, Sep. 1976, p. 6. McConnell, D. "Basic Lunar Astrophoto-
- graphy" in Astronomy, Dec. 1985, p. 69.
- Register, B. "The Fate of the Moon Rocks" in Astronomy, Dec. 1985, p. 15.
- Rubin, A. "Whence Came the Moon" in Sky & Telescope, Nov. 1984, p. 389.
- Spain, D. "A Lunar Sampler" in Astronomy, Feb. 1984, p. 35. A primer for observing the Moon.
- Weaver, K. "First Explorers on the Moon" in National Geographic, Dec. 1969.
- Wood, J. "The Moon" in Scientific American, Sep. 1975.

#### **Books About Mars**

- Burgess, E. To the Red Planet. 1978 Columbia U. Press.
- Carr, M. The Surface of Mars. 1981, Yale U. Press. A slightly technical introduction by the leader of the Viking Orbiter Imaging team.
- Cooper, H. The Search for Life on Mars. 1980, Holt, Reinhart & Winston.
- Ezell, E. & L. On Mars: Exploration of the Red Planet 1958-1978. 1984, NASA Special Publication #4212, U.S. Government Printing Office. Mainly a history of the Viking project.

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- Horowitz, N. To Utopia and Back. 1986, Freeman. On the search for life on Mars with the Viking instruments.
- Washburn, M. Mars At Last. 1977, Putnam's.

#### Articles About Mars

- Arvidson, R., et al. "The Surface of Mars" in Scientific American Mar. 1978.
- Beatty, J. "Vikings Rest During Mars' Conjunction" in Sky & Telescope, Dec. 1976, p. 404. (Throughout the year 1976, Sky & Telescope had good coverage of the Viking lander and orbiter results.)
- Beatty, J. "The Amazing Olympus Mons" in Sky & Telescope, Nov. 1982, p. 420.
- Carr, M. "The Surface of Mars: A Post-Viking View" in *Mercury*, Jan/Feb 1983, p. 2
- Carroll, M. "The Changing Face of Mars" in Astronomy, Mar. 1987, p. 6.
- Cordell, B. "Mars, Earth, and Ice" in Sky & Telescope, Jul. 1986, p. 17.
- Gore, R. "Sifting for Life in the Sands of Mars" in National Geographic, Jan. 1977.
- Haeberle, R. "The Climate of Mars" in Scientific America, May 1986.
- Hartmann, W. "Viking on Mars: Exciting Results" in Astronomy, Jan. 1977, p. 6.
- Leovy, C. "The Atmosphere of Mars" in Scientific American, Jul. 1977.
- Veverka, J., et al. "The Puzzling Moons of Mars" in Sky & Telescope, Sep. 1978, p. 186.



Photomosaic of Mars. (NASA photograph)

#### **Books About Jupiter**

- Burgess, E. By Jupiter. 1982, Columbia U. Press.
- Hunt, G. & Moore, P. Jupiter. 1981, Rand McNally. A reference guide.
- Morrison, D. & Samz, J. Voyage to Jupiter. 1980, NASA Special Publication #439, U.S. Gov't Printing Office.
- Washburn, M. Distant Encounters. 1983. Harcourt, Brace, Jovannovich.

Yeates, C., et al. Galileo: Exploration of Jupiter's System. 1985, NASA Special Publication #479, U.S. Gov't Printing Office.



Jupiter and three satellites. (NASA photograph)

# Articles About Jupiter and Its Satellites

- Beatty, J. "The Far Out Worlds of Voyager 1" in Sky & Telescope, May 1979, p. 423; updates: June 1979, p. 516 and Sept. 1979, p. 206.
- Bennett, G. "Return to Jupiter" in Astronomy, Jan. 1987, p. 6.
- Carroll, M. "Project Galileo: The Phoenix Rises" in Sky & Telescope, Apr. 1987, p. 359. (About a planned mission to Jupiter.)
- Elliott, J. & Kerr, R. "How Jupiter's Ring Was Discovered" in *Mercury*, Ncv/Dec. 1985, p. 162.
- Gore, R. "Voyager Views Jupiter" in National Geographic, Jan. 1980.
- Hartmann, W. "The View from Io" in Astronomy, May 1981, p. 17.
- Ingersoll, A. "Jupiter and Saturn" in Scientific American, Dec. 1981.
- Johnson, T. & Soderblom. L. "Io" in Scientific American, Dec. 1983.
- Kaufmann, W. "Jupiter: Lord of the Planets" in *Mercury*, Nov/Dec. 1984, p. 169.
- Morrison, D. "Four New Worlds: The Voyager Exploration of Jupiter's Satellites" in *Mercury*, May/June 1980, p. 53.
- Morrison, D. "Four New Worlds" in Astronomy, Sep. 1980, p. 6.
- Morrison, D. "An Enigma Called Io" in Sky & Telescope, Mar. 1985, p. 198.
- Simon, S. "The View from Europa" in Astronomy, Nov. 1986, p. 98.
- Soderblom, L. "The Galilean Moons of Jupiter" in Scientific American, Jan. 1980.

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#### **Books About Saturn**

- Alexander, A. The Planet Saturn: A History of Observations, Theory and Discovery. 1962, Faber and Faber. Reprinted by Dover.
- Batson, R., et al. Voyager 1 and 2 Atlas of Six Saturnian Satellites. NASA Special Publication #474, U.S. Gov't Printing Office.
- Hunt, G. & Moore, P. Saturn. 1982, Rand McNally. A reference guide.
- Morrison, D. Voyages to Saturn. 1982, NASA Special Publication #451, U.S. Gov't Printing Office.
- Washbum, M. Distant Encounters. 1983. Harcourt, Brace, Jovannovich.

# Articles About Saturn, its Satellites, and its Rings

- Beatty, J. "Reports on the Voyager Encounters with Saturn" in Sky & Telescope, Jan., Oct., and Nov. 1981.
- Berry, R. & Burnham, R. "Voyager 2 at Saturn" in Astronomy, Nov. 1981, p. 6.
- Burnham, R. "The Saturnian Satellites" in Astronomy, Dec. 1981, p. 6.
- Gore, R. "Saturn: Riddle of the Rings" in National Geographic, July 1981.
- Ingersoll, A. "Jupiter and Saturn" in Scientific American, Dec. 1981.

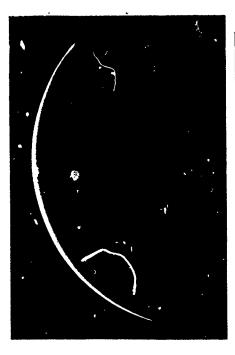


Saturn and sateliites. (NASA photograph)

- Morrison, D. "The New Saturn System" in Mercury, Nov./Dec. 1981, p. 162.
- Overbye, D. "Lord of the Rings" in Discover, Jan. 1981, p. 24.
- Owen, T. "Titan" in Scientific American, Feb. 1982.
- Robertson, D. "Cassini" in Astronomy, Sep. 1987, p. 20. On a proposed return mission to the Saturn system.
- Soderblom, L. & Johnson, T. "The Moons of Saturn" in *Scientific American*, Jan. 1982.

#### **Books About Uranus**

- Alexander, A. The Planet Uranus: A History of Observation, Theory and Discovery. 1965, Faber & Faber.
- Davis, J. Flyby: The Interplanetary Odyssey of Voyager 2. 1987, Atheneum. Mainly about the Uranus system flyby in 1986.



Crescent Uranus. (NASA photograph)

### Articles About Uranus, its Satellites, and its Rings

- Beatty, J. "Voyager 2's Triumph" in *Sky & Telescope*, Oct. 1986, p. 337 Background and anecdotes about the encounter.
- Beatty, J. "A Place Called Uranus" in Sky & Telescope, Apr. 1986, p. 333.
- Berry, R. "Uranus: The Voyage Continues" in Astronomy, Apr. 1986, p. 6 and "Voyager: Discovery at Uranus" in Astronomy, May 1986, p. 6. Chaikin, A. "Voyager Among the Ice
- Chaikin, A. "Voyager Among the Ice Worlds" in Sky & Telescope, Apr. 1986, p. 343.
- Croswell, K. "Uranus on the Eve of the Encounter" in Astronomy, Sep. 1985, p. 6. A detailed introduction, pre-Voyager.
- Eberhart, J. "Looking Back at Uranus" in Science News, vol. 130, p. 4 (July 5, 1986).
- Elliot, J. "Uranus: The View from Earth" in Sky & Telescope, Nov. 1985. Sum-
- marizes our understanding, pre-Voyager. Kerr, R. "Voyager Finds Uranian Shepherds and a Well Behaved Flock of Rings" in *Science*, vol. 231, p. 791 (Feb 21, 1986.)
- O'Meara, S. "A Visual History of Uranus" in Sky & Telescope, Nov. 1985, p. 411.
- Overbye, D. "Voyager Was on Target Again" in Discover, Apr. 1986, p. 70.
- Waldrop, M. "Voyage to a Blue Planet" in Science, vol. 231, p. 916 (Feb. 28, 1986).

#### **Book About Neptune**

Grosser, M. The Discovery of Neptune. 1962. Harvard U. Press.

#### Articles About Neptune

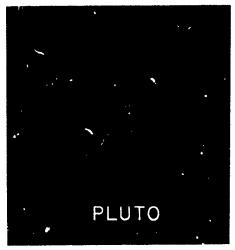
Kolhase, C. "On Course for Neptune" in Astronomy, Nov. 1986, p. 6. Chaikin, A. "New Light on Cold Worlds" in Sky & Telescope, July 1983, p. 23.

#### **Books About Pluto**

- Hoyt, W. Planets X and Pluto. 1980, U. of Arizona Press.
- Tombaugh, C. & Moore, P. Out of the Darkness: The Planet Pluto. 1980, Stackpole Books.

#### **Articles About Pluto**

- Beatty, J. "Pluto and Charon: The Dance Goes On" in Sky & Telescope, Sep. 1987, p. 248.
- Croswell, K. "Pluto: The Enigma at the Edge of the So!nr System" in Astronomy, July 1986, p. c.
- Eicher, D. "How to Hunt Down Pluto" in Astronomy, Apr. 1984, p. 35.
- Harrington, R. & B. "The Discovery of Pluto's Moon" in *Mercury*, Jan/Feb 1979, p. 1.
- Moore, P. "The Naming of Pluto" in Sky & Telescope, Nov. 1984, p. 400.
- Mulholland, D. "The Ice Planet" in Science 82, Dec. 1982, p. 64.
- Tombaugh, C. "The Discovery of Pluto" in Mercury, May/June 1986, p. 66 and Jul/Aug 1986, p. 98. (The full story by the discoverer.)



Pluto (arrow). (Hale Observatories photograph)

#### Books About Asteroids, Comets and Meteors

- Chapman, R. & Brandt, J. *The Comet Book.* 1984, Jones & Bartlett. A basic introduction to the science of comets by two experts.
- Dodd, R. Thunderstones and Shooting Stars: The Meaning of Meteorites. 1986, Harvard U. Press.
- Goldsmith, D. Nemesis: The Death Star (and Other Theories of Mass Extinctions). 1985, Walker. Good skeptical book.
- Hutchinson, R. *The Search for Our Beginnings.* 1983, Oxford U. Press. On meteorites.
- Mark, K. Meteorite Craters. 1987, U. of Arizona Press.
- Whipple, F. *The Mystery of Comets.* 1985, Smithsonian Institution Press. Personal account of comet research by its bestknown practitioner. 5

#### Articles About Asteroids, Comets, and Meteors

- Adams, M. "Observing Fallen Stars" in Mercury, Mar/Apr. 1980, p. 31. On meteorites.
- Berry, R. "Search for the Primitive" in *Astronomy*, June 1987, p. 6. A good summary of what we have learned from Halley and other comets.
- Berry, R. & Talcott, R. "What Have We Learned from Halley's Comet?" in Astronomy, Sep. 1986, p. 6.
- Elmegreen, D. "Comets: Key to Our Solar System" in Astronomy, Mar. 1985, p. 6.
- Gunter, J. "Asteroids and Amateur Astronomers" in *Mercury*, Jan/Feb. 1985, p. 9.
- Hartmann, W. "Vesta: A World of its Own" in Astronomy, Feb. 1983, p. 6.
- Helin, E. "The Discovery of an Unusual Apollo Asteroid" in *Mercury*, Sep/Oct. 1981, p. 134.
- Morris, C. "The Eye's View of Halley's Comet" in Astronomy, Jan. 1987, p. 90.
- Morrison, D. "The VEGA Flyby and Halley's Comet: A First Person Account" in *Mercury*, Jul/Aug. 1986, p. 114.
- Rao, J. "Comet Swift-Tuttle and the Perseids [Meteor Shower]" in Astronomy, Aug. 1983, p. 16.
- Wagner, J. "The Sources of Meteorites" in Astronomy, Feb. 1984, p. 6.
- Whipple, F. "Flying Sandbanks versus Dirty Snowballs: The Nature of Comets" in Mercury, Jan/Feb. 1986, p. 2.

(The March 1987 issue of *Sky & Telescope* was devoted to a fine series of articles on what we learned from Halley's Come:.)

#### Slide Sets About the Solar System from the Astronomical Society of the Pacific

- Mars Kit Six of the best views of Mars, with captions, background material, and a reading list.
- Halley's Comet Revealed 17 views from the recent pass of Comet Halley, taken from Earth and space; with captions and a summary of Halley discoveries; by Dr. John Brandt (U. of Colorado).
- Portraits of the Solar System 20 full-color paintings by astronomer/artist Dr. William Hartmann, showing scenes of other worlds not available as photographs.
- The Solar System Close-up Three sets, consisting of 130 slides in total, showing the best spacecraft views of the planets and satellites; selection and detailed captions by Dr. David Morrisor. (U. of Hawaii)
- Venus Kit Six of the best views of Venus, with captions, background material, and a reading list.
- Voyager at Uranus 15 slides plus a detailed booklet of captions and background information.
- Worlds in Comparison 20 slides comparing worlds or features in different parts of the solar system; comes with captions, activities and a reading list.

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