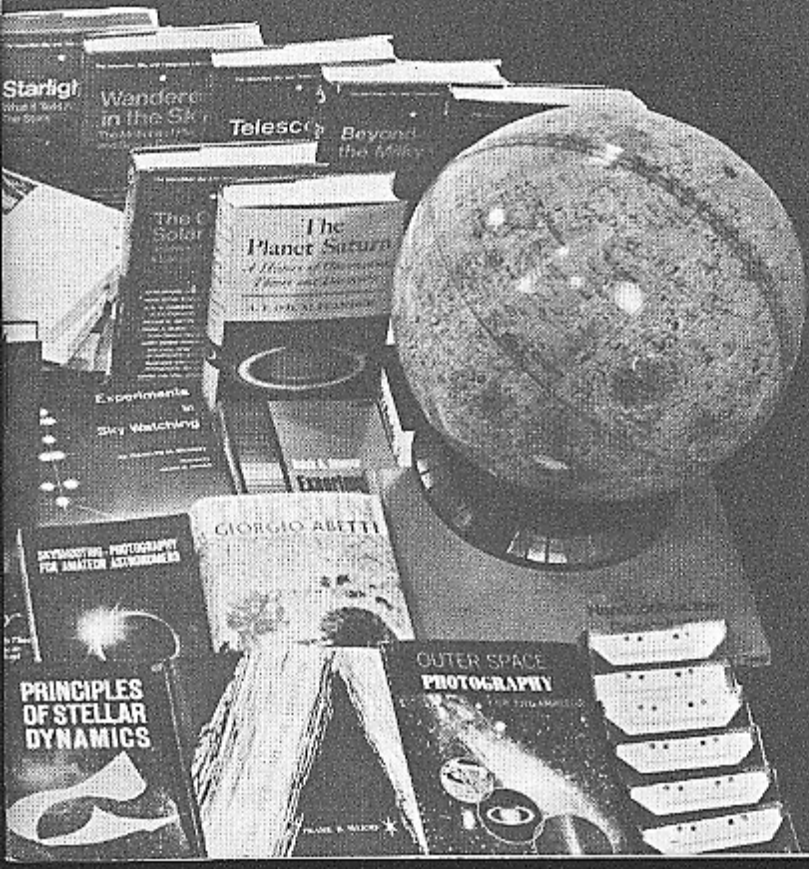


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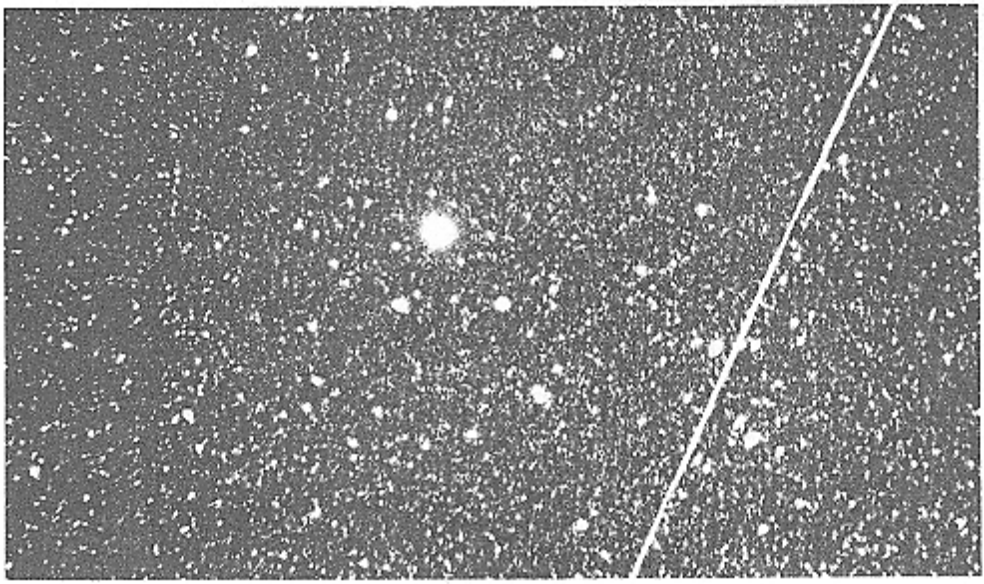
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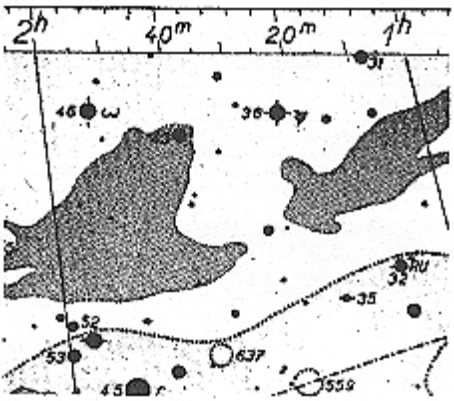
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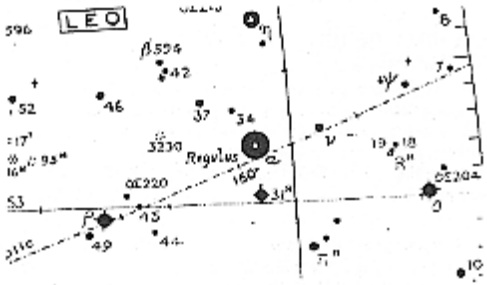


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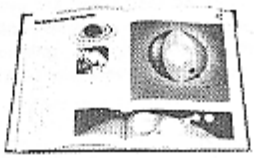
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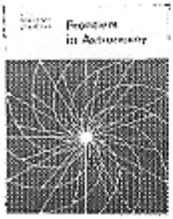
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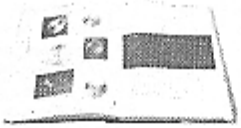
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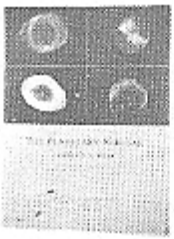
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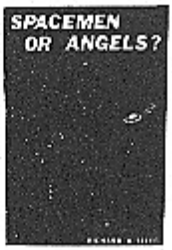


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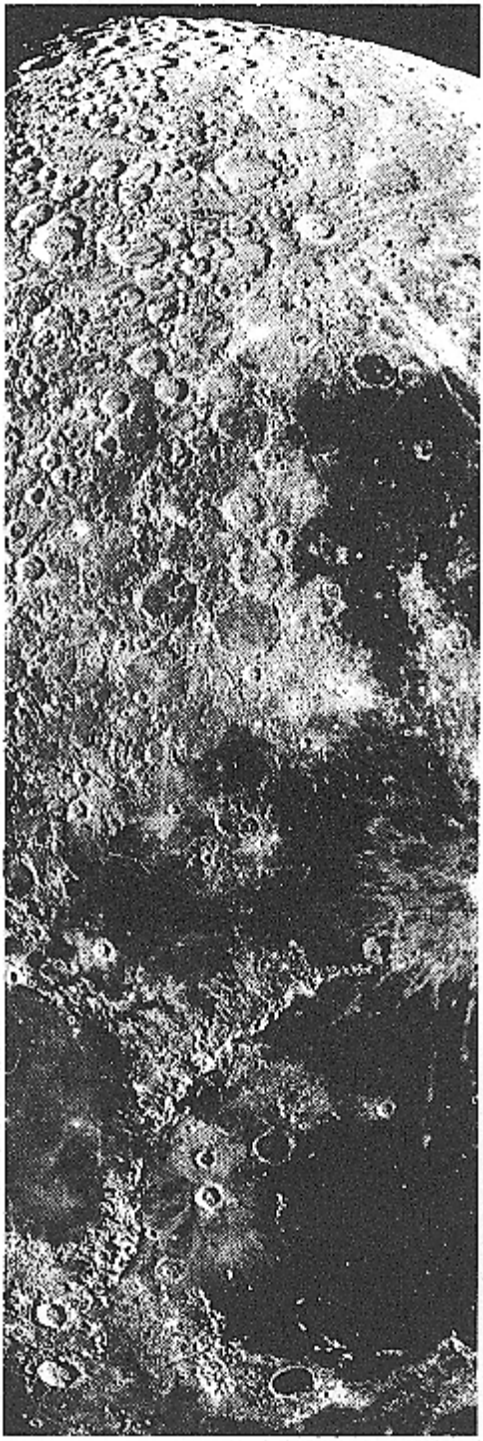
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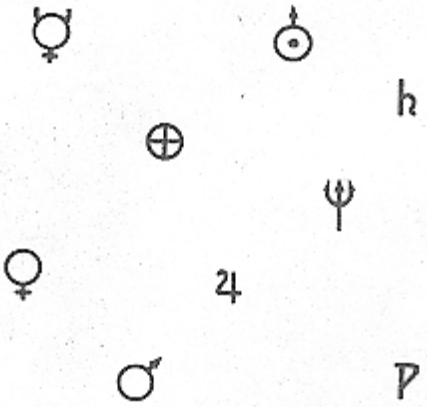
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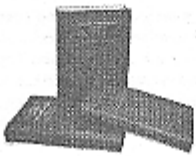


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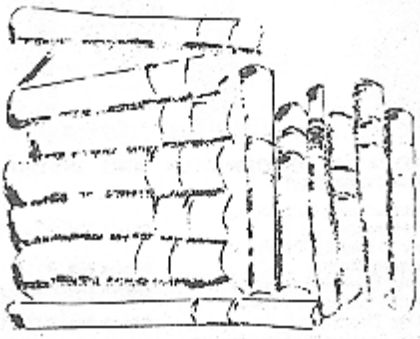
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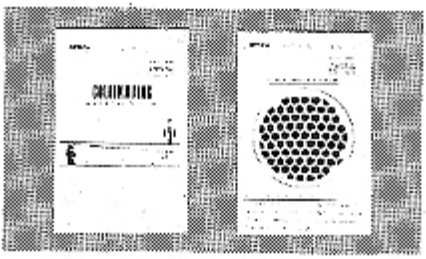
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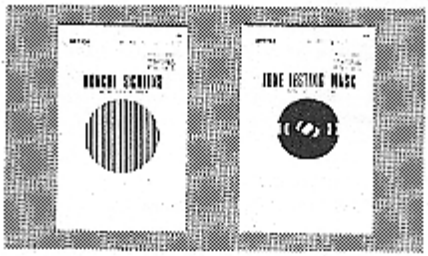
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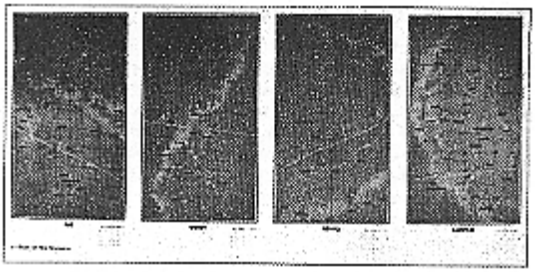
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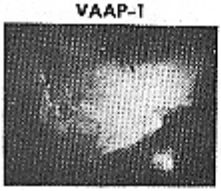
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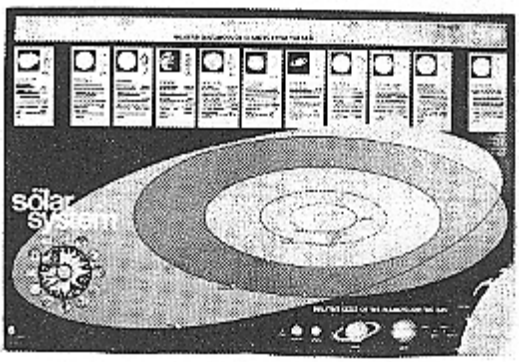


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On July 20, 1969 mankind took "One Giant Leap" by setting foot upon the moon, and Neil Armstrong along with Lt. Col. Aldrin established Tranquility Base 240,000 miles away from home. This beautiful, full color foil etch commemoration of that historic event can be yours — truly a collector's item. 7½" x 11⅛" reproduction on a 12" x 16" mat. Suitable for framing. Hurry . . . this very limited printing will soon be gone. . . . . **Stock No. VA-OGL**

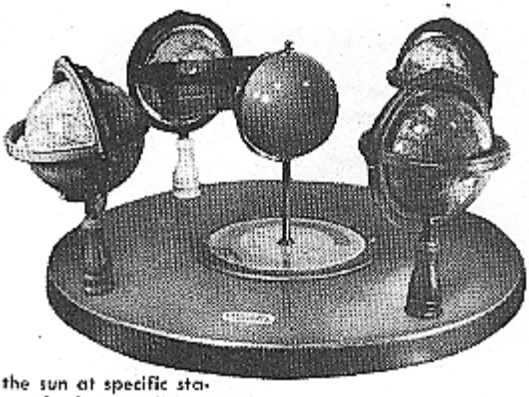
SOLAR SYSTEM CHART, Hansen Planetarium

Beautiful, multicolored chart of our solar system, ideal for wall hanging, 2' x 3'. Includes relative distance and relative size charts plus a wealth of information on the sun, moon, and each planet.
Stock No. VAC-02



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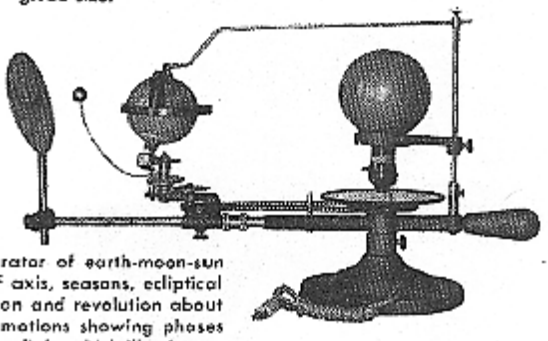
Orreries and Planetaria



SEASONAL ORRERY (EARTH-SUN)

Four full color earth globes are situated around the sun at specific stations, showing the earth's positions at the equinoxes and solstices. All four globes demonstrate earth rotation, and each one has its own reference scales demonstrating the ecliptical coordinate system. A swivel arm affixed to the sun extends to any of the earth globes delineating the area of maximum solar radiations as received by the earth. This earth-sun model is excellent for demonstrating the relationships between seasonal changes, yearly insolation cycles, day and night changes, etc. and their actual astronomical causes . . . a must for instruction in astronomy, physical geography, global climatology, etc. 18" base diam., 9" high, 4" globe size.

Stock No. VAO-04



EARTH-SUN-MOON ORRERY

This multi-colored Orrery is a manual demonstrator of earth-moon-sun relationships. Earth rotation and revolution, tilt of axis, seasons, ecliptical longitude and latitude are all shown. Lunar rotation and revolution about the earth also operate simultaneously with earth motions showing phases and eclipses, both solar and lunar. Inside the sun is a light which illuminates the earth-moon system simulating day and night, the twilight circle, variable solar insolation, and eclipse phenomena. A single motion of the control arm demonstrates all motions through a full 360° cycle. The heavy, solidly-built model is invaluable for educational instruction concerning basic solar system motions and phenomena. It is thus illustrative not only for astronomy but for such areas as meteorolgy, local and global climatology, physical geography, solar chronometry, etc. 27" long, 15" high, 4" globe size, weight: 12¼ lbs.

Stock No. VAO-03

NOVA PLANETARIUM

A fascinating, educational toy for youngsters in the space age. Operates on 2 standard "D" cell batteries (not included) and projects over 60 constellations as seen from the northern hemisphere. Learn the names and shapes of the constellations. Watch the stars move in their courses across the "sky" of your bedroom ceiling! Works in any average size dark room. Illuminated pointer and instructions with star charts included. Made of tough, durable plastic. ..... **Stock No. VAP-01**



Planispheres

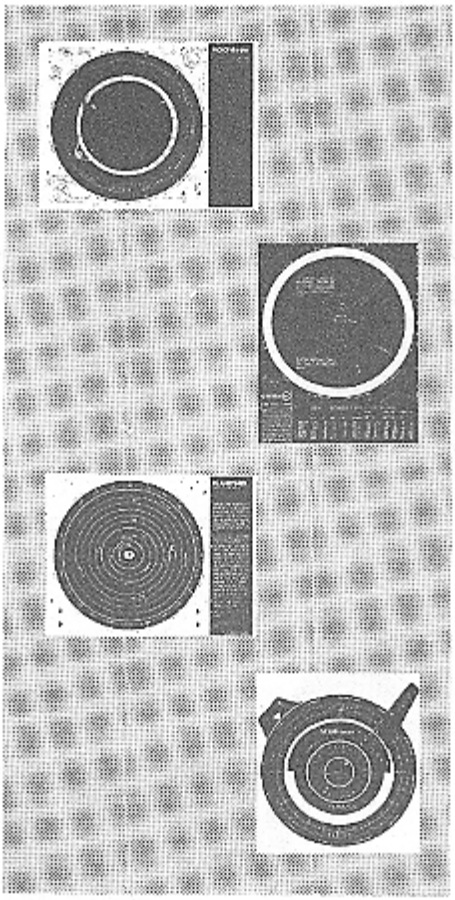


These perpetual maps of the heavens are indispensable, just a twist of the dial and you have a graphic representation of the heavens at any hour of the day or night. These planispheres have the following in common: 10" double disks—durable plastic—on which the constellations, major stars and many other interesting objects are labeled. Both are supplied with a current Astronomical Events Calendar. The basic difference is that the PHILIPS' has more detail and the instructions are printed in English, Danish, French and German.

MODERN STAR GUIDE (Planisphere) for northern hemisphere ..... **Stock No. VASG7**

PHILIPS' (Planisphere)

for northern hemisphere **Stock No. VASG8**
for southern hemisphere **Stock No. VASG9**



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Lunar positions through 2001! Monitor and predict lunar motions for the rest of this century. Helps to visualize lunar orbit relationships . . . nodes, perigee, etc. Valuable teaching tool. Includes instruction manual. Useful anywhere on earth. ..... **Stock No. VAMF-1**

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Developed for use with Planetimer. This template provides a meaningful picture of solar system scale, with Pluto's orbit about 69" in diameter. Scale dimensions can be changed for larger or smaller sizes. Make your own wall, ceiling or floor decoration. Complete instructions. .... **Stock No. VAOP-1**

PLANETIMER

Find the planets through 2001! 10 coordinated disks representing the solar system. Simple to use, just a twist of the dials! Visualize essential characteristics of planetary positions and orbital plans. A wealth of information at your fingertips. Complete instruction manual. Use anywhere on earth. ..... **Stock No. VAPT-1**

STARFINDER

The new way to tell time by the stars! Date scale is marked in am/pm and 2400 system. Determine approximate R.A. of any visible star and siderial time. This device is simple and direct, affording instant assessment of time. Use anywhere you can see the Big Dipper and Polaris. Complete instructions ..... **Stock No. VAST-1**

SIDERIAL TIME CALCULATOR

Convert standard time to approximate siderial time at your telescope. Handy slide rule, coated to resist moisture. Works anywhere. .... **Stock No. STC-01**

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Globes



SPACEWATCHERS GLOBE LIBRARY,

Exciting globe library — three 6" globes: Mars (including deserts, craters, highlands etc.), the Moon (both near and far sides), and a Celestial Globe of the night skies for an accurate study of the stars. Complete with molded base and handbook for each globe plus and Apollo re-entry vehicle pattern which can be cut and assembled.
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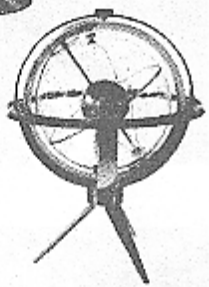
MOON GLOBE - 12"

Developed under the auspices of NASA, smooth surface but 3-d, relief-like design. Latin and English place names are highly legible, and unmanned landings are located along with Apollo 11 and 12. Printed in brown and gray to resemble actual moon photos. Clear plastic distance finder calibrated in miles and degrees and the "Story of the Moon" book are included.
Stock No. VAMG-4



CELESTIAL GLOBE

Light blue, 12" celestial globe with stars from 1st through 4th magnitude plotted in yellow. Clusters, double stars, the milky way, constellation lines all shown. Gyro-matic, chrome-plated mounting on chrome base allows easy viewing of any part of the globe. Includes "The Story of the Celestial Sphere" with each globe.
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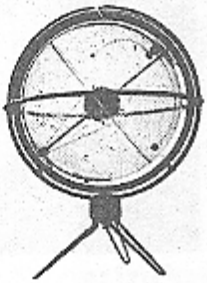


CELESTIAL GLOBE

For amateur astronomers, earth science and astronomy classes. This is a 7" edition of the #VACG2. The features and utility are basically the same as the Deluxe Model, but at a popular price.

Supplied at no extra charge: 12 page instruction booklet.

Stock No. VACG3



CELESTIAL GLOBE, DELUXE MODEL

This deluxe globe is the finest and most complete of its type available; in reality it is a miniature planetarium. The 14" transparent celestial sphere is produced from a durable plastic. Printed on the globe are 89 constellations and all stars to the 5th magnitude. In addition are the Milky Way and the main nebulae and clusters. There is a terrestrial globe positioned at the center. The satellite orbits, as well as the sun and moon being adjustable. Now in use by educational institutions, amateurs and observatories throughout the U.S.A. Graduated Scales: Celestial Equator, Ecliptic, Altitude Indicator, Declination Circle, Horizontal Circle, Timing Plate, Time Indicator, Latitude Indicator. Demonstrate all celestial phenomenon.
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A story of life . . . how it began on Earth . . . and why science believes it must exist on other worlds scattered among the uncounted stars of the universe. The album examines Earth's neighboring worlds in the solar system, studies how stars are formed, and reveals why astronomers believe there are billions of suns with planets capable of sustaining life.

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Illustrated Script with additional material ..... **Stock No. VARS-1**

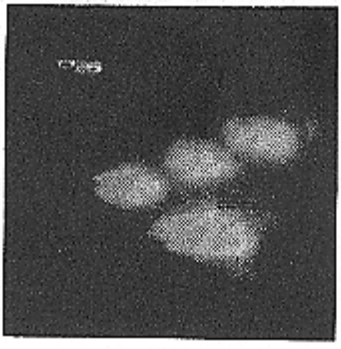


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Was it a brilliant meteor . . . a comet . . . an exploding sun...a remarkable grouping of planets? Was the Star of Bethlehem a natural astronomical occurrence, a function of the inexorable laws of physics, appearing in the night skies at the time of the Nazarene's birth? Or was it, after all, a supernatural event? Here's all the evidence of history and astronomy.

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Hoax? Hallucination? Or . . . hardware? Man has been reporting "unidentified flying objects" since the dawn of history. Ezekiel's biblical "whirlwind out of the north" may have been the first recorded UFO sighting. Today, despite intense investigation, there are some 700 detailed UFO reports in the US Air Force files which remain, puzzlingly, "unidentified".

Record ..... **Stock No. VARR-3**
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Illustrated Script with additional material ..... **Stock No. VARS-3**

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TEST If you wish to review yourself, or test classes on the content of these lectures, one free quiz is supplied with each lecture.

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Canals? Polar caps? Life itself? This lecture explores these and other questions about the one astronomical object which has puzzled and fascinated man more than any other over the centuries. It traces the ages-old inquiry about the "red planet" from Galileo and Huyghens to today's "Mars Jars" which indicate life can exist on Mars. But does it?

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"THE OTHER MOONS"

Hear of their discovery . . . are some yet undiscovered even around our own earth? Learn the statistical facts: size, composition, orbits, ice caps and atmospheres. What important scientific discoveries have resulted from their study? What are the explanation for those with erratic orbital behavior? And what of their origin? What about lost moons and captured planets? Does science-fiction contribute to the unexplainable . . . are some space stations? . . . were some discovered by clairvoyance? The most complete coverage of the subject—even observational techniques for the amateur are included.

Record ..... **Stock No. VARR-5**
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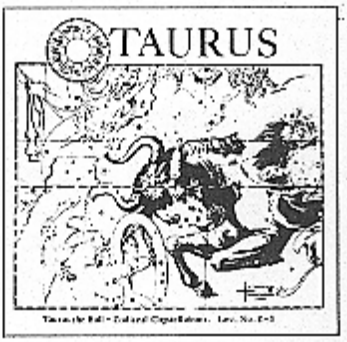


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Examine the birthplace and burial ground of stars, T Tauri types, pulsars, Pleiades, Hyades, even "stars" that do not shine! Explore fascinating mythology along with the latest scientific information and tips for observation. **PLUS:** a detailed photographic star chart on the record jacket.

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Illustrated Script with additional information ..... **Stock No. VARS-Z3**

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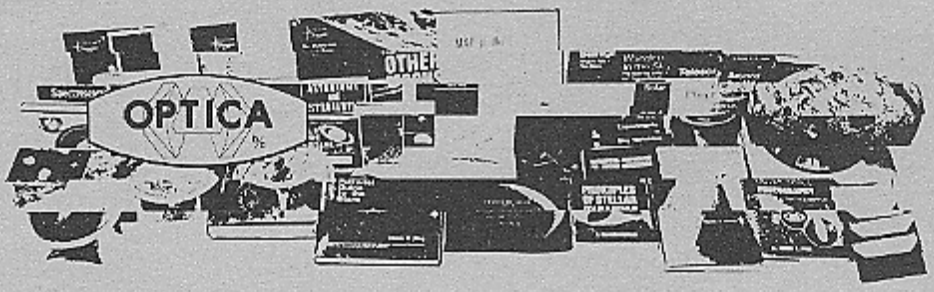


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Each 42 - minute program is now available on record, tape cassette, 7" tape, or 8 track cartridge!

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LUNAR ATLAS



Price List for the Publications and AVA Catalogue - 75

#PAVA-75-B -- Effective April 75

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	PTM-05	2.50
	PTM-07	2.00
	PTM-08	5.50
15	PTM-09	Out of Print
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	PTM-15	.25
	PTM-16	.25
	PTM-17	.25
	PTM-10	3.30
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	AVS-10	5.45
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	VS-019	.50
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