

Planetary Spectaculars

MERCURY

BOOKS:

Atlas of Mercury—Merton E. Davies, et al. 1978. The Mariner 10 spacecraft photographed about half the planet—all that's ever been seen in closeup. In 128 14-by-11-inch pages, a wide selection of the photos are accompanied by the shaded relief maps made from them. Includes names of features; coordinate grids; and brief introductory sections on the spacecraft, its mission, the surface features and the mapping process. \$10.00. (SOD Order No. NAS 1.21:423)

The Voyage of Mariner 10—James A. Dunne and Eric Burgess. 1978. Again a large selection of Mercury photos (though the Atlas remains the definitive reference), plus many photos of Venus (which provided a gravitational "slingshot" for Mariner 10 on its way to the inner planet), showing cloud details visible only by ultraviolet light. Also includes a more detailed description of the spacecraft, its mission and other aspects of its scientific investigations. 224 pp. \$12.45. (SOD Order No. NAS 1.21:424)

MAPS:

Mercury Reference Mosaic. 1974. Single photomosaic assembled from Mariner 10's entire coverage, at 1:10,000,000 scale. Sheet 23 by 26 inches. \$1.25. (USGS Order No. I-903)

Shaded Relief Map of Mercury. 1979. Includes names and coordinate grid in Mercator projection (with stereographic projections of the polar regions), at 1:15,000,000 scale. Sheet about 25 by 42 inches. \$1.50. (USGS Order No. I-1149)

Mercury: Relief and Albedo Markings Visible on Mariner 10 Images. 1979. Same map as above, but with the addition of surface-brightness (albedo) variations as indicated by the photos. \$1.50. (USGS Order No. I-1171)

Shaded Relief Map of the Caloris Planitia Area of Mercury. 1979. Stereographic projection of a portion of the planet centered at huge Caloris basin, some 1,500 kilometers across, an impact relic that is the most impressive single surface feature on Mercury. Scale 1:5,000,000. Sheet 23 by 44 inches. \$1.50. (USGS Order No. I-1172)

EARTH

BOOKS:

Mission to Earth: Landsat Views the World—Nicholas M. Short, et al. 1976. Spectacular, large-format (11-by-14) look at the earth through the multi-spectral camera of Landsat. Images made at different wavelengths are combined to bring out otherwise-invisible details in bizarre hues in 400 full-color photos of mountains, oceans, volcanoes, vegetation and more. You've never seen the planet like this. \$14.00. (SOD Order No. NAS 1.21:360)

The beautiful and exotic spacecraft photos of other worlds, as well as the maps made from them, are seen all too seldom by the public, and many are not seen at all. A few commercially published books show some of them, but usually at considerable cost. Yet there is a wealth of such material available, published by various branches of the U.S. government. They are sold for no profit, which means that the prices are wonderfully low, but also that there are no big ad campaigns to alert you to their existence. Prepared directly by the researchers involved, they make fascinating viewing or reading, and would certainly add more cachet to a coffee table than would just another expensive art book. Following is a selection of the best of them, with a hint for finding more. (And new additions are likely in the future, such as radar maps of Venus and Voyager's photos of the Jovian family.)

There are two primary sources for the items listed here, with payment by check or money order. Do not order from Science News. Items with "SOD" order numbers (the books) should be ordered from (with remittance payable to): Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Items with "USGS" order numbers (the maps) should be ordered from (with remittance payable to) U.S. Geological Survey, Branch of Distribution, at one of two addresses: Eastern Region (for customers east of the Mississippi), 120 South Eads Street, Arlington, Va. 22202; or Central Region (for customers west of the Mississippi), Box 25286, Federal Center, Denver, Colo. 80225. The USGS also offers (from the same addresses) a free catalog, "Maps of the Moon and Planets," listing nearly 200 available maps in a wide variety ranging from section-by-section maps of the whole of Mars (you could wallpaper a room for a pittance) to a 1:25,000 scale geologic map of the Apollo 11 landing site in the moon's Sea of Tranquility.

— Jonathan Eberhart

This Island Earth—edited by Oran W. Nicks. 1970. Color photos taken from the Apollo spacecraft in earth orbit. Includes an "atlas" section, as well as sections of photos featuring land, water and manmade features, with a little bit of the moon and Mercury for good measure. 182 pp. \$9.50. (SOD Order No. NAS 1.21:250)

Earth Photographs from Gemini III, IV and V. 1967. All in color, 267 pages' worth—another reason to wish you were an astronaut. \$11.50. (SOD Order No. NAS 1.21:129)

Earth Photographs from Gemini VI through XII. 1968. More—not of the same, but of earth's endless variety. 327 pp. \$8.00. (SOD Order No. NAS 1.21:171)

Skylab EREP Investigations Summary—Lyndon B. Johnson Space Center. 1978. A summary, packed with color and black-and-white images, of the results from the recently downed space station's Earth Resources Experimental Photography studies. 386 pp. \$13.50. (SOD Order No. NAS 1.21:399)

THE MOON

BOOKS:

Lunar Orbiter Photographic Atlas of the Moon—David E. Bowker and J. Kendrick Hughes. 1971. To many photo-geologists, this one is "the bible," with 675 plates and a cross-index for locating specific features. \$23.90. (SOD Order No. NAS 1.21:206)

The Moon as Viewed by Lunar Orbiter—L.J. Kosofsky and Farouk El-Baz. 1970. An elegant and dramatic volume of 152 pages for those who don't seek the full treatment listed above. \$10.70. (SOD Order No. NAS 1.21:200)

Apollo Over the Moon: A View from Orbit—edited by Harold Masursky, G.W. Colton and Farouk El-Baz. 1978. Color (such as there is on the moon) and black-and-white views from the astronauts' handheld and spacecraft-mounted cameras. 255 pp. \$9.25. (SOD Order No. NAS 1.21:362)

MAPS:

Lunar Chart. 1979. A map of the whole moon. \$1.50 plus \$1.50 shipping. (Order chart LPC-1 from the National Space Science Data Center, Goddard Space Flight Center, Greenbelt, Md. 20771)

MARS

BOOKS:

Atlas of Mars: The 1:5,000,000 Map Series—R.M. Batson, P.M. Bridges and J.L. Inge. 1979. A remarkable treasury of maps and photomosaics, including feature names (with explanations of their origins), coordinates, and diagrams showing the locations and photo-identification numbers of each of the spacecraft photos that contributed to the project. 146 11-by-14-inch pages. \$7.00. (SOD Order No. NAS 1.21:438)

The Martian Landscape—Viking Lander Imaging Team. 1978. A lavishly illustrated (11-by-14-inch) tour of two spots on the surface of Mars—the spots on which the Viking 1 and 2 landing craft touched down in the summer of 1976. Two-page panoramas, eerily colored sunsets—and stereo, with a viewer included. Includes a section on the landers' many "special effects" shots, and an excellent, readable "anecdotal introduction" by team leader Thomas A. Mutch (now NASA's chief scientist). 160 pp. \$12.00. (SOD Order No. NAS 1.21:425)

Mars as Viewed by Mariner 9—Mariner 9 Television Team and others. 1974. Elegantly black-bound, gold-stamped and packed cover to cover with photos taken from orbit by Viking's predecessor, Mariner 9, which discovered such wonders as the huge canyon, Valles Marineris, and the towering super-volcanoes atop the Tharsis rise. 225 pp. \$8.25. (SOD Order No. NAS 1.21:329)

MAPS:

Topographic Map of Mars. 1976. Based on Mariner 9 photos and used in preparation for Viking. 1:25,000,000 scale. Sheet 36 by 42 inches. \$1.50. (USGS Order No. I-961)

Geologic Map of Mars—D.H. Scott and M.H. Carr. 1978. Kaleidoscopic, "false-color" map showing not the topography, but the varying geologic provinces as identified by the authors from Viking orbiter photos. Scale 1:25,000,000. Sheet 38 by 48 inches. \$1.50. (USGS Order No. I-1083)

Topographic Map of the Mare Boreum Area of Mars. 1977. The spectacular Martian north polar region, mapped at 1:4,290,000 scale from Viking orbiter photos. Sheet 32 by 34 inches. \$1.50. (USGS Order No. I-1027)

Shaded Relief Map of the Mare Australe Area of Mars. 1976. The south polar region. Same size and scale as the above, though without its added contour lines. \$1.50. (USGS Order No. I-970)

Controlled Mosaic of the Yorktown Region of Mars. 1977. Photomosaic of the Viking 1 landing site in Chryse Planitia at a big, 1:25,000 scale. Sheet 28 by 34 inches. \$1.50. (USGS Order No. I-1059)

Controlled Mosaic of the Canberra Region of Mars. 1977. The Viking 2 landing site in Utopia Planitia at the same size and scale. \$1.50. (USGS Order No. I-1060)

JUPITER

BOOKS:

Pioneer Odyssey—Richard O. Fimmel, William Swindell and Eric Burgess. 1977. A detailed account of the first missions to Jupiter, with a gallery of color photos of the planet by the spacecraft that took them, Pioneers 10 and 11. \$9.85. (SOD Order No. NAS 1.21:396)

GALILEAN SATELLITES

MAPS:

These are the maps, prepared from Voyager 1 and 2 photos, that have been appearing in SCIENCE NEWS in recent weeks, ending with Callisto in this issue. All are at 1:25,000,000 scale, which has meant that all except Europa have been in SN's pages at reduced size. Each is dated 1979, the year of the Voyager flybys, and costs \$1.25.

Preliminary Pictorial Map of Io (SN: 4/19/80, p. 251). Volcanoes and all. Sheet 22 by 25 inches. (USGS Order No. I-1240)

Preliminary Pictorial Map of Europa (SN: 5/3/80, p. 283). The stripy one. Sheet 19 by 23 inches. (USGS Order No. I-1241)

Preliminary Pictorial Map of Ganymede (SN: 5/17/80, p. 315). Bigger than Mercury and almost too complex for words. Sheet 29 by 33 inches. (USGS Order No. I-1242)

Preliminary Pictorial Map of Callisto. Turn back a page and you'll see it, but 36 percent smaller. The USGS versions, of course, also include the polar stereographic projections on the same sheet. Sheet 27 by 31 inches. (USGS Order No. I-1239)