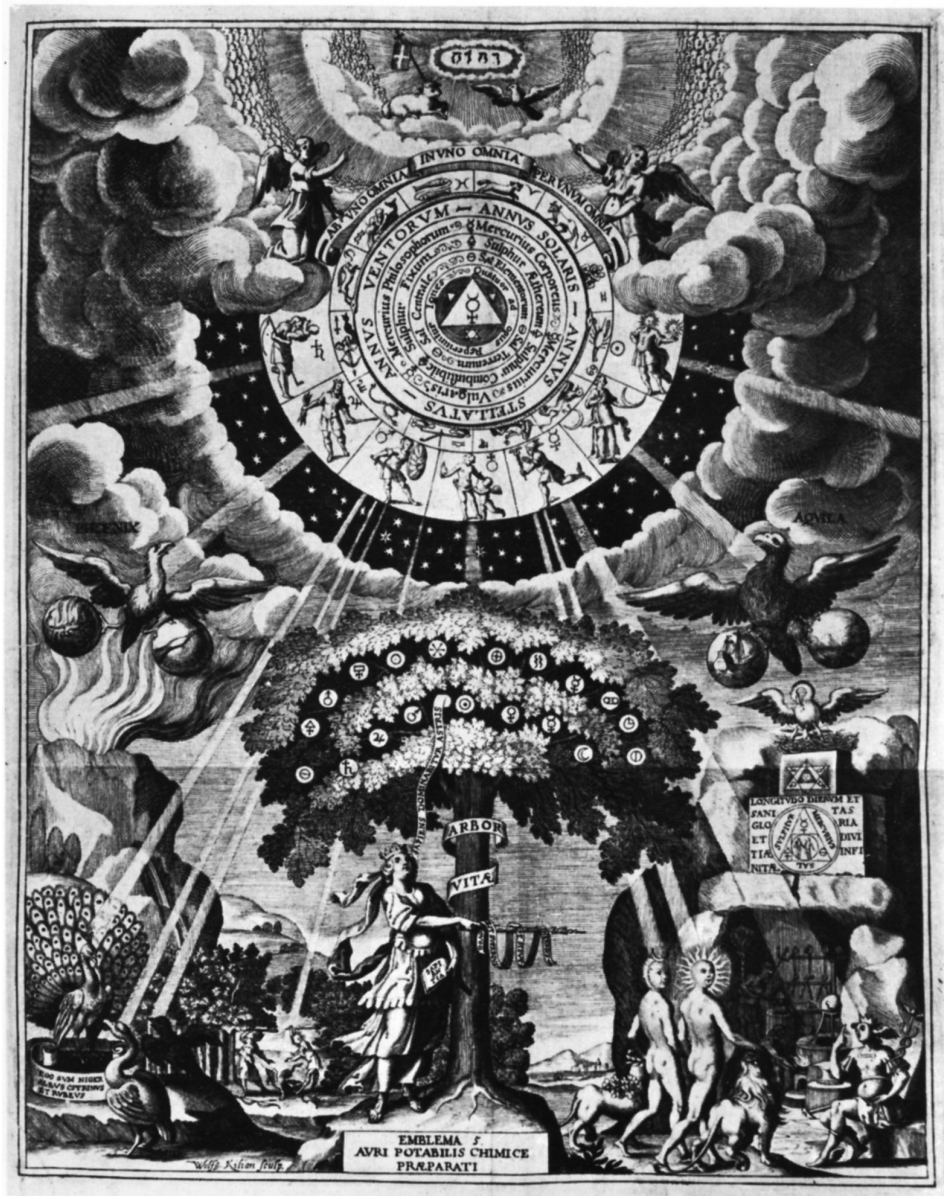
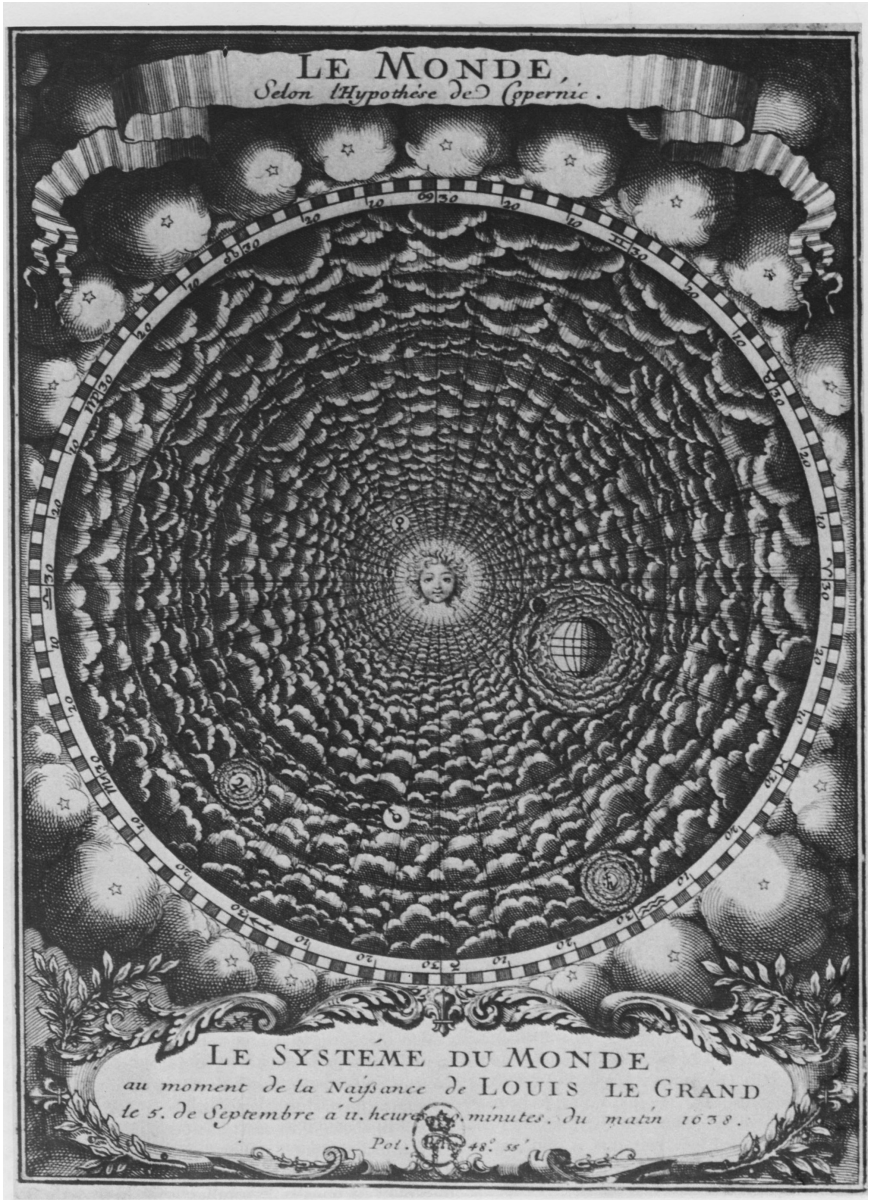
Visual Research

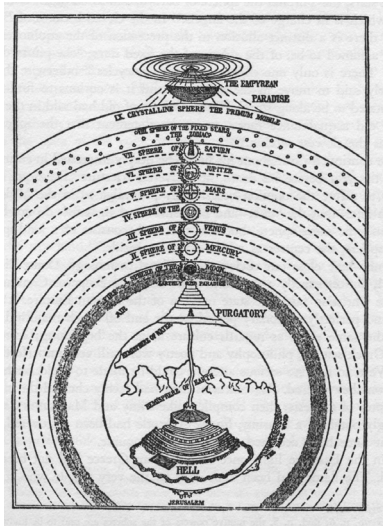
Creating a contemporary depiction of the lunacy myth

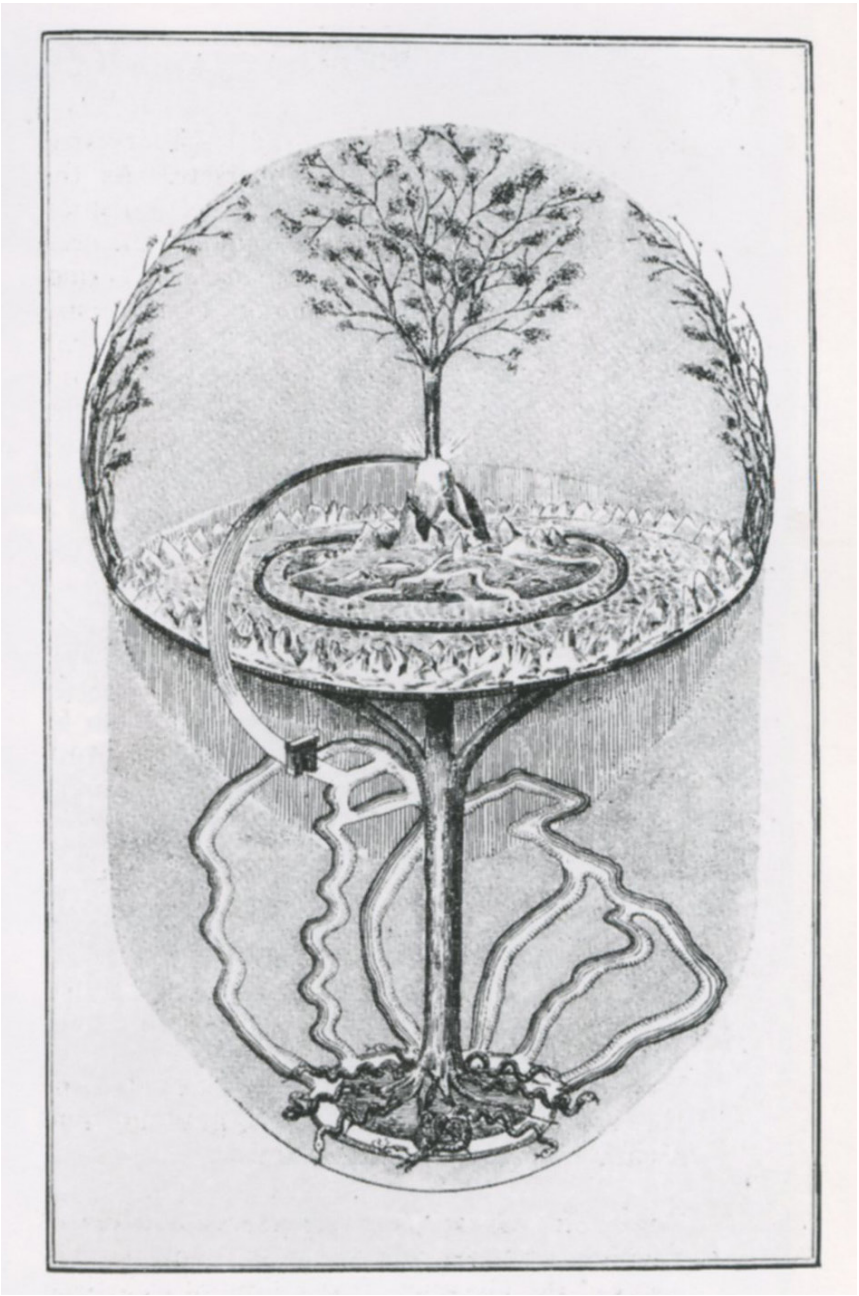
Ryan Shields

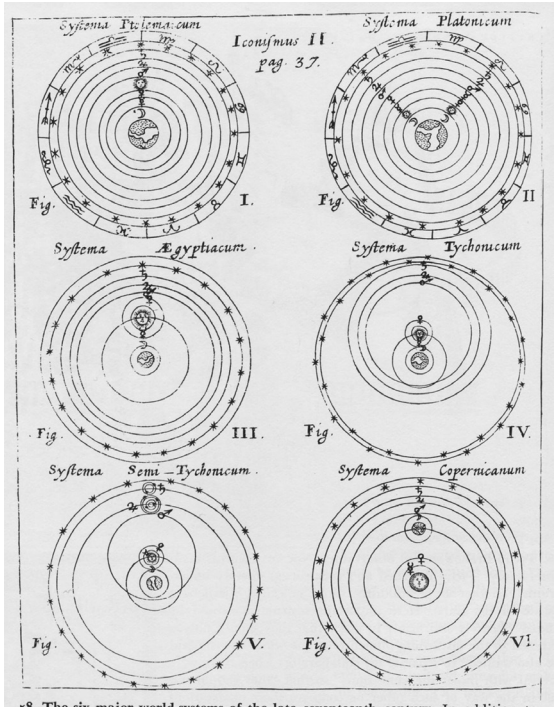

IN UNO OMNIA
ANNUS SOLARIS
ANNUS VENTORUM
ANNUS STELLARIS
ARBOR VITÆ
EMBLEMA 5
AURI POTABILIS CHIMICE
PRÆPARATI

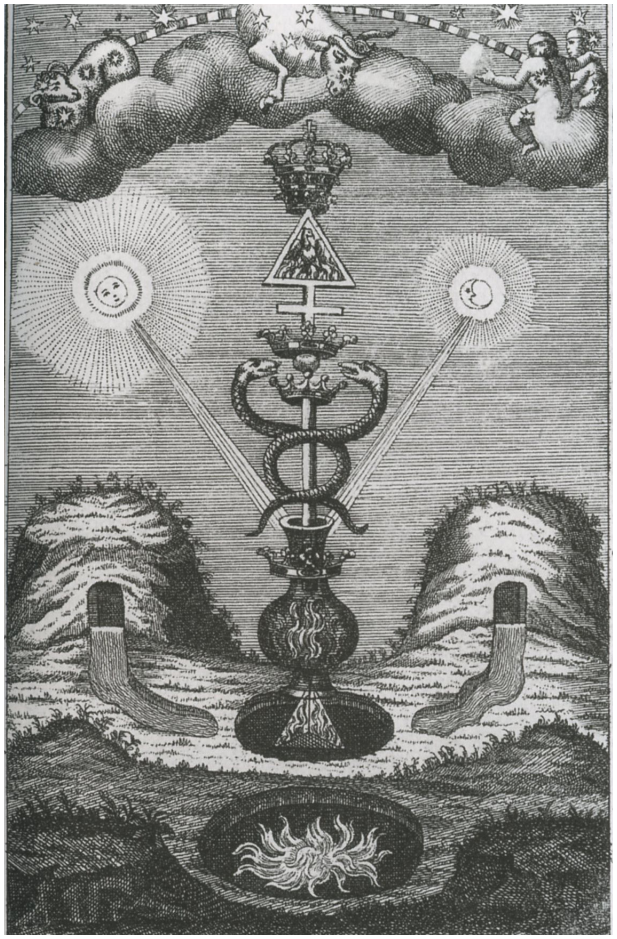

LE MONDE,
Selon l'Hypothèse de Copernic.
LE SYSTÉME DU MONDE
au moment de la Naissance de LOUIS LE GRAND
le 5. de Septembre à 11. heures minutes. du matin 1638.

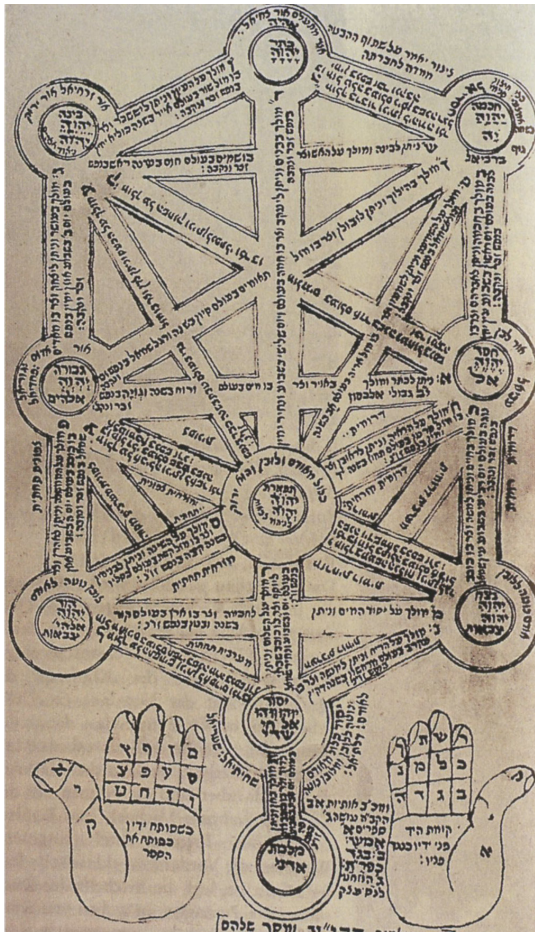
21 'The City of Destruction' showing spiral formation
From *The Pilgrim's Progress*

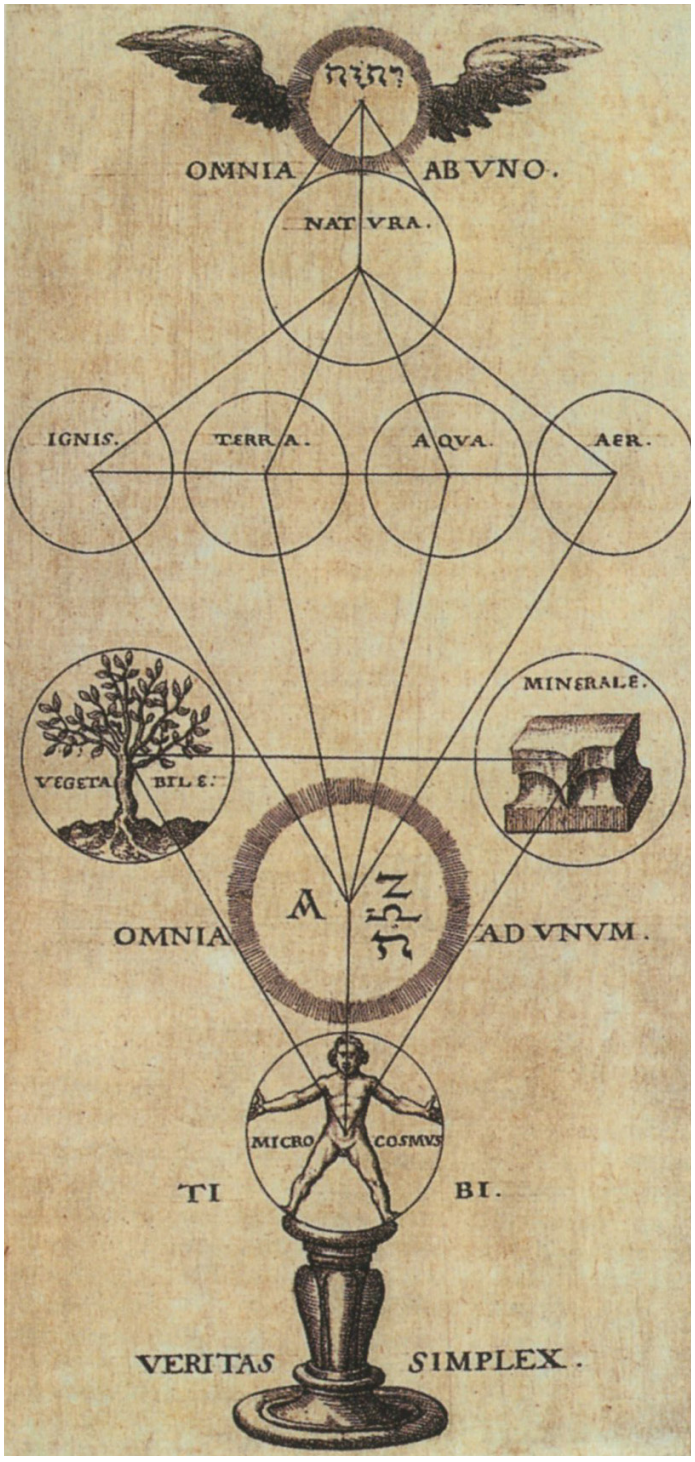


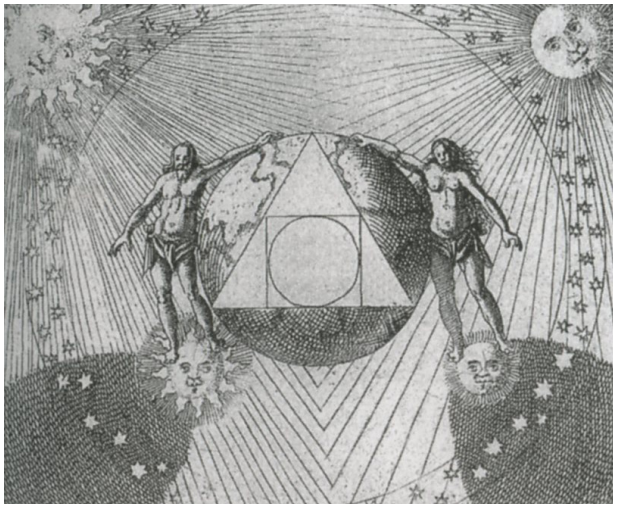


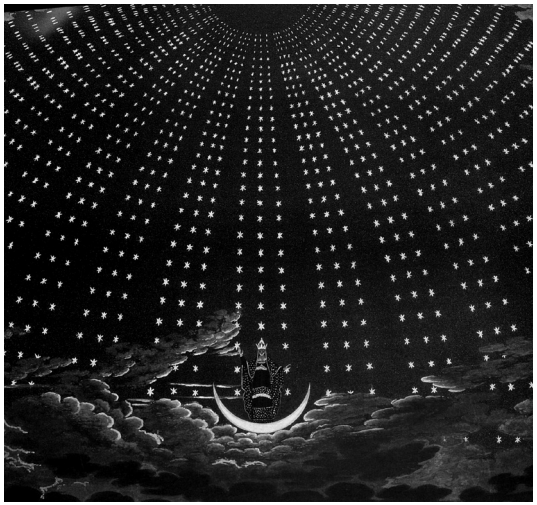







OMNIA AB VNO.
NATVRA.
IGNIS.
TERRA.
AQVA.
AER.
VEGETA BILE.
MINERALE.
OMNIA AD VNVM.
MICRO COSMVS
TI BI.
VERITAS SIMPLEX.





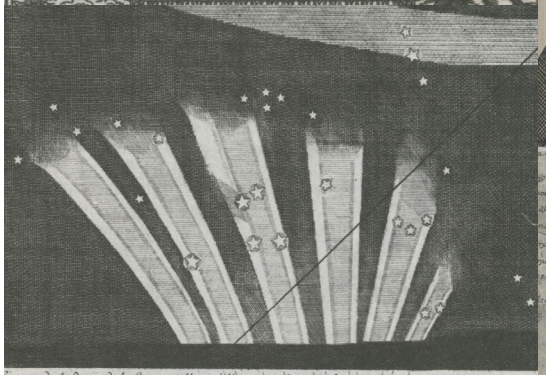
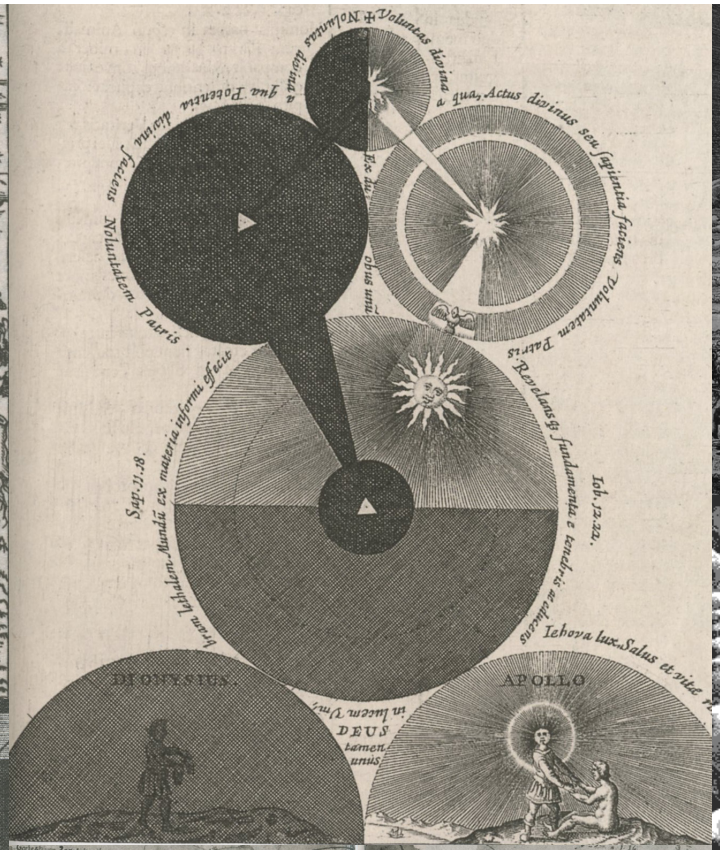
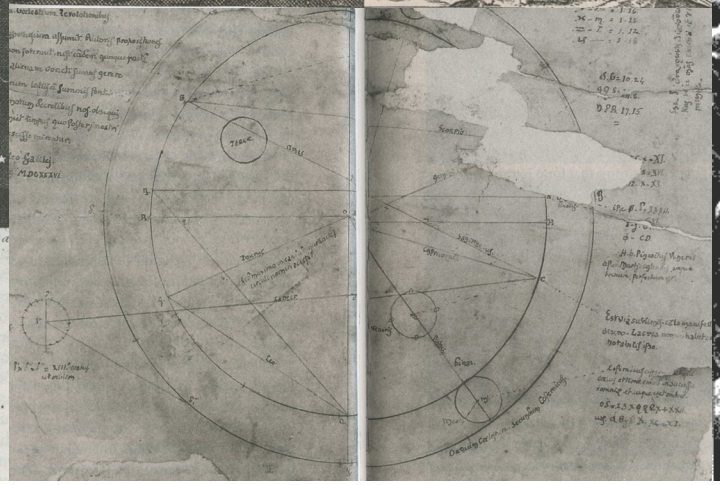


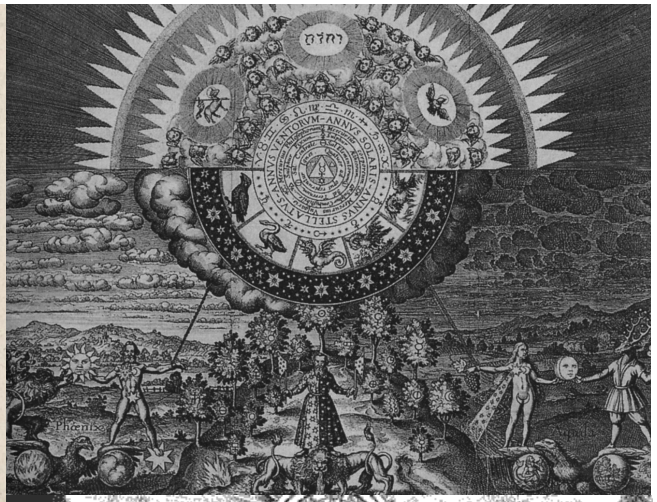
Figure de la Queue de la Comete telle qu'elle a paru les nuits du 7 au 8 et du 8 au 9 Mars 1744 a
la ligne noire represente l'Equateur celeste.
On a marqué dans cette figure les
principales etoiles a laquell
on quelles la position des queues a été observée
mais on n'a pas jugé devoir les distinguer par
des lettres ny autrement pour ne pas embarrasser
la figure. Les Astronomes y reconnoitront
aisément les constellations du Dauphin, du
petit Cheval, et une partie de celles de Pegase
de l'Aigle, du Capricorne, quelques etoiles
d'Andrame, et la main occidentale du Verseau
Une partie de la Voye lactée.
L'heure des observations etoit 4h du matin.

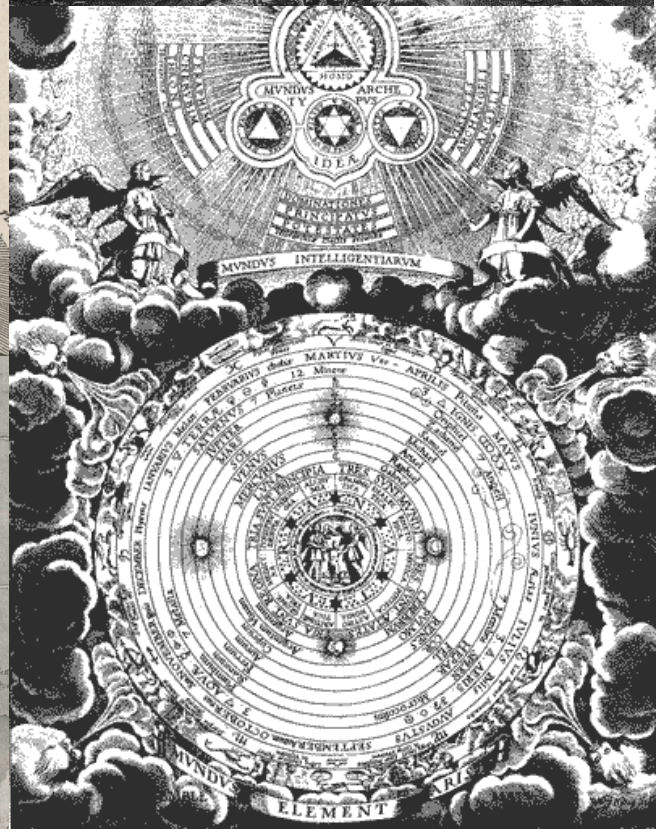
Lieu de la tete de la Comete qui etoit alors
Sous l'horizon.

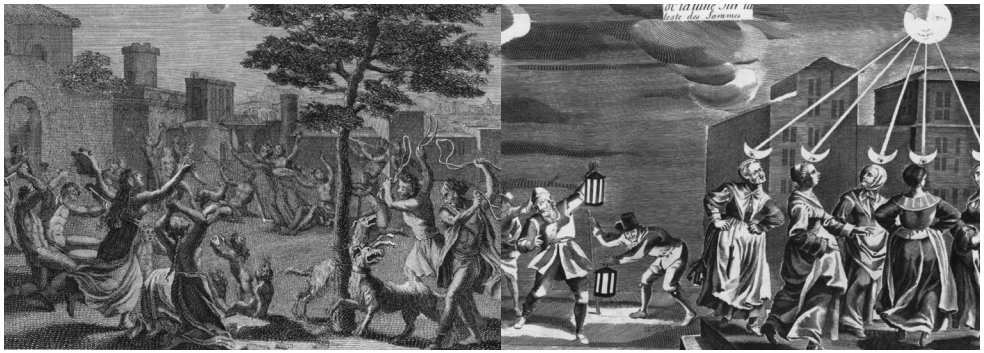
Echelle de 30 degrés

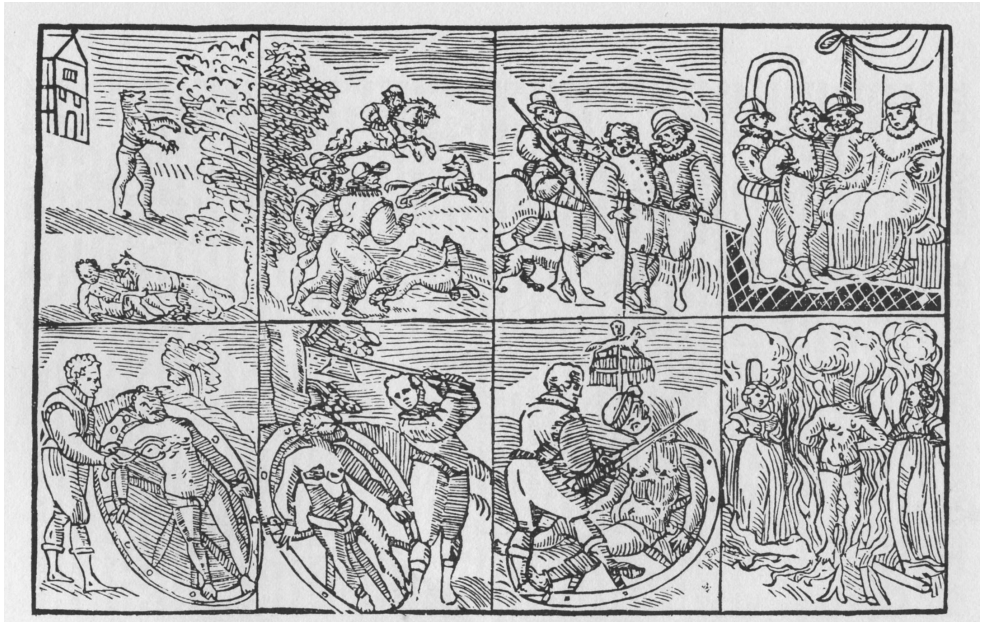




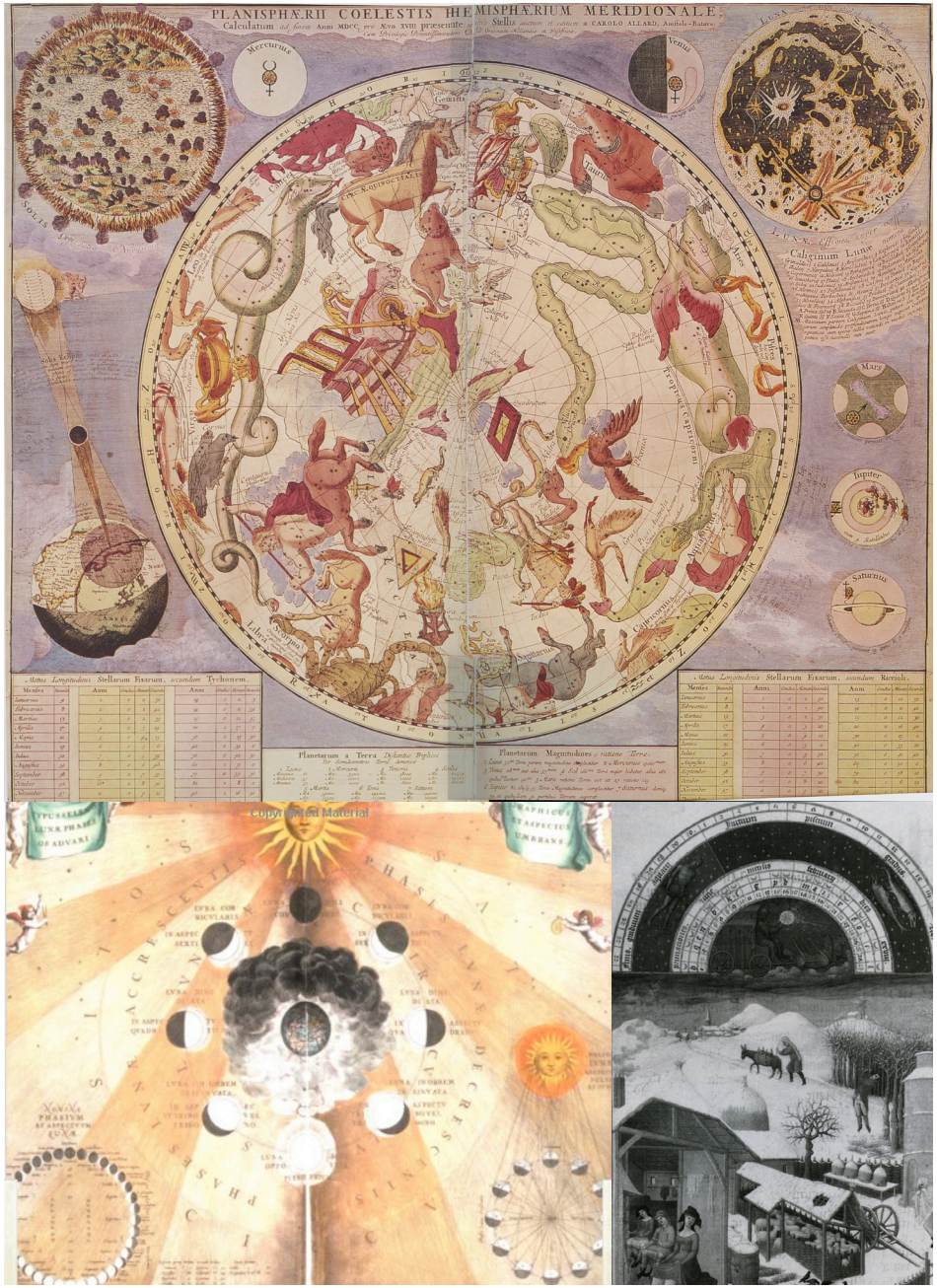








THE LIFE AND DEATH OF PETER STUMP


PLANISPHÆRII COELESTIS HE
MISPHÆRIUM MERIDIONALE
Mercurius
Venus
Mars
Iupiter
Saturnus
Caligo Lunæ
Planetarum a Terra Distantiæ Typicæ
Planetarum Magnitudines

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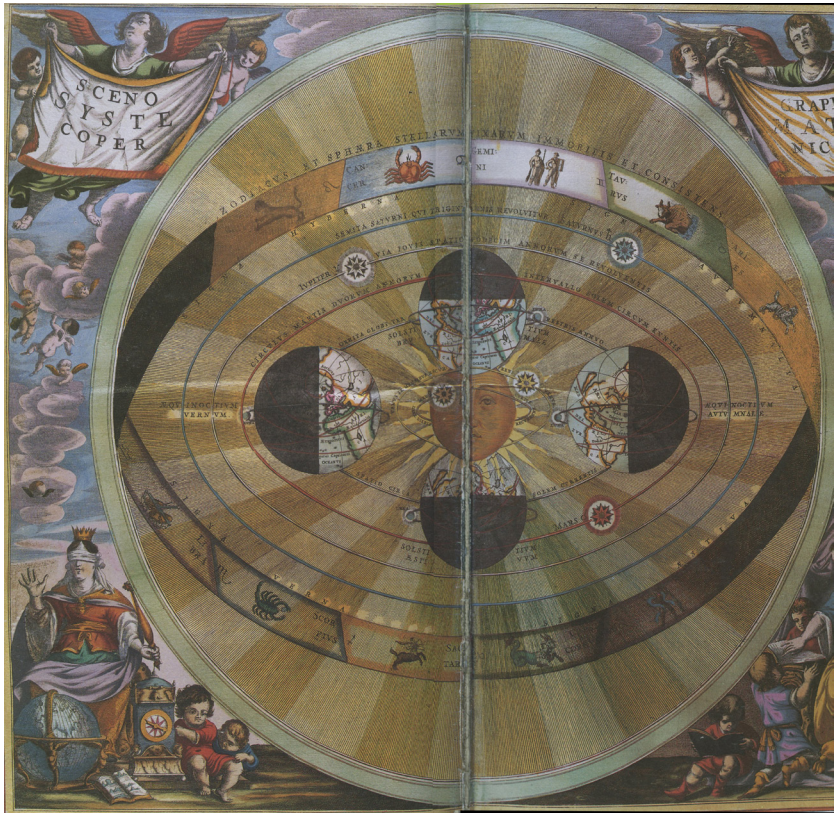
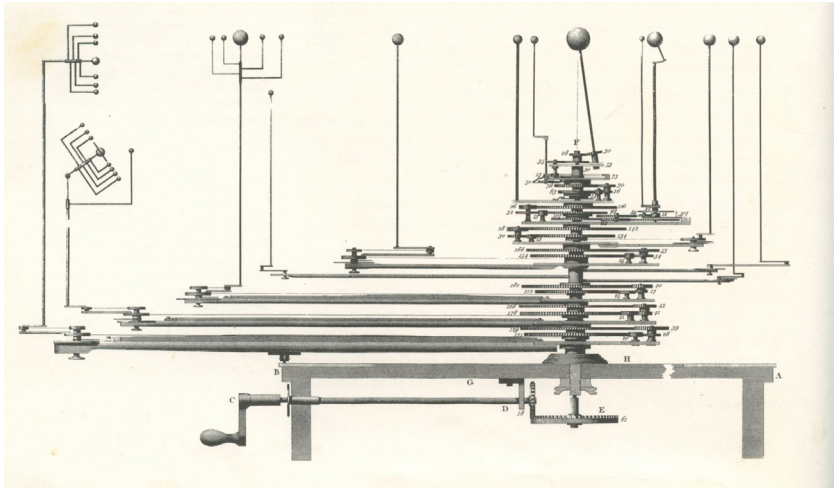
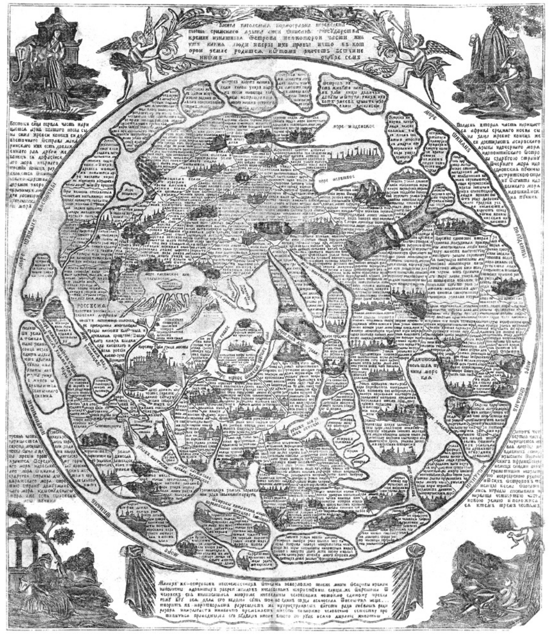
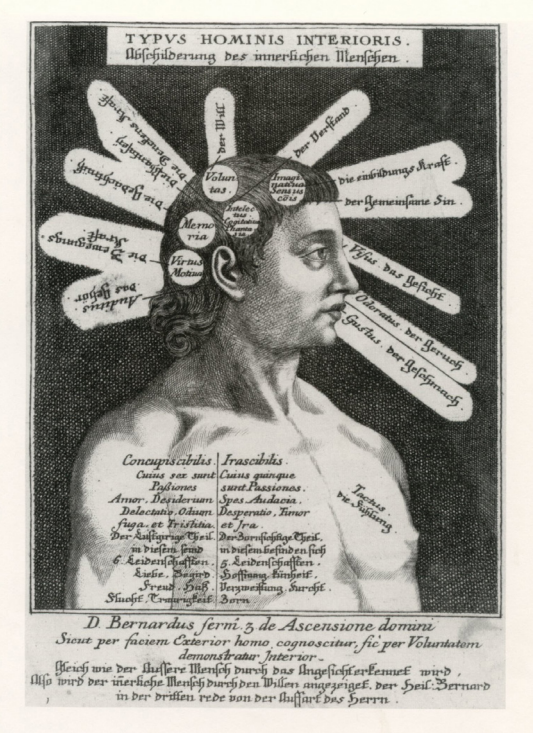
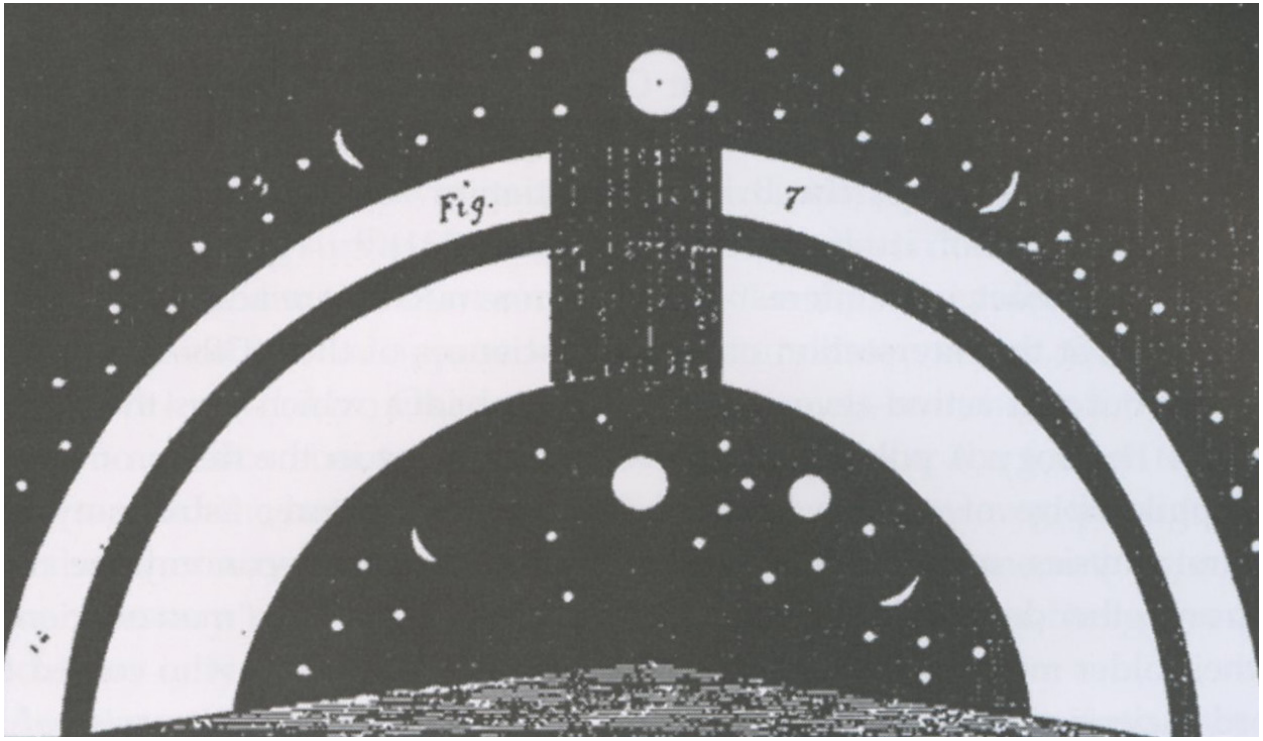

SCENO
SYSTE
COPER

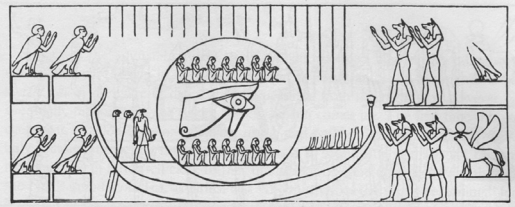



TABULA SELENOGRAPHICA
in qua
Lunarium Macularum exacta Descriptio secundum Nomenclaturam
Præstantissimorum Astronomorum
tam
HEVELII quam RICCIOLI
Curiosis Rei Sidereæ Cultoribus exhibetur
à
IOH. GABR DOPPELMAJERO MATH. P.P.
opera
IOH. BAPTISTAE HOMANNI
Norinbergæ.
OCEANUS
PROCEL
LARUM
MARE IMBRIUM
MARE SERENITATIS
MARE TRANQUILLITATIS
TERRA SICCITATIS
TERRA VITÆ
TERRA STERILITATIS
TERRA SANITATIS
SOL


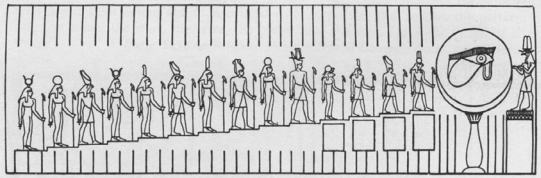
Plenilunium Boreale
Observatum
GEDANI



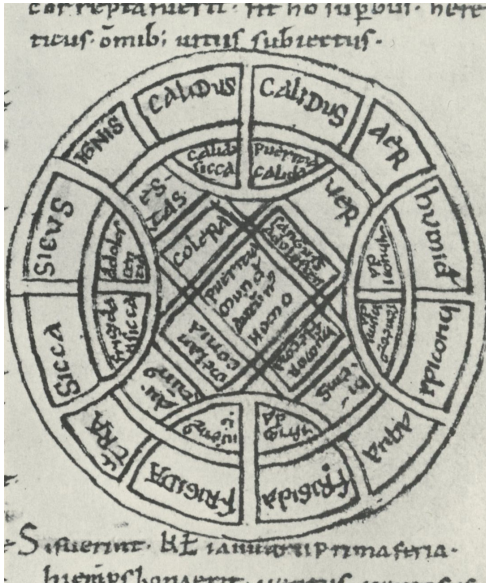


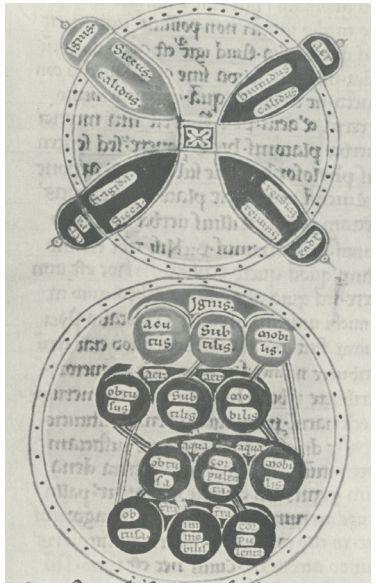


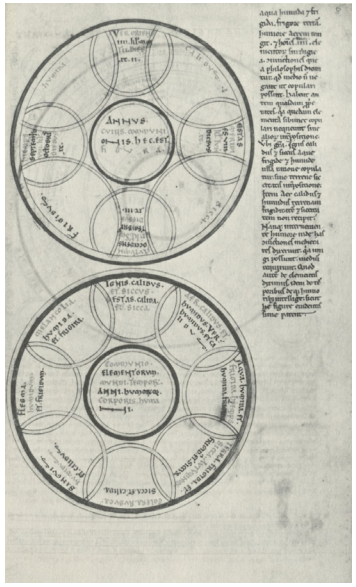
The far north panel of one of the registers on the ceiling of the Temple of Hathor at Dendera illustrates the 14 days of the waning moon as 14 seated figures that accompany the celestial eye in the lunar disk. *(E. A. W. Budge,* The Gods of the Egyptians*)*

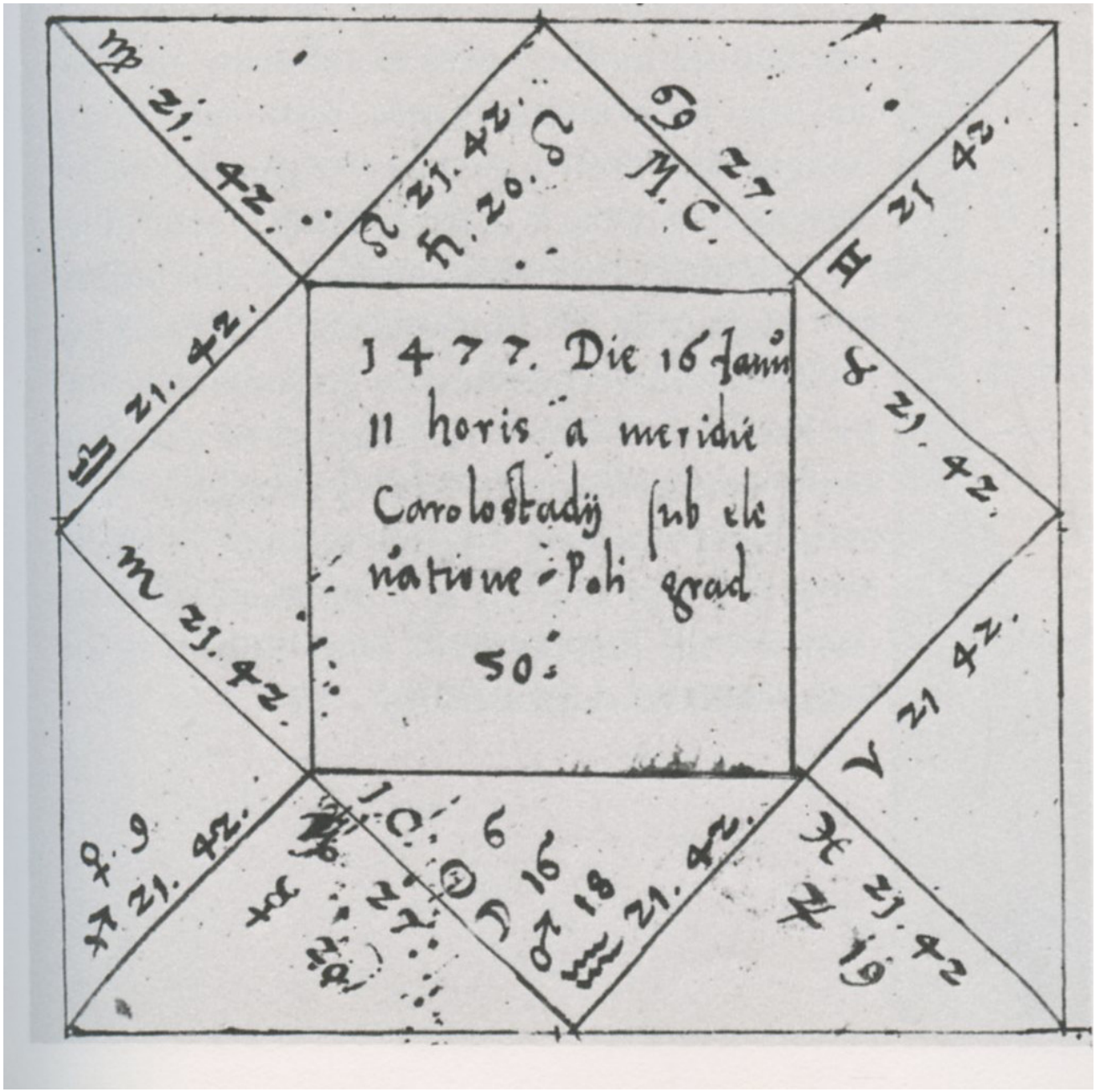


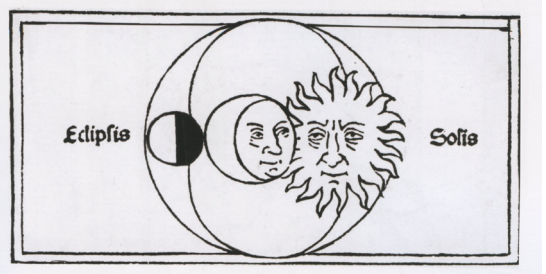
On the same register that portrays the waning moon, the middle panel represents the 14 days of the waxing moon as 14 gods, each positioned upon a stairway that ascends to the disk of the moon. *(E. A. W. Budge,* The Gods of the Egyptians*)*

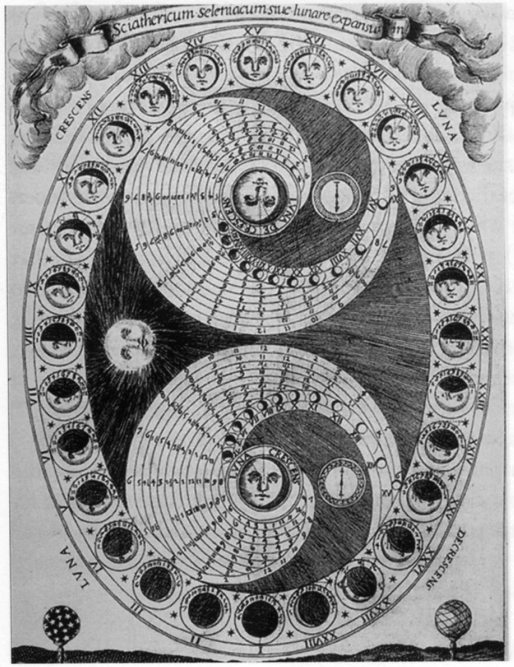




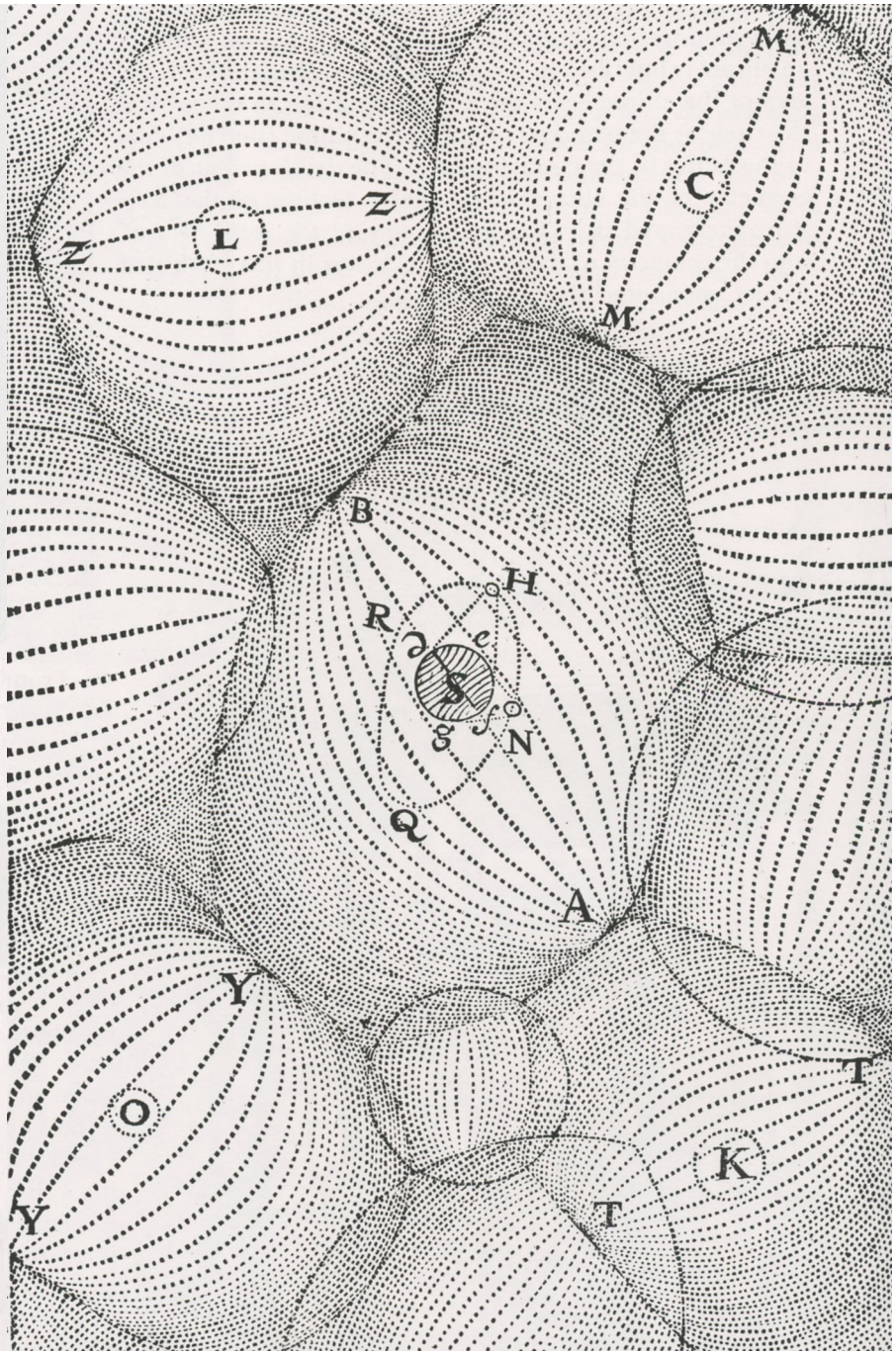



1477. Die 16 Jan
11 horis a meridie
Carolostadij sub elc
natione Poli grad
50.
M.C.


Eclipsis
Solis


Sciathericum seleniacum siue lunare expansum
CRESCENS
LUNA
DECRESCENS
LUNA


Scoperte fatte nella luna dal Sig.r Herschell


M
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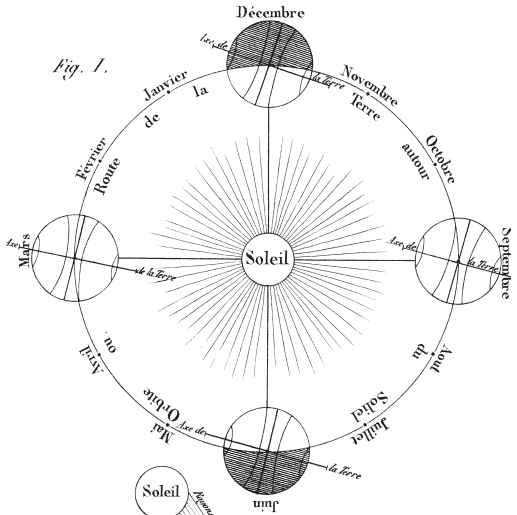


Fig. 1.

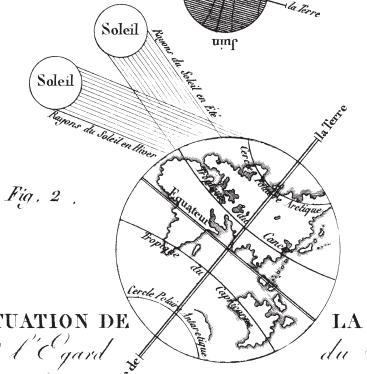
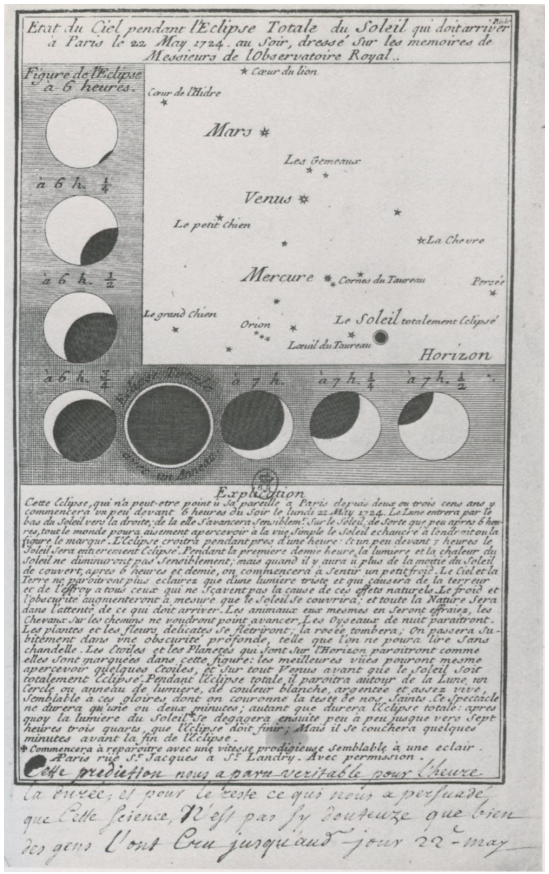
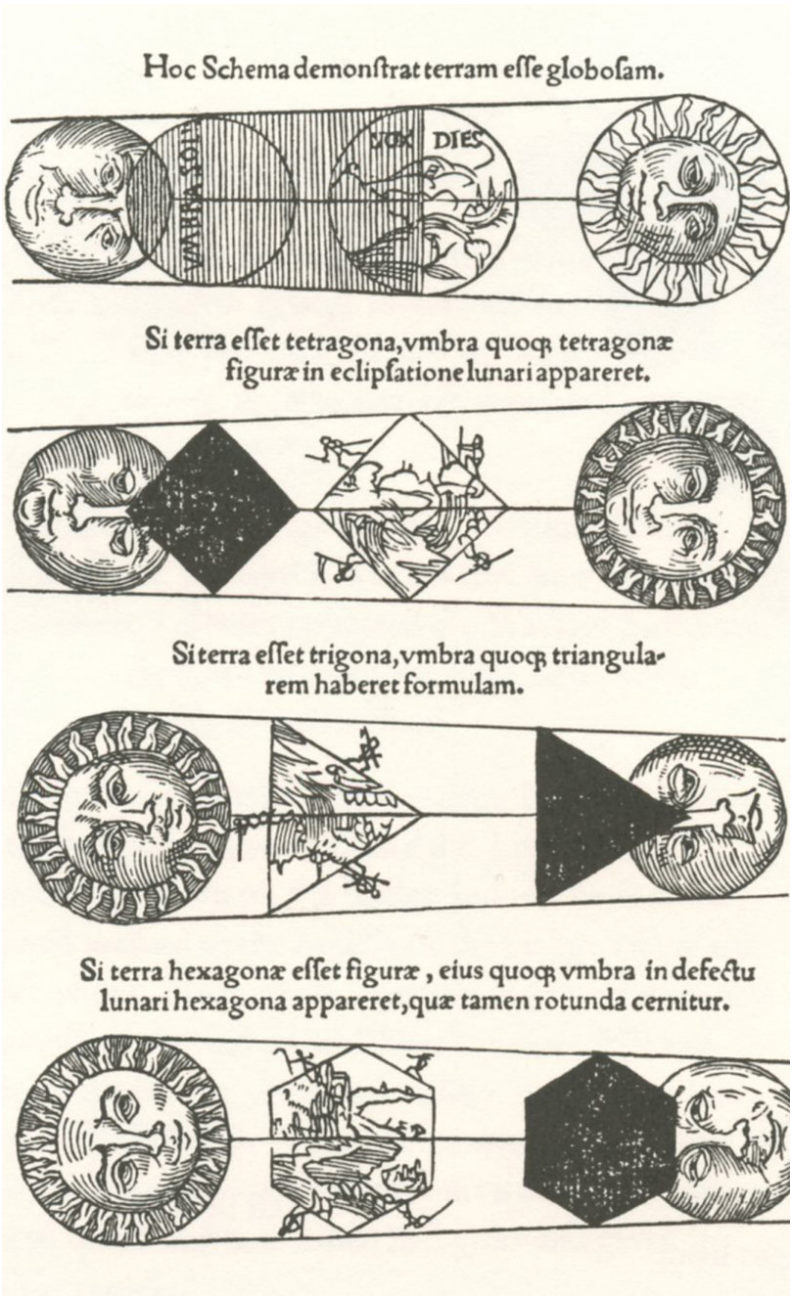
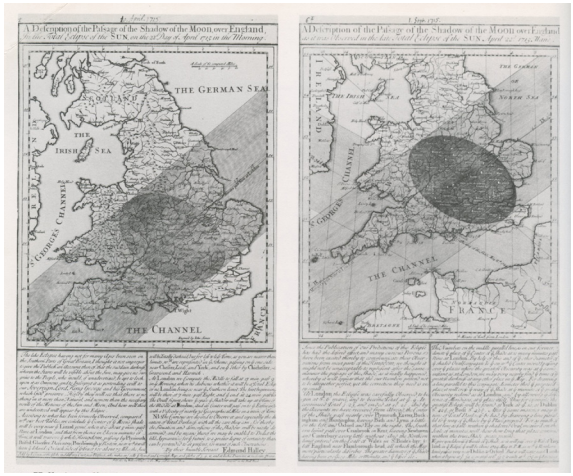


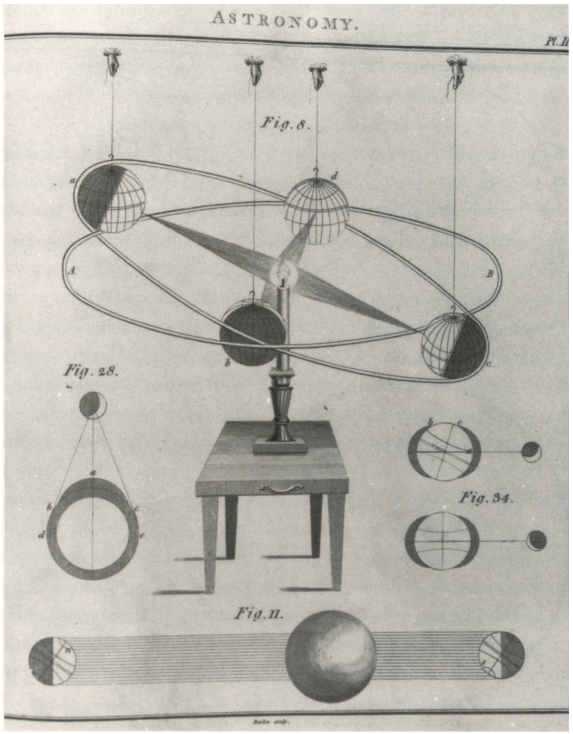
Fig. 2.

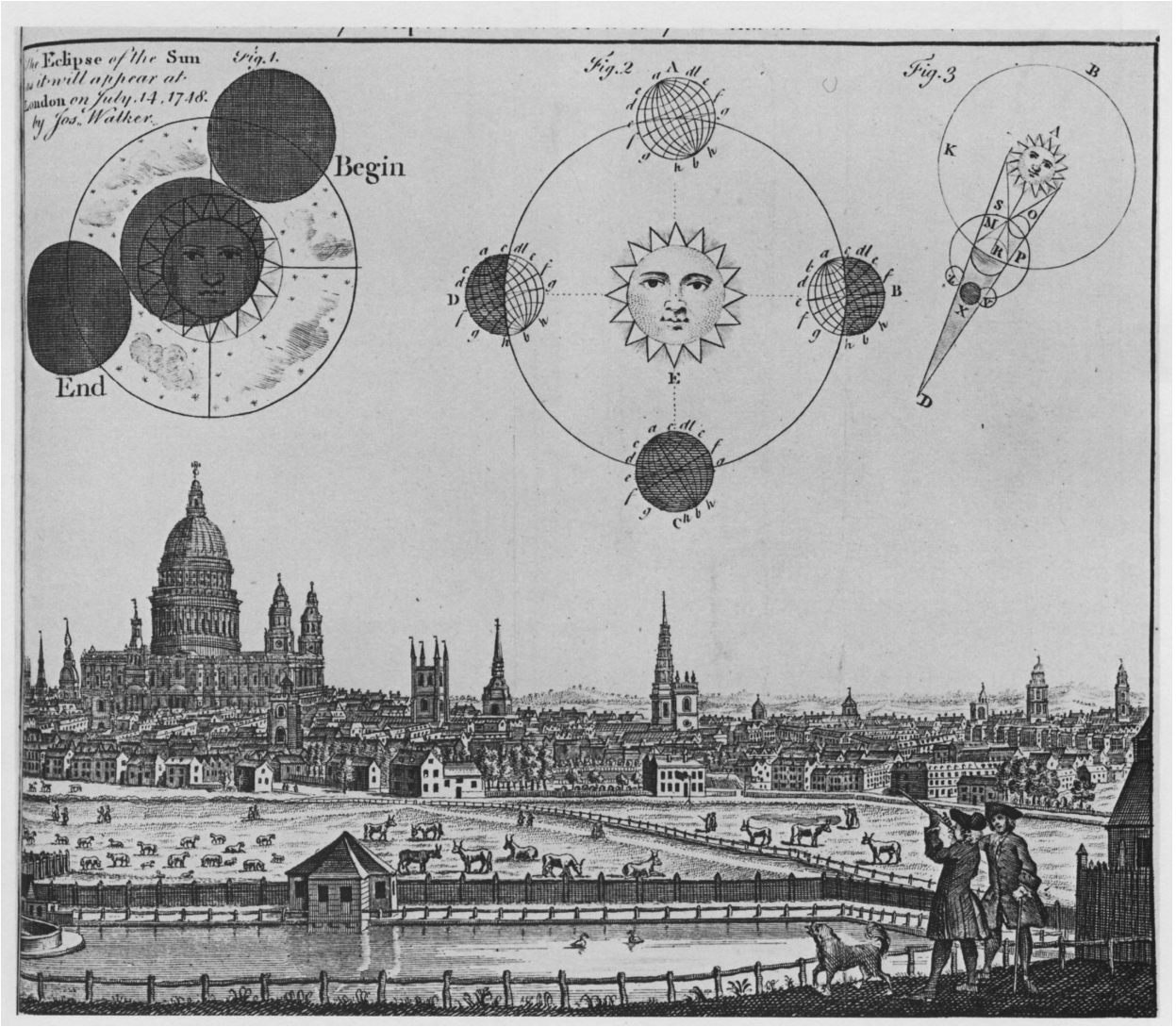
SITUATION DE LA TERRE
à l'Egard du Soleil
dans les diverses saisons de l'année.

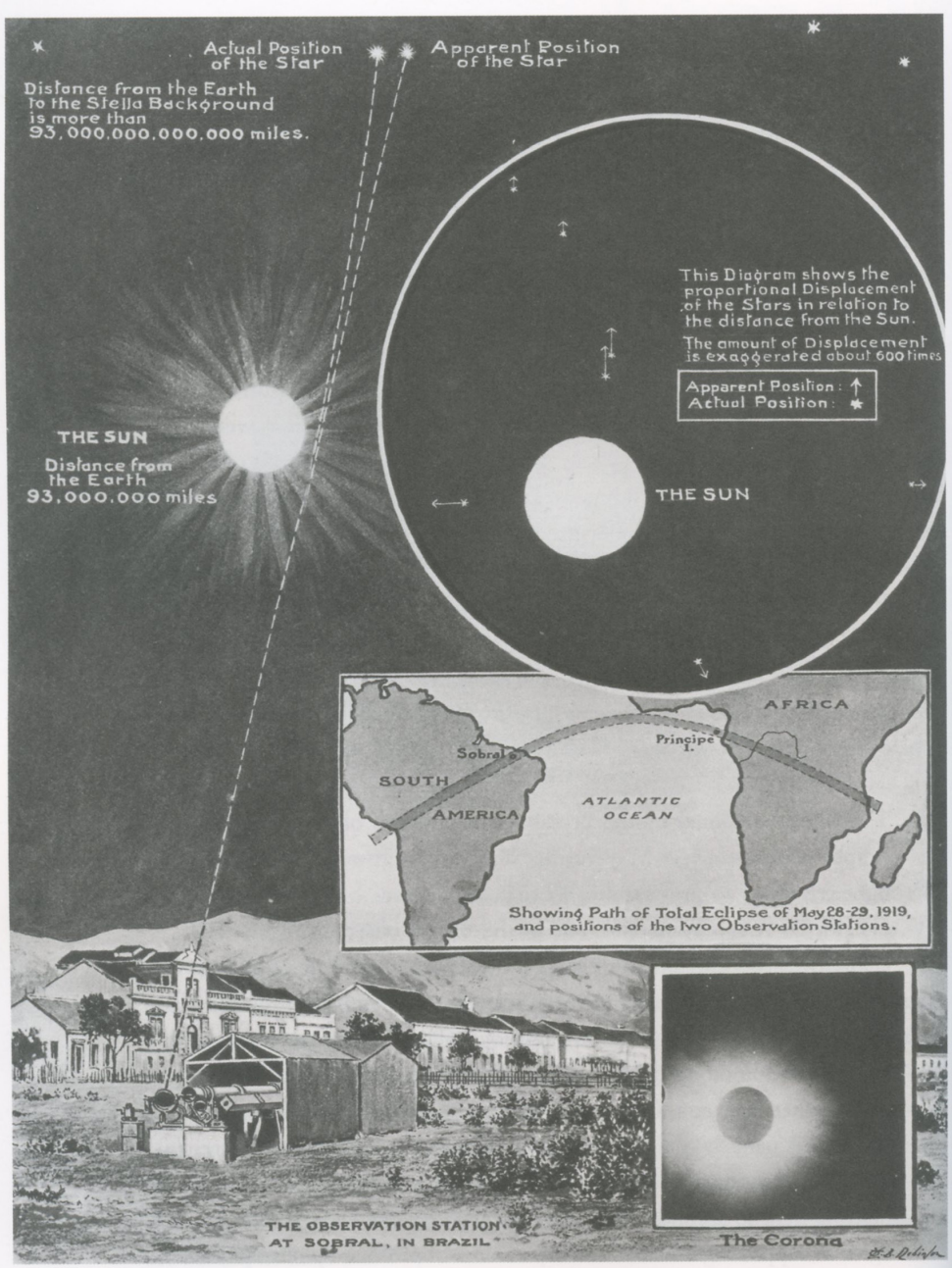


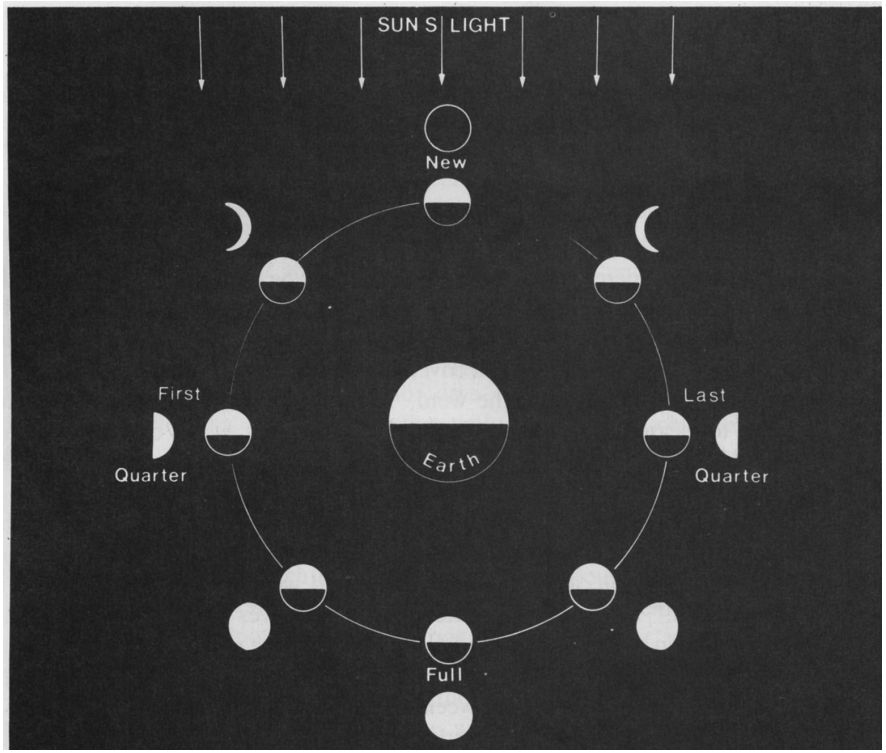


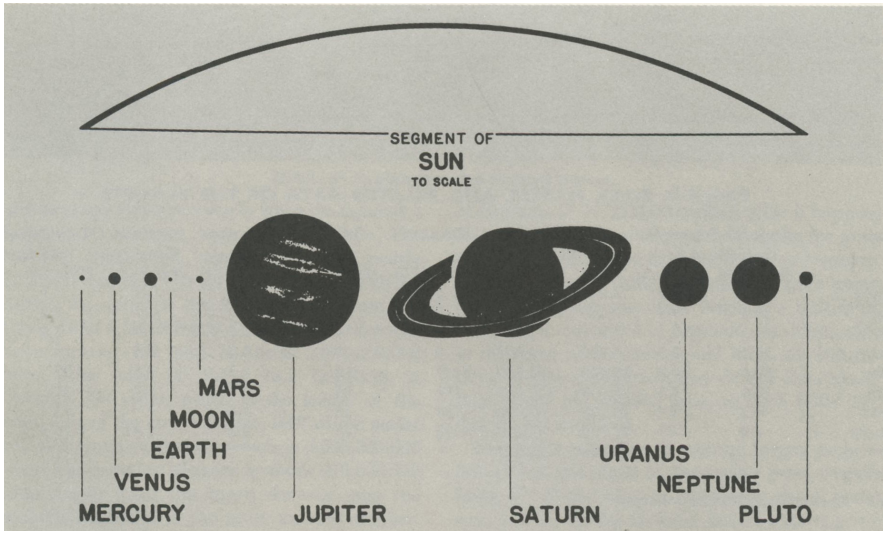

A Description of the Passage of the Shadow of the Moon over England,
THE GERMAN SEA
SCOTLAND
IRISH SEA
GEORGES CHANNEL
THE CHANNEL
FRANCE

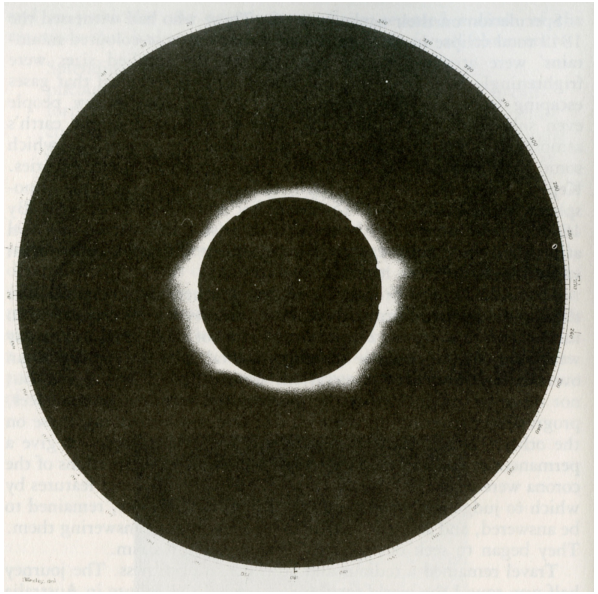

ASTRONOMY.
Fig. 8.
Fig. 28.
Fig. 34.
Fig. 11.

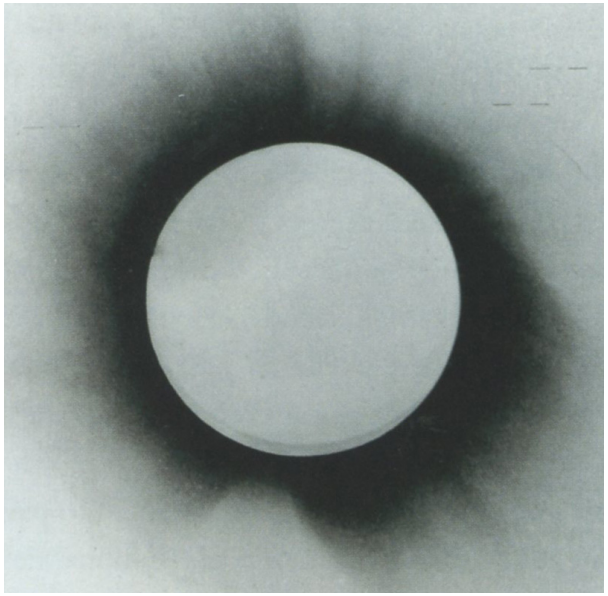

The Eclipse of the Sun as it will appear at London on July 14, 1748. by Jos. Walker.
Fig. 1.
Begin
End
Fig. 2
Fig. 3

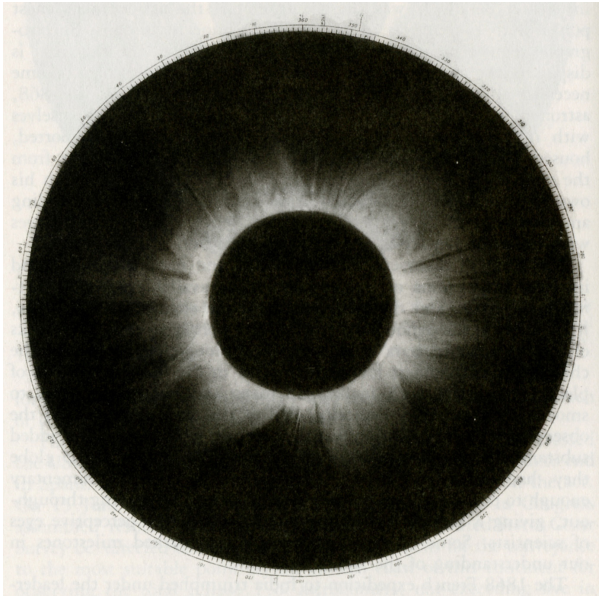

Actual Position of the Star
Apparent Position of the Star
Distance from the Earth to the Stella Background is more than 93,000,000,000,000 miles.
THE SUN
Distance from the Earth 93,000,000 miles
This Diagram shows the proportional Displacement of the Stars in relation to the distance from the Sun.
The amount of Displacement is exaggerated about 600 times
Apparent Position :
Actual Position :
THE SUN
AFRICA
Sobral
Principe I.
SOUTH AMERICA
ATLANTIC OCEAN
Showing Path of Total Eclipse of May 28-29, 1919, and positions of the two Observation Stations.
THE OBSERVATION STATION AT SOBRAL, IN BRAZIL
The Corona

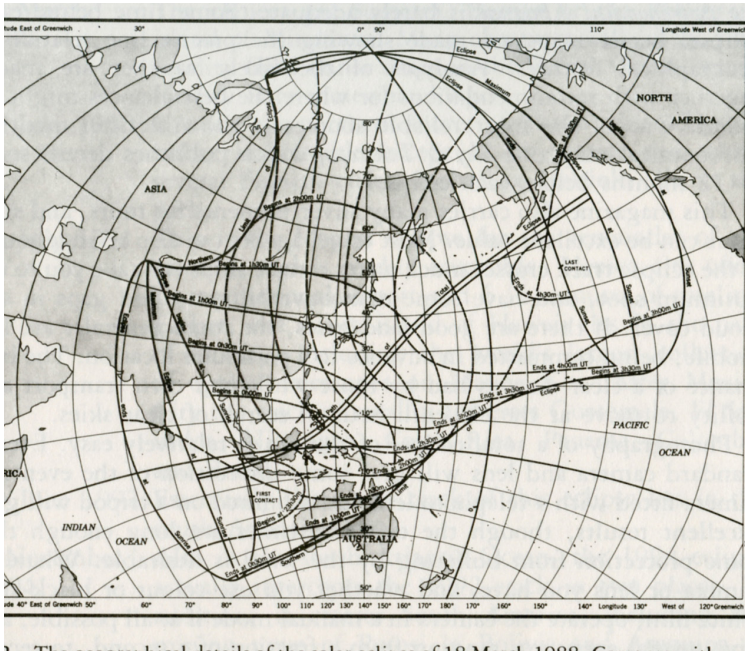

SUN'S LIGHT
New
First Quarter
Last Quarter
Earth
Full

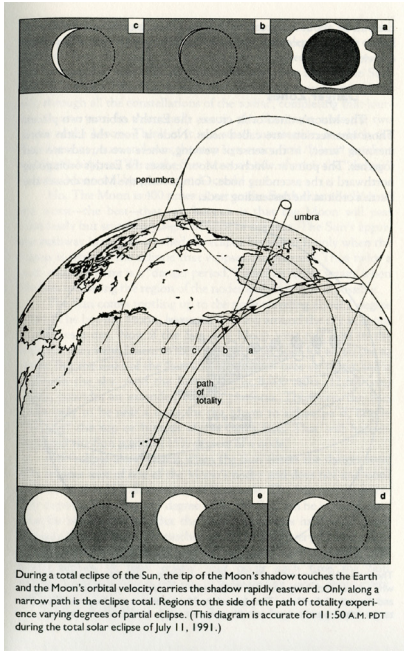

SEGMENT OF SUN TO SCALE
MERCURY
VENUS
EARTH
MOON
MARS
JUPITER
SATURN
URANUS
NEPTUNE
PLUTO



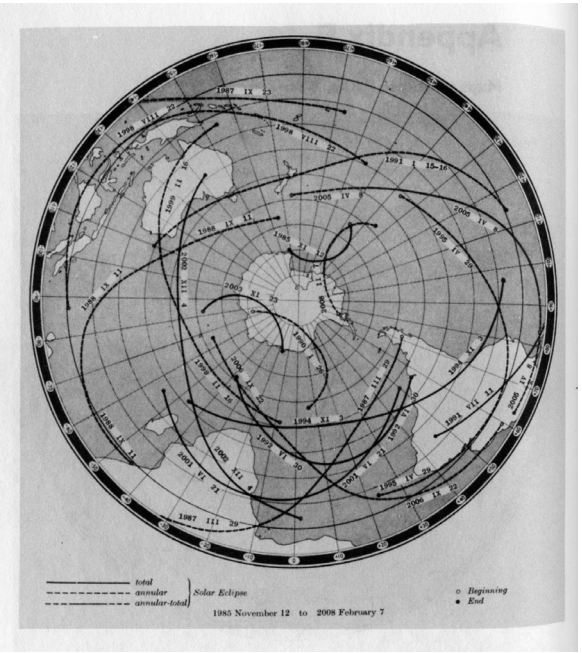


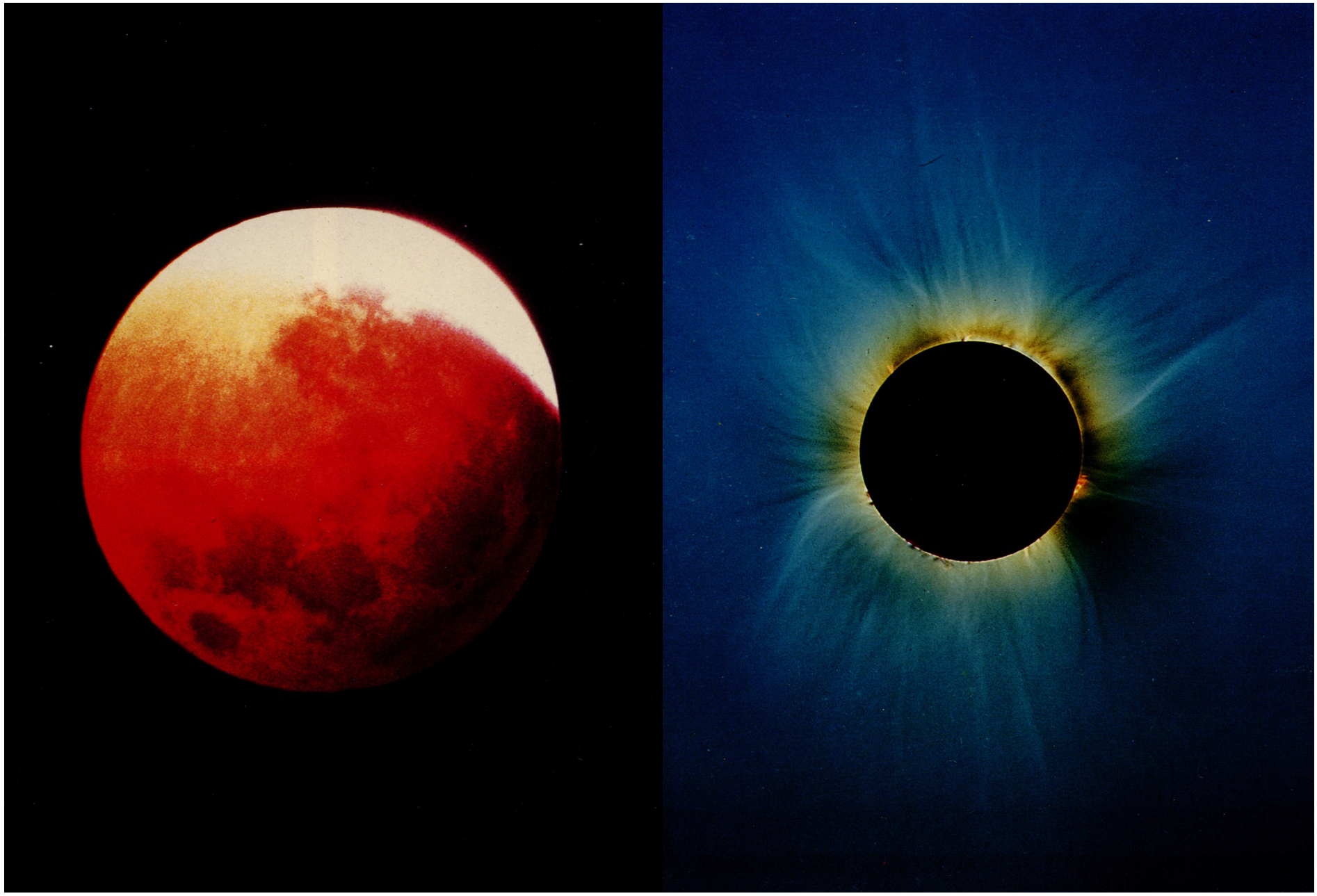


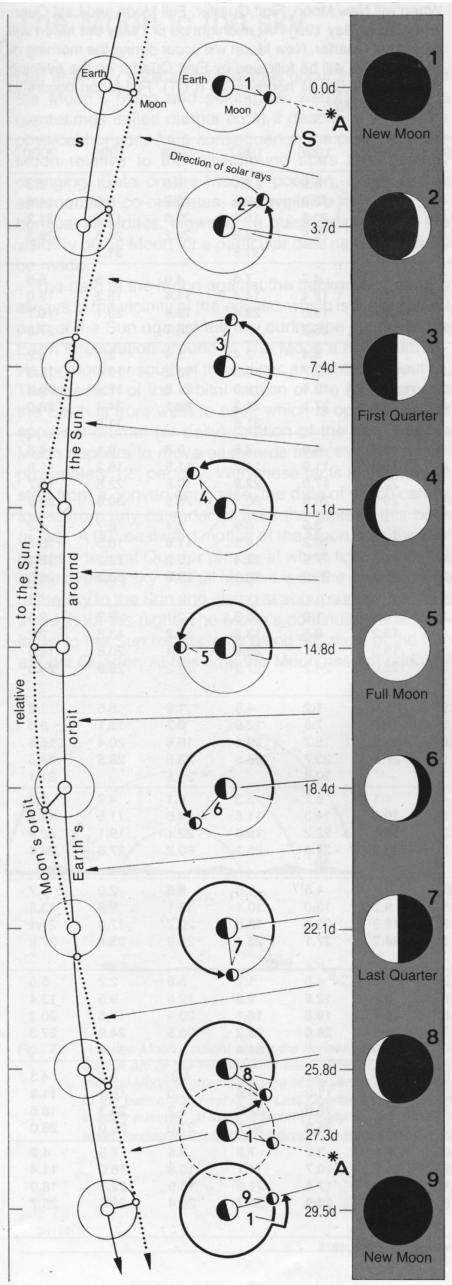


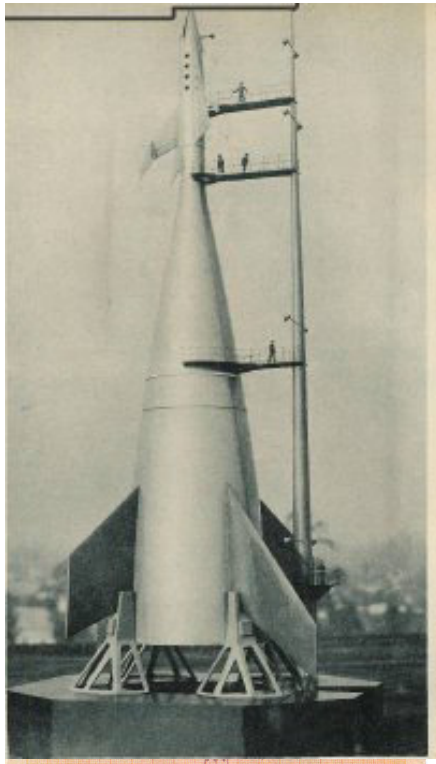


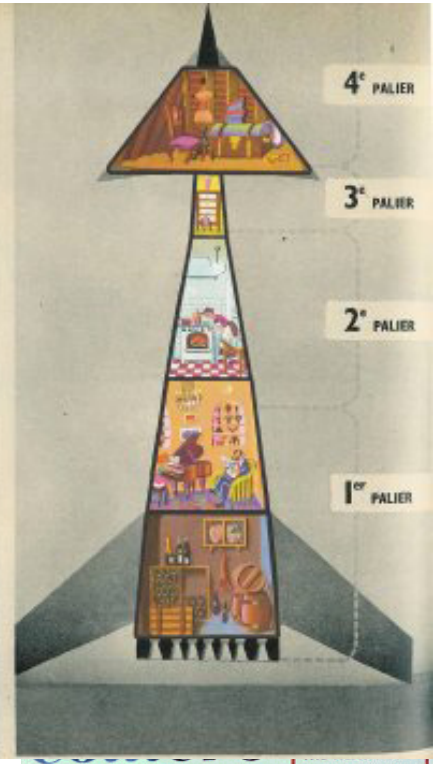
During a total eclipse of the Sun, the tip of the Moon's shadow touches the Earth and the Moon's orbital velocity carries the shadow rapidly eastward. Only along a narrow path is the eclipse total. Regions to the side of the path of totality experience varying degrees of partial eclipse. (This diagram is accurate for 11:50 A.M. PDT during the total solar eclipse of July 11, 1991.)

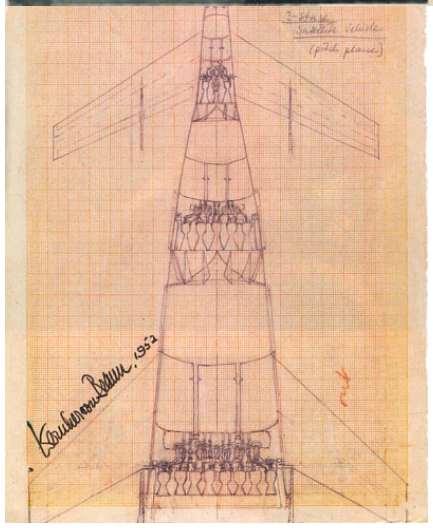


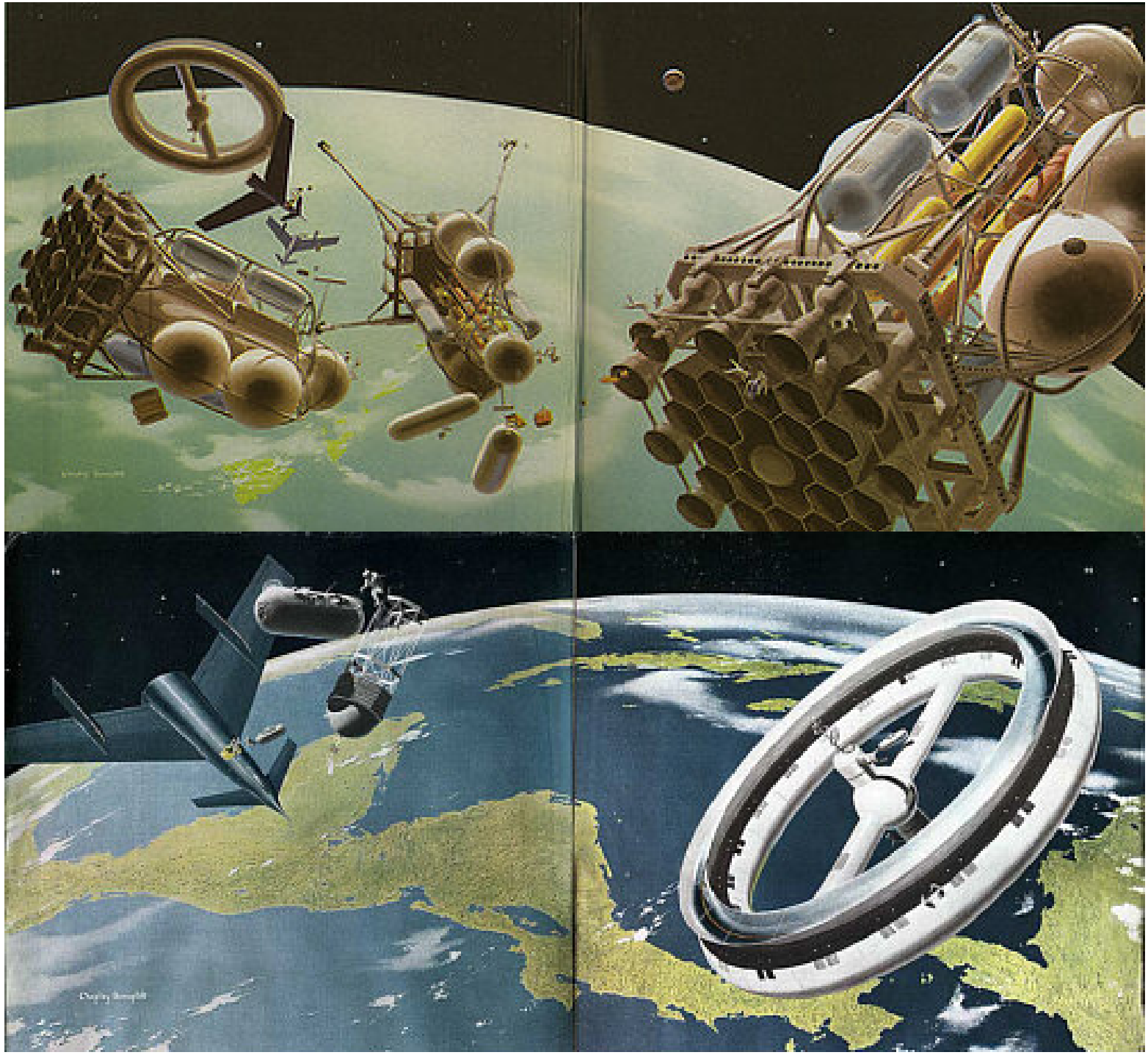


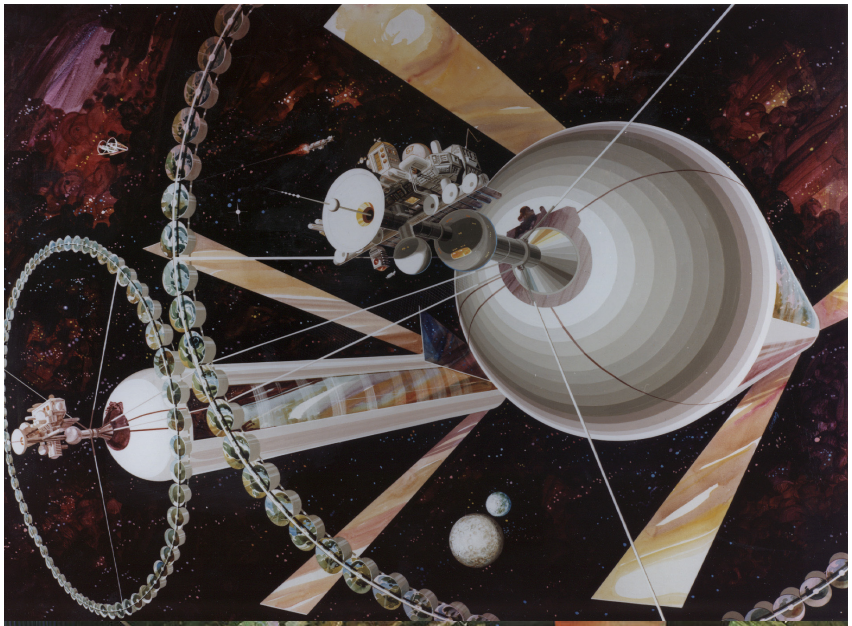

Earth
Moon
s
Direction of solar rays
S
A
0.0d
3.7d
7.4d
11.1d
14.8d
18.4d
22.1d
25.8d
27.3d
29.5d
New Moon
First Quarter
Full Moon
Last Quarter
New Moon
relative to the Sun
Moon's orbit around the Earth's orbit
the Sun

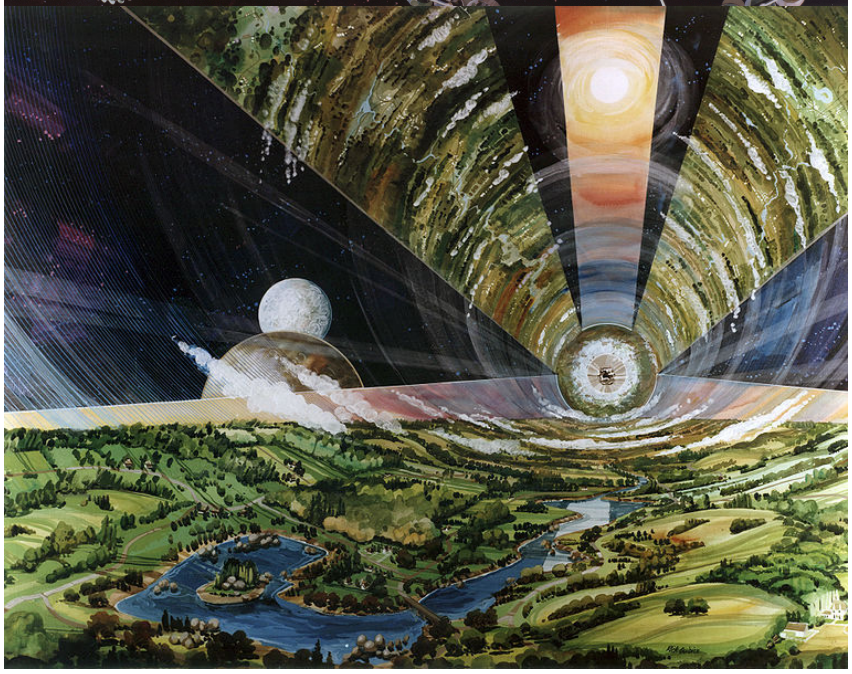












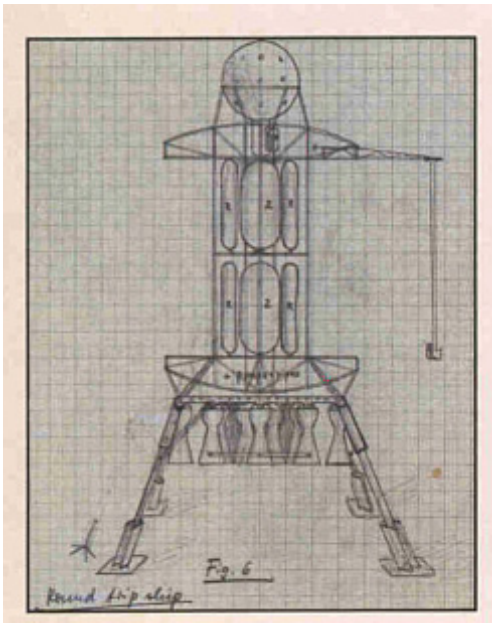
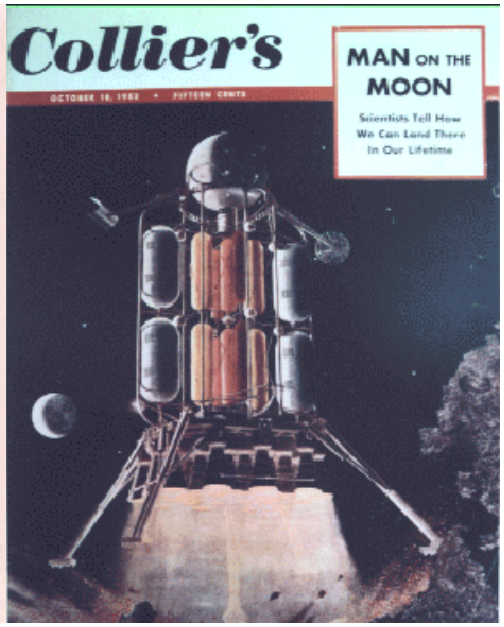
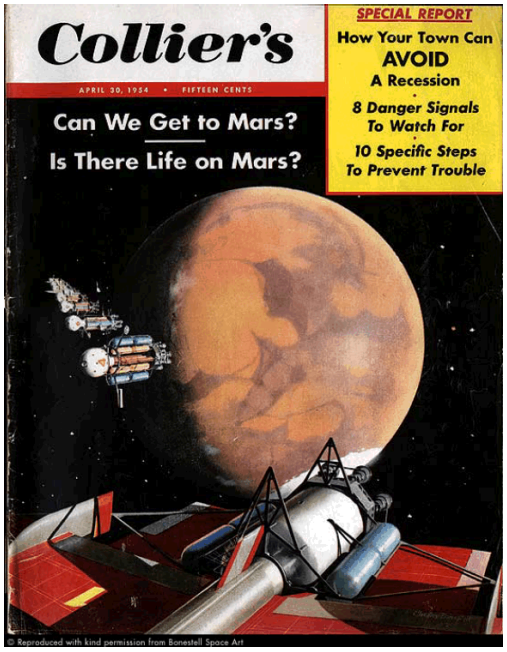


Fig. 6


Collier's
OCTOBER 18, 1952 • FIFTEEN CENTS
MAN ON THE MOON
Scientists Tell How We Can Land There In Our Lifetime


Collier's
APRIL 30, 1954 • FIFTEEN CENTS
Can We Get to Mars?
Is There Life on Mars?
SPECIAL REPORT
How Your Town Can AVOID A Recession
8 Danger Signals To Watch For
10 Specific Steps To Prevent Trouble
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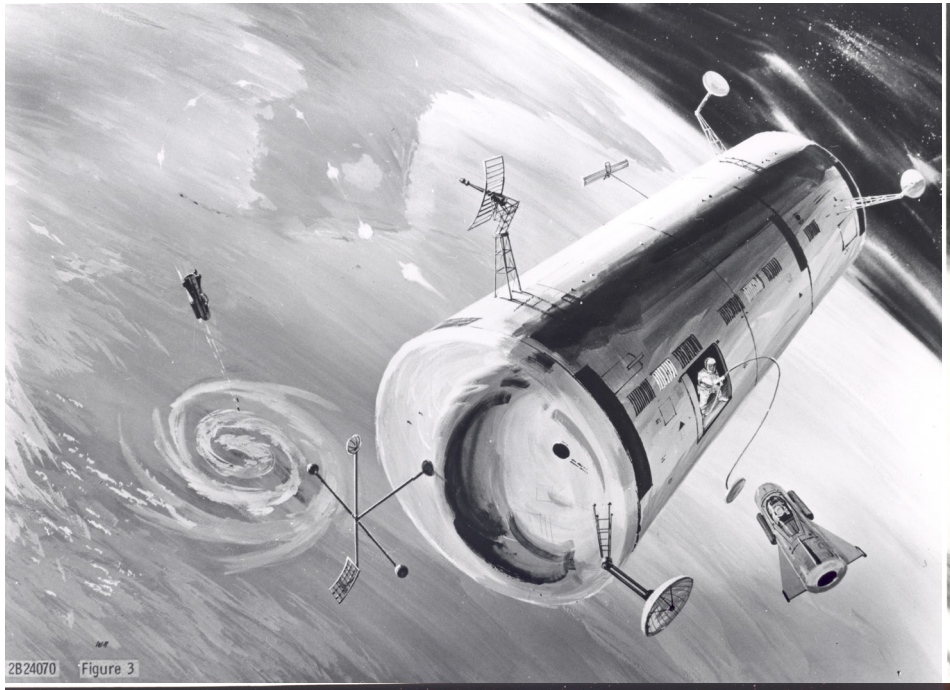
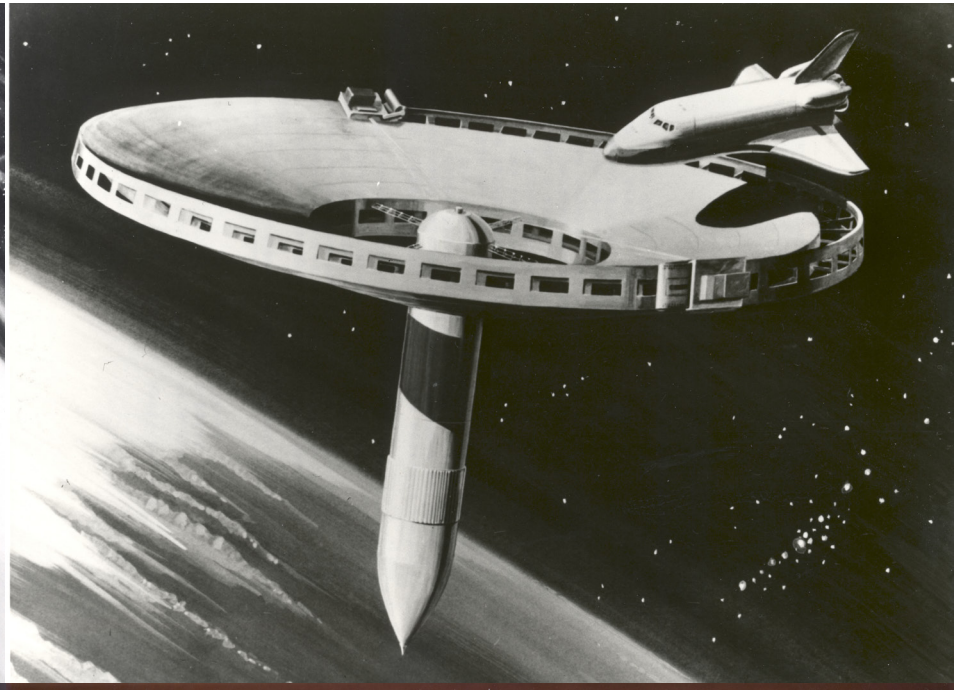
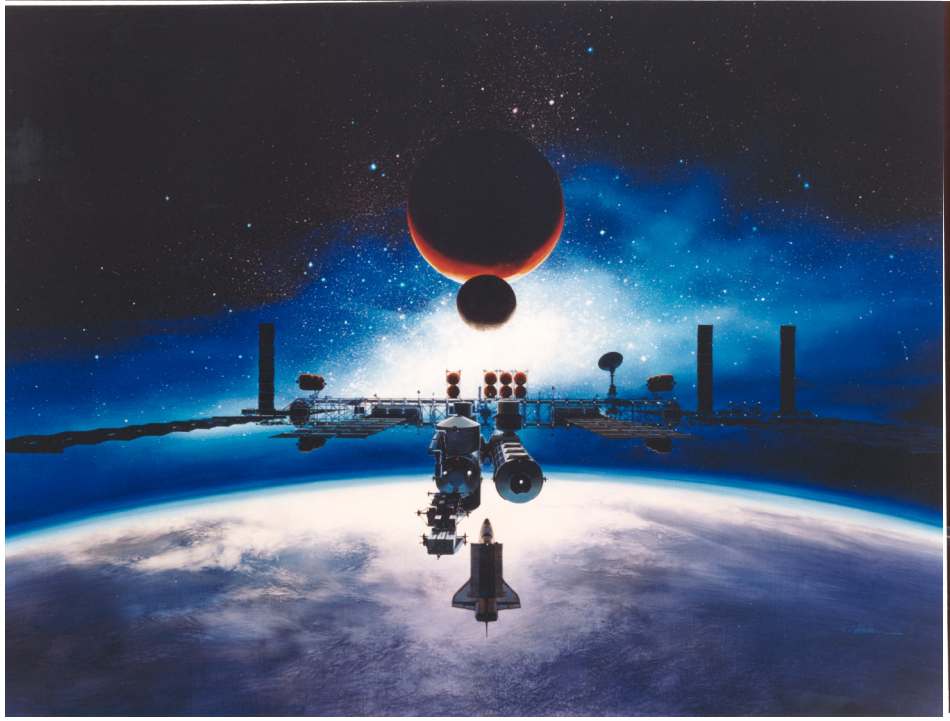
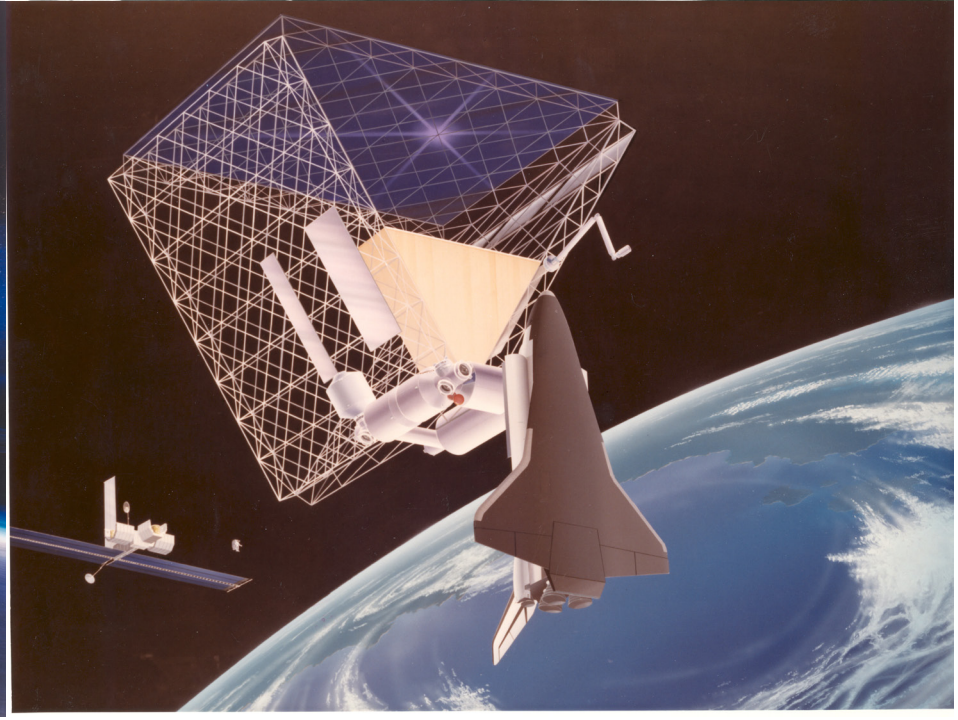
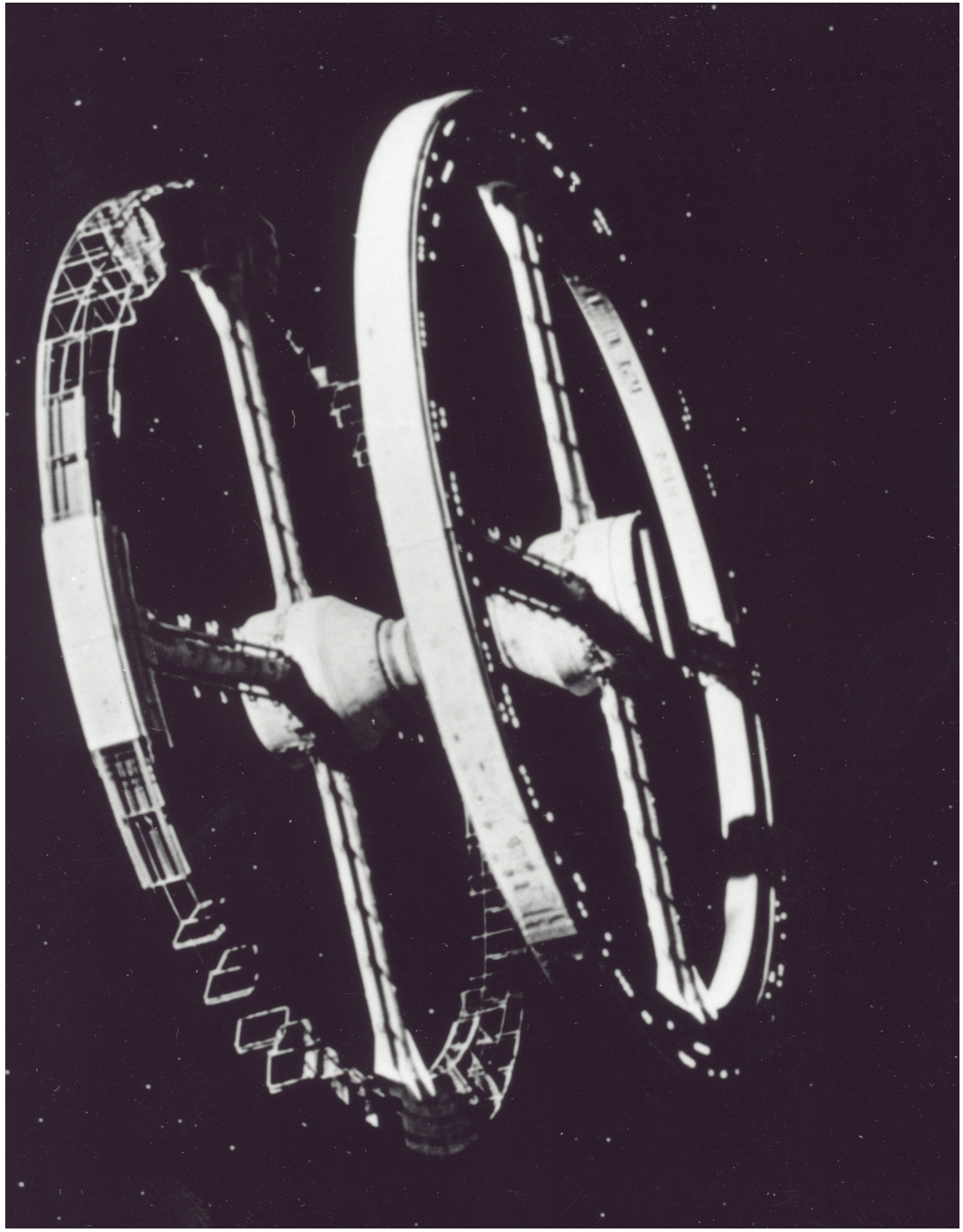
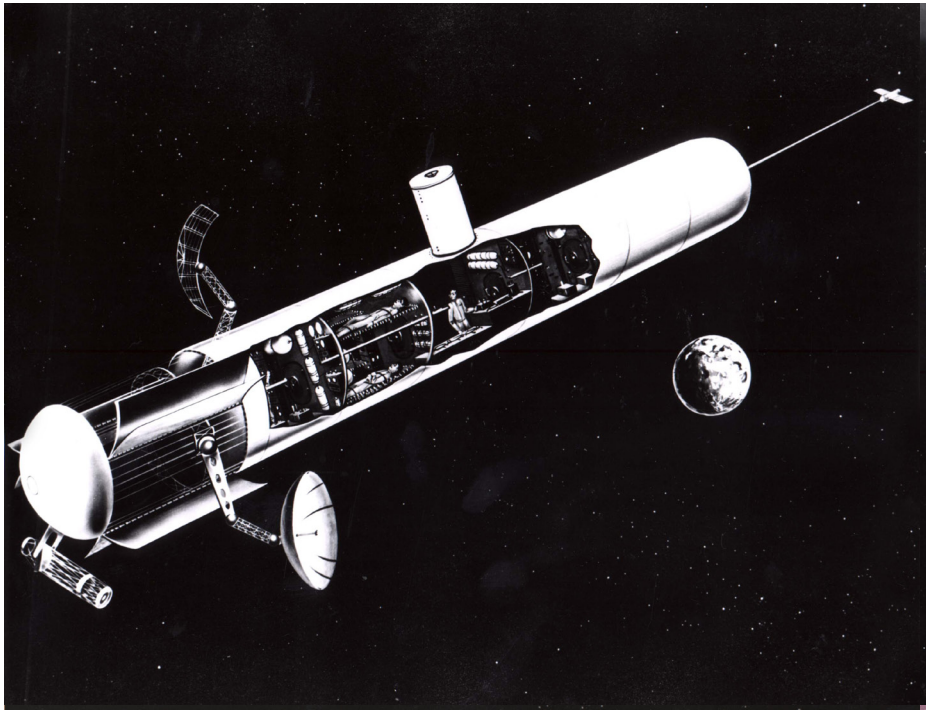

2B24070 Figure 3

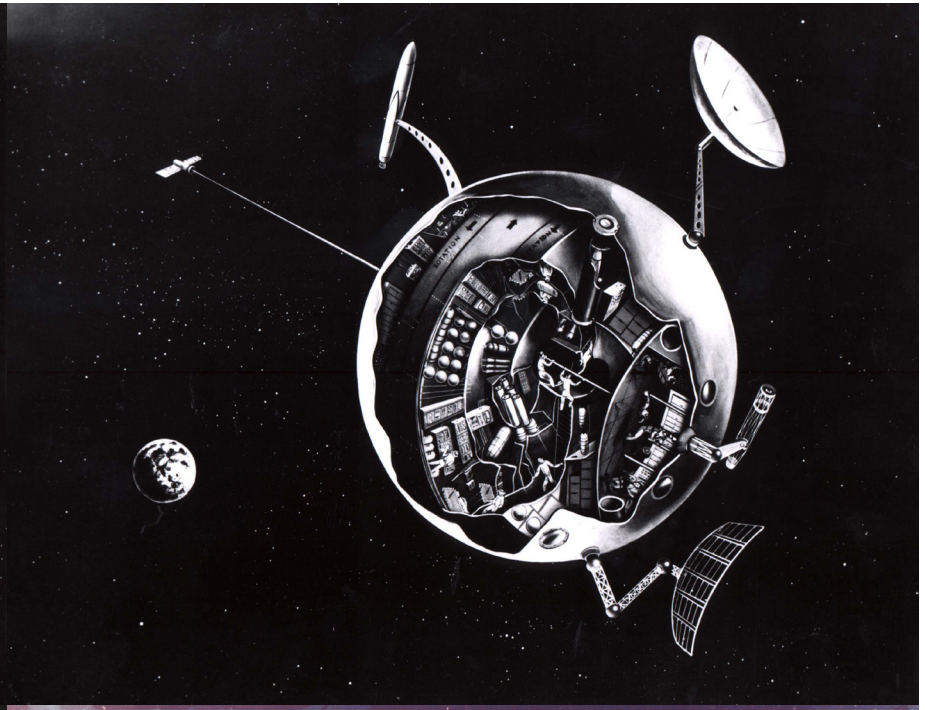


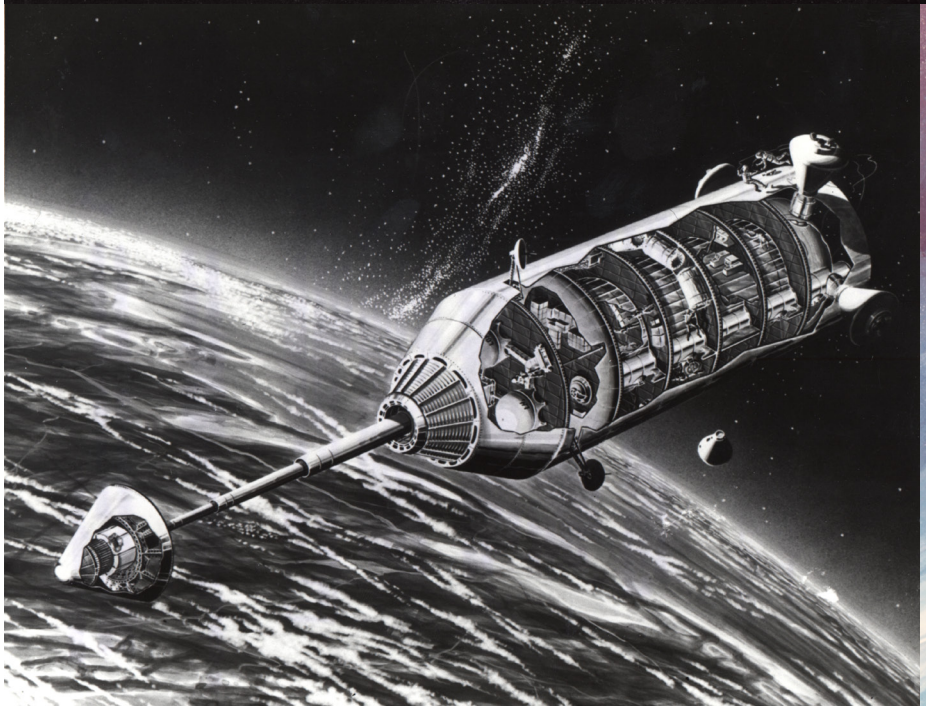


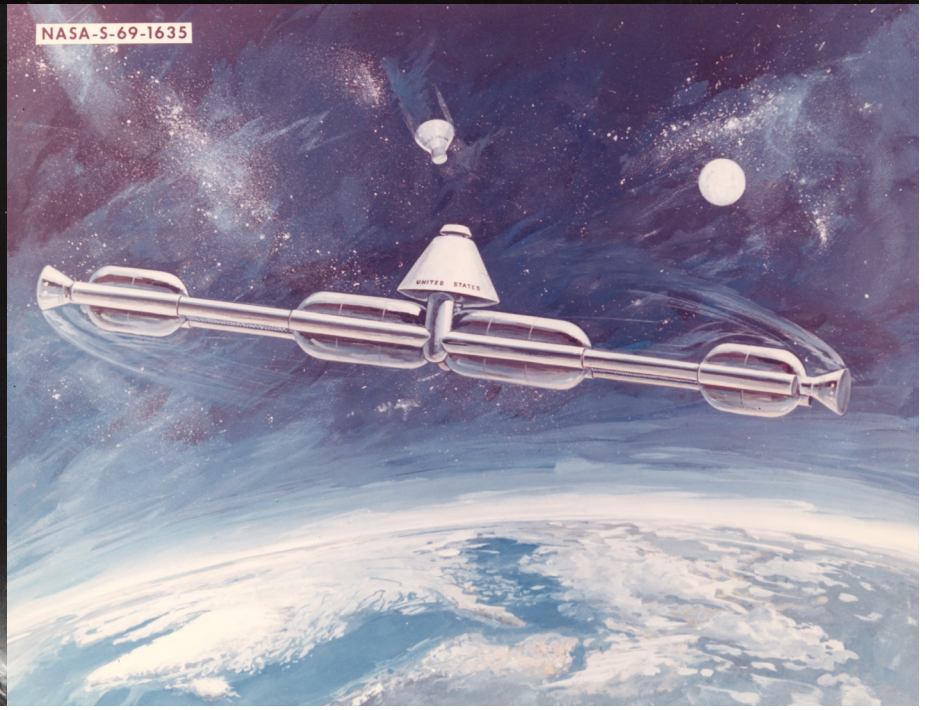


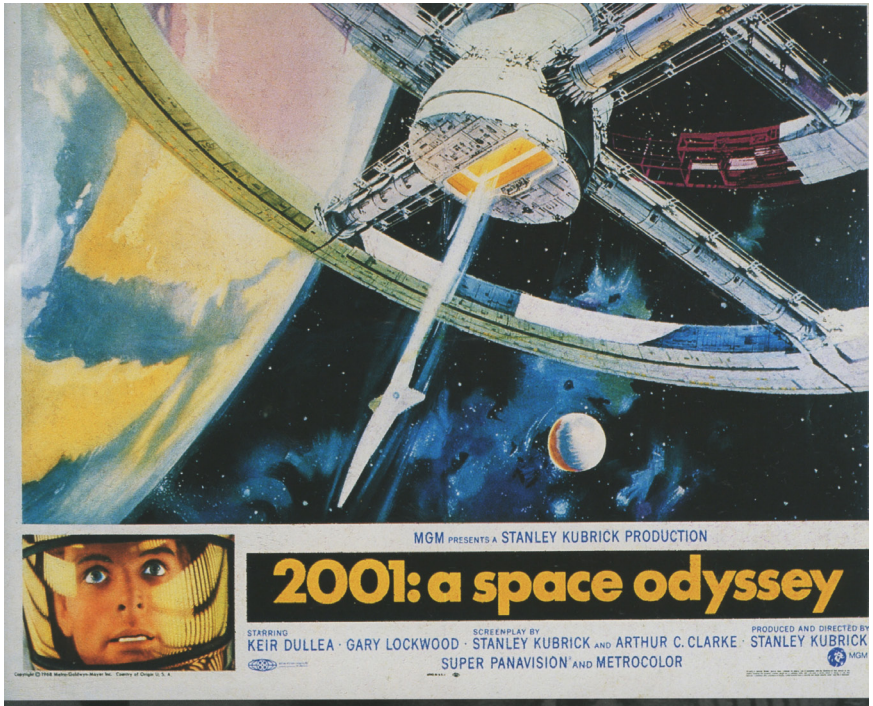




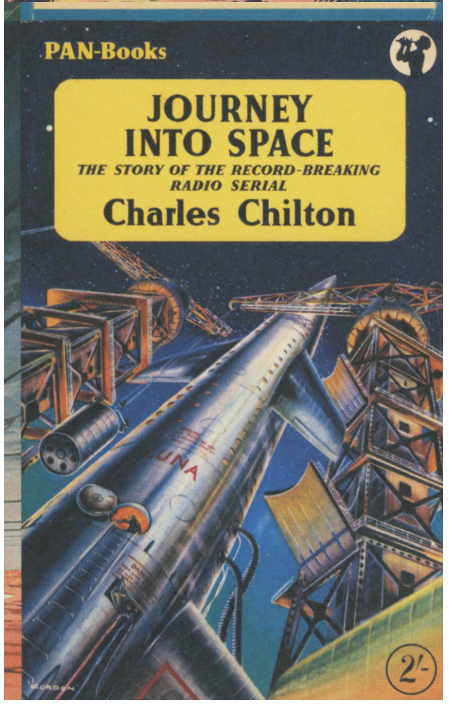





NASA-S-69-1635
UNITED STATES


MGM PRESENTS A STANLEY KUBRICK PRODUCTION
2001: a space odyssey
STARRING KEIR DULLEA · GARY LOCKWOOD · SCREENPLAY BY STANLEY KUBRICK AND ARTHUR C. CLARKE · PRODUCED AND DIRECTED BY STANLEY KUBRICK
SUPER PANAVISION AND METROCOLOR
INTRODUCTION 9
DESPERATELY HE VEERS AWAY FROM THE ATTACK...
THE MANOEUVRE HERALDS DISASTER...
WE'RE GOING TO HIT!
METAL MEETS METAL, TEARING, GRUMBLING, RENDING... THE TWO SHIPS RAM...
CONTACT LOST WITH XLS CREW!
FAILURE OF ENGINE UNITS!


SPACE ADVENTURES
SEPTEMBER
A CHARLTON PUBLICATION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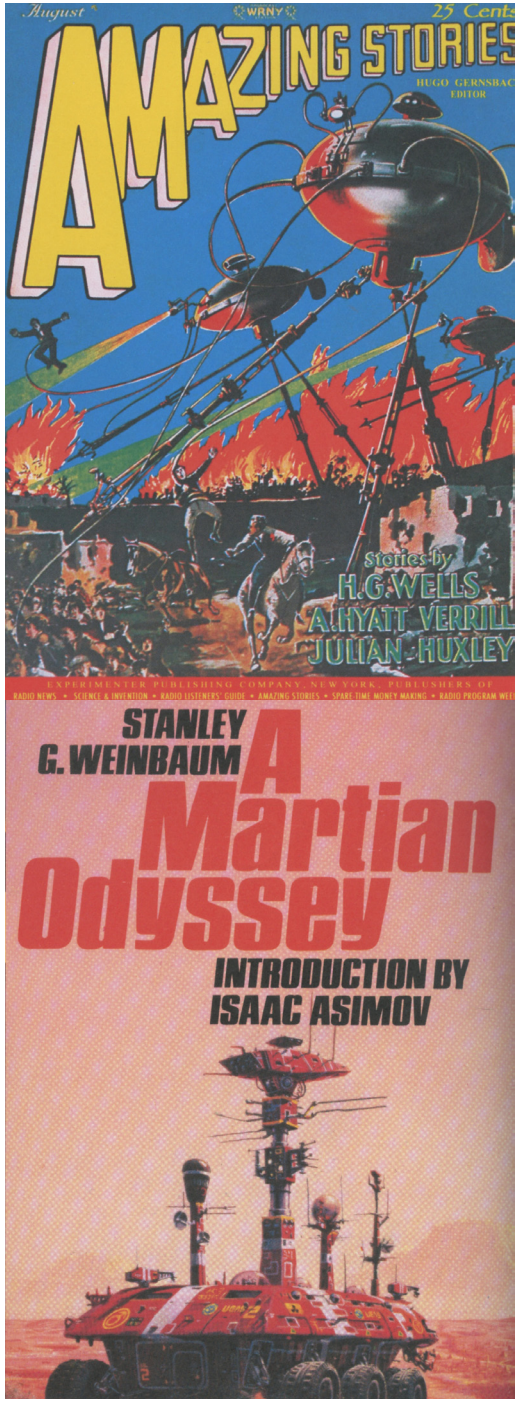
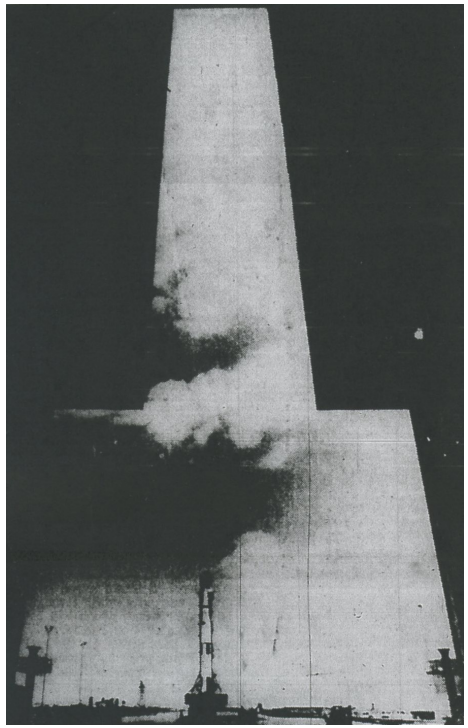
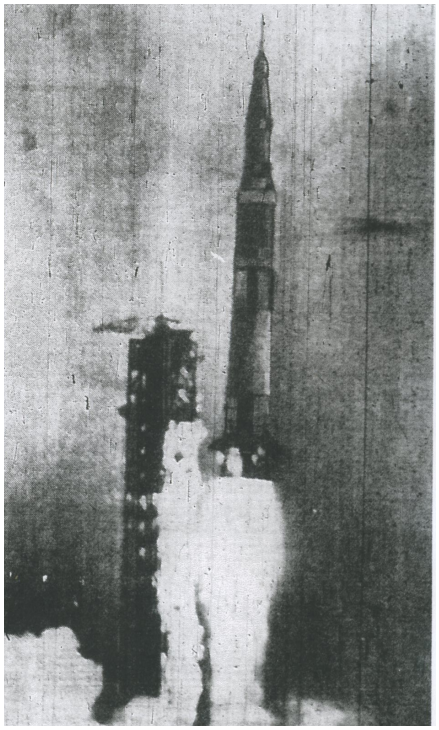
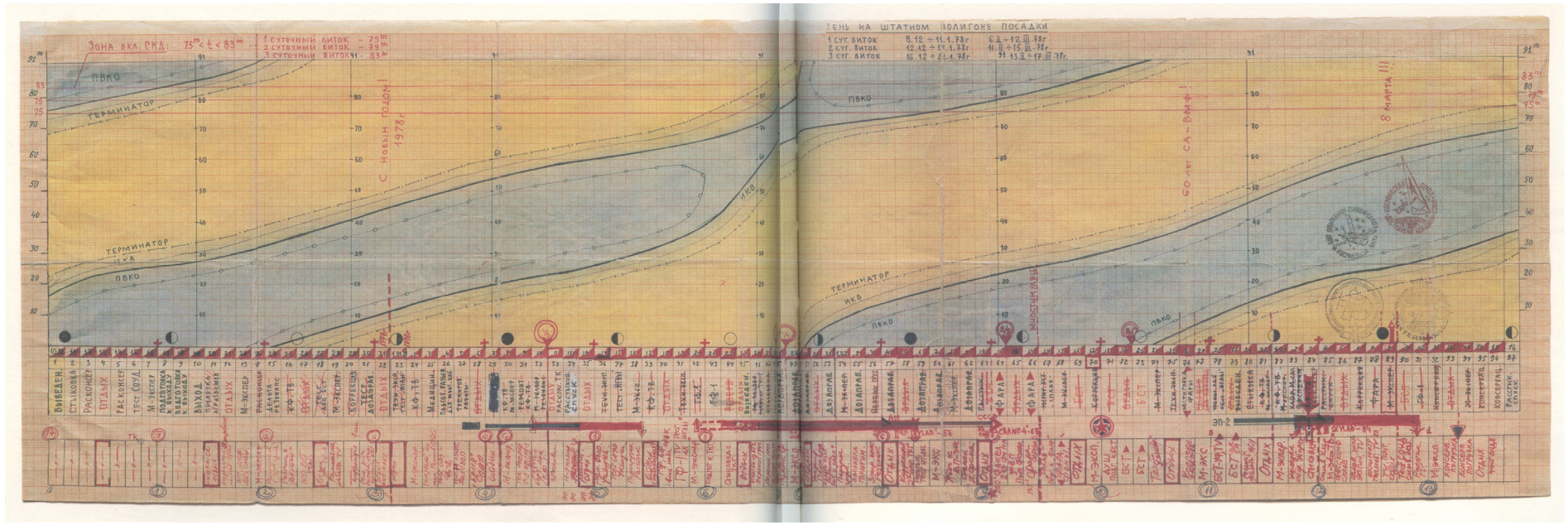
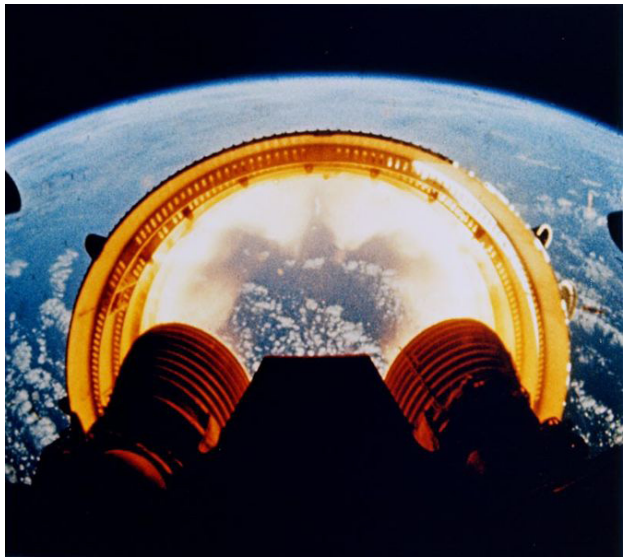
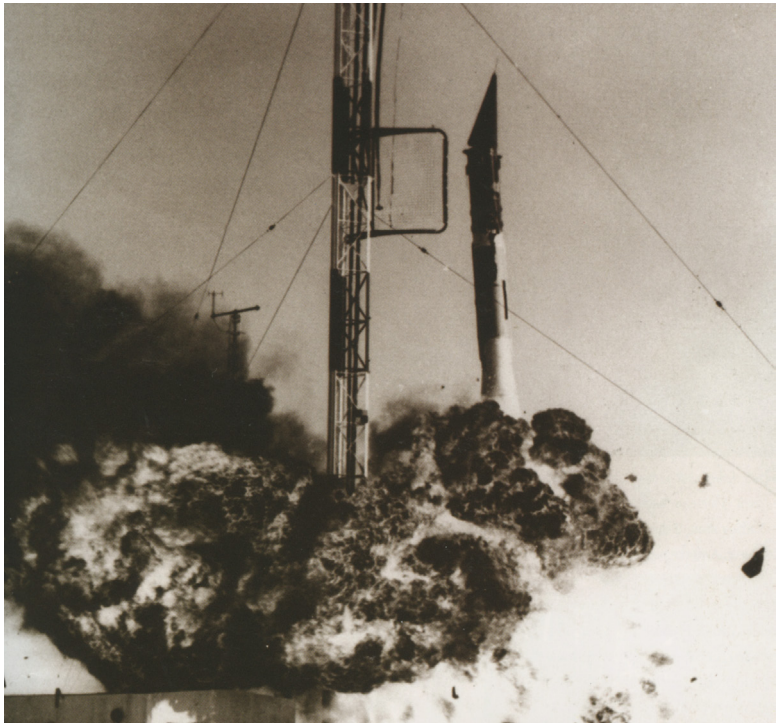

August
WRNY
25 Cents
AMAZING STORIES
HUGO GERNSBACK EDITOR
Stories by
H.G. WELLS
A. HYATT VERRILL
JULIAN HUXLEY
EXPERIMENTER PUBLISHING COMPANY, NEW YORK, PUBLISHERS OF
RADIO NEWS • SCIENCE & INVENTION • RADIO LISTENERS' GUIDE • AMAZING STORIES • SPARE-TIME MONEY MAKING • RADIO PROGRAM WEE
STANLEY G. WEINBAUM
A Martian Odyssey
INTRODUCTION BY ISAAC ASIMOV






ТЕНЬ НА ШТАТНОМ ПОЛИГОНЕ ПОСАДКИ
Зона вкл. СКД: 75m < t < 83m
1 суточный виток
2 суточный виток
3 суточный виток
ПВКО
ТЕРМИНАТОР
ИКВ
С Новым годом! 1978!
8 марта !!!
60 лет СА и ВМФ!





Statistics of the Saturn V

The reliable Saturn rocket has been taking U.S. astronauts into space since the Apollo 7 mission last year.

The most powerful known "launch vehicle" in use, it is 365ft. high — equivalent to a 36-storey building — and weighs 3000 tons. The first stage (138ft. long, 33ft. in diameter) develop 7.5 million lb of thrust—160,000,000 horse-power or the power of thousands of cars.

It burns 15 tons of super-cold liquid oxygen (LOX) per second during its 2½ minutes of life and drops away 36 miles up with the vehicle travelling at 6000 m.p.h.

Nine minutes after lift-off, at 108 miles, the 81ft.-long second stage is detached.

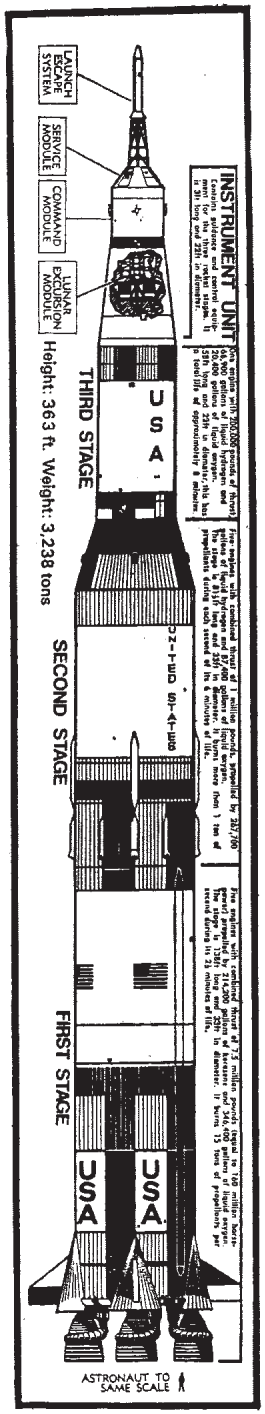
Speed is now 17,400 m.p.h. Like the second, the 58ft.-long third stage uses LOX and liquid hydrogen. five engines of the Initially it burns for two minutes to put the vehicle in an "earth parking orbit".

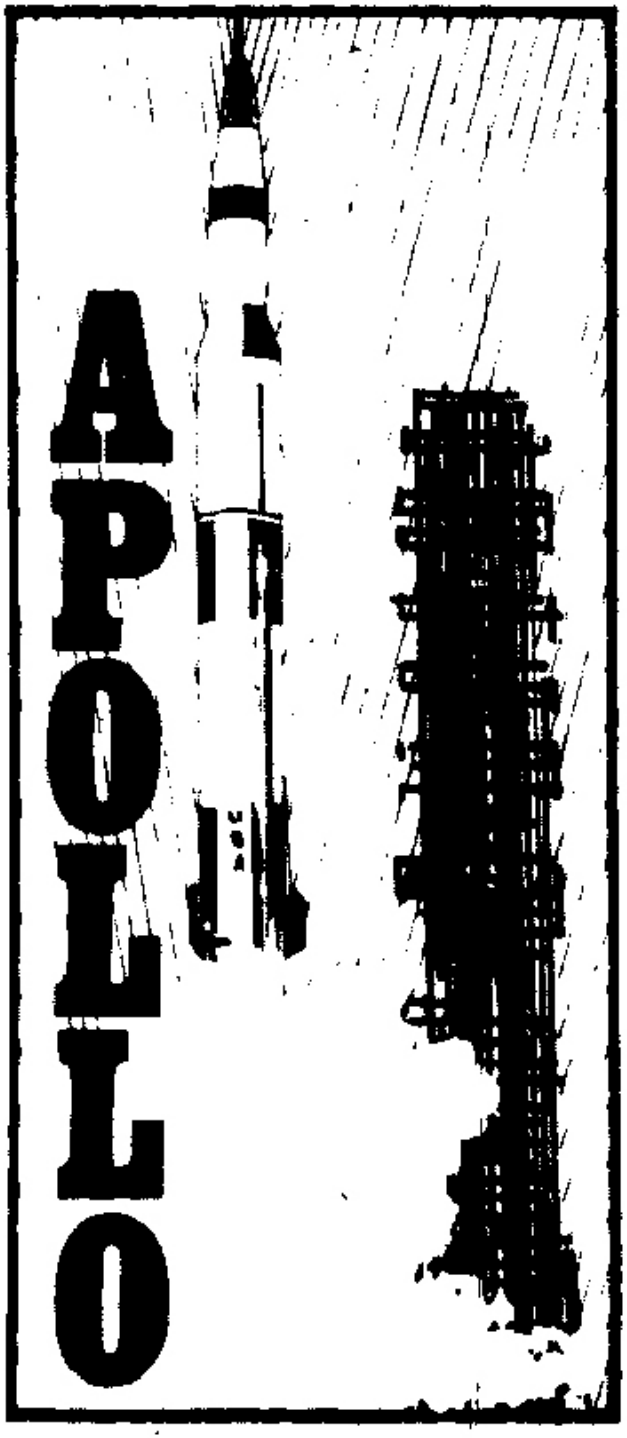
Then, on the second orbit, it is fired again for six minutes, accelerating to 24,900 m.p.h. before disconnecting.

Only after this burst is the Apollo spacecraft—comprising the command, service and lunar modules — truly headed for the moon.

Saturn, which uses more than one million gallons of fuel in all, is capable of sending a payload of 47 tons to the moon.

Wernher von Braun, the rocket pioneer, believes it could be used to put a payload of 140 tons round the earth.





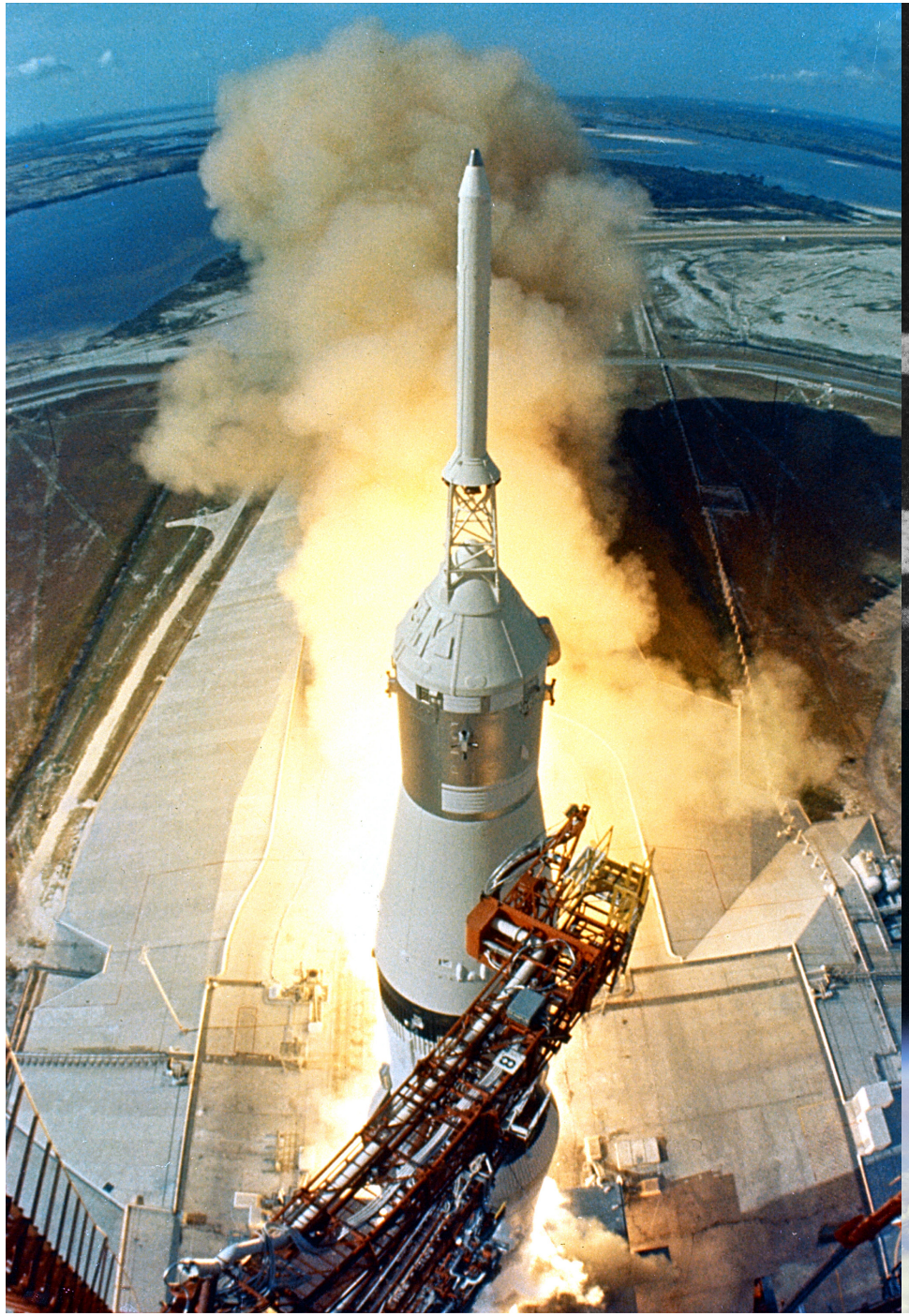
FANTASIES AND REALITY

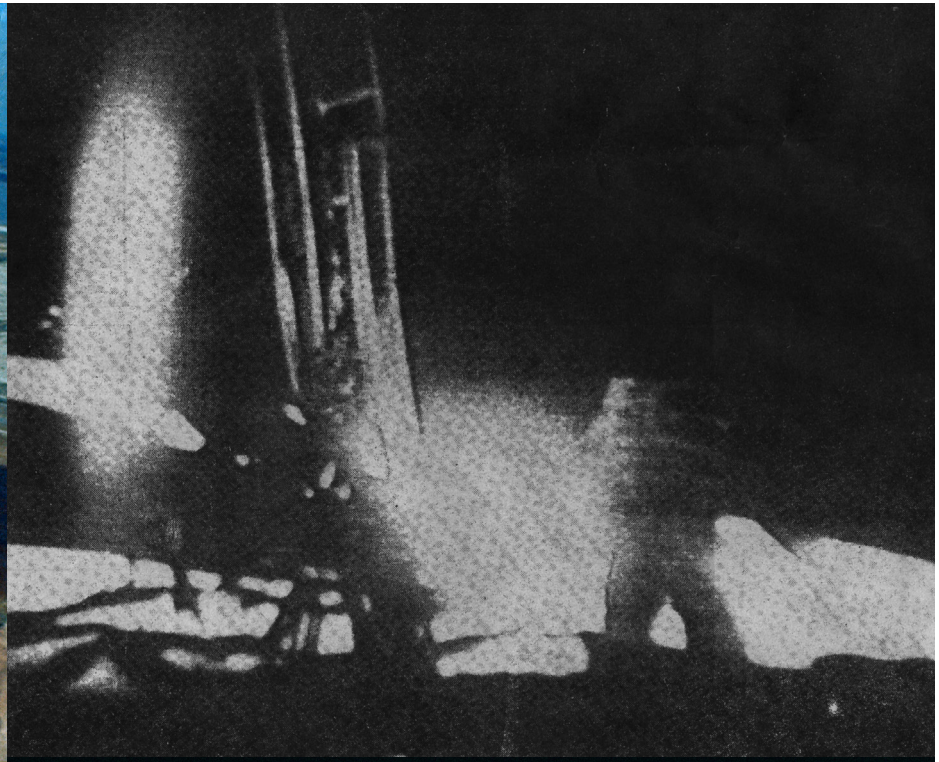
On Thursday the Apollo 11 space vehicle is to lift off from Cape Kennedy carrying three American astronauts toward the moon and the most spectacular feat of exploration in history.

The French fiction writer Jules Verne 104 years ago remarkably anticipated many details of space flights in his fantasies of an imaginary voyage, "From the Earth to the Moon" and "All Around the Moon."

Some of the intriguing resemblances between Verne's vision of long ago and the reality of today's headlines are revealed in these illustrations and excerpts from his books and by illustrations of previous space shots.

The material, compiled by A. N. Kontaratos, is of excerpts from "Verne's Fantasy—Apollo Reality," prepared by Bellcomm., Inc., for the National Aeronautics and Space Administration.





MAN IS ON THE MOON

The Evening Post

MONDAY, JULY 21, 1969
Tel 47-222, Classified 47-180, 47-181.
24c a week delivered. TIDES Page 4.

Mainly fine PAGE 19
TV PAGE 21

4c

HOUSTON (Texas), July 20.—Man landed on the moon at 4.18pm on Sunday, July 20, 1969 (8.18am, New Zealand standard time, July 21) the Associated Press reported.

Astronauts Neil Armstrong and Edwin Aldrin flew their fragile moonship Eagle to a gentle touchdown on the moon today.

"The Eagle has landed," mission

Moon commander—Armstrong

"Eagle" pilot—Aldrin

ON TV TONIGHT

The Canberra bomber bringing the film of the moon walk for the New Zealand television network is to land at Wellington. As soon as it is available the four TV stations will be linked

A DREAM OF AGES HAS COME TRUE

SPACE CENTRE (Houston, Texas), July 20.—Neil Armstrong and Edwin Aldrin from a planet called Earth and a nation called the United States of America, settled down onto soil no man had ever touched before. A dream of the ages had come true.

These two men, who etched their names beside the great explorers of the past brought their spaceship named Eagle down on the moon's Sea of Tranquility after a dangerous and difficult descent from the Apollo 11 command ship.

Astronaut Michael Collins remained at the controls of the command vehicle, called Columbia, orbiting more than 60 miles overhead.

The drop to the surface in the four-legged landing took more than two hours and required the flawless meshing of men and machine to accomplish man's first visit to a planet other than earth.

Armstrong and Aldrin had little time to enjoy the view. They immediately began an exhaustive check of the landing vehicle.

Any major problem would cause them to attempt an immediate blast-off to rejoin Collins.

Epic Walk

The landing was the start of an epic exploration in which Armstrong and Aldrin are to walk the lunar surface, collecting precious bits of this new world, deploying scientific instruments and seeing what it is like for man to work in the moon's one-sixth gravity.

Armstrong plans to take man's first step on another celestial body tomorrow at 0656 GMT (4.16pm NZ time) today, followed about 20 minutes later by Aldrin.

Through television, much of the world is to watch their excursion on the surface. Live pictures are to be relayed from a TV camera which the astronauts are to mount 30 feet from the landing craft.

Heat Factor

Armstrong and Aldrin plan to explore outside for about two and a half hours. In that time they will open the boundless frontier of space a little more and clear the way for future flights beyond present imagination.

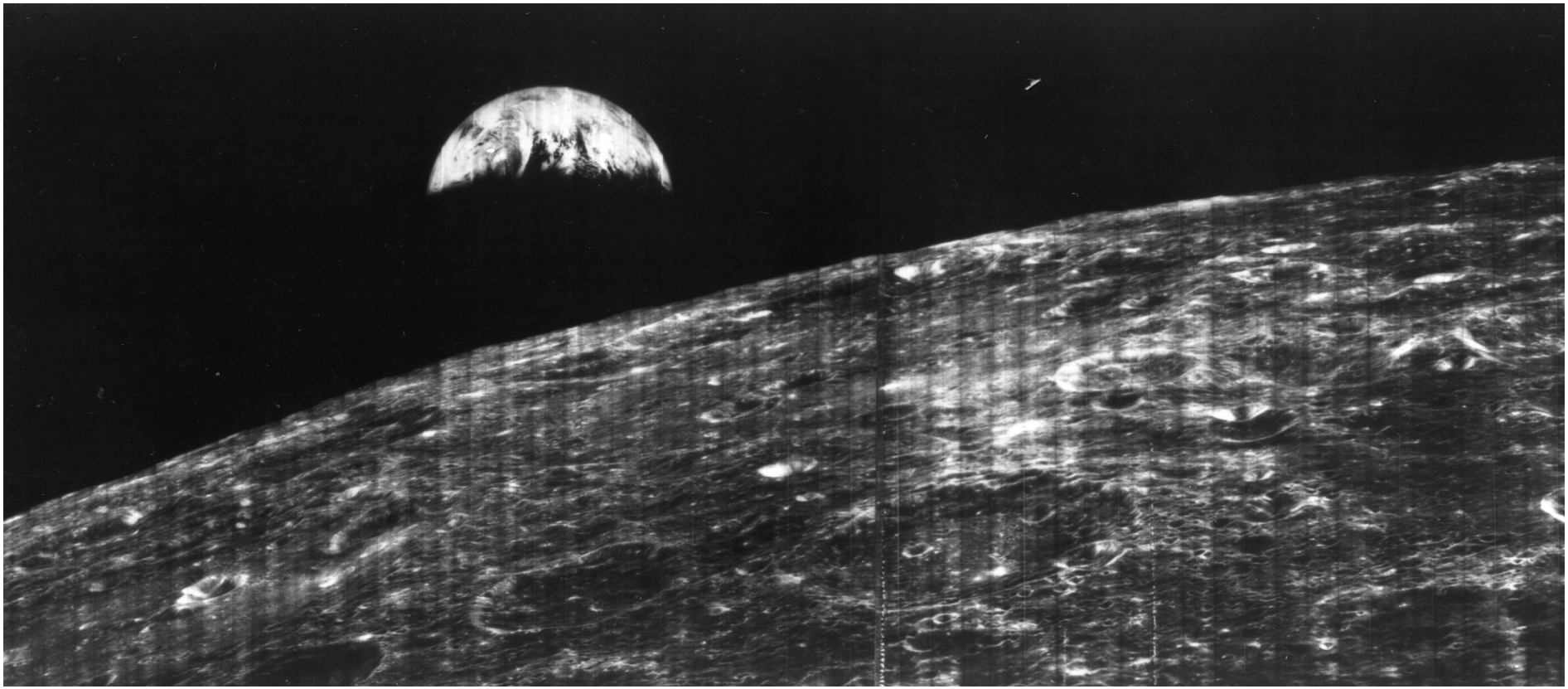
Temperatures on the moon range from minus 150 to plus 250 degrees Fahrenheit, but Armstrong and Aldrin should not have any problems during their visit, United Press International said. They wear air conditioned spacesuits.

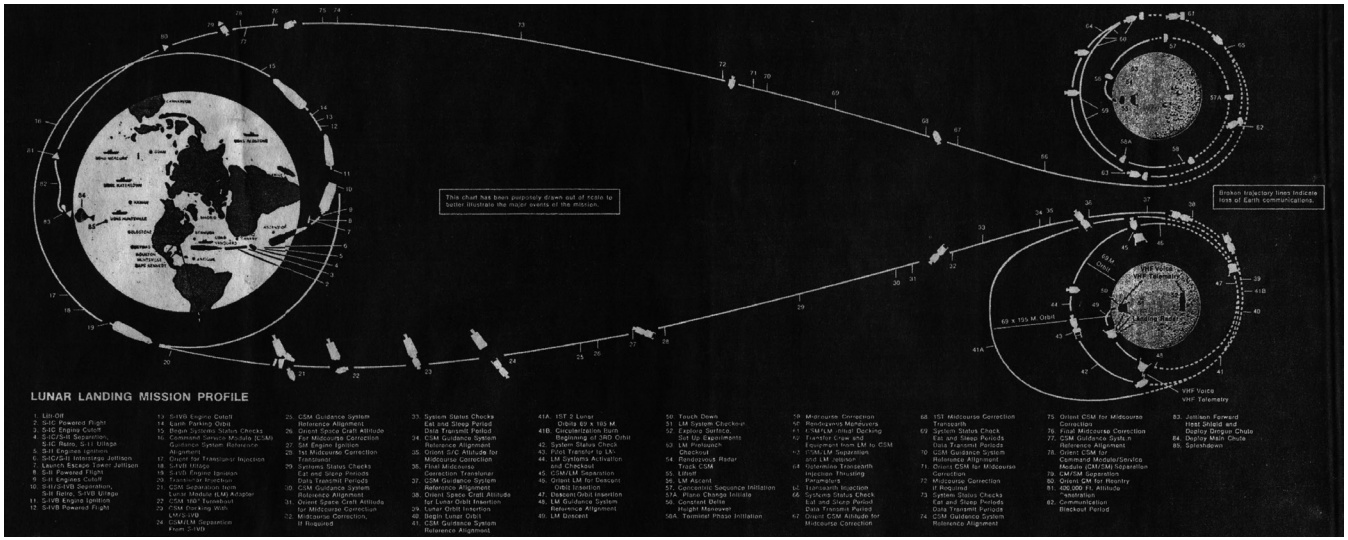
The moon has no air and the heat of the sun beats unfiltered on its rugged surface. Where there is no sunlight, the cold of space chills the moon.

The surface temperature on the sunlit areas of the moon depends on the angle of the sun. When Armstrong steps out of the Eagle lunar module the sun will be at an angle of 15.5 deg in the Sea of Tranquillity and the temperature should be between 40 and 50 deg.

Long after the astronauts have gone, after the sun reaches its mid-day zenith, the lunar surface reading will climb to 250 deg.

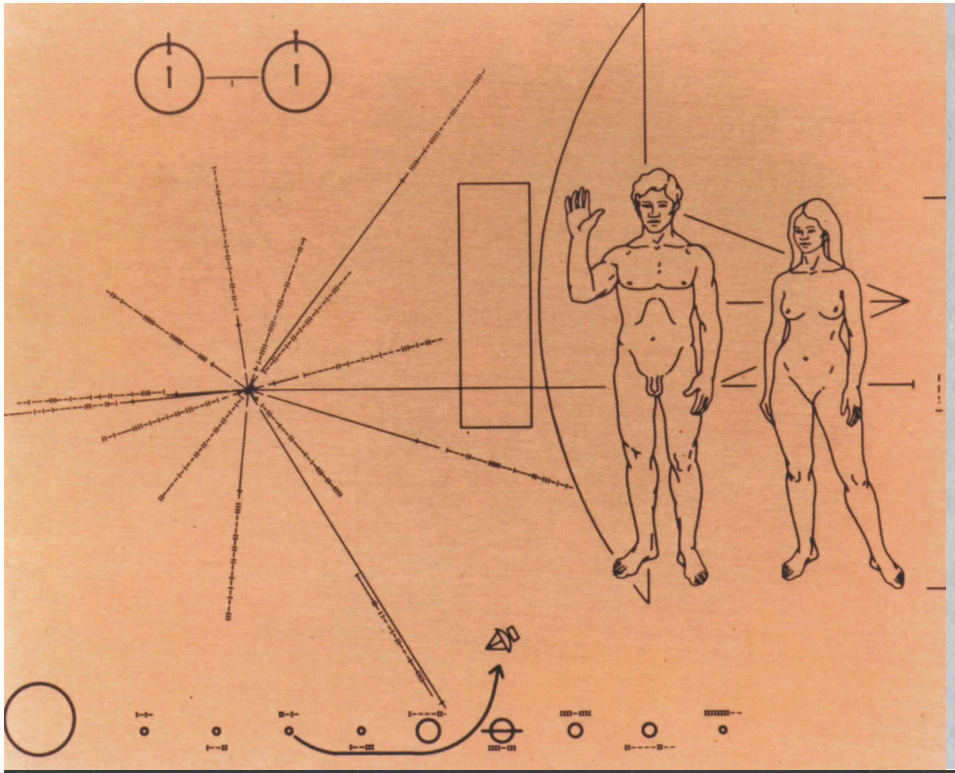
DOESN'T LOOK LIKE CHEESE

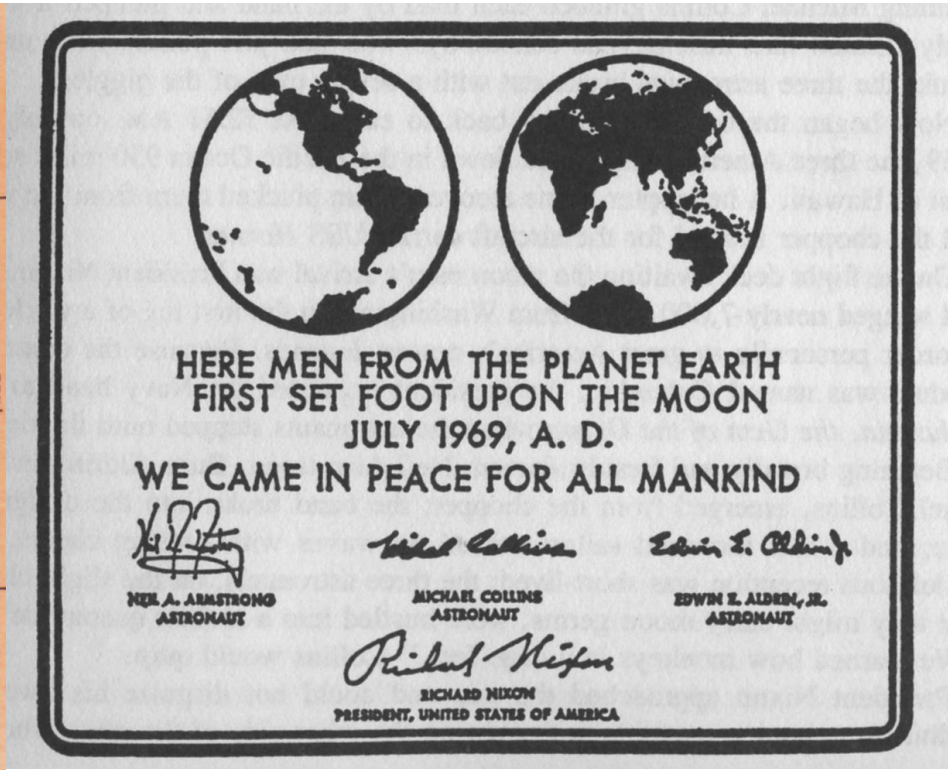


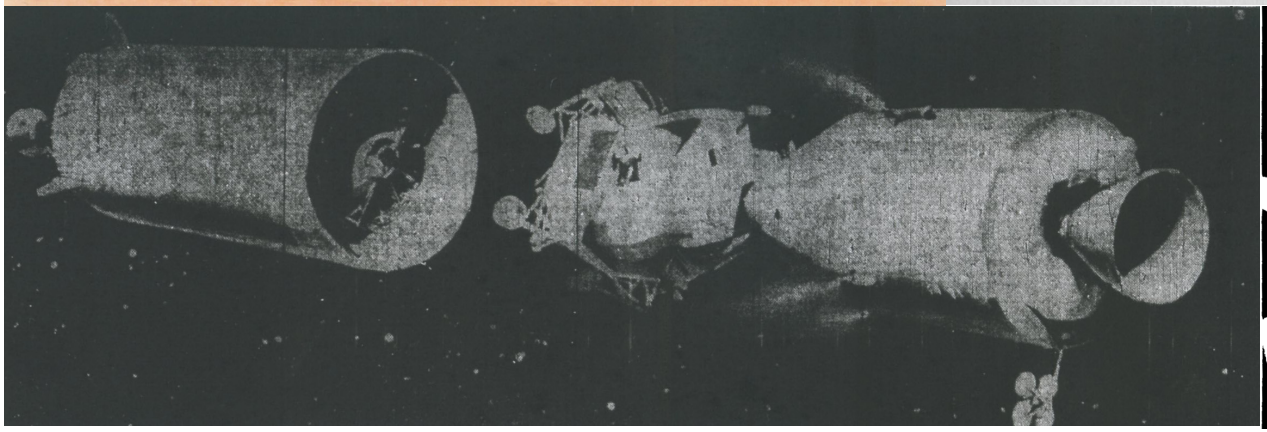


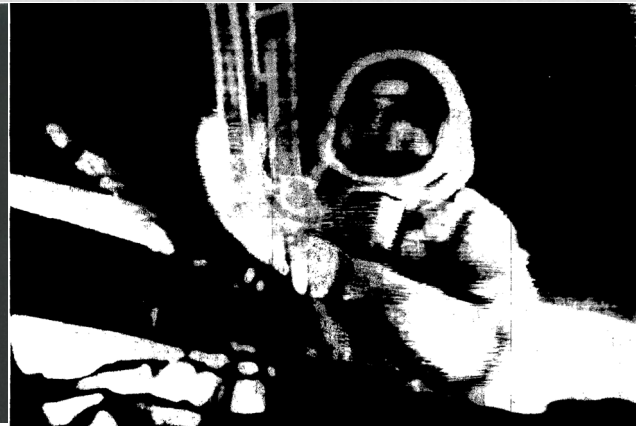
LUNAR LANDING MISSION PROFILE

1. Lift-Off
2. S-IC Powered Flight
3. S-IC Engine Cutoff
4. S-IC/S-II Separation, S-IC Retro, S-II Ullage
5. S-II Engines Ignition
6. S-IC/S-II Intertstage Jettison
7. Launch Escape Tower Jettison
8. S-II Powered Flight
9. S-II Engines Cutoff
10. S-II/S-IVB Separation, S-II Retro, S-IVB Ullage
11. S-IVB Engine Ignition
12. S-IVB Powered Flight
13. S-IVB Engine Cutoff
14. Earth Parking Orbit
15. Begin Systems Valve Checks
16. Command Service Module (CSM) Systems Status Reference Alignment
17. Orient for Transpoint Injection
18. S-IVB Ullage
19. S-IVB Engine Ignition
20. Transposition Insertion
21. CSM Separation from Lunar Module (LM) Adapter
22. CSM 180° Turnaround
23. CSM Docking With LM/S-IVB
24. CSM/LM Separation from S-IVB
25. CSM Guidance System Reference Alignment
26. Orient Spacecraft Attitude For Midcourse Correction
27. Set Engine Ignition
28. 1st Midcourse Correction Transposition
29. Systems Status Checks Eat and Sleep Periods Data Transmit Periods
30. CSM Guidance System Reference Alignment
31. Orient Space Craft Attitude for Midcourse Correction
32. Midcourse Correction, If Required
33. System Status Checks Eat and Sleep Period Data Transmit Period
34. CSM Guidance System Reference Alignment
35. Orient S/C Attitude for Midcourse Correction
36. Final Midcourse Correction Transearth
37. CSM Guidance System Reference Alignment
38. Orient Space Craft Attitude for Lunar Orbit Insertion
39. Lunar Orbit Insertion
40. Begin Lunar Orbit
41. CSM Guidance System Reference Alignment
41A. IST 2 Lunar Orbits 62 x 169 M
41B. Circularization Burn Beginning of 3RD Orbit
42. System Status Check
43. Final Transfer to LM
44. LM Systems Activation and Checkout
45. CSM/LM Separation
46. Orient LM for Descent Orbit Insertion
47. Descent Orbit Insertion
48. LM Guidance System Reference Alignment
49. LM Descent
50. Touch Down
51. LM System Checkout
52. Explore Station, Set Up Experiments
53. LM Prelaunch Checkout
54. Rendezvous Radar Track CSM
55. Liftoff
56. LM Ascent
57. Concentric Sequence Initiation
57A. Plane Change Initiate
58. Constant Delta Height Maneuver
58A. Terminal Phase Initiation
59. Midcourse Correction
59. Rendezvous Maneuvers
61. CSM/LM Initial Docking
62. Transfer Crew and Equipment from LM to CSM
63. CSM/LM Separation
64. Deorbit LM Jettison
64. Interstage Transearth Injection Thrusting Periapsis
65. Transearth Injection
66. Systems Status Check Eat and Sleep Period Data Transmit Period
67. Orient CSM Attitude for Midcourse Correction
68. 1ST Midcourse Correction Transearth
69. System Status Check Eat and Sleep Periods Data Transmit Periods
70. CSM Guidance System Reference Alignment
71. Orient CSM for Midcourse Correction
72. Midcourse Correction If Required
73. System Status Checks Eat and Sleep Periods Data Transmit Periods
74. CSM Guidance System Reference Alignment
75. Orient CSM for Midcourse Correction
76. Final Midcourse Correction
77. CSM Guidance Systems Reference Alignment
78. Orient CSM for Command Module/Service Module (CM/SM) Separation
79. CM/SM Separation
80. Orient CM for Reentry
81. 400,000 Ft. Altitude Reentration
82. Communication Blackout Period
83. Jettison Forward Heat Shield and Deploy Drogue Chute
84. Deploy Main Chute
85. Splashdown

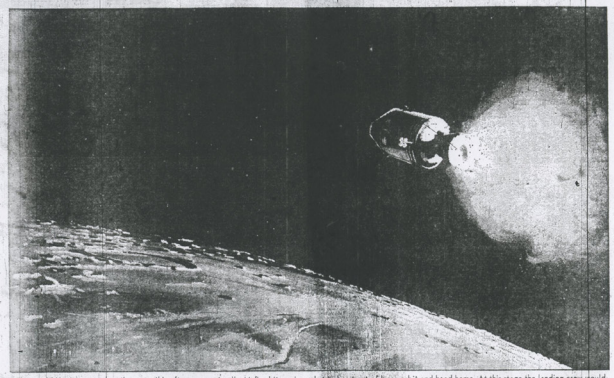



HERE MEN FROM THE PLANET EARTH
FIRST SET FOOT UPON THE MOON
JULY 1969, A. D.
WE CAME IN PEACE FOR ALL MANKIND
NEIL A. ARMSTRONG
ASTRONAUT
MICHAEL COLLINS
ASTRONAUT
EDWIN E. ALDRIN, JR.
ASTRONAUT
RICHARD NIXON
PRESIDENT, UNITED STATES OF AMERICA





THE TURN FOR HOME



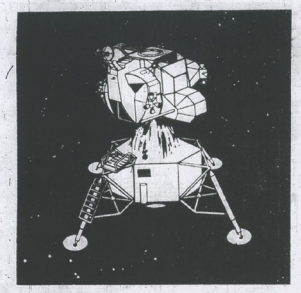
This would be the scene over the moon this afternoon as Apollo 11 fired its main rockets to burst out of lunar orbit and head home. At this stage the landing crew would have transferred from the moon module and it would have been blasted off and abandoned in space — its faultlessly performed task over. (NASA drawing).

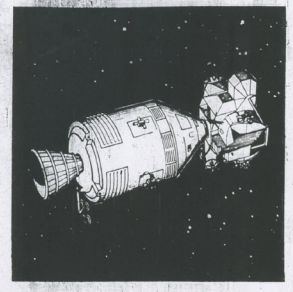
TIMED FOR 4.53 pm

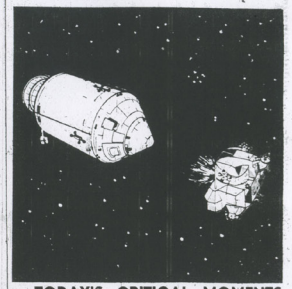
ASTRONAUTS Neil Armstrong and Edwin Aldrin blasted off from the moon in spacecraft Eagle today (5.50am NZ time) on the first stage of their journey back to earth.

Eagle docked with Columbia at 9.33am —roughly 3m 35s after its scheduled time, the only step of the whole flight to be late.

After the link-up, Armstrong and Aldrin transferred themselves and their moon samples. The astronauts will head home at 4.53pm today for a Pacific splashdown early on Friday morning.







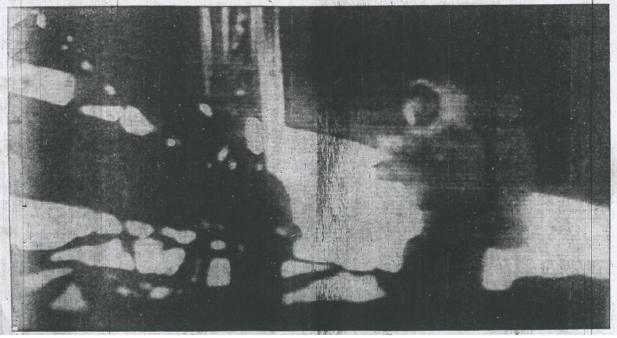
TODAY'S CRITICAL MOMENTS

This diagram, above, shows three vital steps in today's operations bring the moon men home.

● Early today the ascent stage of the lunar module fires its main engine and lifts from its landing stage. The rocket burned for seven minutes to put the craft with its two-man crew into moon orbit.

● Using the moon craft control rockets Armstrong and Aldrin manoeuvre and dock with Calins in the command module. They crawl through the connecting tunnel bringing their precious rocks and films with them.

● With the crew safely in the command module the lunar ascent stage is automatically fired off into space by its own small rockets and Apollo 11 begins preparing for an earth trajectory.



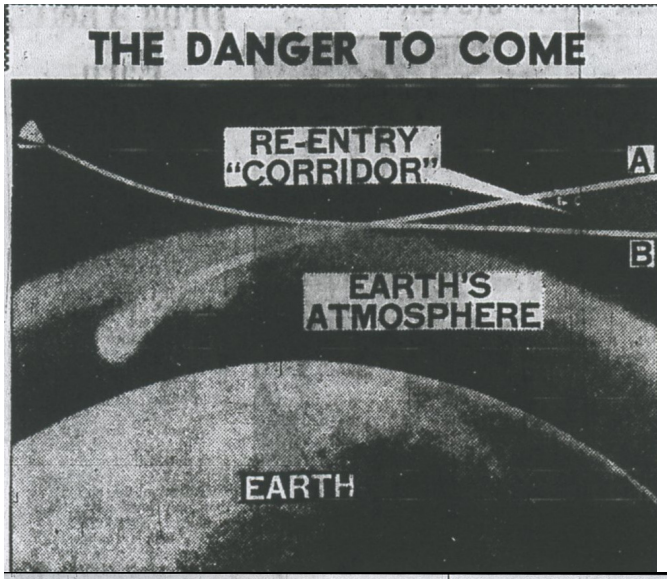
The first steps of man on the moon are taken by Apollo 11 commander Neil Armstrong as, with his life support pack on his back, he moves away from the leg ladder of the module yesterday.

The Evening Post

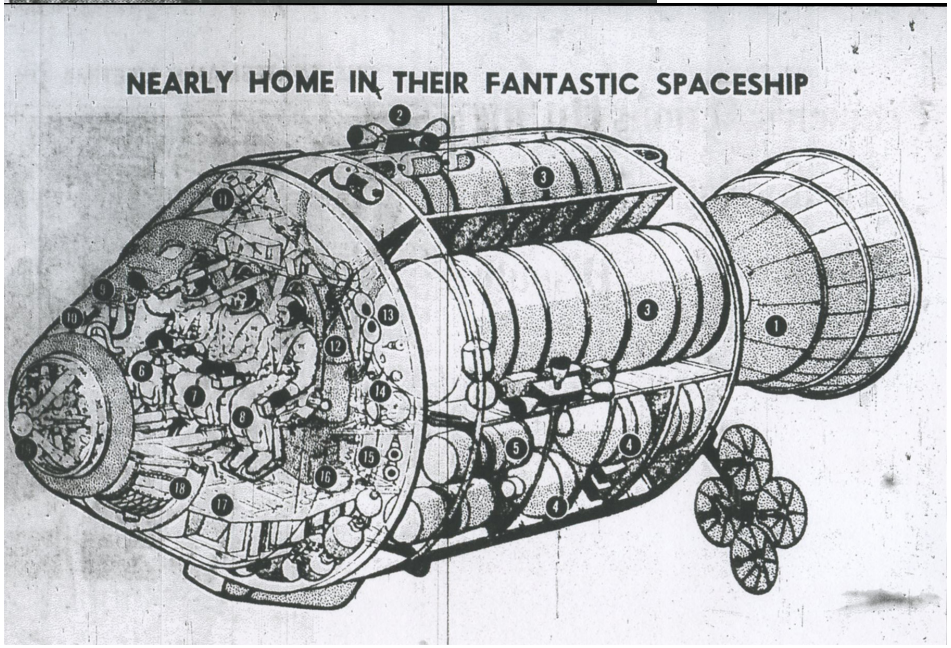
TUESDAY, JULY 22, 1969

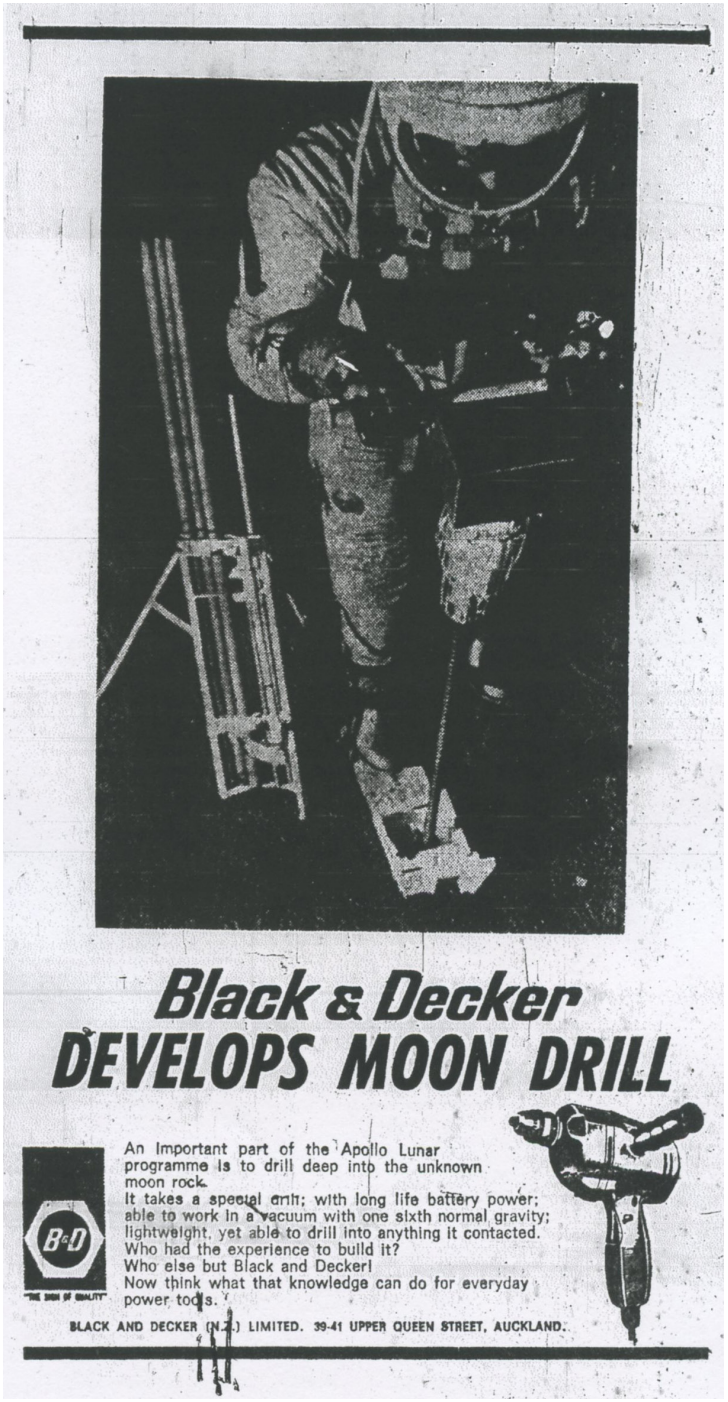
Fine PAGE 13
TV PAGE 16

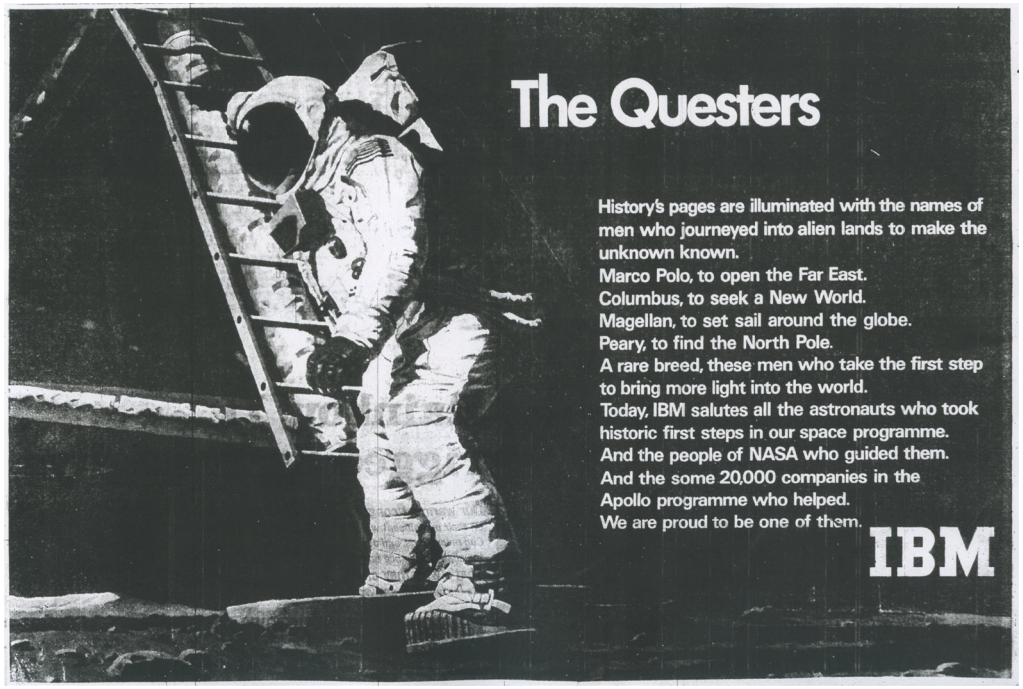
THE DANGER TO COME



NEARLY HOME IN THEIR FANTASTIC SPACESHIP




Black & Decker
DEVELOPS MOON DRILL
An Important part of the Apollo Lunar programme is to drill deep into the unknown moon rock.
It takes a special drill; with long life battery power; able to work in a vacuum with one sixth normal gravity; lightweight, yet able to drill into anything it contacted.
Who had the experience to build it?
Who else but Black and Decker!
Now think what that knowledge can do for everyday power tools.
B&D
"THE SIGN OF QUALITY"
BLACK AND DECKER (N.Z.) LIMITED. 39-41 UPPER QUEEN STREET, AUCKLAND.


The Questers
History's pages are illuminated with the names of men who journeyed into alien lands to make the unknown known.
Marco Polo, to open the Far East.
Columbus, to seek a New World.
Magellan, to set sail around the globe.
Peary, to find the North Pole.
A rare breed, these men who take the first step to bring more light into the world.
Today, IBM salutes all the astronauts who took historic first steps in our space programme.
And the people of NASA who guided them.
And the some 20,000 companies in the Apollo programme who helped.
We are proud to be one of them.
IBM

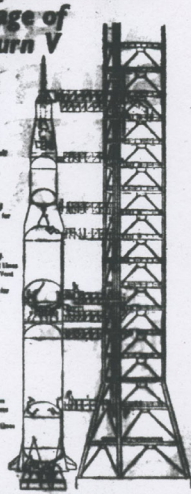

To anyone who ever wished on the moon:
FIRST MOON FLIGHTS CLUB
sign up here.
The world's most experienced airline means every word of it. We really do have a waiting list for the moon.
But that's just the lighter side of our deep commitment to the U.S. Space Programme.
For 16 years now, Pan Am has been one of the prime contractors to the U.S. Air Force space centres at Cape Kennedy and the Eastern Test Range.
In 1968 alone, we participated in 36 major launches, with 100% success in meeting scheduled countdown commitments.
As a matter of fact, we're every bit as interested in bringing you to the moon – someday – as we are in bringing you the first Boeing 747's this year.
The 747 isn't exactly a space-craft. But it's far and away the roomiest, quickest and most luxurious jet you've ever flown.
Look at it this way. The world is moving fast. Anything can happen. And the great things tend to happen first on Pan Am. If you'd like something great to happen to you, like a moonflight, just drop us a line. Pan Am, P.O. Box 2918, Auckland.
Pan Am makes the going great.
PAN AM


Haven't tried Smirnoff?
Where in the world have you been?
SMIRNOFF
VODKA
You've really been out of touch if you haven't explored Smirnoff with every mix imaginable ... from juices to soft drinks. Who want's Invite some friends, to ... for a Smirnoff evening.
SMIRNOFF – Sponsors of the National 'Cocktail of the Year' Award for Trade Entrants.

INTERNATIONAL HARVESTER reliability contributes to MOON EXPLORATION

Photographs show Apollo 9 lift-off from Cape Kennedy, the Solar-manufactured clover-leaf antenna on the Apollo Command module, and the dramatic view of the earth from the moon, as seen by the astronauts aboard Apollo 8.

IH-Solar built components and systems in every stage of NASA's Apollo/Saturn V



A division of International Harvester Company, Solar's contributions to the U.S. space programme include over $1-million worth of "hardware" carried into space in each Apollo/Saturn spacecraft, in the Apollo 10 flight that successfully took three astronauts and the lunar test module "Snoopy" to the moon last May, again Solar-built equipment was used and is shown outlined in black in the drawing.

Solar also make antennae for space vehicles, and have developed an intricate communications plant to be left on the moon. Gas turbines and special jet aircraft ducting systems are other products of Solar who have become leaders in these fields, as have International Harvester themselves become leaders in world renowned farm equipment, motor trucks and construction equipment.

SOLAR is a division of INTERNATIONAL HARVESTER COMPANY

INTERNATIONAL HARVESTER COMPANY OF N.Z. LTD

H-94

WOOLWORTHS SPACE-AGE SALE

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NAC NAC NAC

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BULOVA ON THE MOON

A Bulova Accutron Watch

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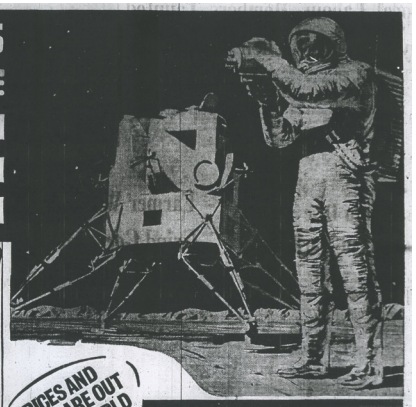
This accuracy is available to you in the Bulova Accutron Watch — fully guaranteed for 7 years.

From leading jewellers.

BULOVA ACCUTRON

WOOLWORTHS SPACE-AGE SALE



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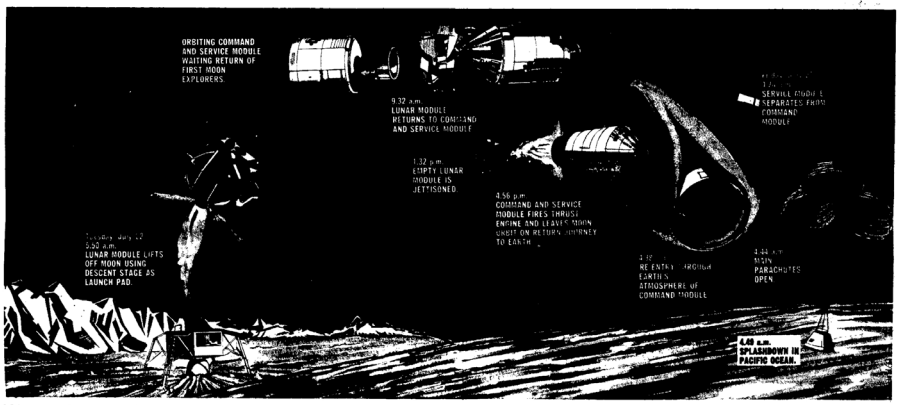
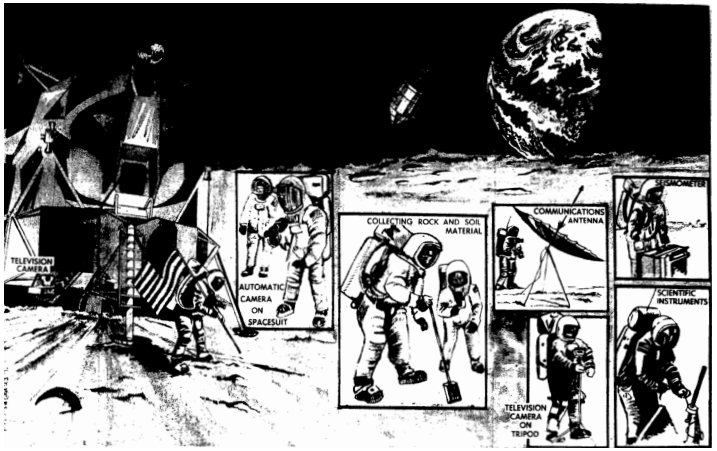
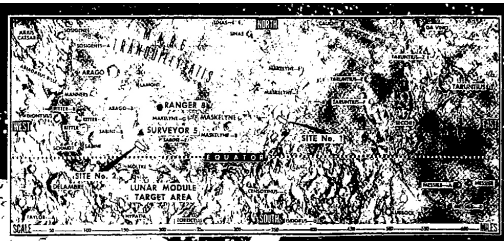
THE GREATEST JOURNEY

Drawings by New Zealand Herald staff artist Micheal Hansard depicting the key manoeuvres of the Apollo 11 moon landing flight. The upper drawing shows the critical stages of the journey to the moon and the lower drawing the hazards of the return flight to earth. Dates and times are given in New Zealand time.





APOLLO MOON LANDING GUIDE



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2—Cognitum (Sea of Knowledge)
3—Orientale (Sea of Orient)
4—Fecunditatis (Sea of Fertility)
5—Frigoris (Sea of Cold)
6—Humorum (Sea of Moisture)
7—Imbrium (Sea of Rains)
8—Iridum (Bay of Rainbows)
9—Lacus Mortis (Lake of Death)
10—Nectaris (Sea of Nectar)
11—Nubium (Sea of Clouds)
12—Procellarum (Ocean of Storms)
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14—Serenitatis (Sea of Serenity)
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22—Hamus Mts.
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95—Timocharis
96—Tycho
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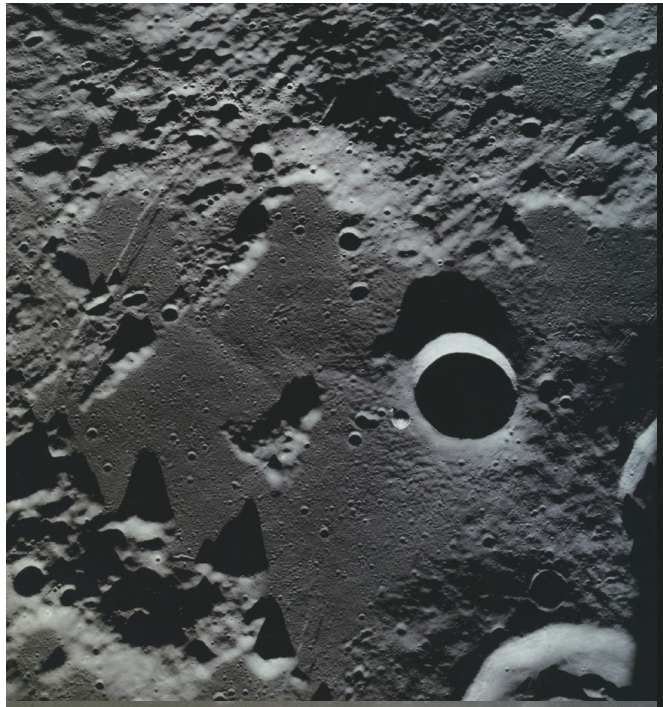
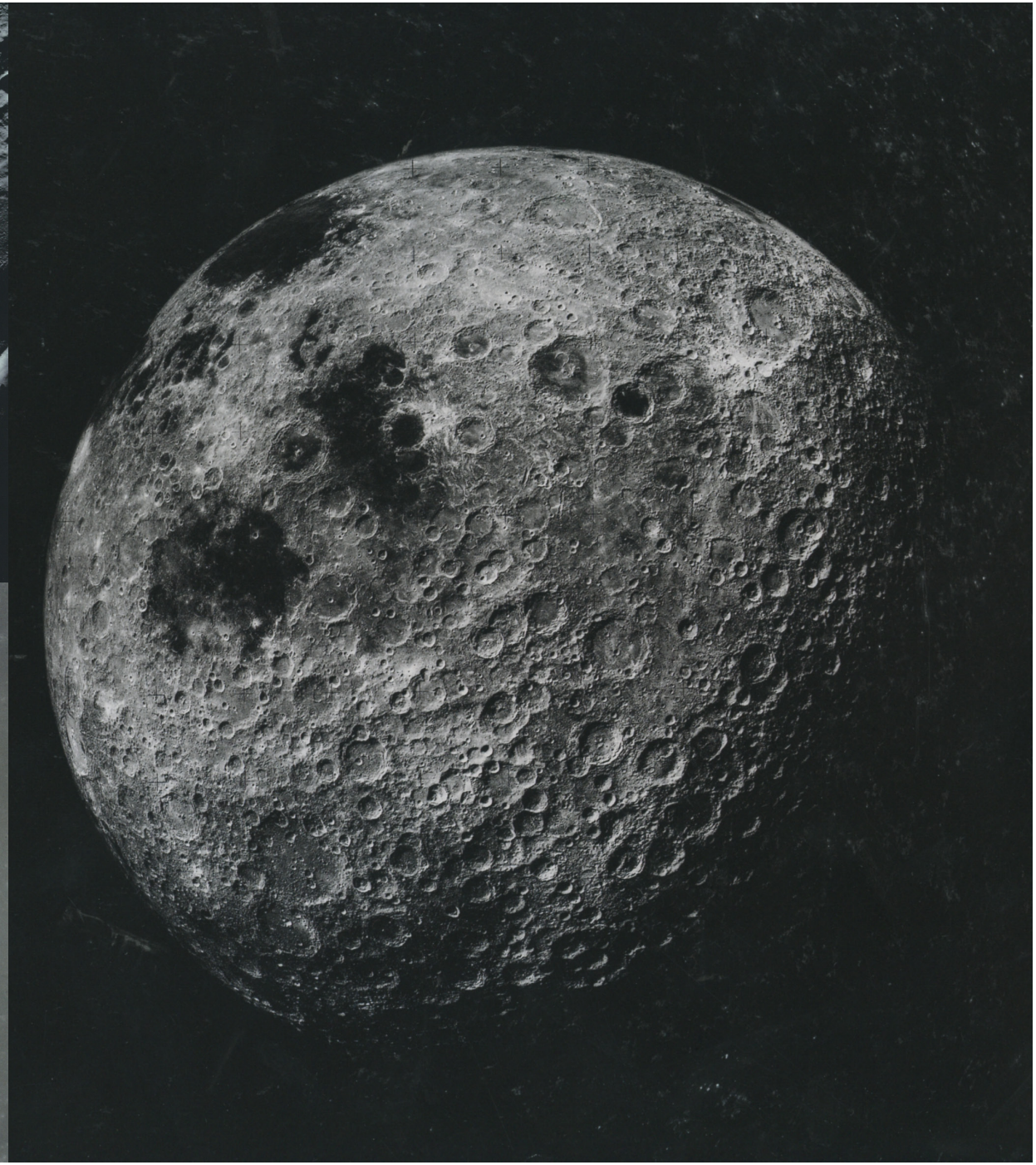
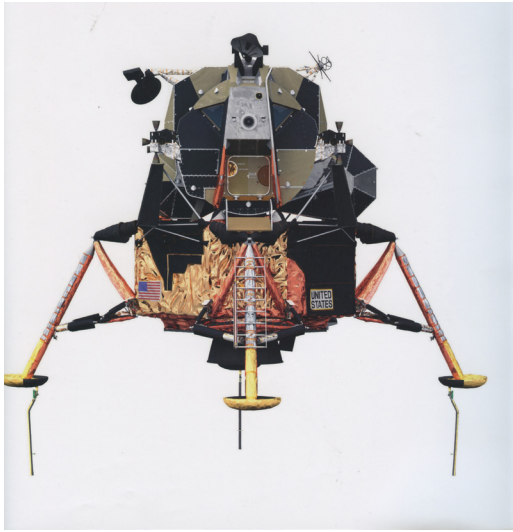
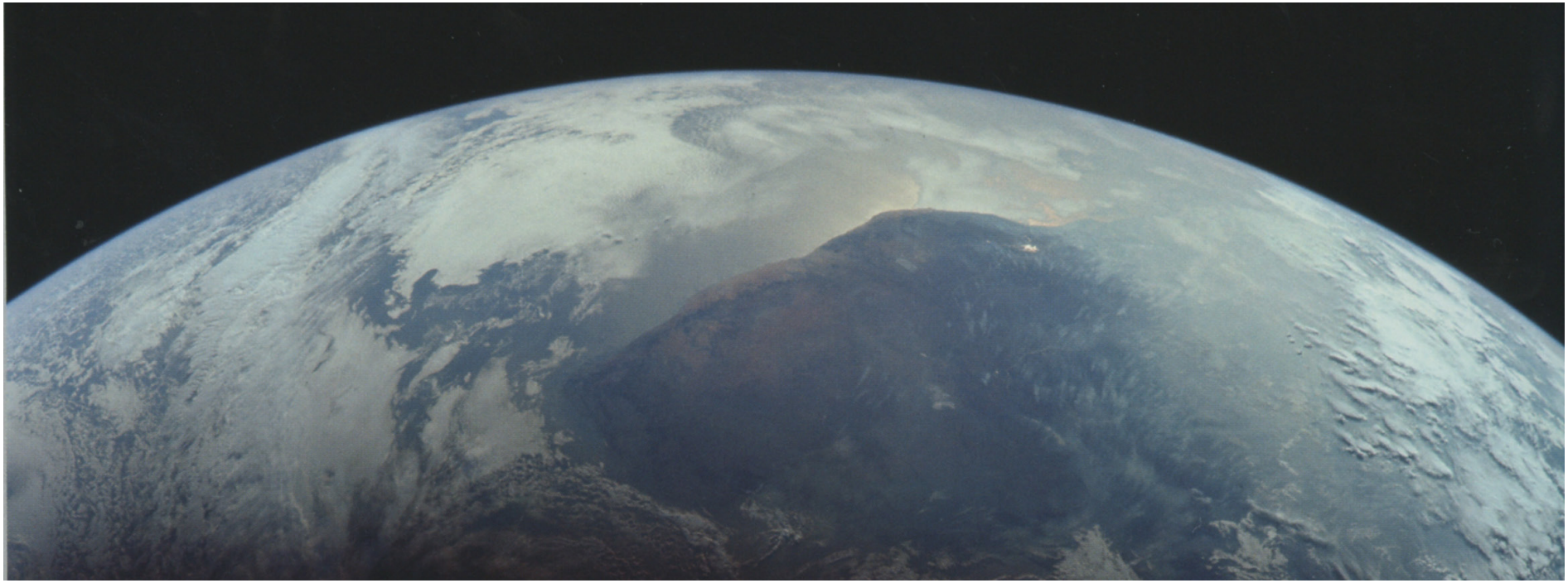


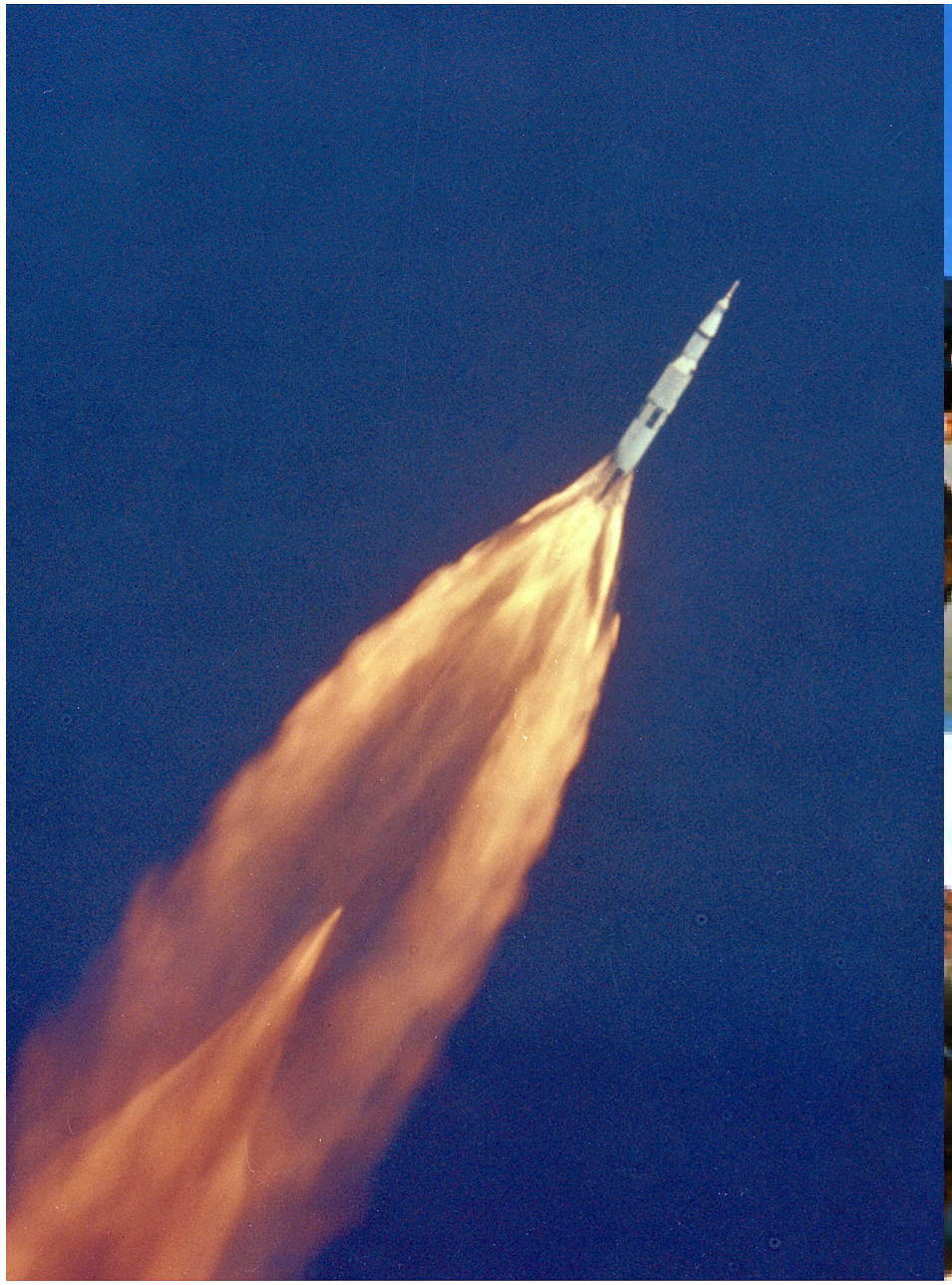


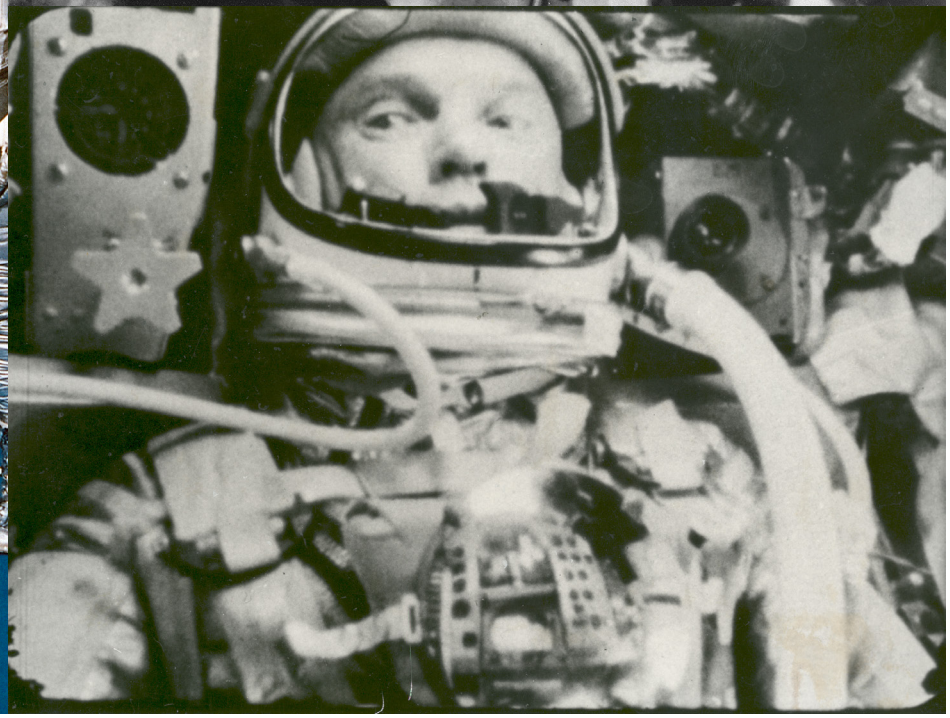


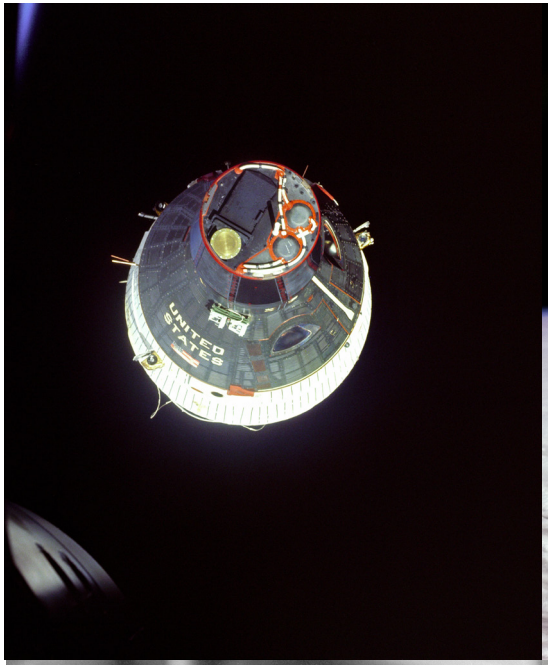
COLUMBIA

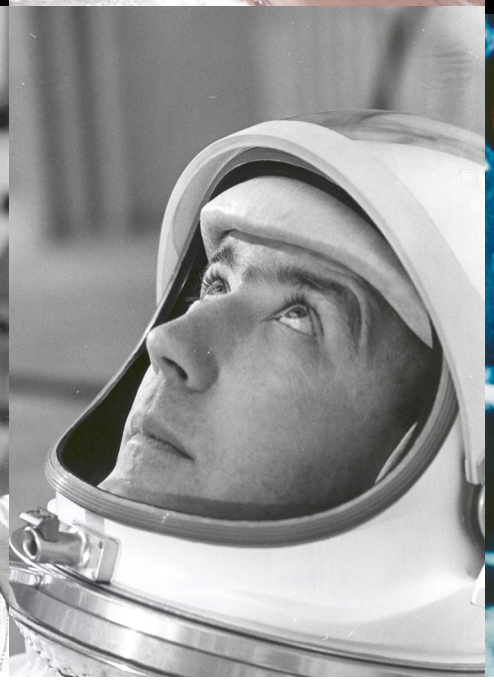
hese constant-scale
odels of all U.S.
anned rockets to date
lustrate the phenomenal
rogress in just seven
ears from the Mercury
redstone first launched
n 1961 (far left) to the
pollo Saturn V (center)
irst launched in 1968.
The reusable space
huttle (far right),
ntroduced in 1981, has
undergone only minor
mprovements in the past
wo decades.

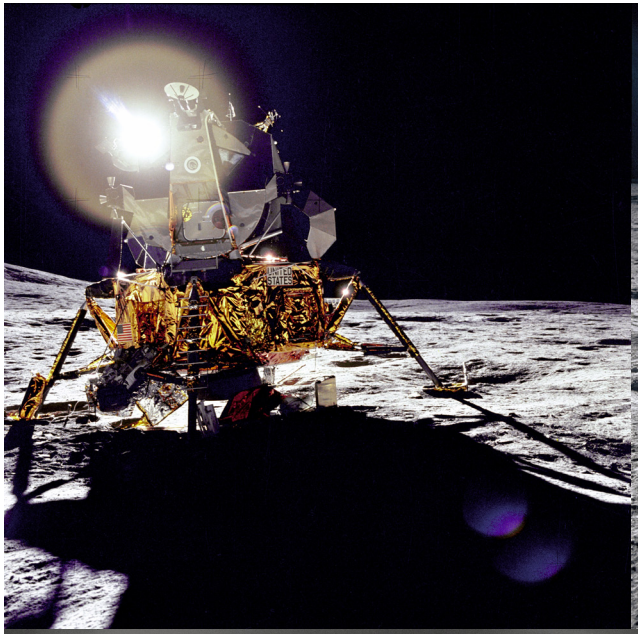


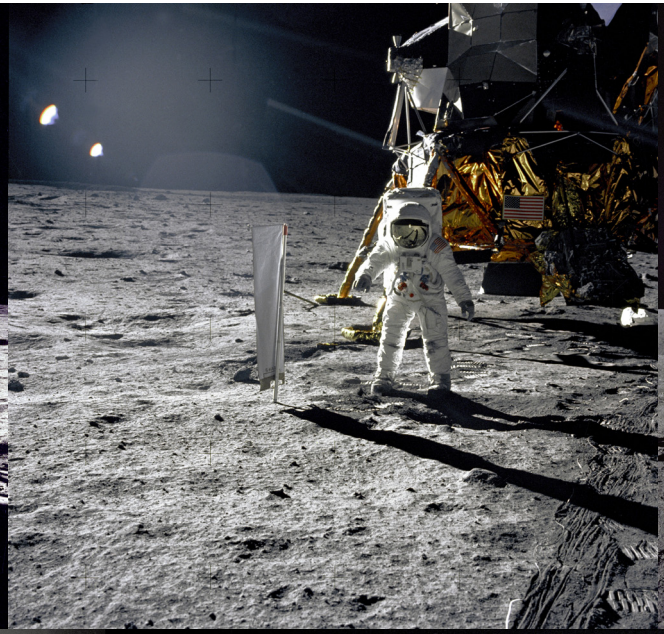


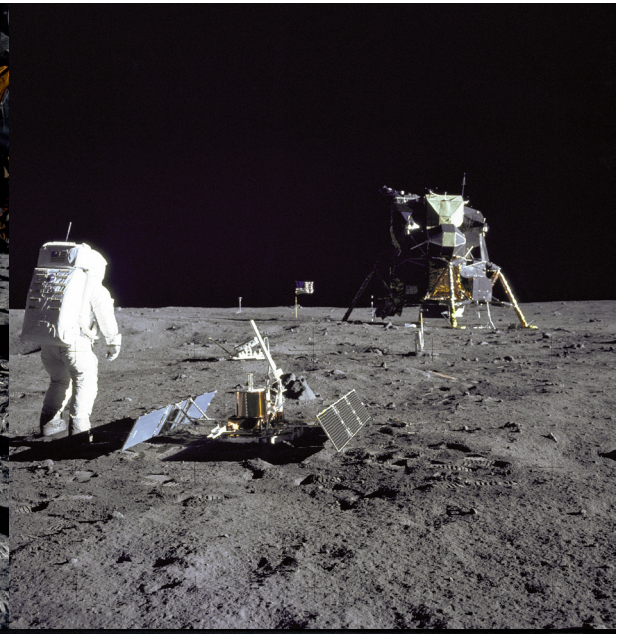


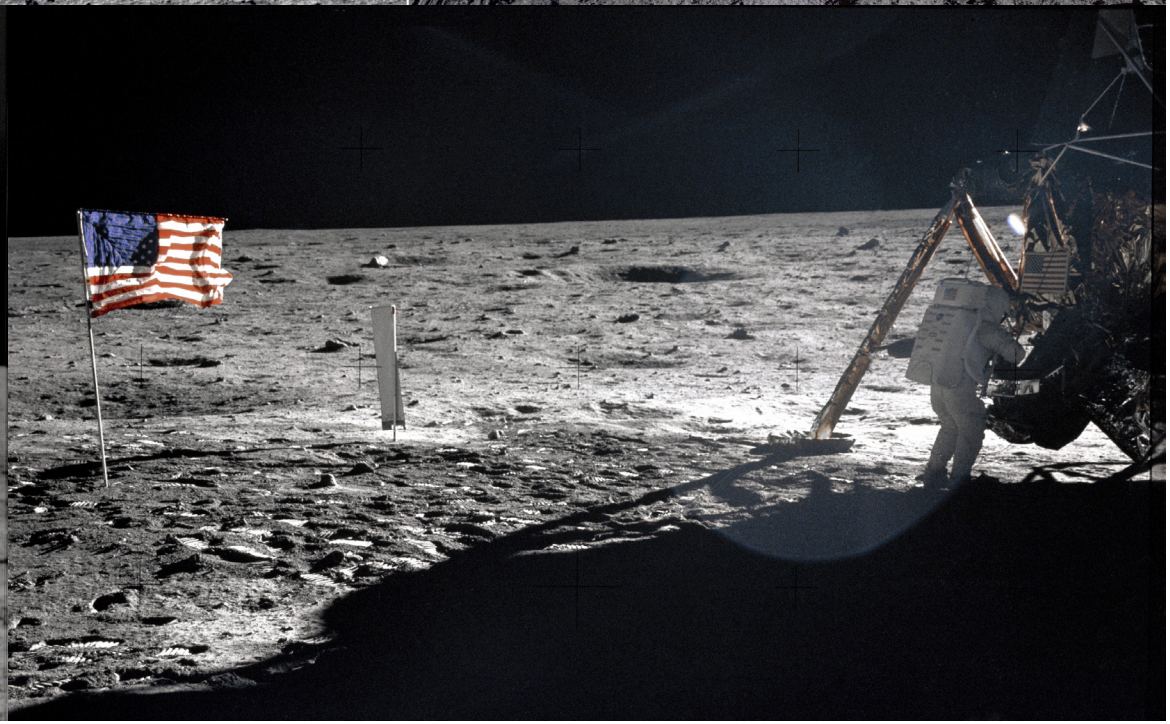

UNITED
STATES

















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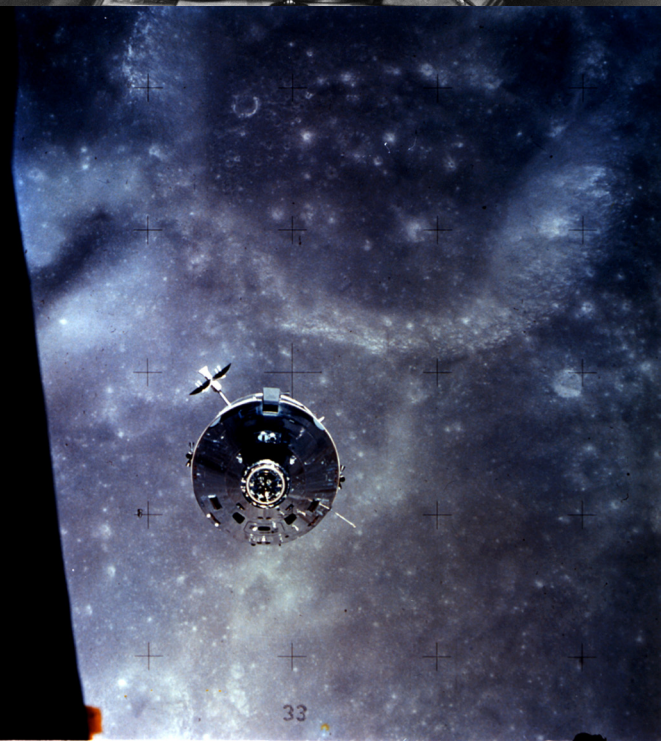
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NY 50

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

CLASSIFICATION CHANGED TO U
BY AUTHORITY OF E.O. 11652
DATE 3/11/76

APOLLO 11 ONBOARD VOICE TRANSCRIPTION (U)

RECORDED ON THE COMMAND MODULE ONBOARD RECORDER DATA STORAGE EQUIPMENT (DSE)

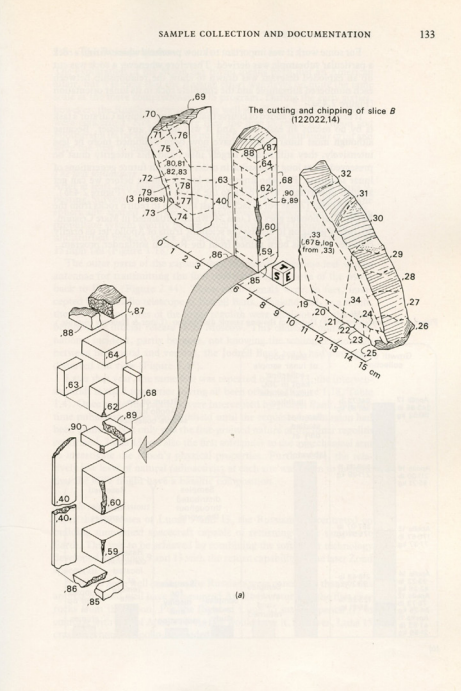
August 1969

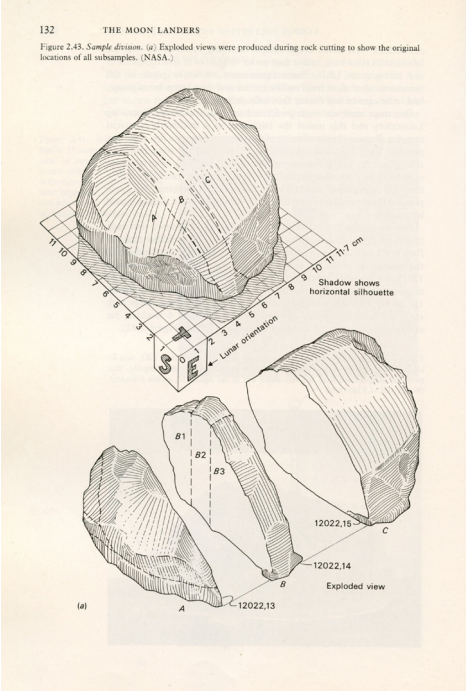
GROUP 4
DOWNGRADED AT 3 YEAR INTERVALS
DECLASSIFIED AFTER 12 YEARS

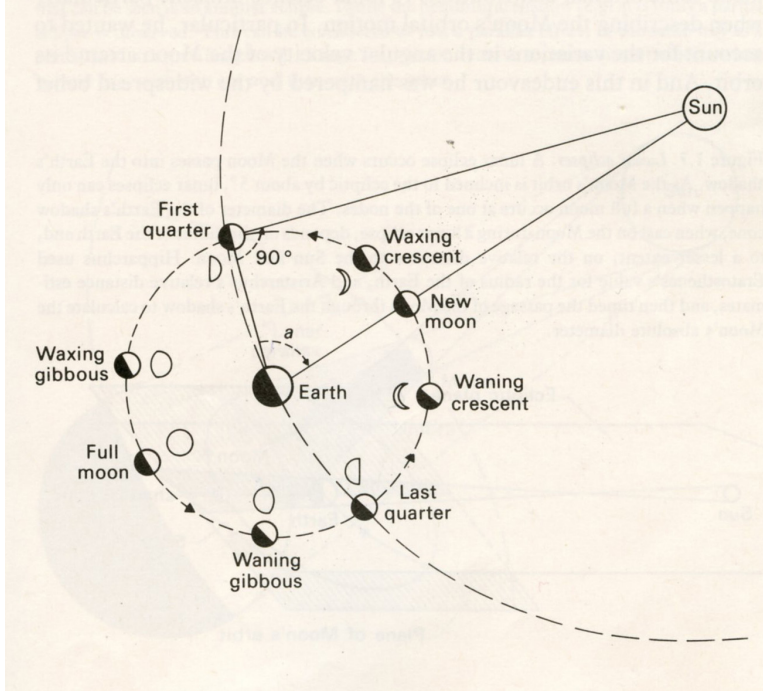
AFT CENTER
XAS

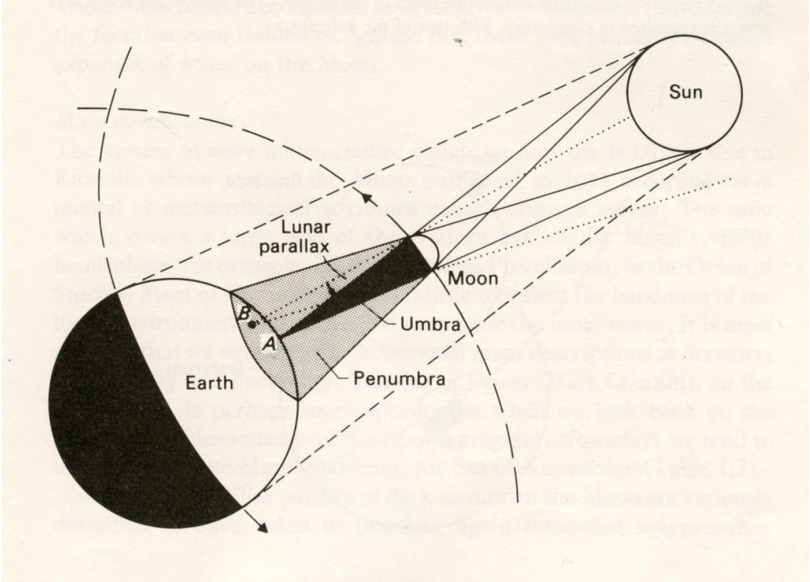
INDEXING DATA
DATE 02-00-69 | CDR MSC | # | T R | PGM APO | SUBJECT (Outline) | SIGNATOR MSC | LOC 078-61

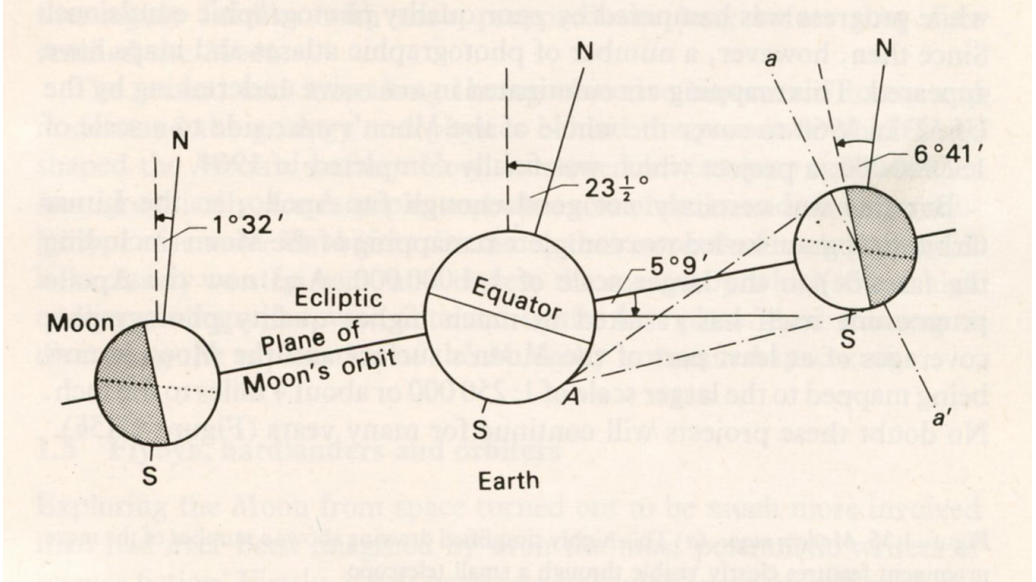
04 06 44 53	LMP	Okay, 75 feet. And it's looking good; down a half. 6 forward; light's on. 6 - 60 feet down, 2-1/2, 2 forward, 2 forward.
04 06 45 13	LMP	Looks good. 40 feet down, 2-1/2. Picking up some dust. 30 feet, 2-1/2 down - straight down; 4 forward, 4 forward, drifting to the right a little.
04 06 45 26	LMP	20 feet, down a half; drifting forward just a little bit. Good. Okay.
04 06 45 41	CDR	SHUTDOWN.
04 06 45 42	LMP	Okay. ENGINE STOP; ACA out of DETENT.
04 06 45 43	CDR	Out of DETENT.
04 06 45 45	LMP	AUTO MODE CONTROL, both AUTO; DESCENT ENGINE COMMAND OVERRIDE, OFF; ENGINE ARM, OFF; 413 is in.
04 06 45 52	CDR	ENGINE ARM is OFF.
04 06 45 58	CDR	Houston - Tranquility Base here. THE EAGLE HAS LANDED.
04 06 46 14	CDR	Thank you.
04 06 46 17	CDR	Okay. Let's go on. Okay, we're going to be busy for a minute.
04 06 46 23	LMP	Alright, MASTER ARM, ON. Take care of the descent vent.
04 06 46 25	CDR	MASTER ARM coming OFF.
04 06 46 27	LMP	I'll get the pressure vent.
04 06 46 28	CDR	Okay.
04 06 46 36	LMP	Very smooth touchdown.
04 06 46 49	CDR	I didn't hear that vent going - -
04 06 46 51	LMP	... oxidizer.

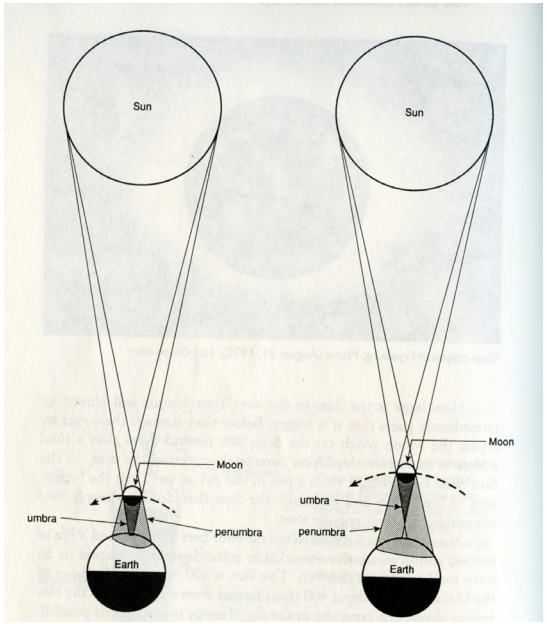

SAMPLE COLLECTION AND DOCUMENTATION 133
The cutting and chipping of slice B (122022,14)
(a)

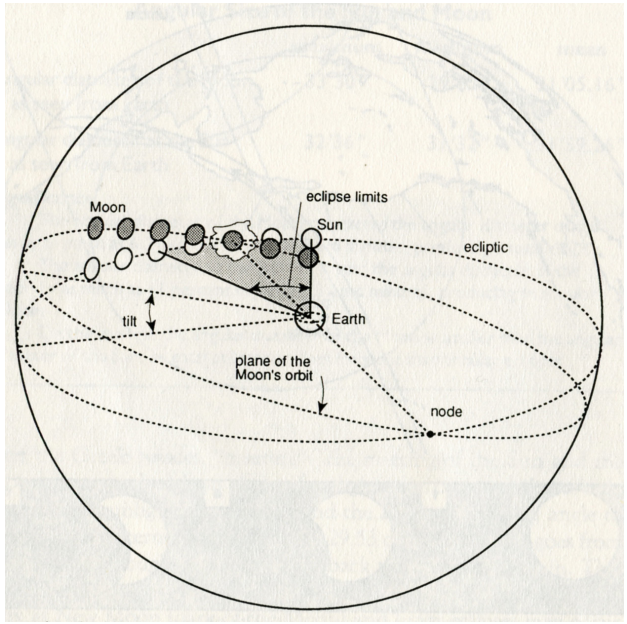

132 THE MOON LANDERS
Figure 2.43. Sample division. (a) Exploded views were produced during rock cutting to show the original locations of all subsamples. (NASA.)
Shadow shows horizontal silhouette
Lunar orientation
Exploded view
12022,15
12022,14
12022,13
(a)

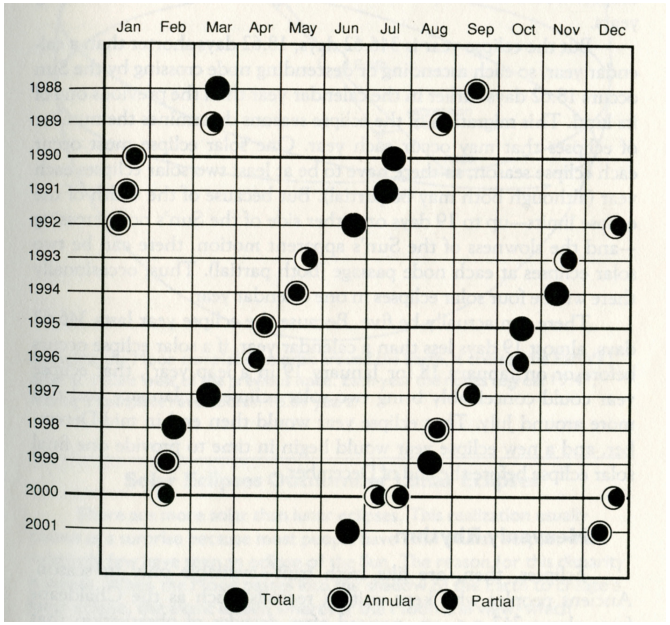

Sun
First quarter
90°
Waxing crescent
New moon
Waxing gibbous
Earth
Waning crescent
Full moon
Last quarter
Waning gibbous

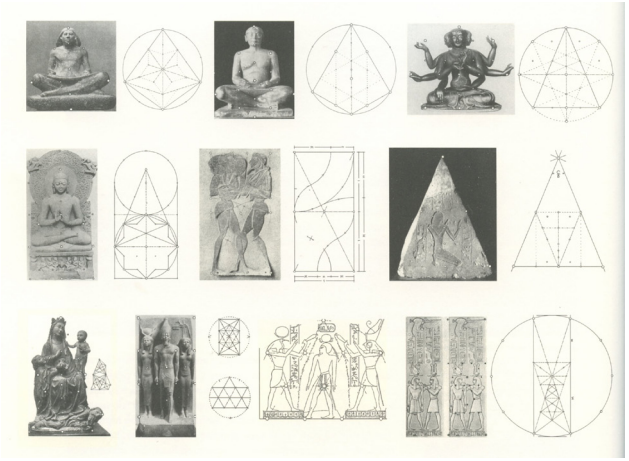

Sun
Lunar parallax
Moon
Umbra
Penumbra
Earth


N
1°32′
23½°
6°41′
5°9′
Ecliptic
Plane of Moon's orbit
Equator
Moon
S
Earth
a
a′

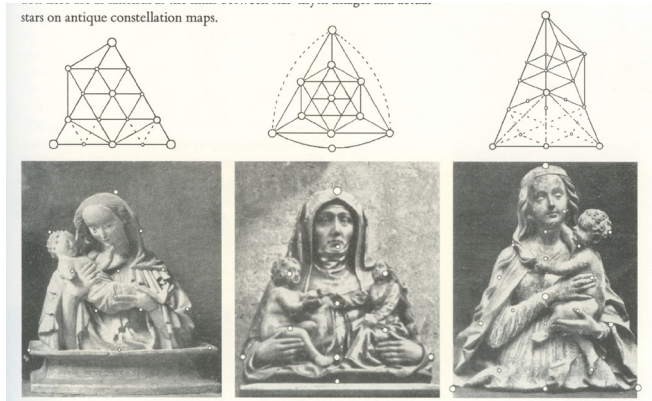




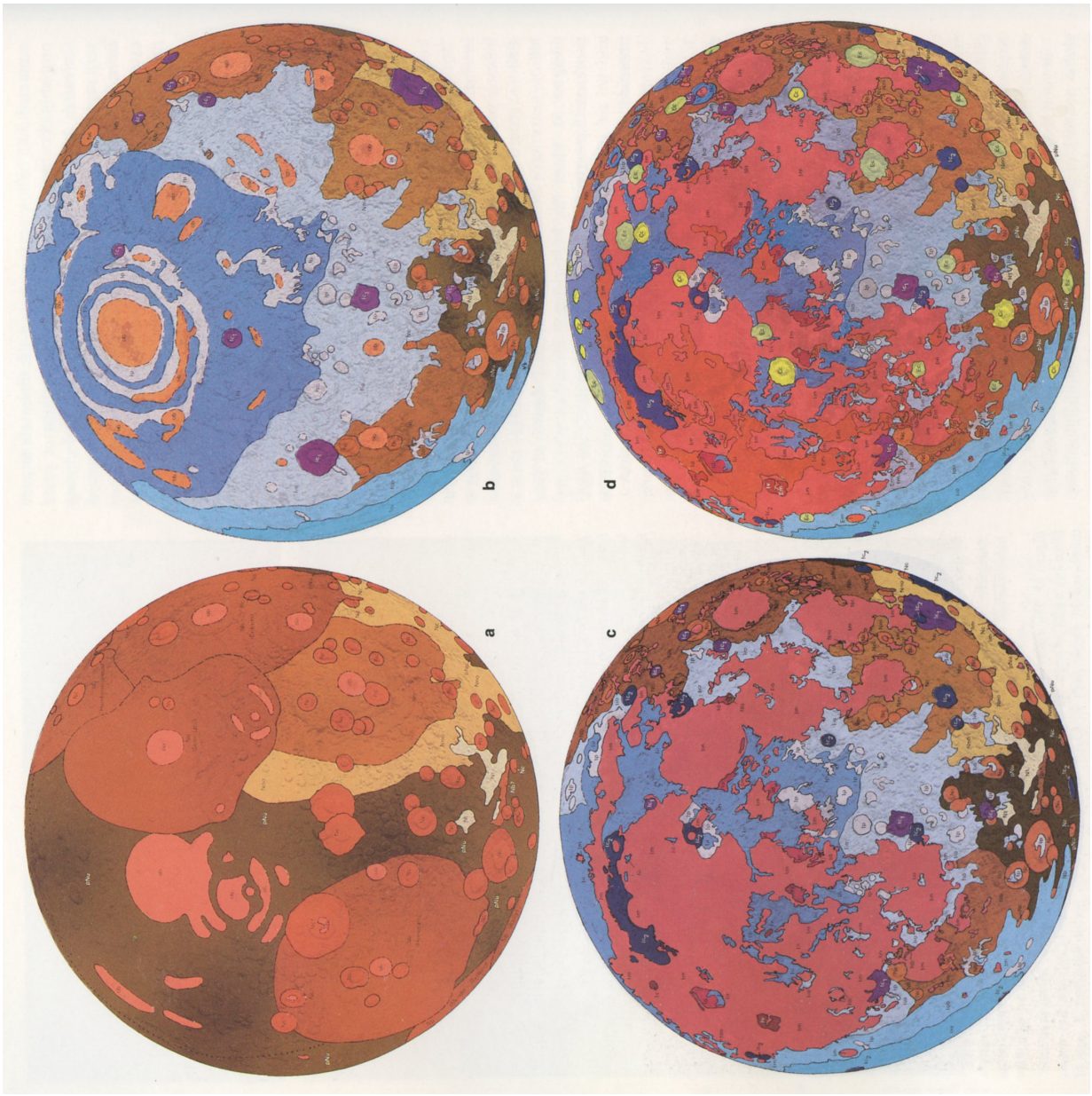


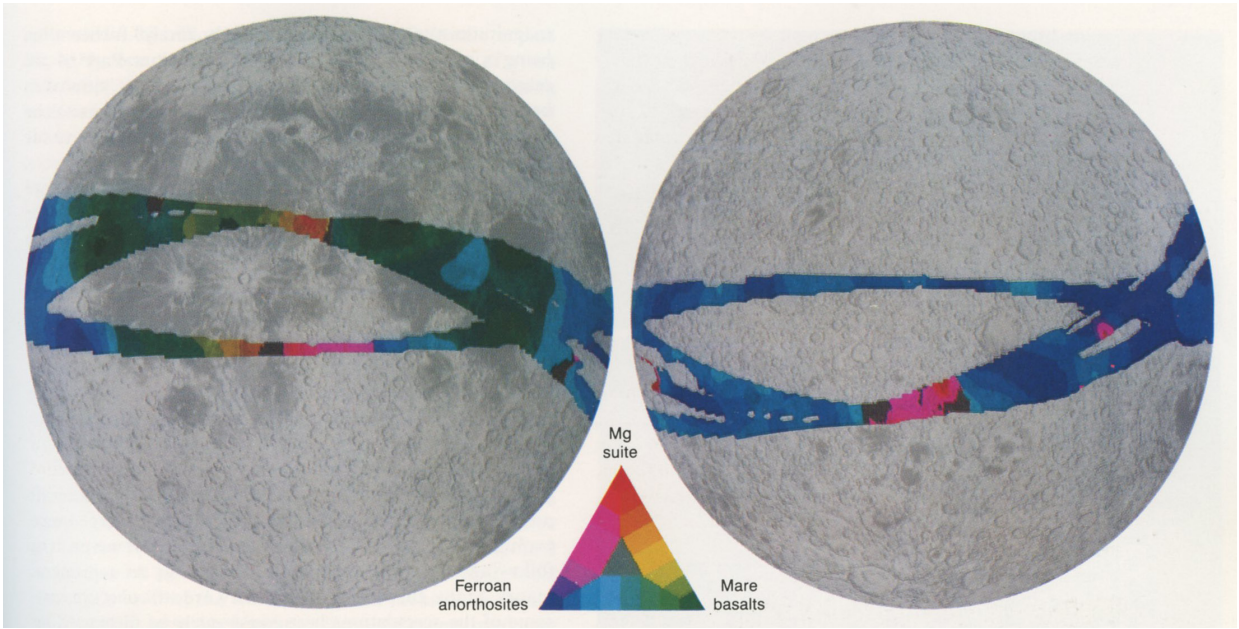


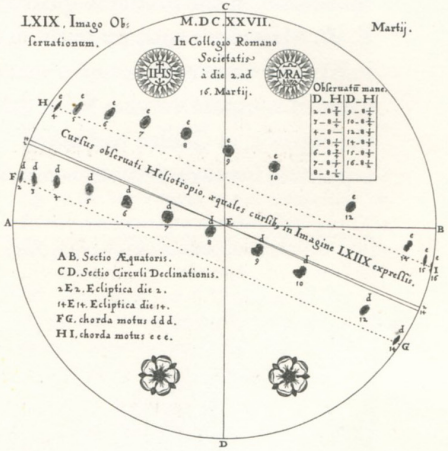
stars on antique constellation maps.

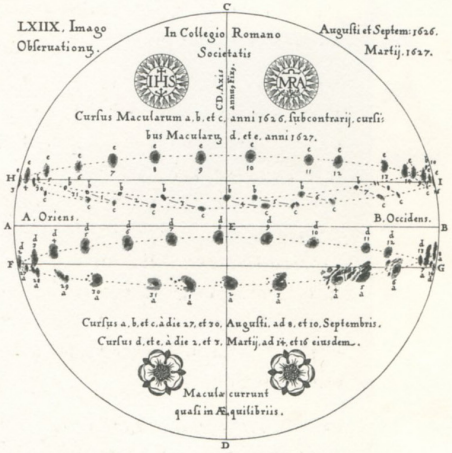


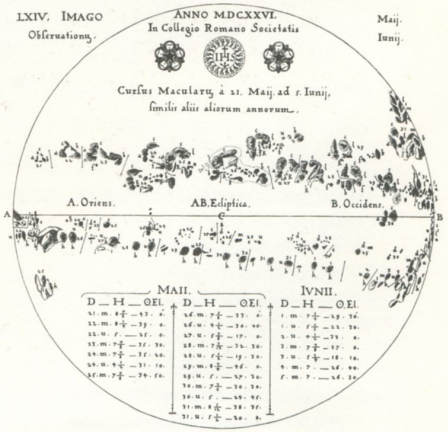
Tafel 190. Von links nach rechts: Maria mit Kind. Arbeit des 15. Jahrhunderts. Im Deutschen Museum zu Berlin. — Mutter Anna selbdritt. Auf dem Marienaltar im Seitenschiff des Domes zu Bamberg. Vom Anfang des 16.Jahrhunderts. — Muttergottes. Vom Anfang des 16.Jahrhunderts. Im Museum der Stadt Ulm

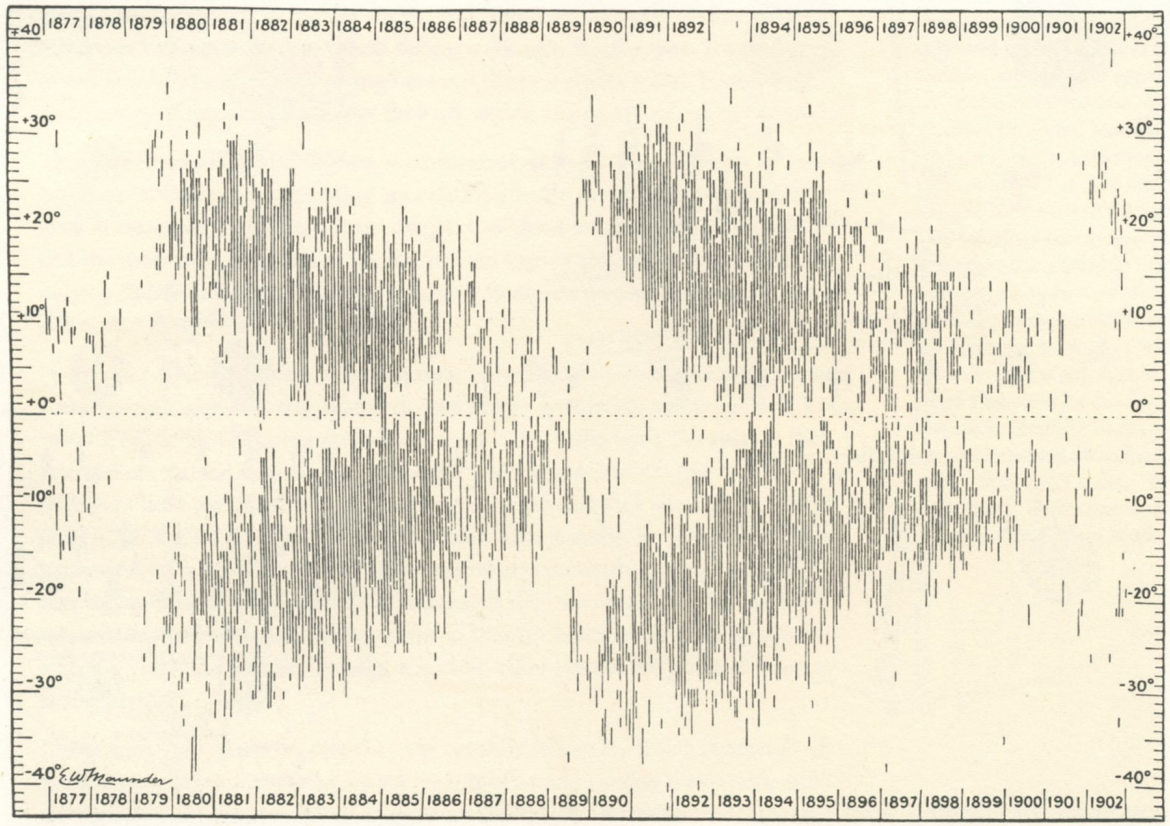

b
d
a
c

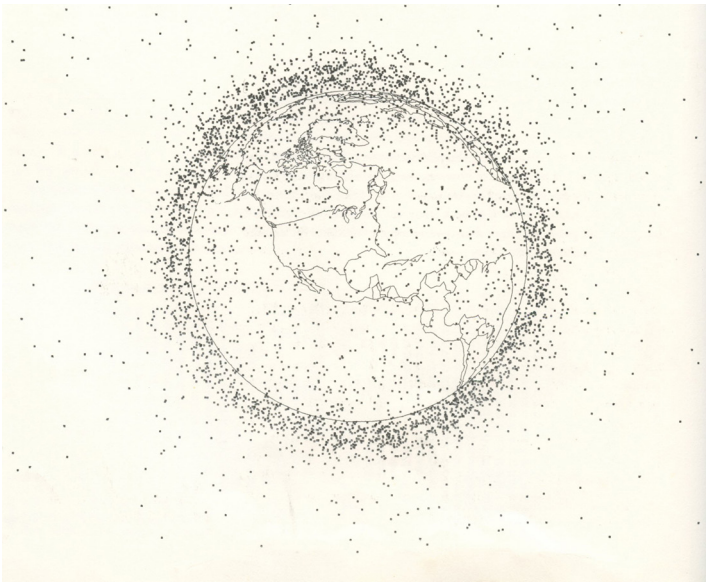

Mg
suite
Ferroan
anorthosites
Mare
basalts

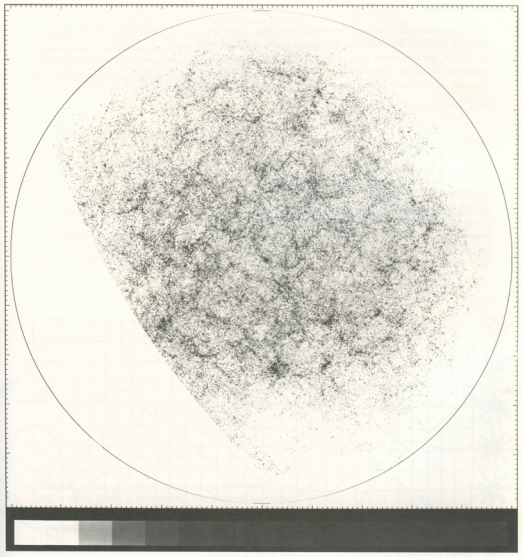

LXIX. Imago Obſeruationum.
M.D.C.XXVII.
In Collegio Romano Societatis
à die 2. ad 16. Martij.
Martij.
IHS
MRA
Obſeruatæ manè
D_H D_H
Curſus obſeruati Heliotropio, æquales curſibus in Imagine LXIIX expreſſis.
AB. Sectio Æquatoris.
CD. Sectio Circuli Declinationis.
2E2. Ecliptica die 2.
14E14. Ecliptica die 14.
FG. chorda motus d d d.
HI. chorda motus e e e.

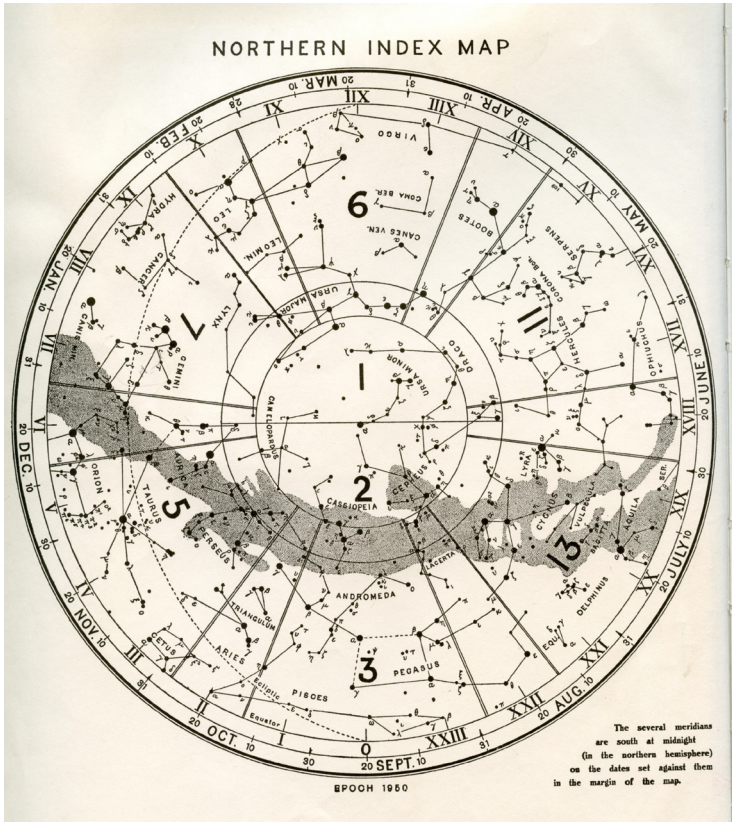

LXIIX. Imago Obſeruationum.
In Collegio Romano Societatis
Auguſti et Septem: 1626.
Martij. 1627.
IHS
MRA
CD. Axis anno 1627.
Curſus Macularum a, b, et c, anni 1626. ſubcontrarij. curſibus Macularum d, et e, anni 1627.
A. Oriens.
B. Occidens.
Curſus a, b, et c, à die 27, et 29. Auguſti, ad 9, et 10. Septembris.
Curſus d, et e, à die 2, et 7. Martij, ad 14, et 16 eiusdem.
Maculæ currunt quaſi in Æquilibriis.


LXIV. Imago Obſeruationum.
ANNO M.DC.XXVI.
In Collegio Romano Societatis
Maij.
Iunij.
IHS
Curſus Macularum à 21. Maij. ad 1. Iunij, ſimilis aliis aliorum annorum.
A. Oriens.
AB. Ecliptica.
B. Occidens.
MAII.
IVNII.
D H ☌ ☉El.


1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1894 1895 1896 1897 1898 1899 1900 1901 1902
+40° +30° +20° +10° +0° -10° -20° -30° -40°
E.W.Maunder

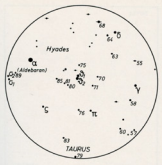






The several meridians are south at midnight (in the northern hemisphere) on the dates set against them in the margin of the map.

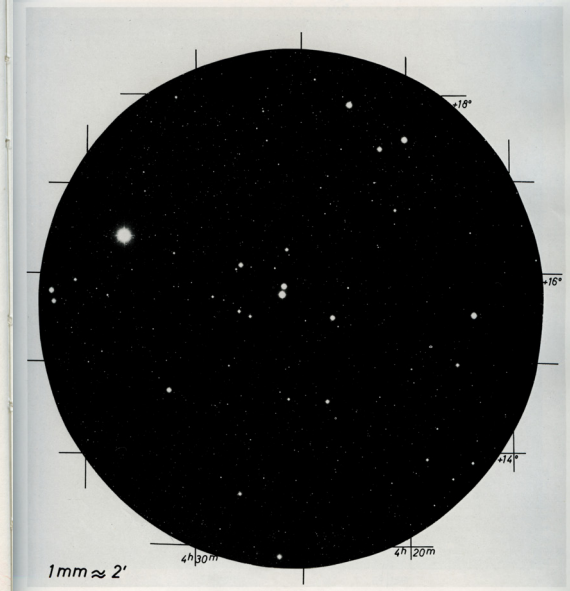
55



Mel 25 Hyades

4^h16^m7, $+15°31'$

Cl, 0m8, 245 ★
ϕ = 400', type: c



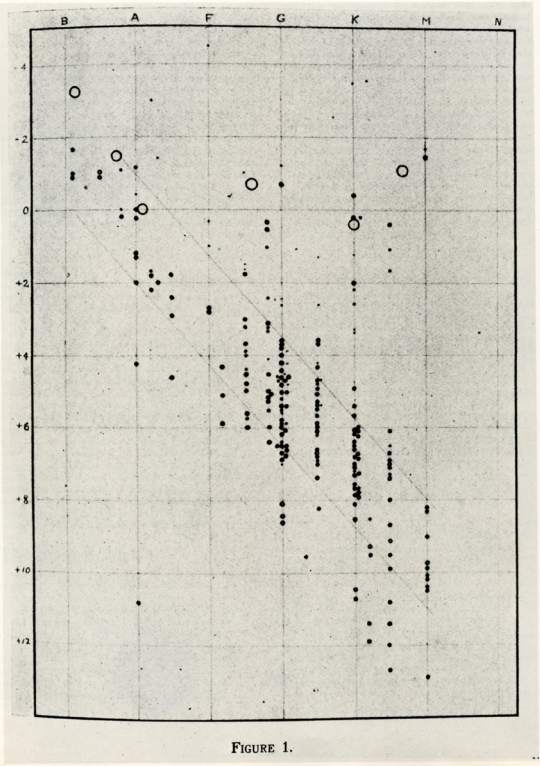


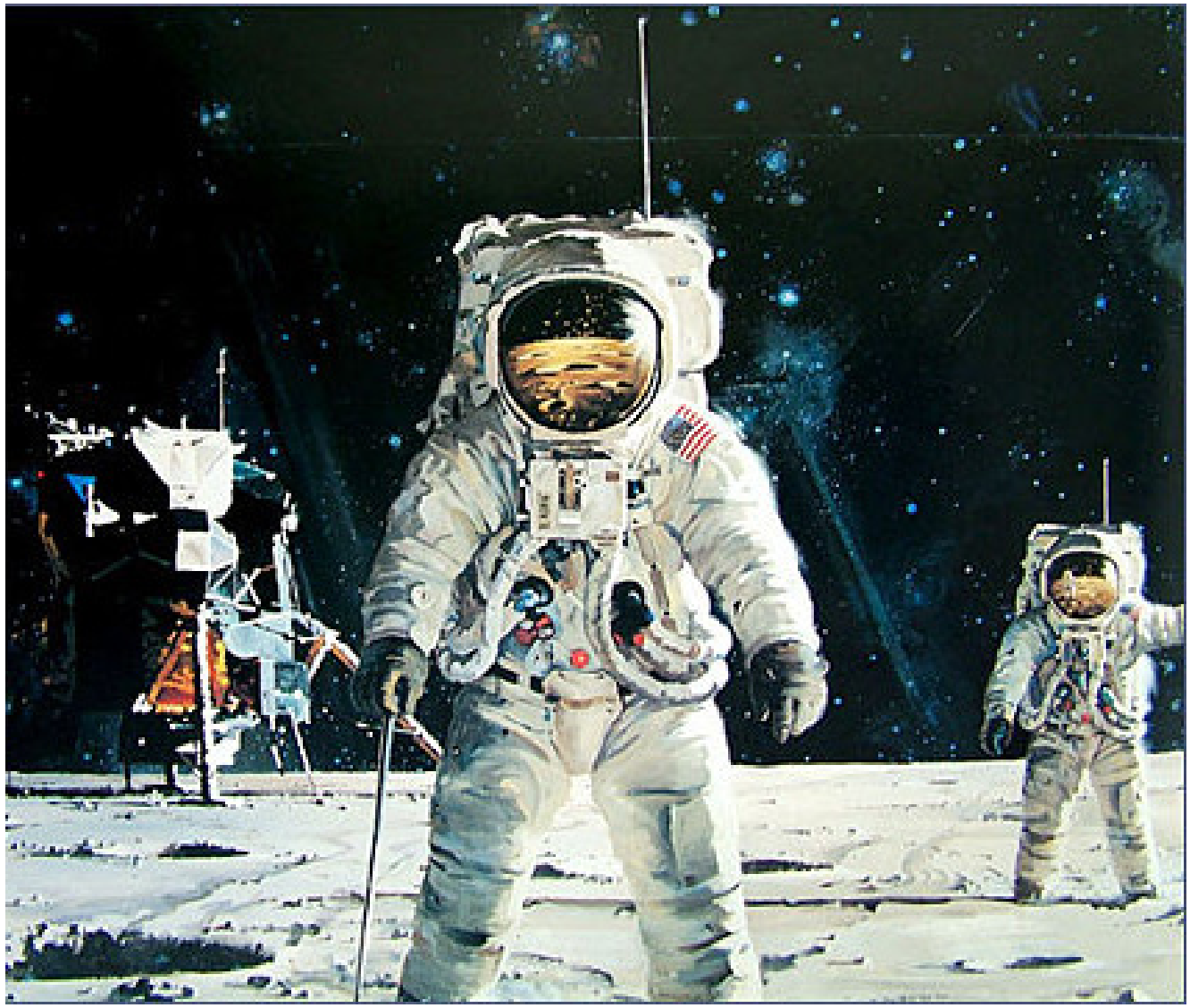
FIGURE 1.

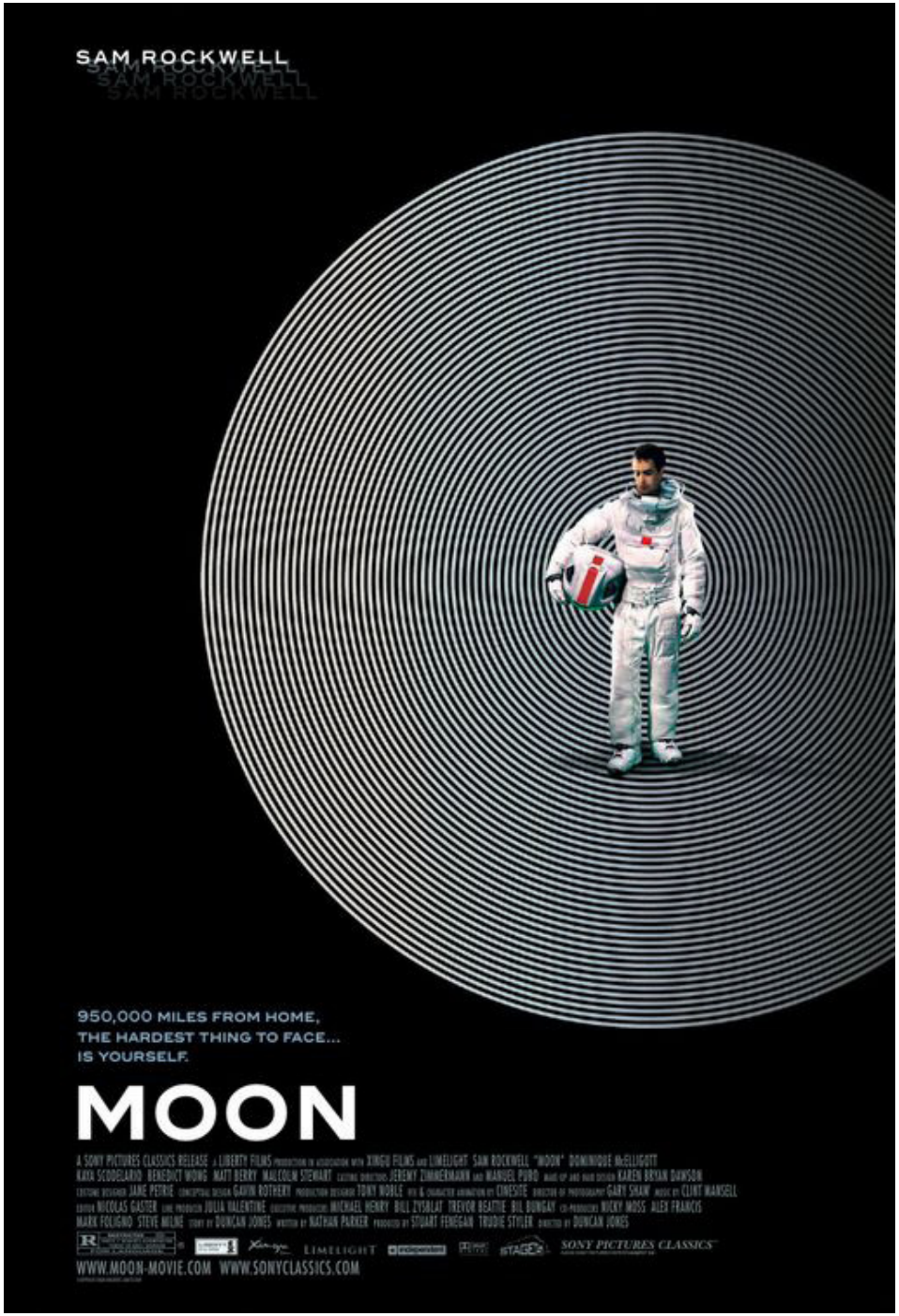

MDCCLXXVI


Electrik Suicide


zK
The Owl of
Minerva Flies
at Dusk


ILLUMINATI

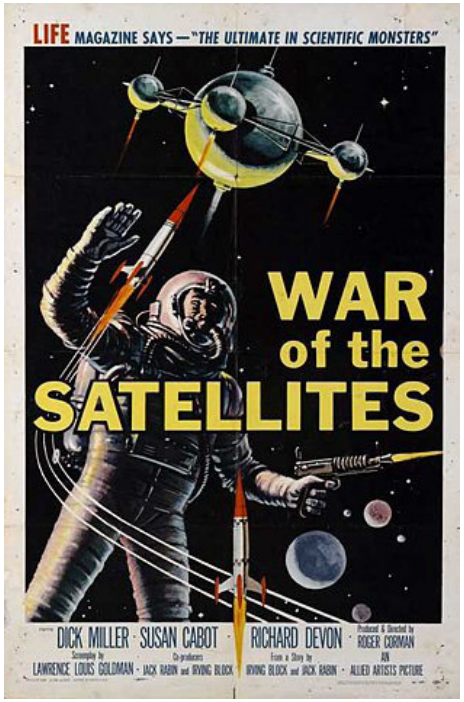


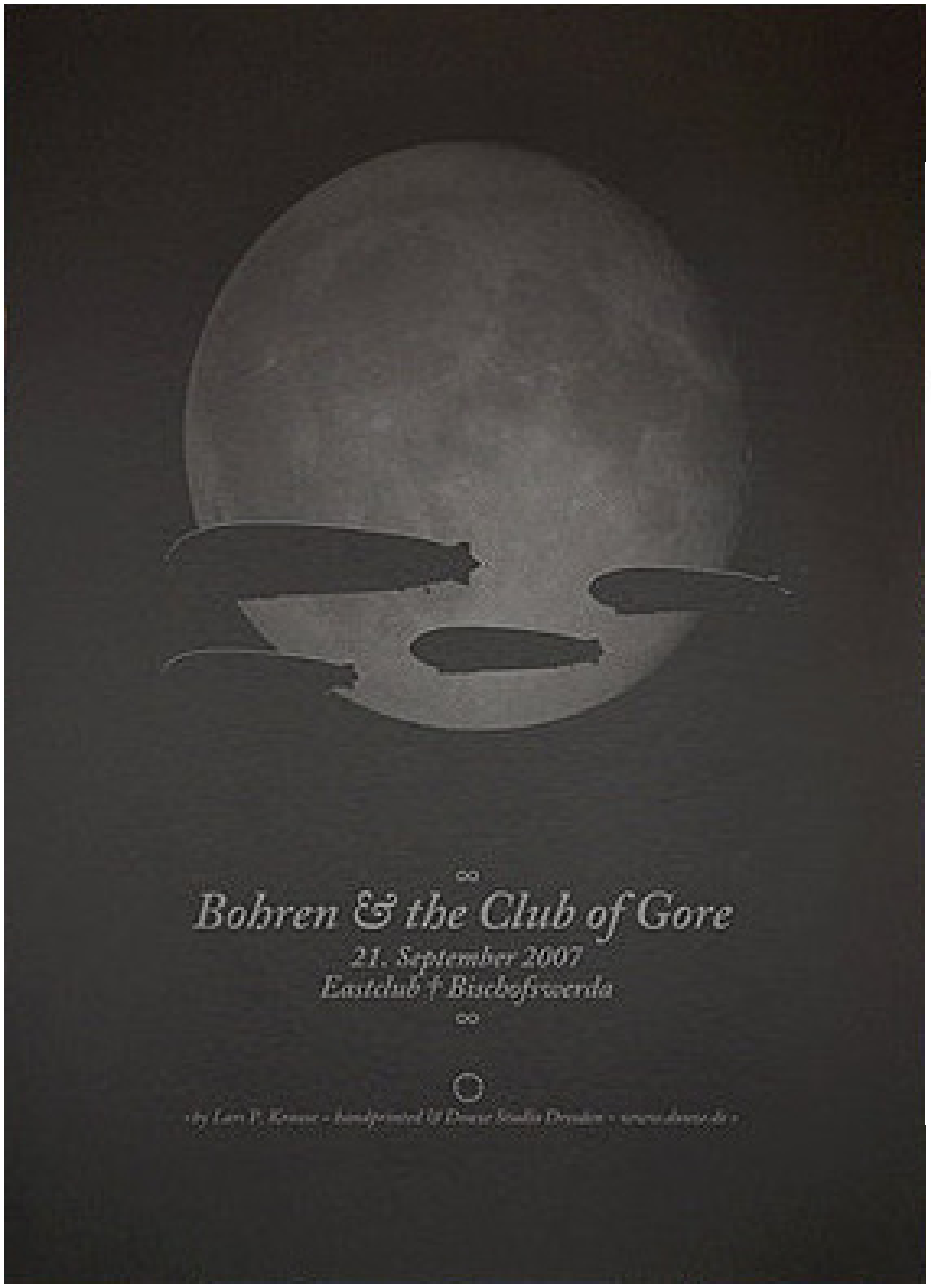

SAM ROCKWELL
950,000 MILES FROM HOME,
THE HARDEST THING TO FACE...
IS YOURSELF.
MOON
WWW.MOON-MOVIE.COM WWW.SONYCLASSICS.COM

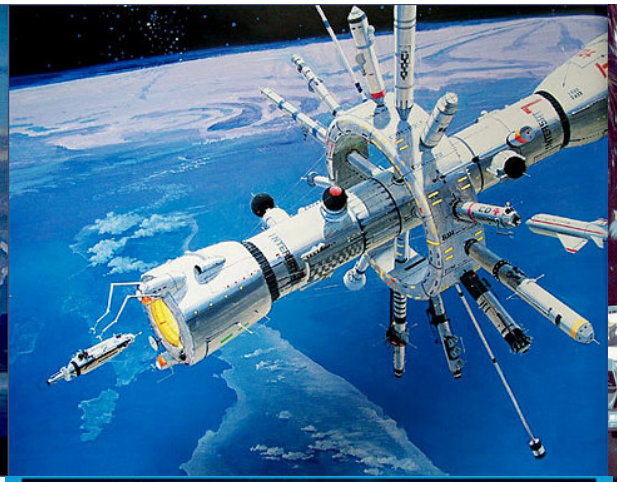

A long time ago in a galaxy far, far away...
STAR WARS


STAR TREK
EL FUTURO COMIENZA.

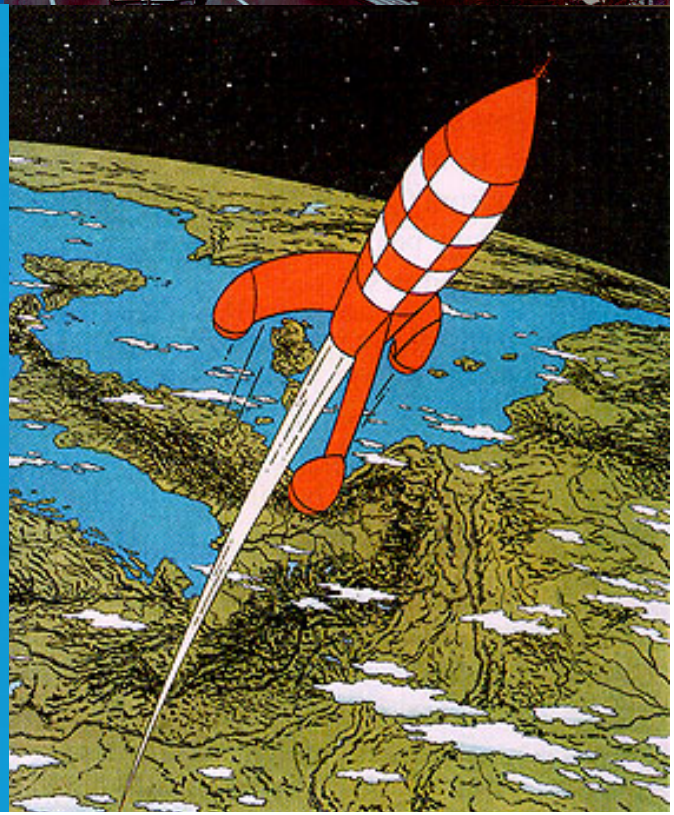

An epic drama of adventure and exploration
2001: a space odyssey


LIFE MAGAZINE SAYS — "THE ULTIMATE IN SCIENTIFIC MONSTERS"
WAR of the SATELLITES
DICK MILLER · SUSAN CABOT
RICHARD DEVON

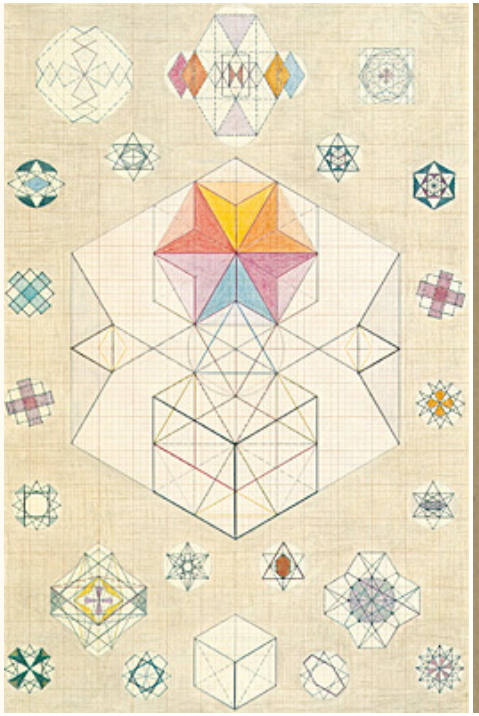

Bohren & the Club of Gore
21. September 2007
Eastclub † Bischofswerda

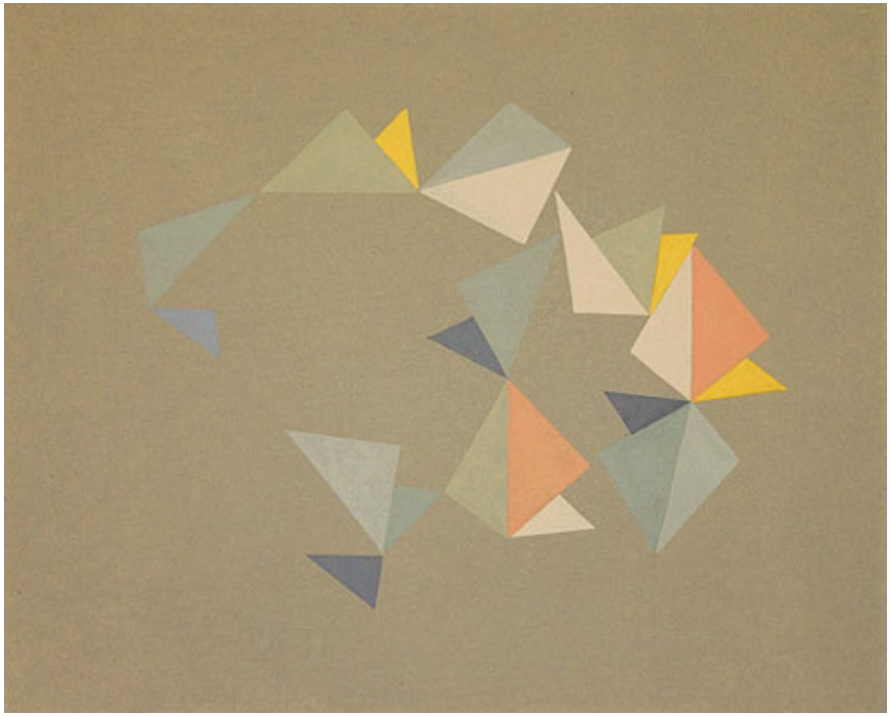



STARS OF THE LID

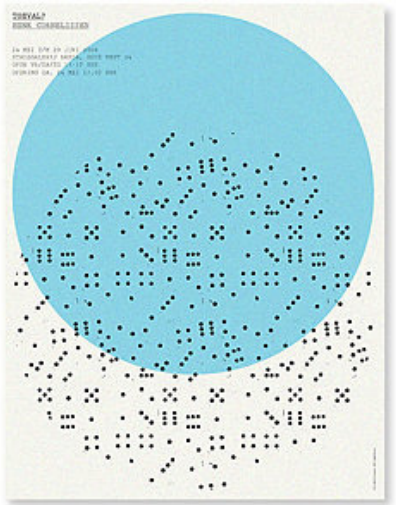


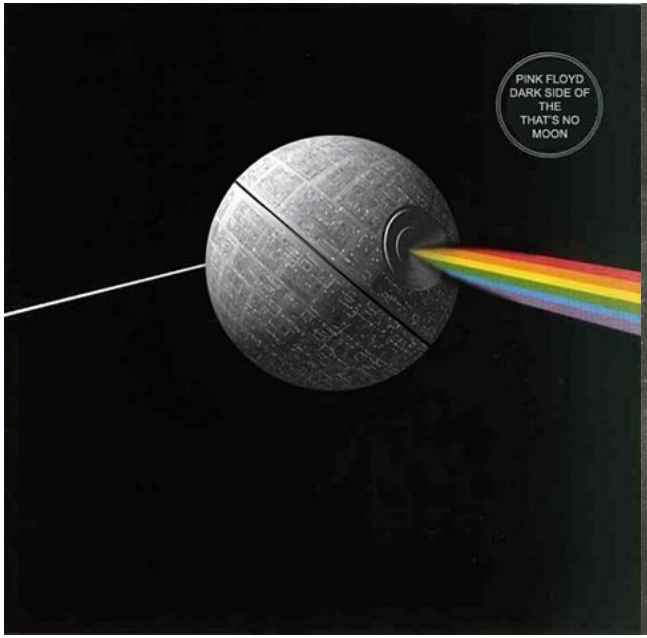

PELICAN // TORCHE
EUROPEAN TOUR 2009

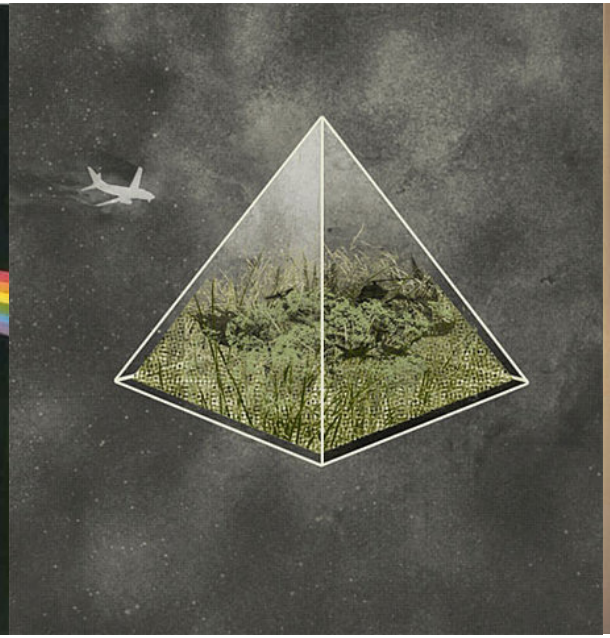


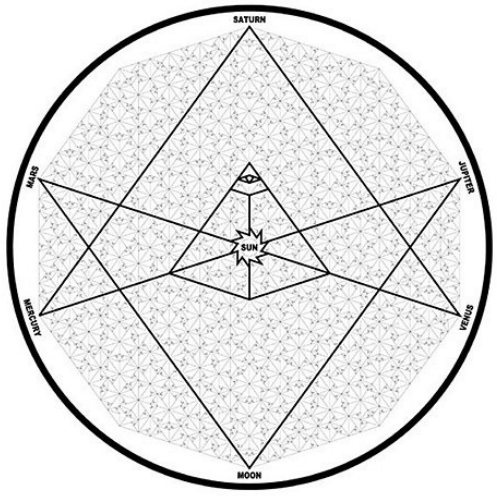


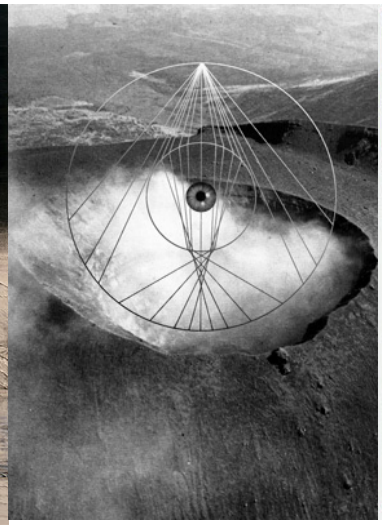

TORVAL?
BENN CONNELLIES


TORVAL?
BENN CONNELLIES


PINK FLOYD
DARK SIDE OF
THE
THAT'S NO
MOON

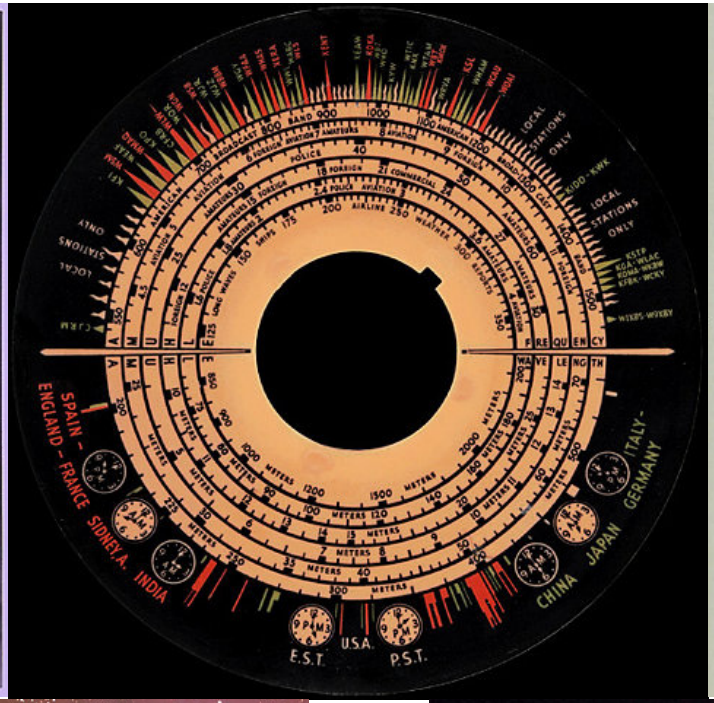


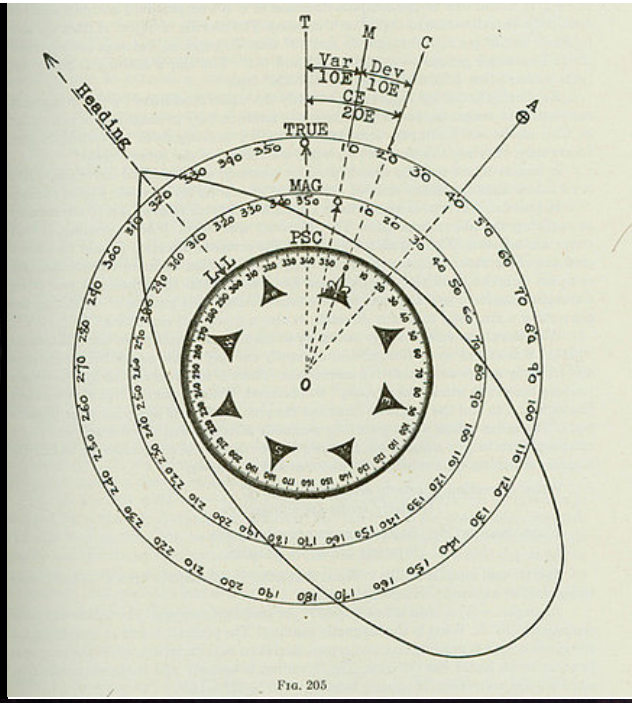

SATURN
JUPITER
MARS
SUN
VENUS
MERCURY
MOON

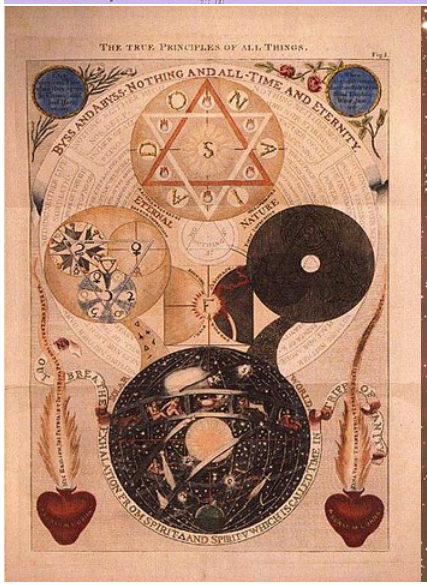



DL 9636
DECCA
GOLD LABEL SERIES
33⅓ RPM
LONG PLAY
RECORDS
Mozart
serenade No. 7
in D major, K. 250
("Haffner")
the Bamberg
Symphony Orchestra
Ferdinand Leitner, conductor
Dénes Zsigmondy, solo violin
TANGERINE DREAM
peter max

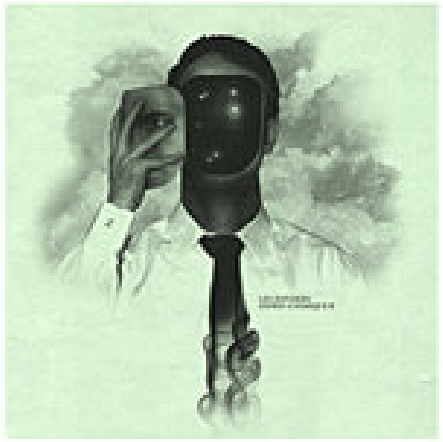

ELECTRIKSUICIDE


SPAIN – ENGLAND – FRANCE SIDNEY A. INDIA
ITALY – GERMANY
CHINA JAPAN
E.S.T.
U.S.A.
P.S.T.


Heading
TRUE
MAG
PSC
Fig. 205

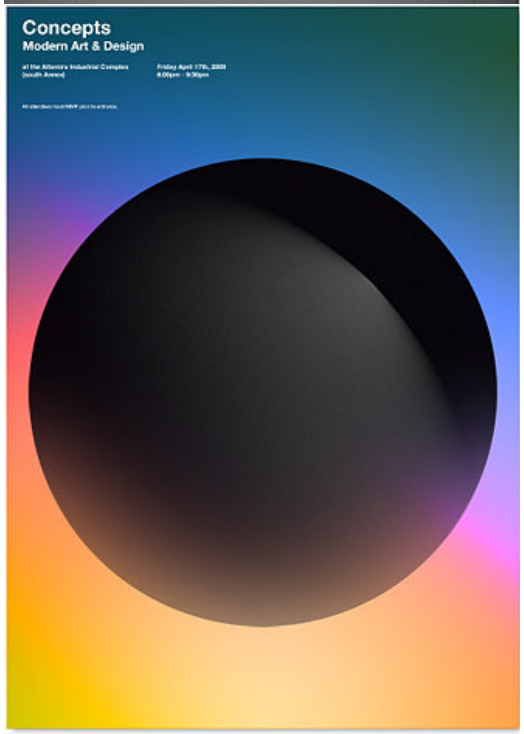

THE TRUE PRINCIPLES OF ALL THINGS.
DONA
SIVA


DONT CRY WHEN THE SUN IS GONE, BECAUSE THE TEARS WON'T LET YOU SEE THE STARS.

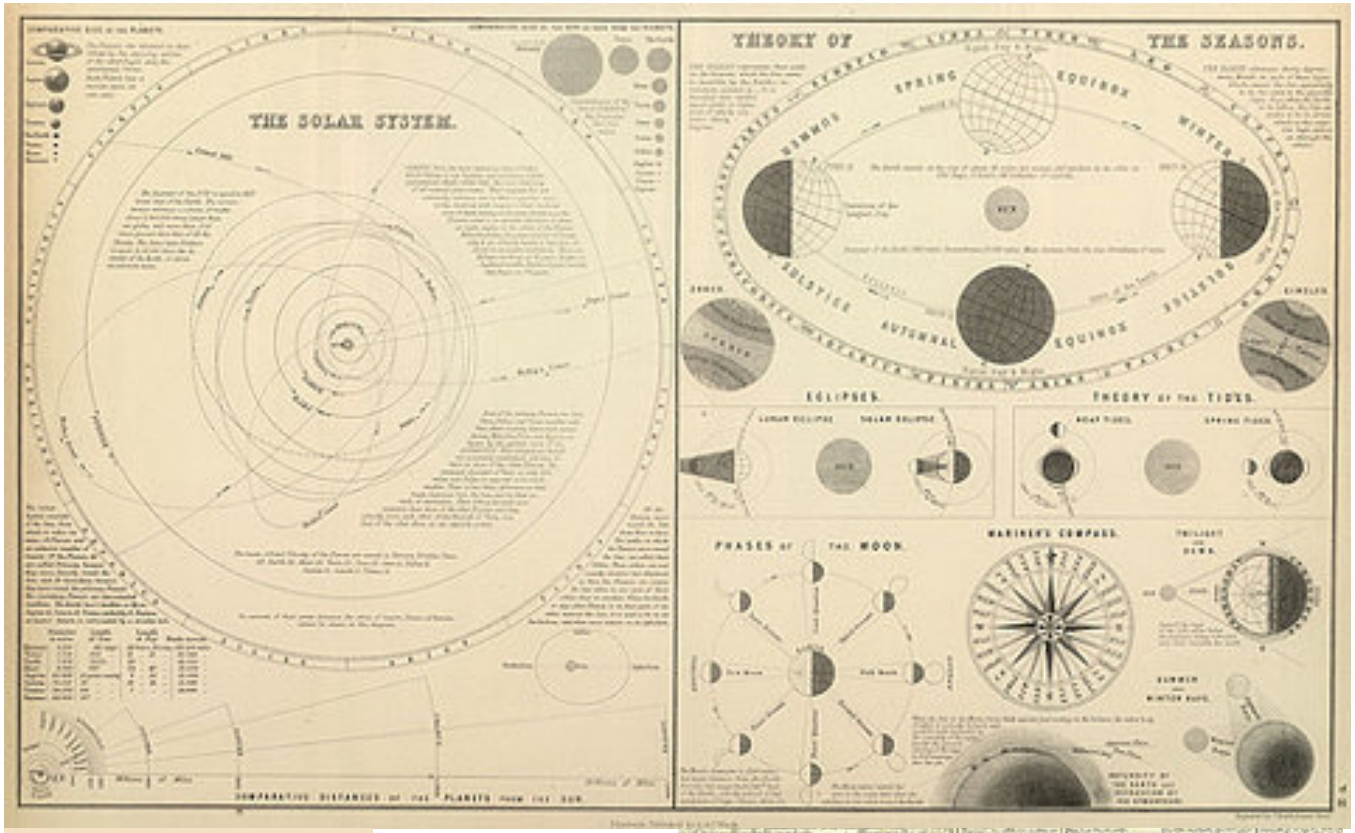


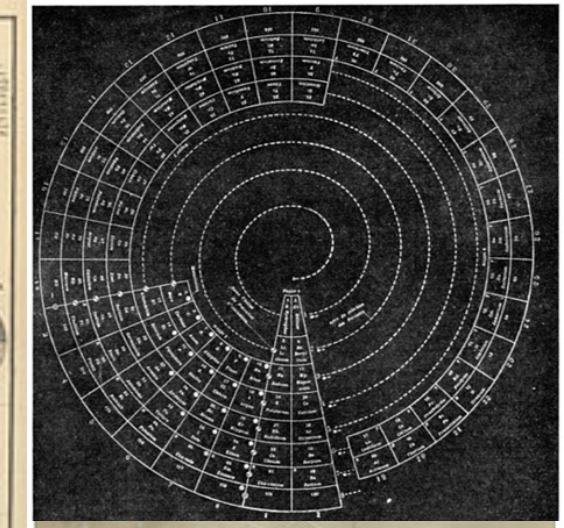

ZONDERS
KOSMISCHE ZEEFGEEST
MMIX

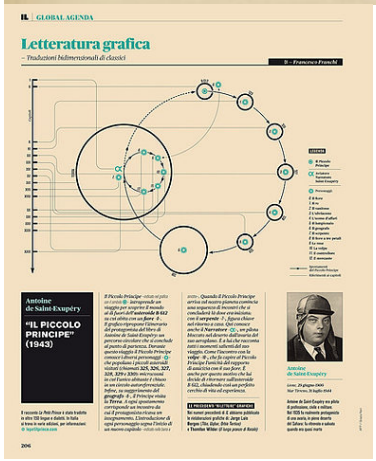

FUTURISMO
IMMORTALE

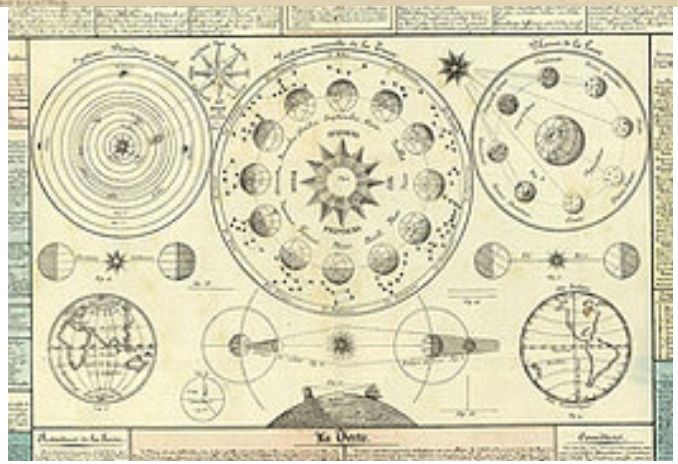

Concepts
Modern Art & Design

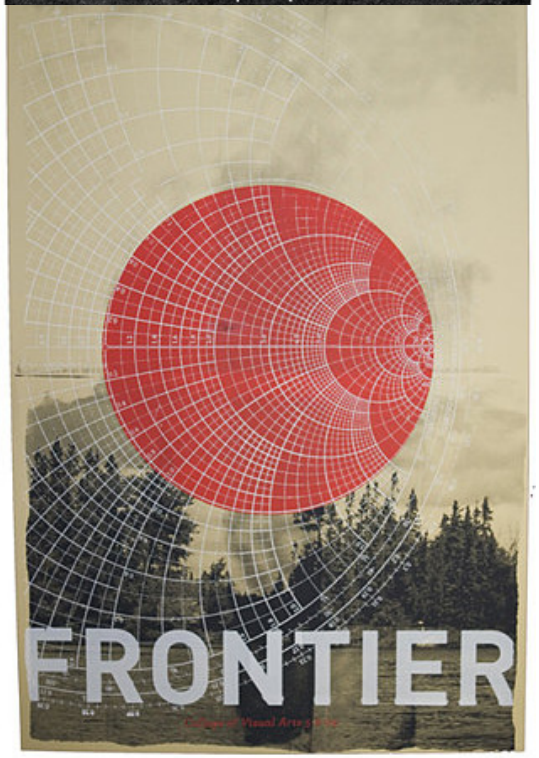

THE ZONDERS


THE SOLAR SYSTEM.
THEORY OF THE SEASONS.
SPRING EQUINOX
SUMMER SOLSTICE
WINTER SOLSTICE
AUTUMNAL EQUINOX
ECLIPSES.
LUNAR ECLIPSE
SOLAR ECLIPSE
THEORY of the TIDES.
PHASES of the MOON.
MARINER'S COMPASS.
COMPARATIVE DISTANCES of the PLANETS from the SUN.

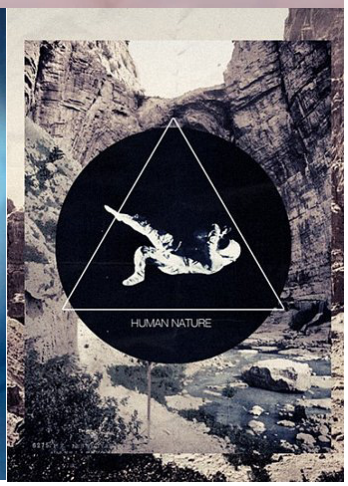


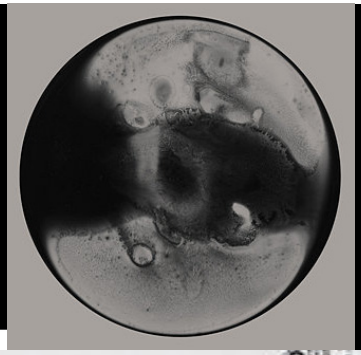

IL | GLOBAL AGENDA
Letteratura grafica
– Traduzioni bidimensionali di classici
Antoine de Saint-Exupéry
"IL PICCOLO PRINCIPE" (1943)
Antoine de Saint-Exupéry

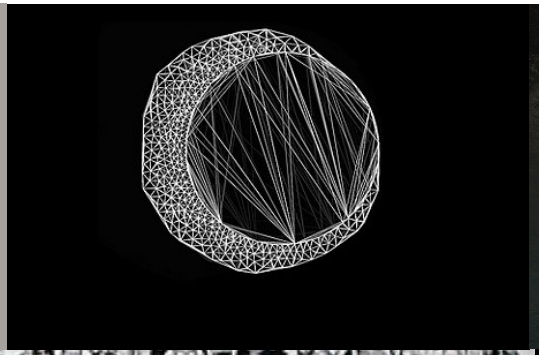

La Lune


FRONTIER

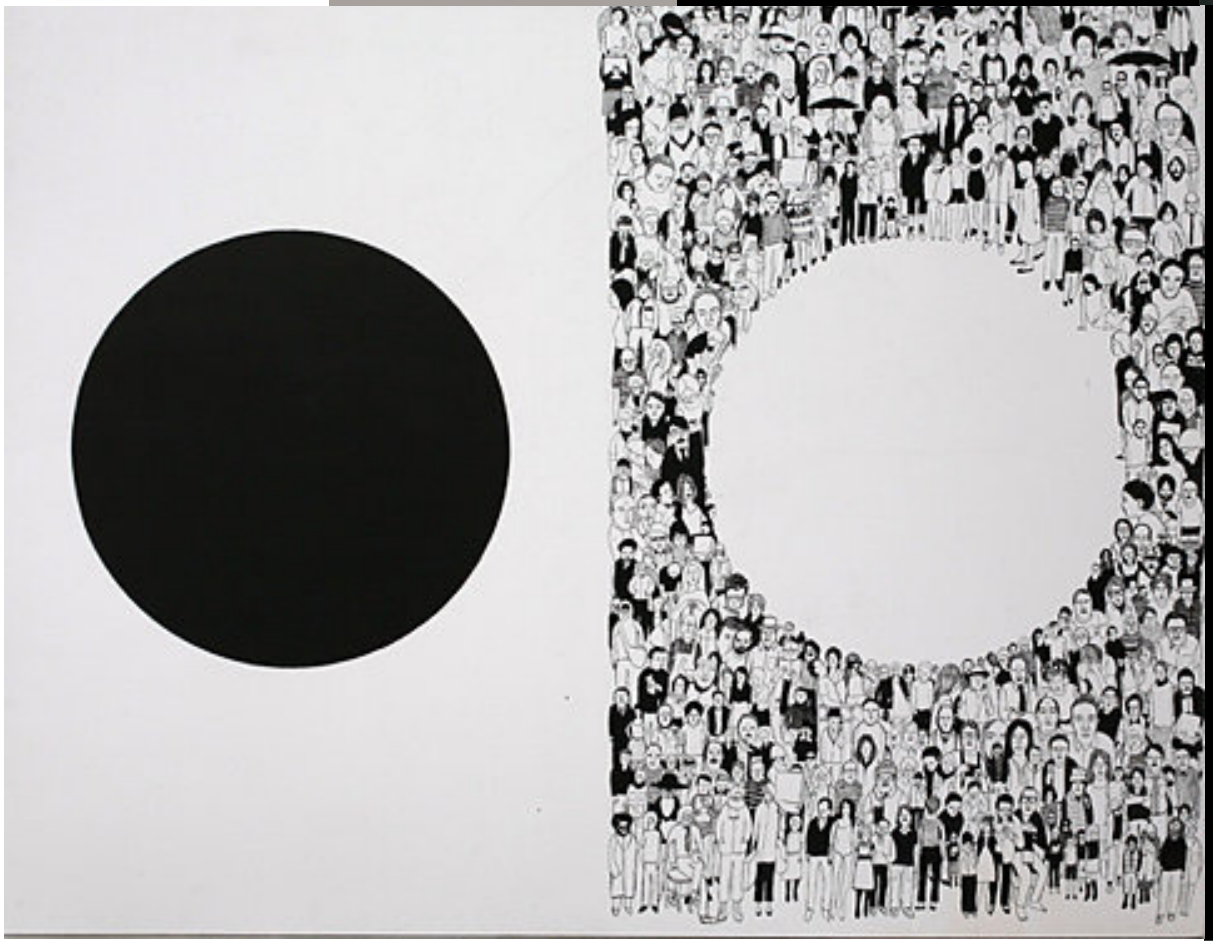

domus
923

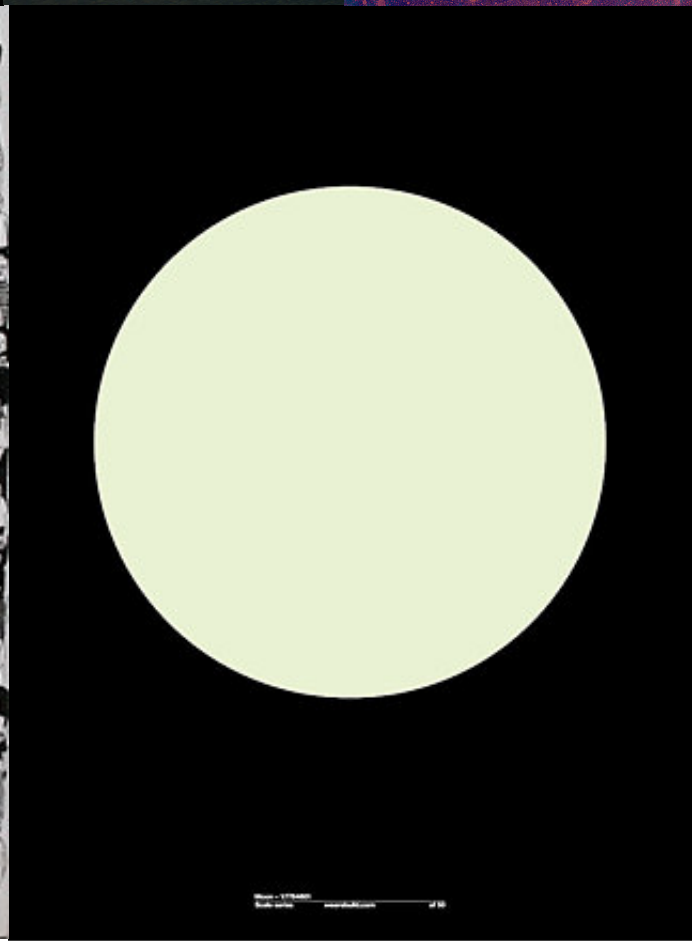

HUMAN NATURE



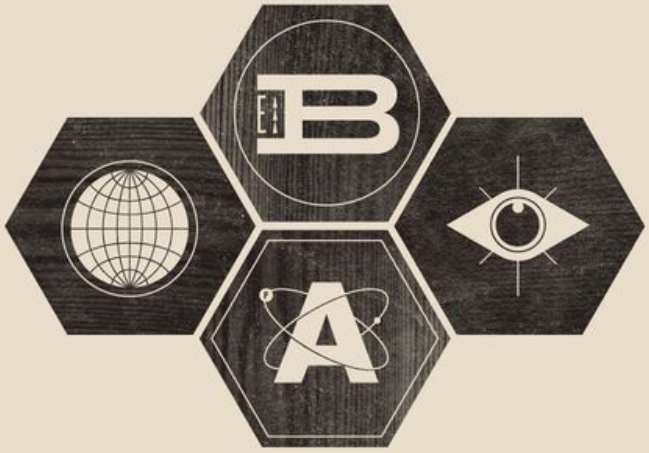


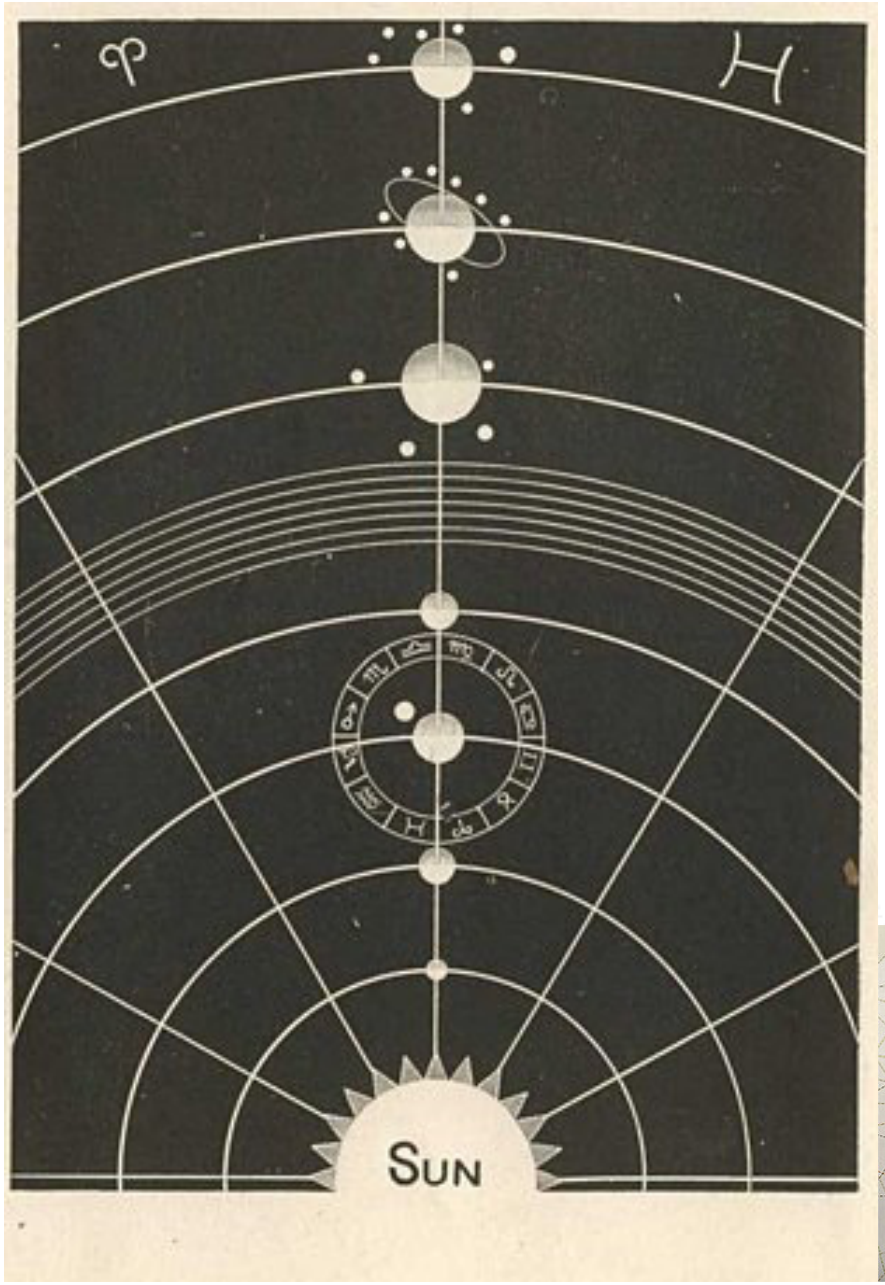

POÉTICA PARA
COSMO
NAUTAS
Henry Pierrot

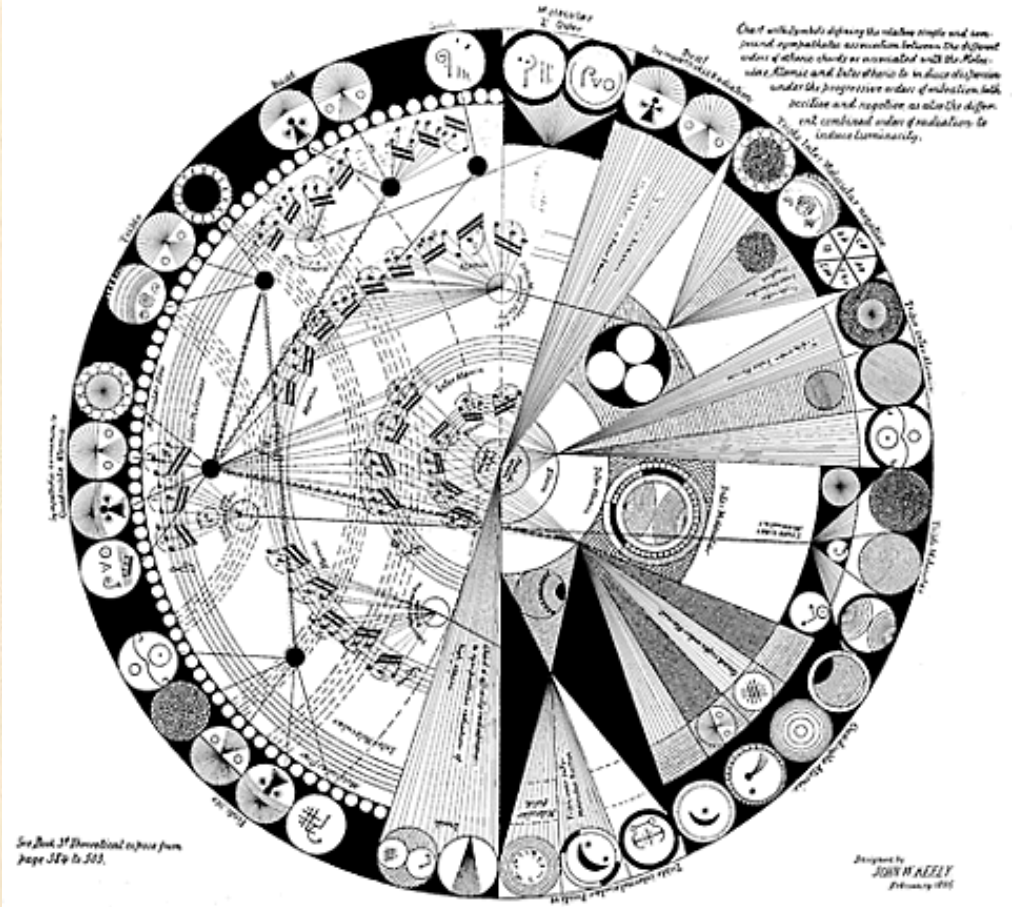


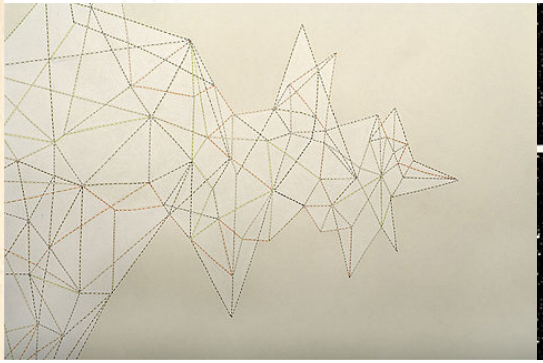


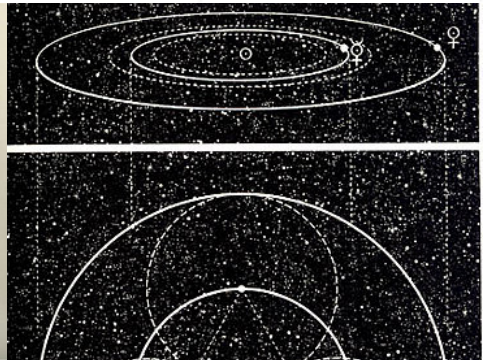
NEVEREVERLAND

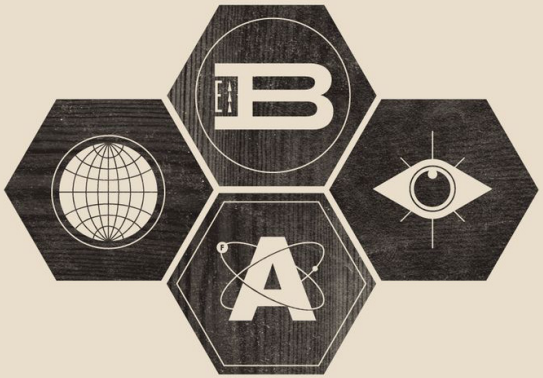


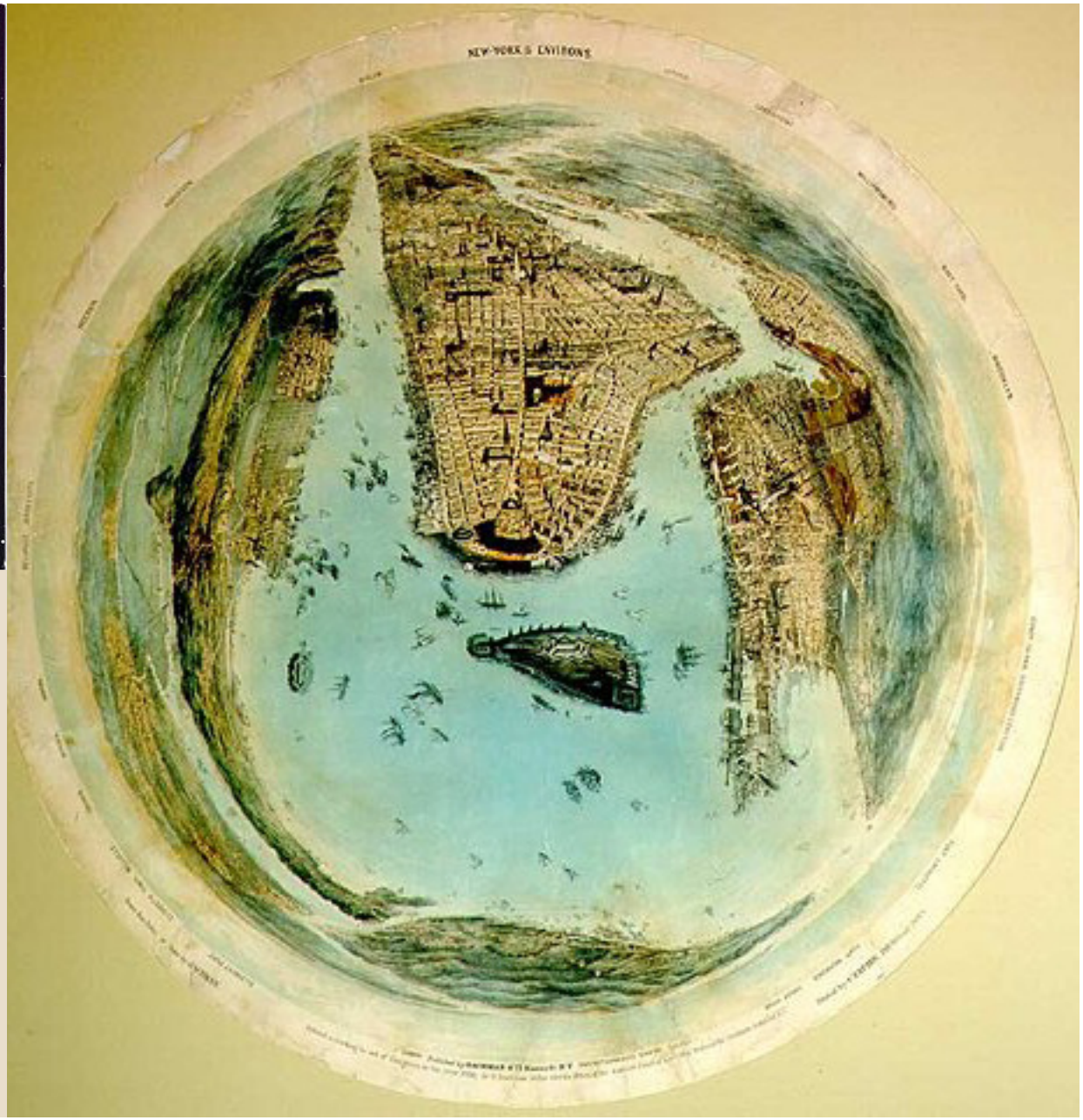

SUN



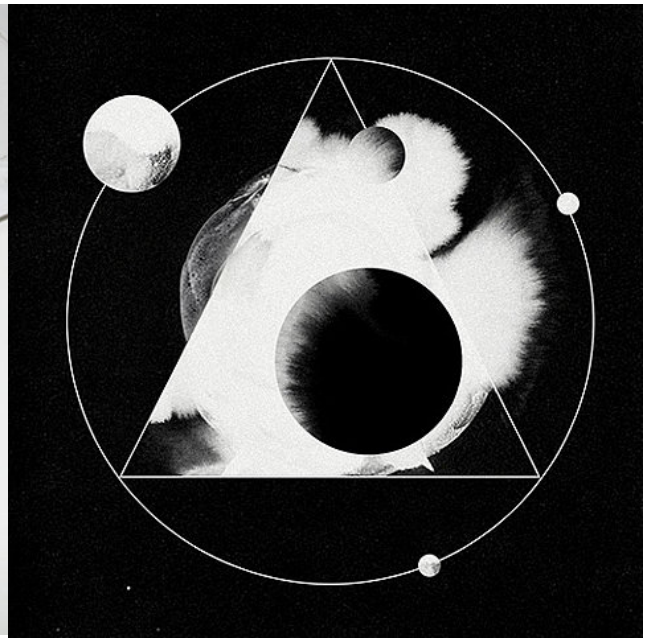


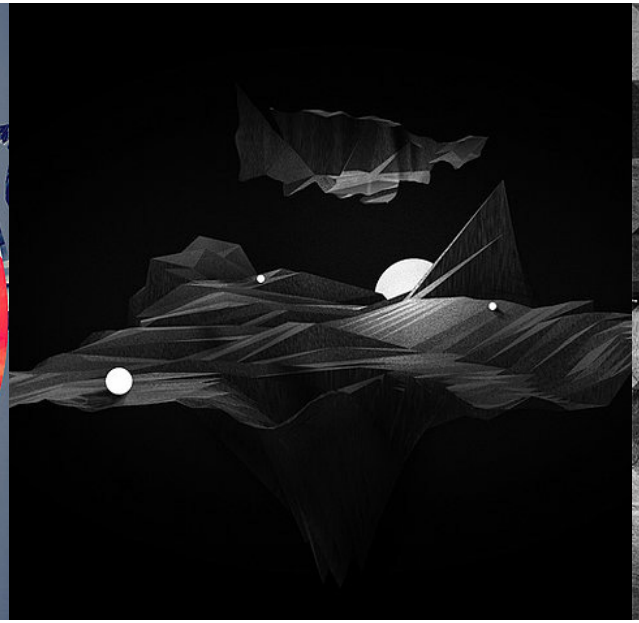


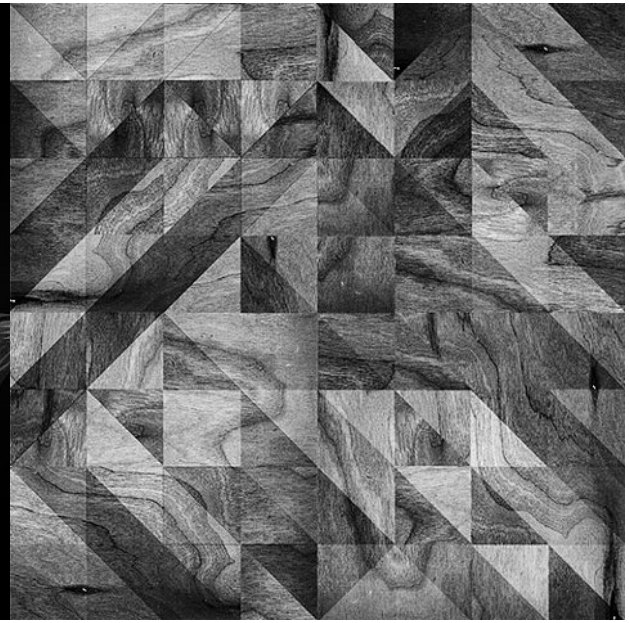


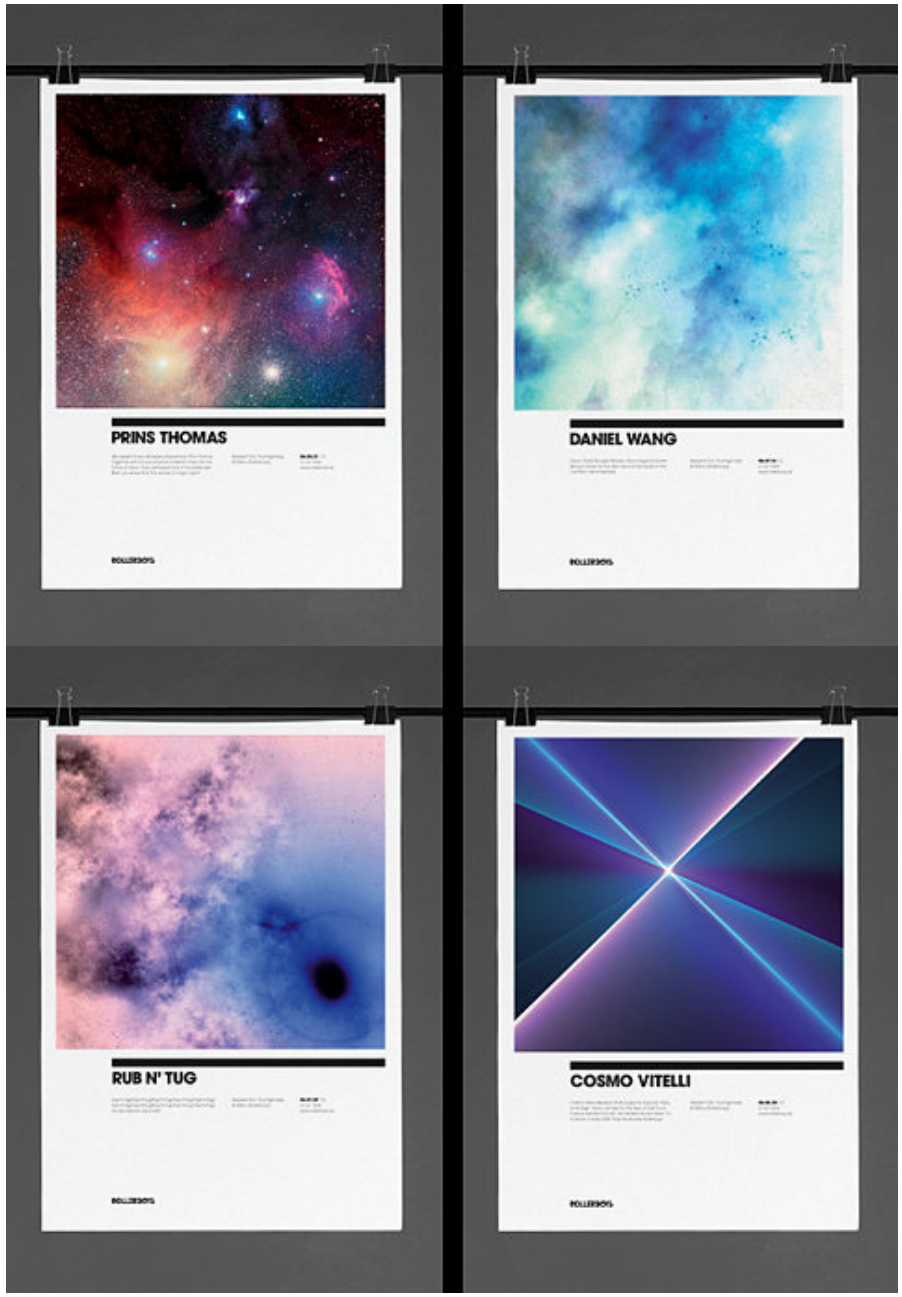

NEW-YORK & ENVIRONS


THE ARKITIP INTEL
NEWSPAPER SUPPLEMENT

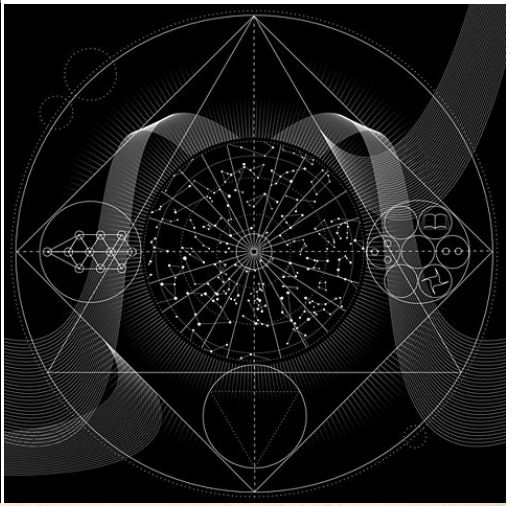


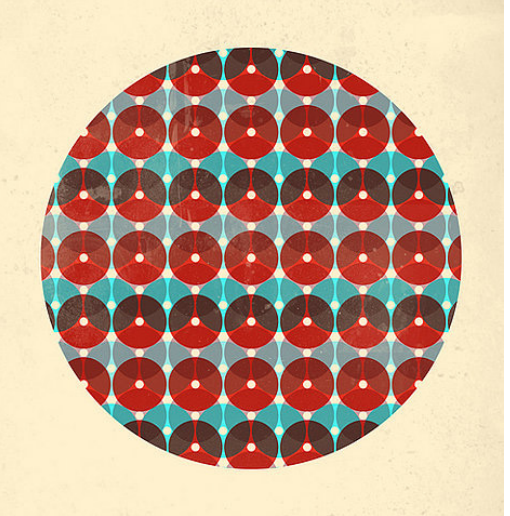


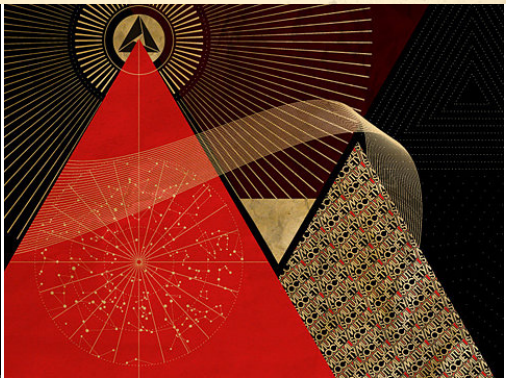


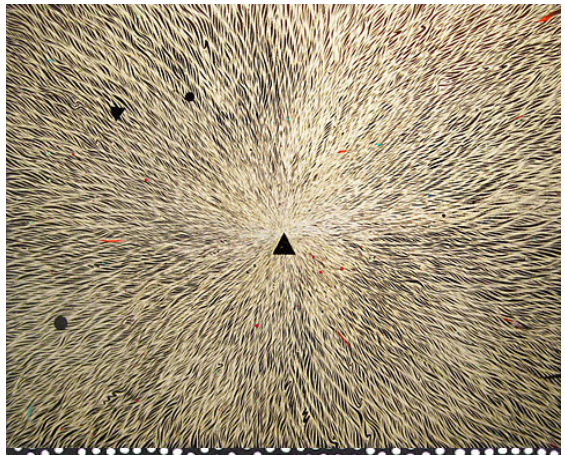

PRINS THOMAS
DANIEL WANG
RUB N' TUG
COSMO VITELLI

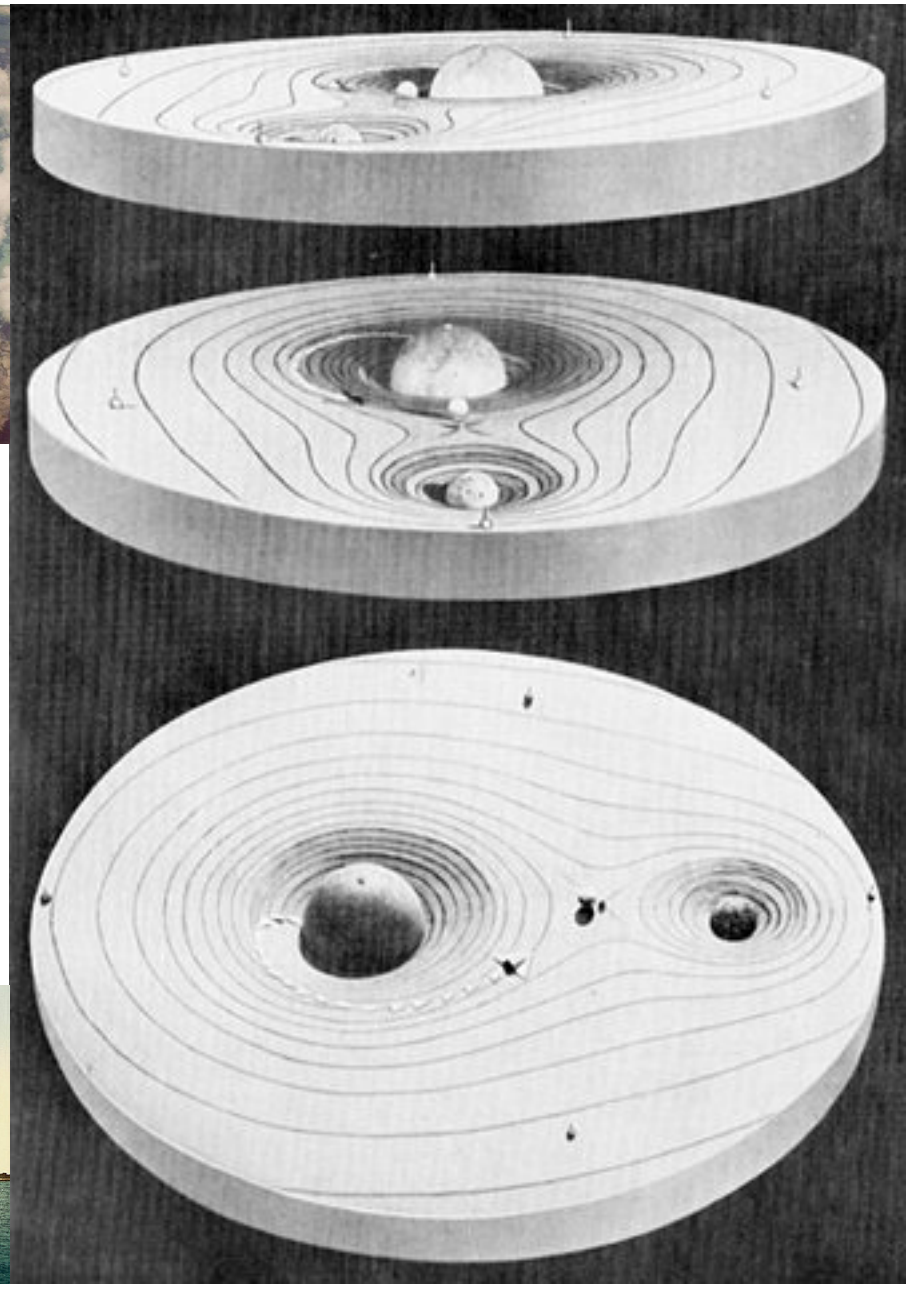

DON CABALLERO
DD/MM/YYYY + COUGARS
FRIDAY 2/27 AT REGGIES 2109 S.STATE. 8 PM

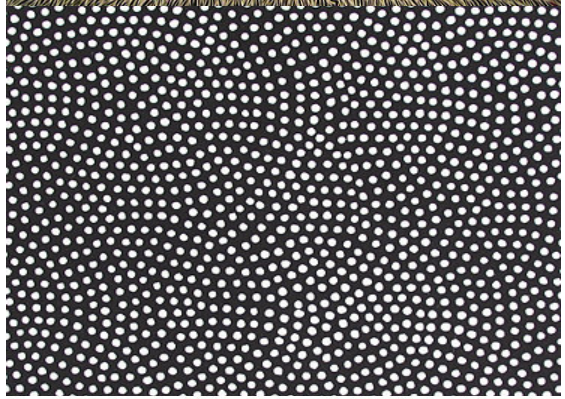




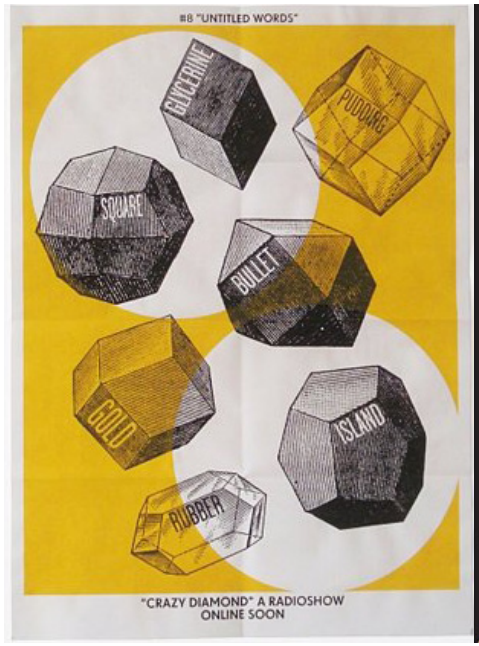


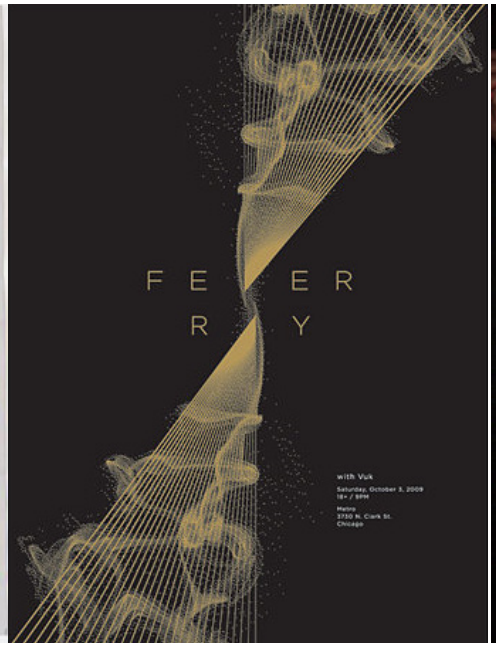






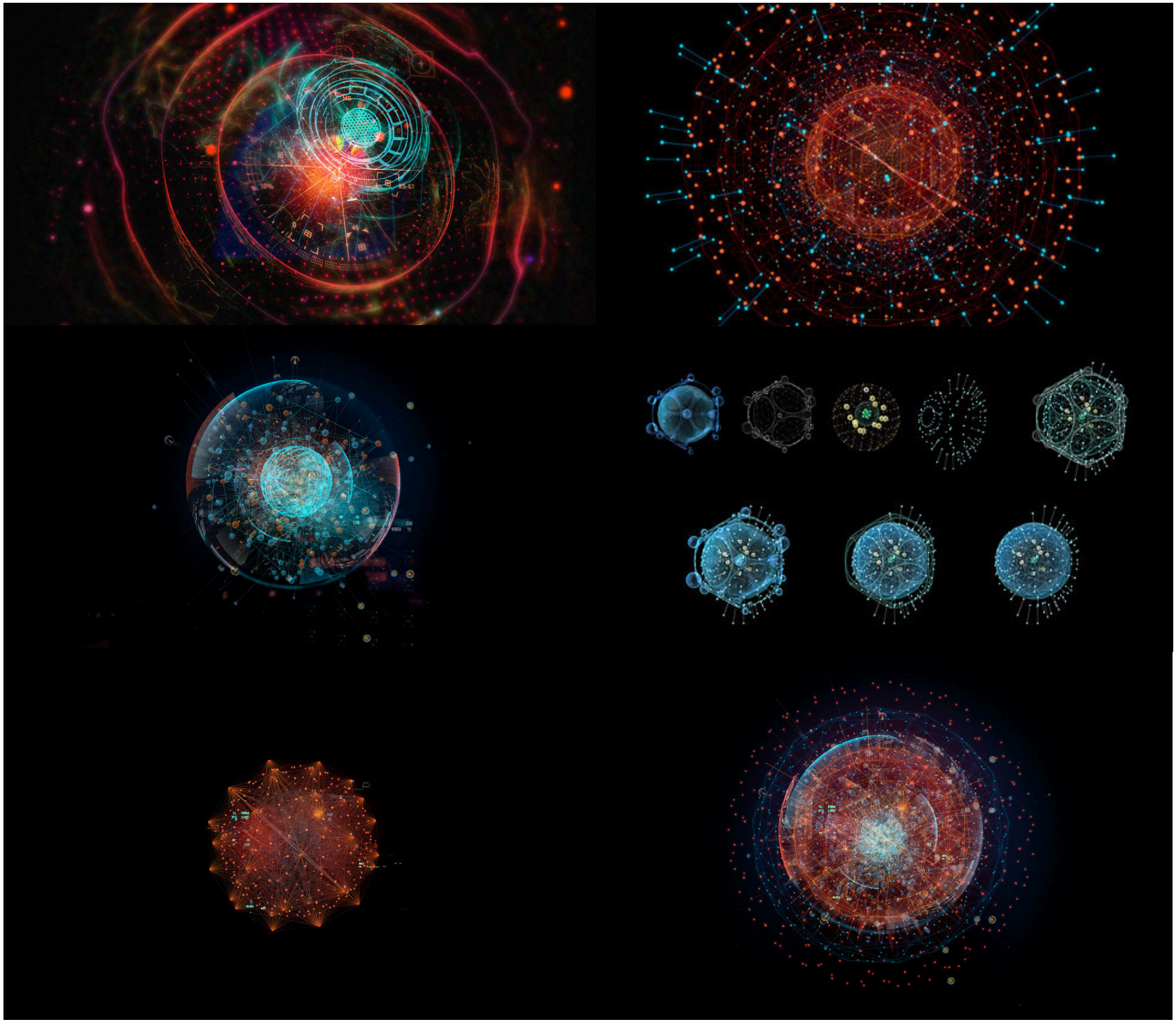

THE
LAST
PLANET

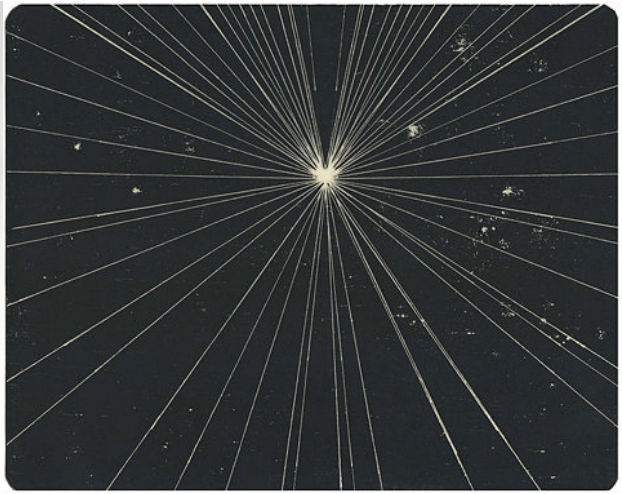

#8 "UNTITLED WORDS"
BUTCHERINE
PUDDING
SQUARE
BULLET
GOLD
ISLAND
RUBBER
"CRAZY DIAMOND" A RADIOSHOW
ONLINE SOON


F E E R
R Y
with Vuk
Saturday, October 3, 2009
18+ / $PM
Metro
3730 N. Clark St.
Chicago

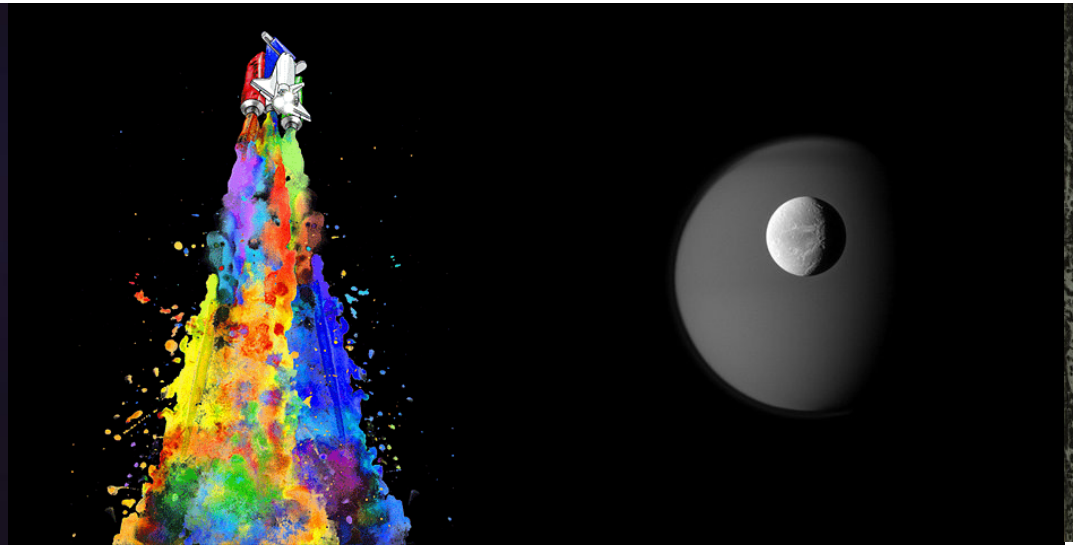

WE WILL ALL MEET AGAIN,
AT THE END OF TIME,
for
THE ENDLESS DAYS
OF BEING DEAD

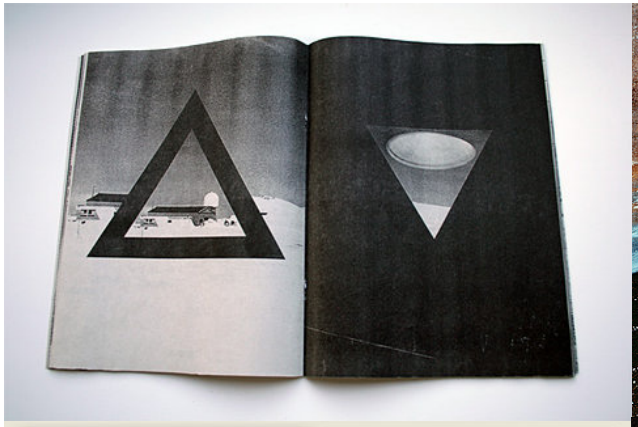

MAKING A
WORLD OF
DIFFERENCE
We are connected
to the world in which
we do business

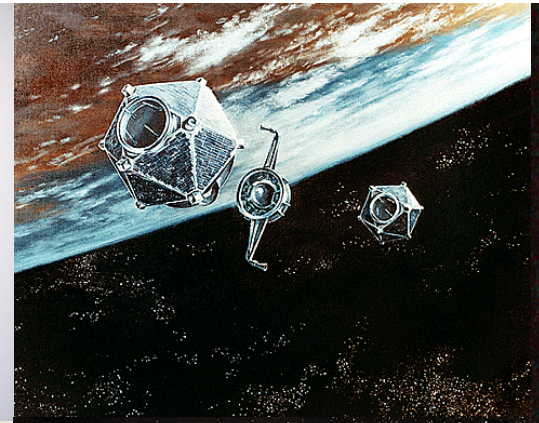


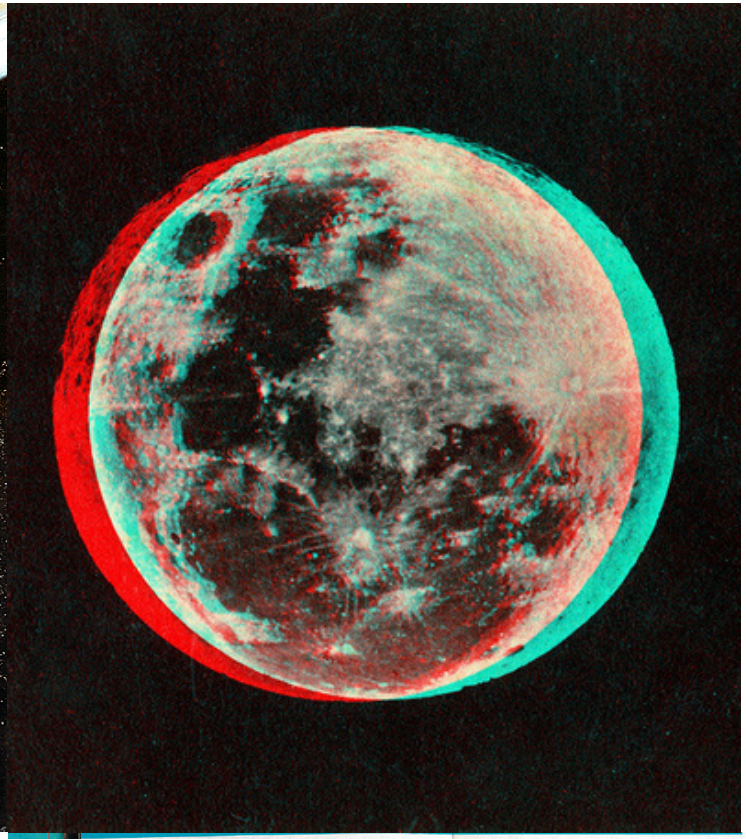


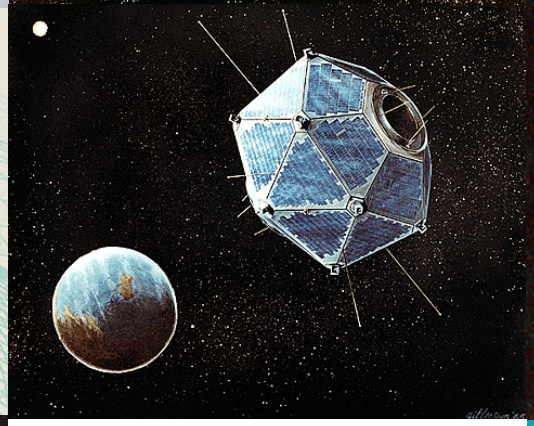

TAKING US THERE
NASA





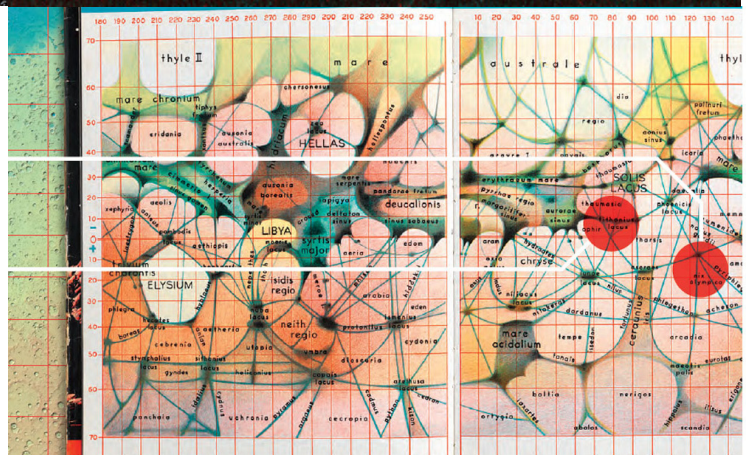




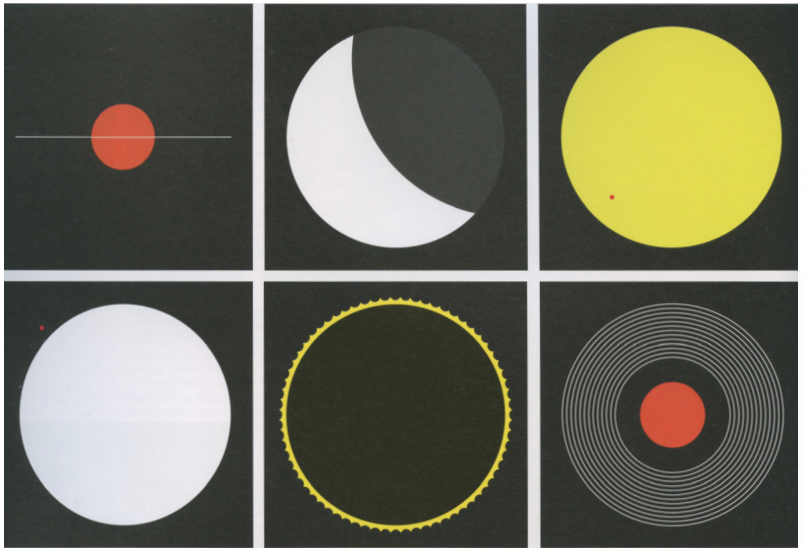


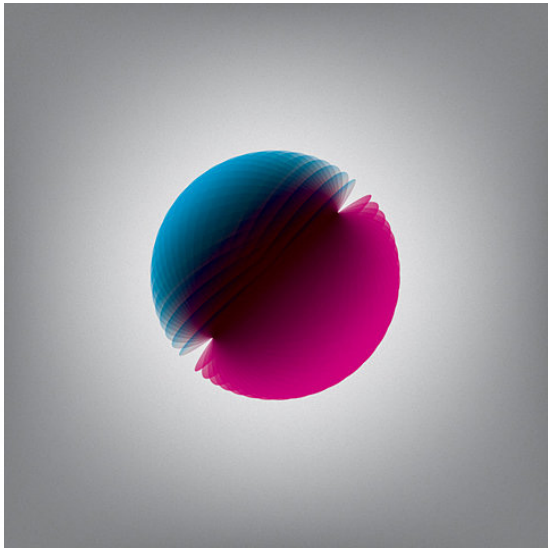
TAKING US THERE

NASA

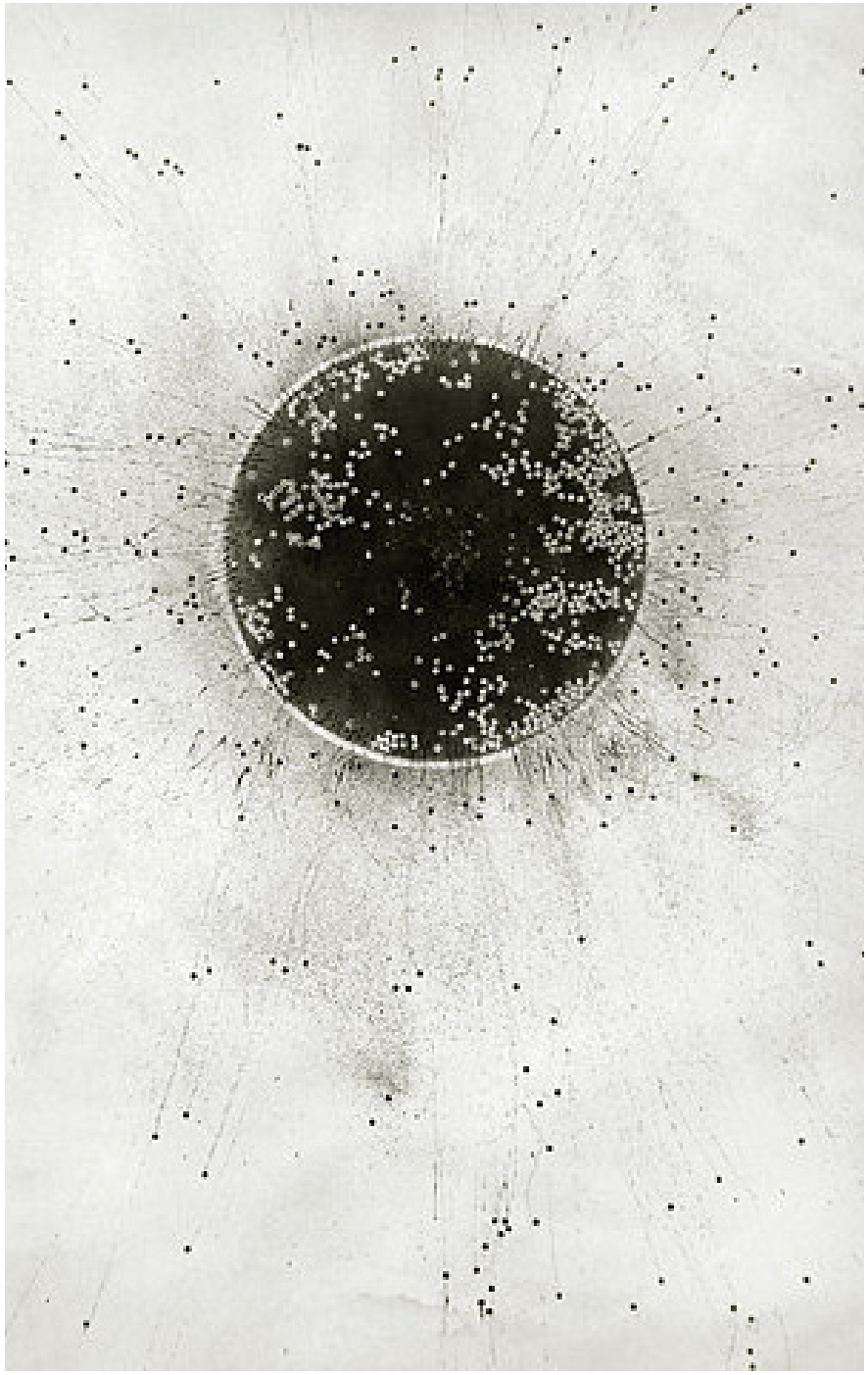


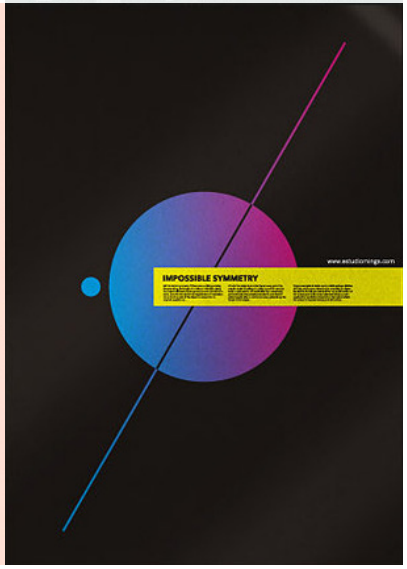

VETTIG
REVISION 30 AUGUST 1966
COMMUNICATIONS EQUIPMENT
RETROGRADE ROCKETS
presenteert
Spektral
INSTRUMENTATION EQUIPMENT
INERTIAL GUIDANCE SYSTEM
ELECTRICAL EQUIPMENT
RADAR
24



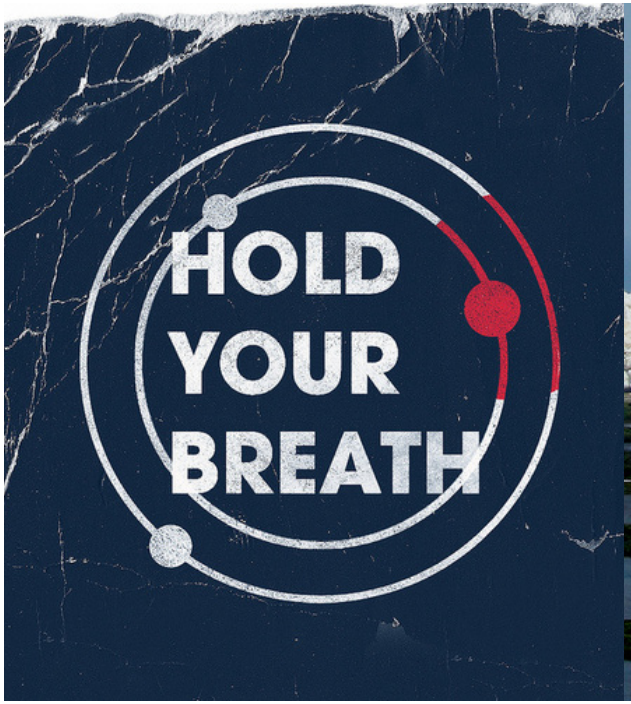



LONDON
JAZZ
FESTIVAL
FRI 13 – SUN 22
NOVEMBER 2009
londonjazzfestival.org.uk
bbc.co.uk/radio3
MAYOR OF LONDON
Supported by
ARTS COUNCIL
ENGLAND
SERIOUS

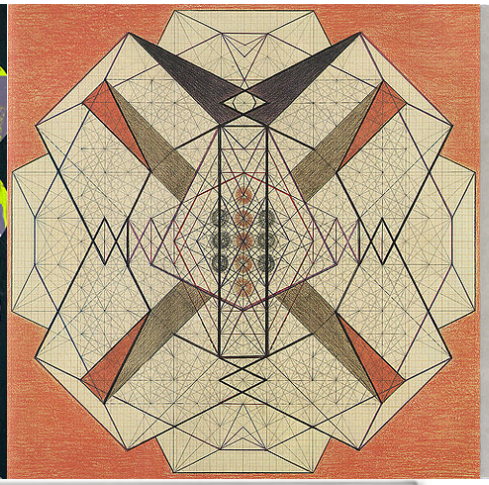


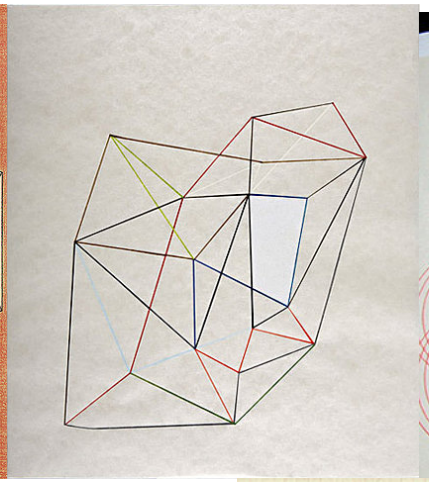

IMPOSSIBLE SYMMETRY

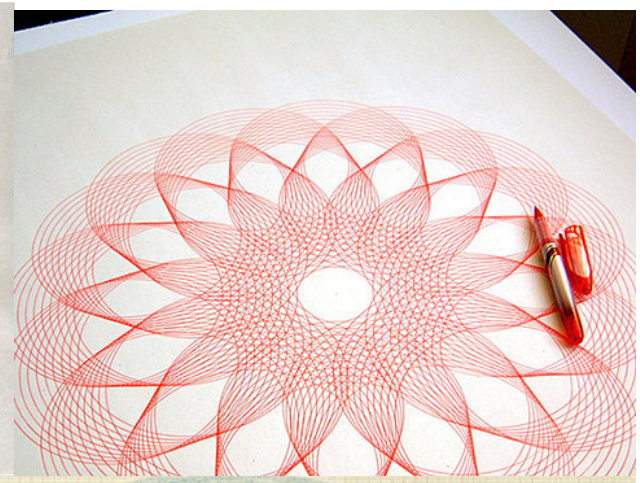

POKETO
WALLET SERIES
SPACETIME
ANDY J. MILLER
POKETO
WALLET SERIES
SPACETIME
MIKE PERRY
POKETO
WALLET SERIES
SPACETIME
CODY HUDSON
POKETO
WALLET SERIES
SPACETIME
DAMIEN CORRELL


HOLD
YOUR
BREATH

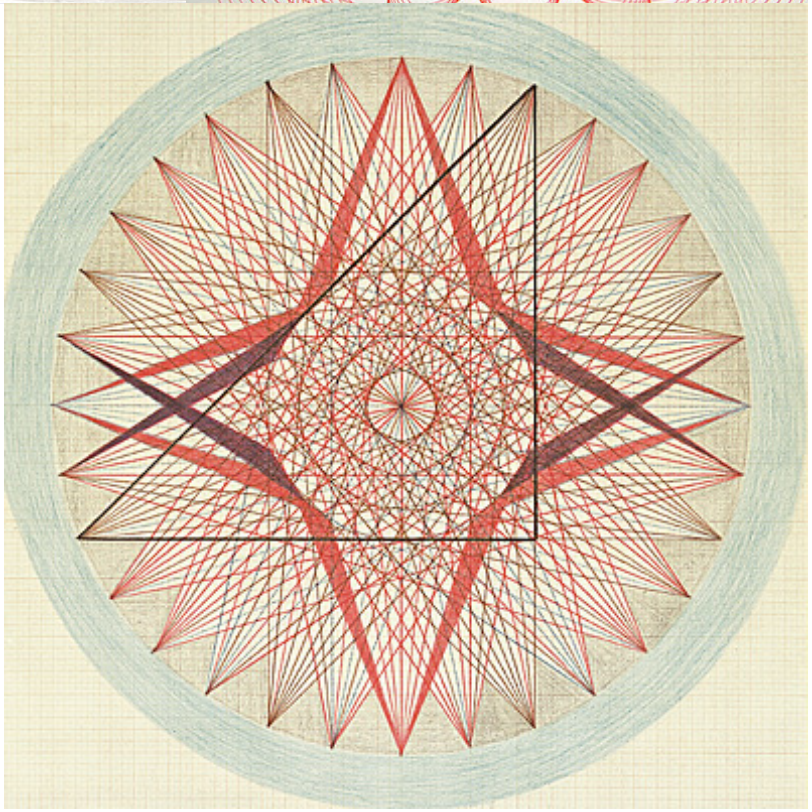

GOODBYE, EARTH

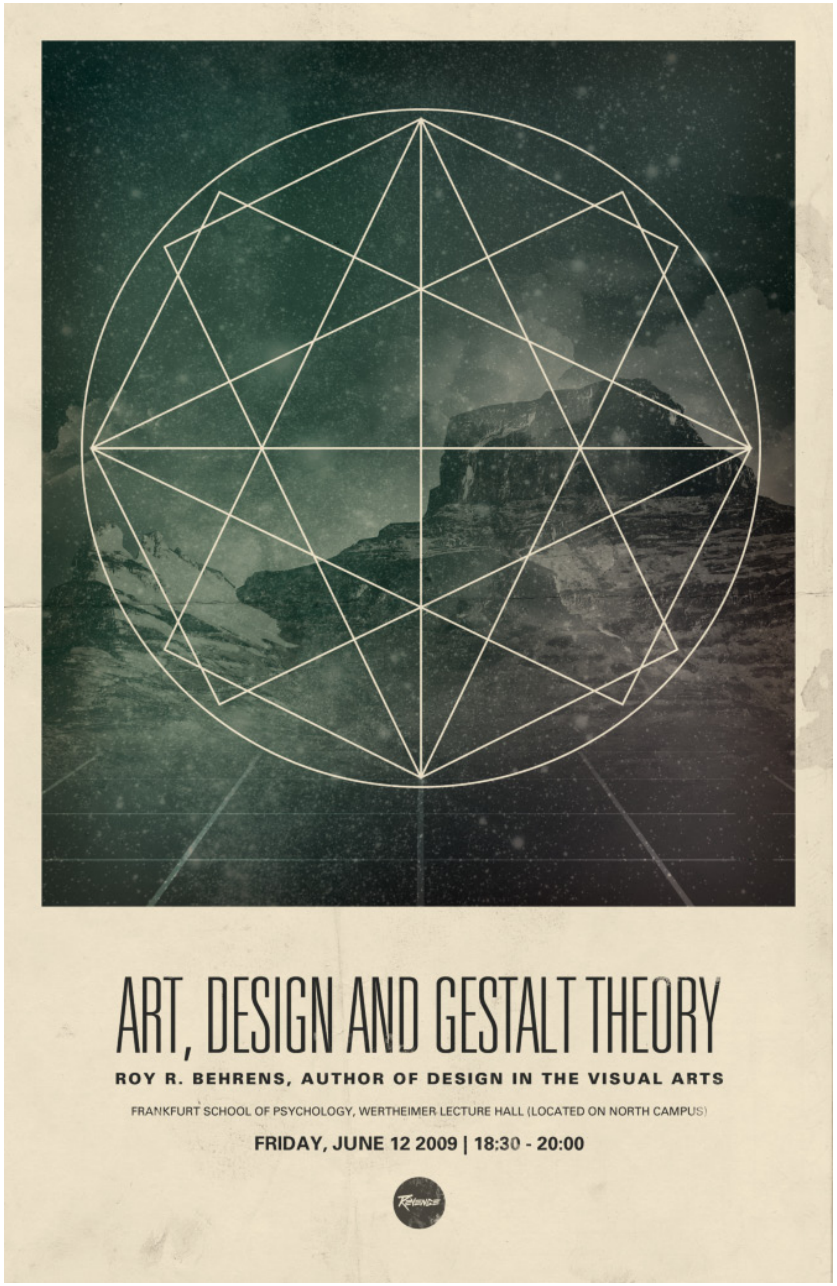


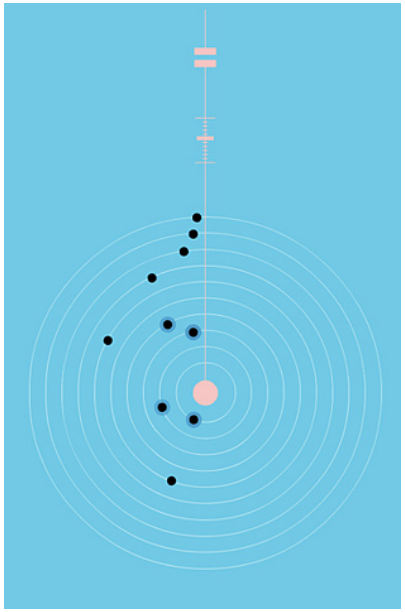


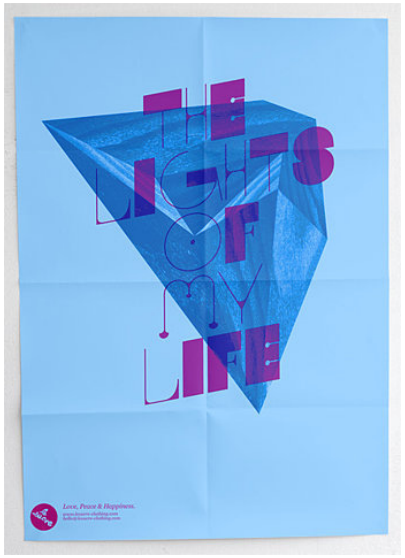



MEREDITH BRAGG
Silver Sonya



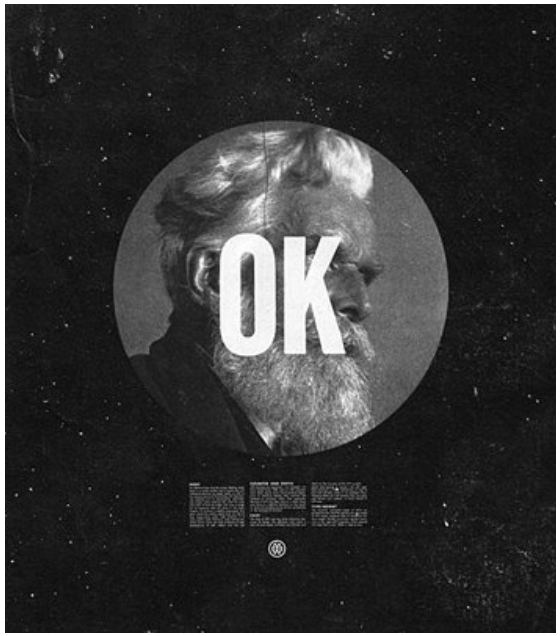

ART, DESIGN AND GESTALT THEORY
ROY R. BEHRENS, AUTHOR OF DESIGN IN THE VISUAL ARTS
FRANKFURT SCHOOL OF PSYCHOLOGY, WERTHEIMER LECTURE HALL (LOCATED ON NORTH CAMPUS)
FRIDAY, JUNE 12 2009 | 18:30 - 20:00




THE LIGHTS OF MY LIFE


RETURN


EARTH


OK


SPACE RACE


SPACE EXPLORATION

The International Year of Astronomy 2009 is a global effort initiated by the International Astronomical Union (IAU) and UNESCO to help the citizens of the world rediscover their place in the Universe through the day- and night-time sky, and thereby engage a personal sense of wonder and discovery.

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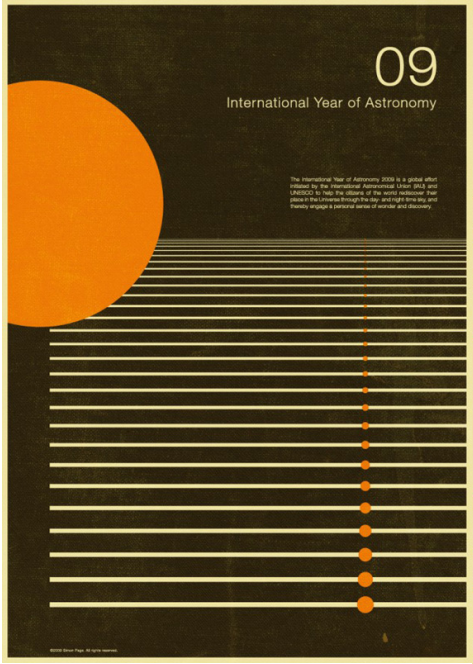

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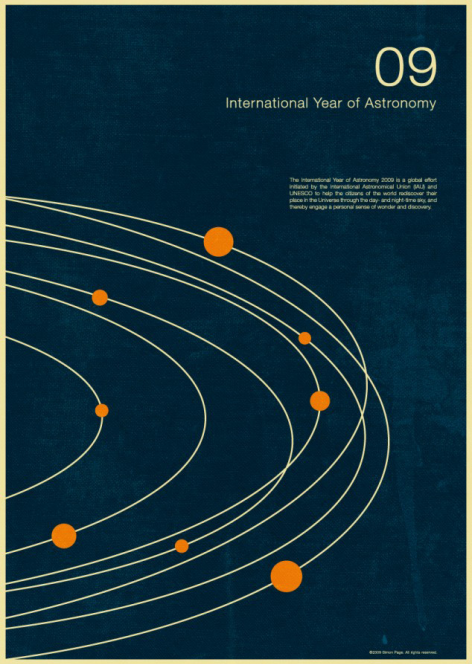

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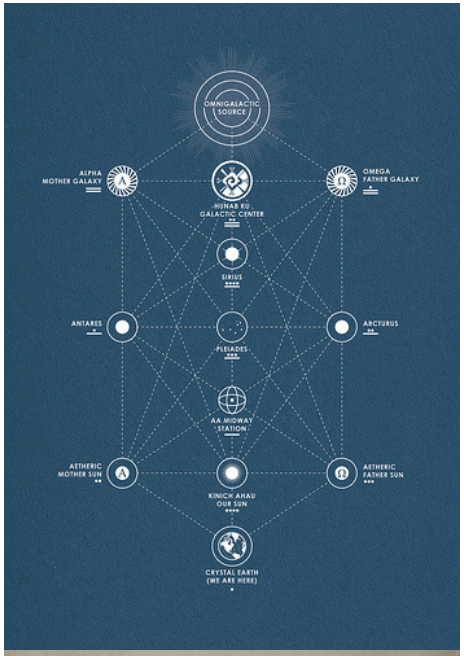
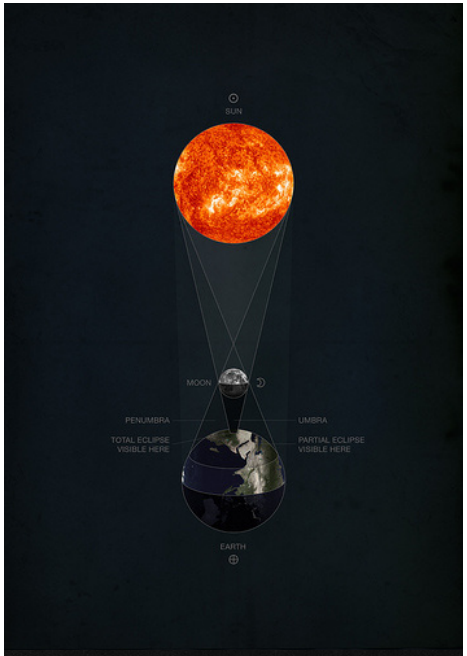
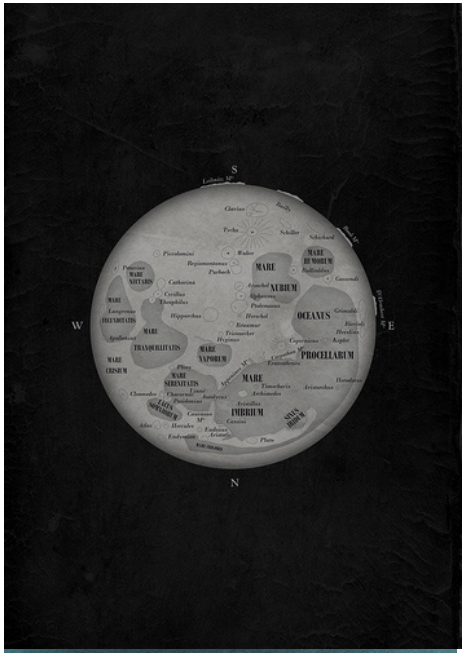
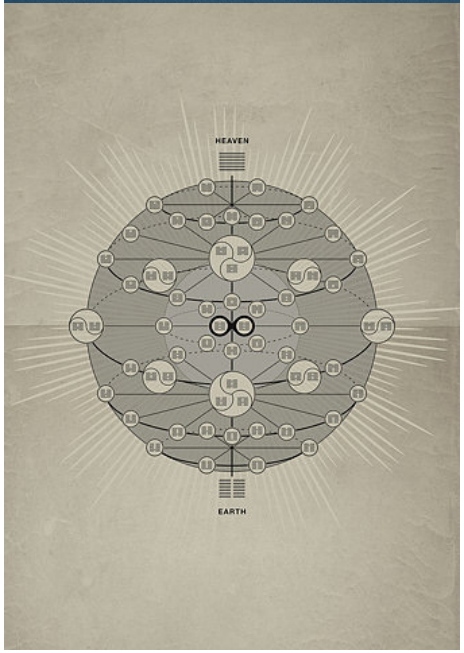

OMNIGALACTIC SOURCE
ALPHA MOTHER GALAXY
OMEGA FATHER GALAXY
HUNAB KU GALACTIC CENTER
SIRIUS
ANTARES
ARCTURUS
PLEIADES
AA MIDWAY STATION
AETHERIC MOTHER SUN
AETHERIC FATHER SUN
KINICH AHAU OUR SUN
CRYSTAL EARTH (WE ARE HERE)

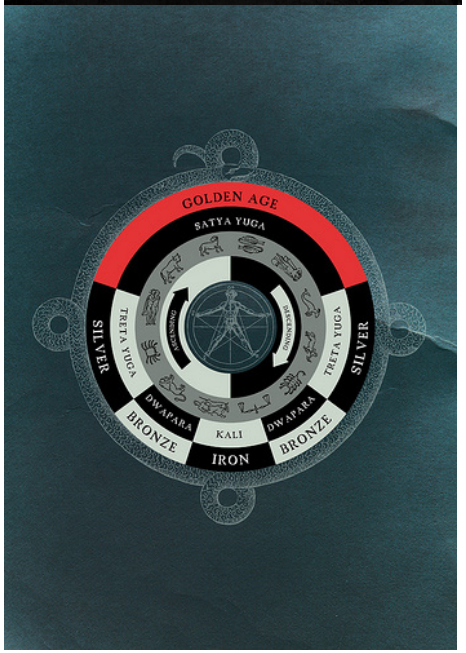

SUN
MOON
PENUMBRA
UMBRA
TOTAL ECLIPSE VISIBLE HERE
PARTIAL ECLIPSE VISIBLE HERE
EARTH

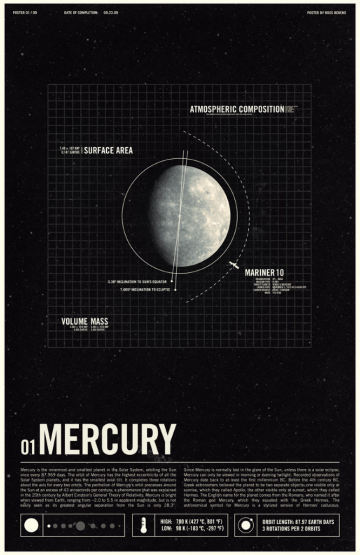

S
W
E
N
MARE
OCEANUS
PROCELLARUM
IMBRIUM

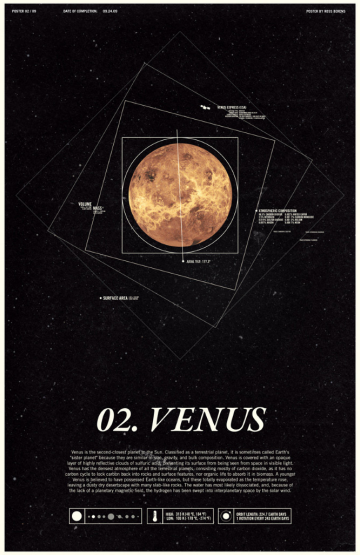

3960 miles
7920 miles
7920 miles
SQUARING THE CIRCLE
with the Earth and the Moon

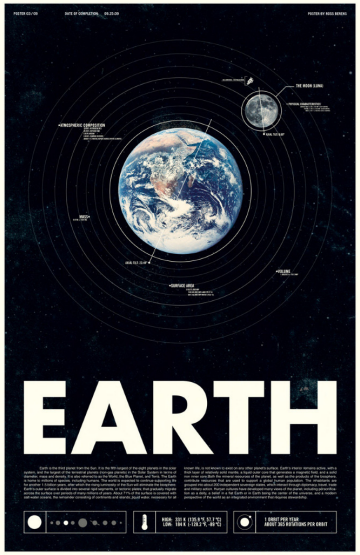

HEAVEN
EARTH


ORION 7


GOLDEN AGE
SATYA YUGA
TRETA YUGA
DWAPARA
KALI
SILVER
BRONZE
IRON
ASCENDING
DESCENDING

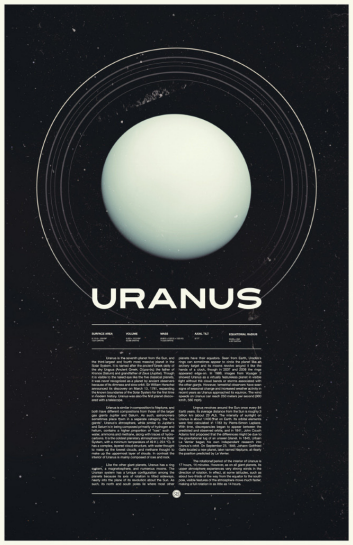

ATMOSPHERIC COMPOSITION
SURFACE AREA
MARINER 10
VOLUME MASS
01 MERCURY

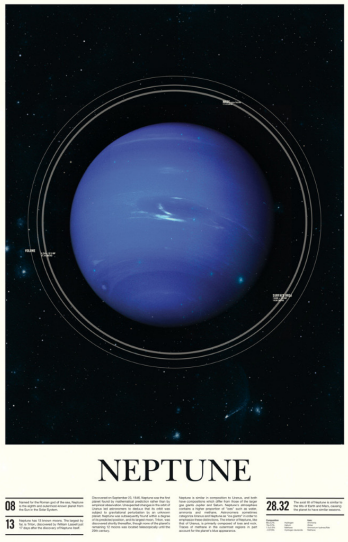

02. VENUS

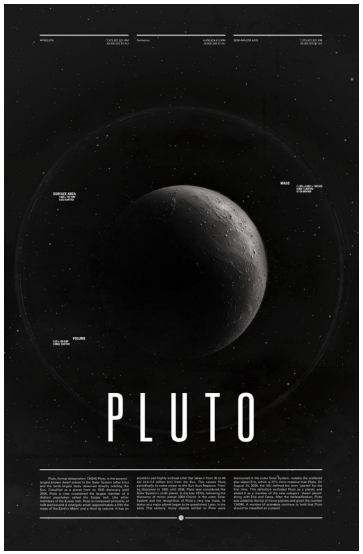

THE MOON ILLUMA
EARTH


MARS: THE RED PLANET


JUPITER
THE LARGEST PLANET!


URANUS


NEPTUNE

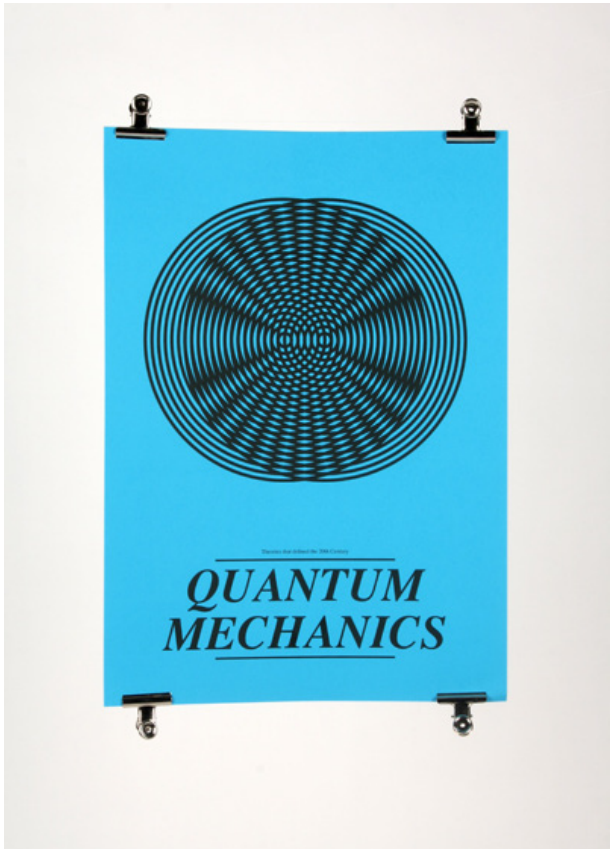

PLUTO


SATURN: A GAS GIANT
THE SECOND LARGEST PLANET


Celestial bodies such as stars and planets bend the space that surrounds them.

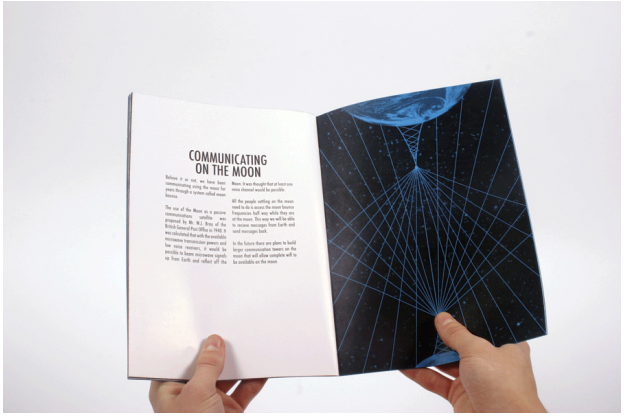

The reasons for this behaviour are still not completely understood today.


GETTING TO THE MOON

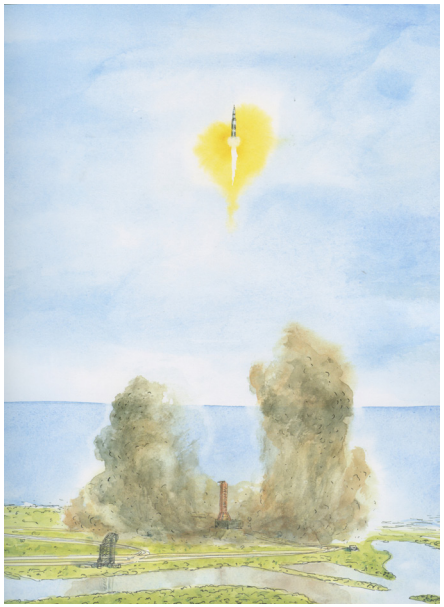

QUANTUM MECHANICS

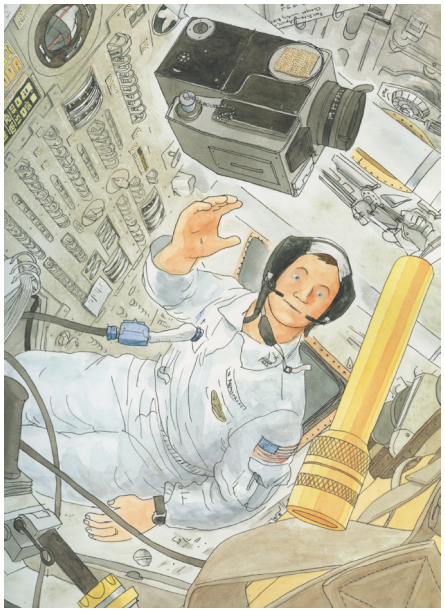

PLANS FOR THE MOON

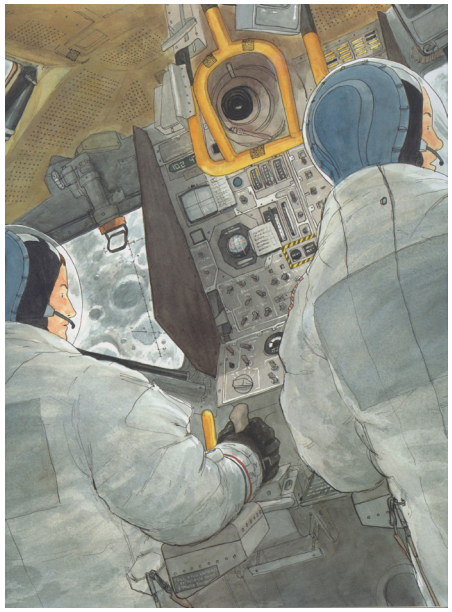

GRAVITY ON THE MOON


COMMUNICATING ON THE MOON

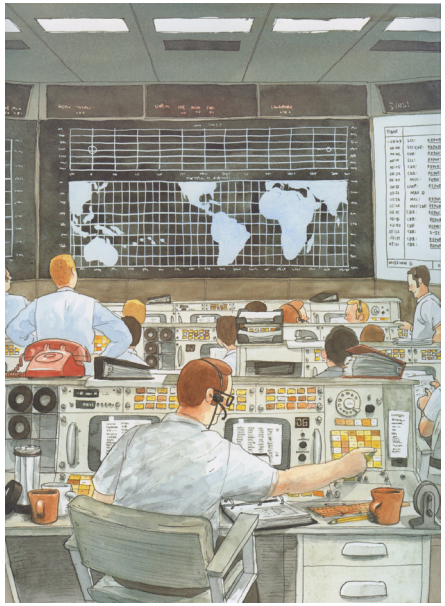

BREATHING ON THE MOON

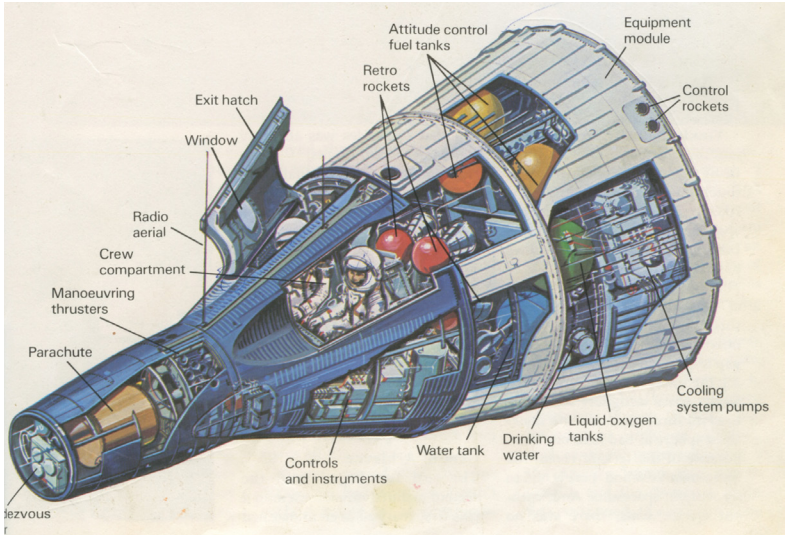


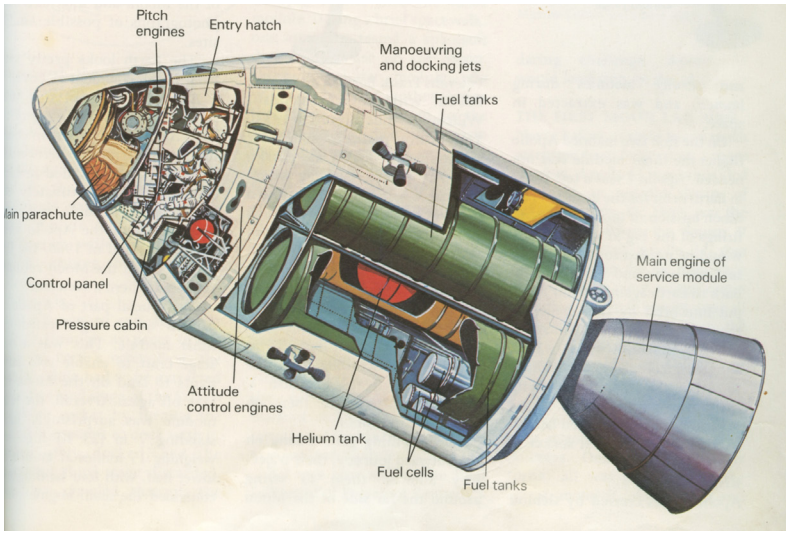


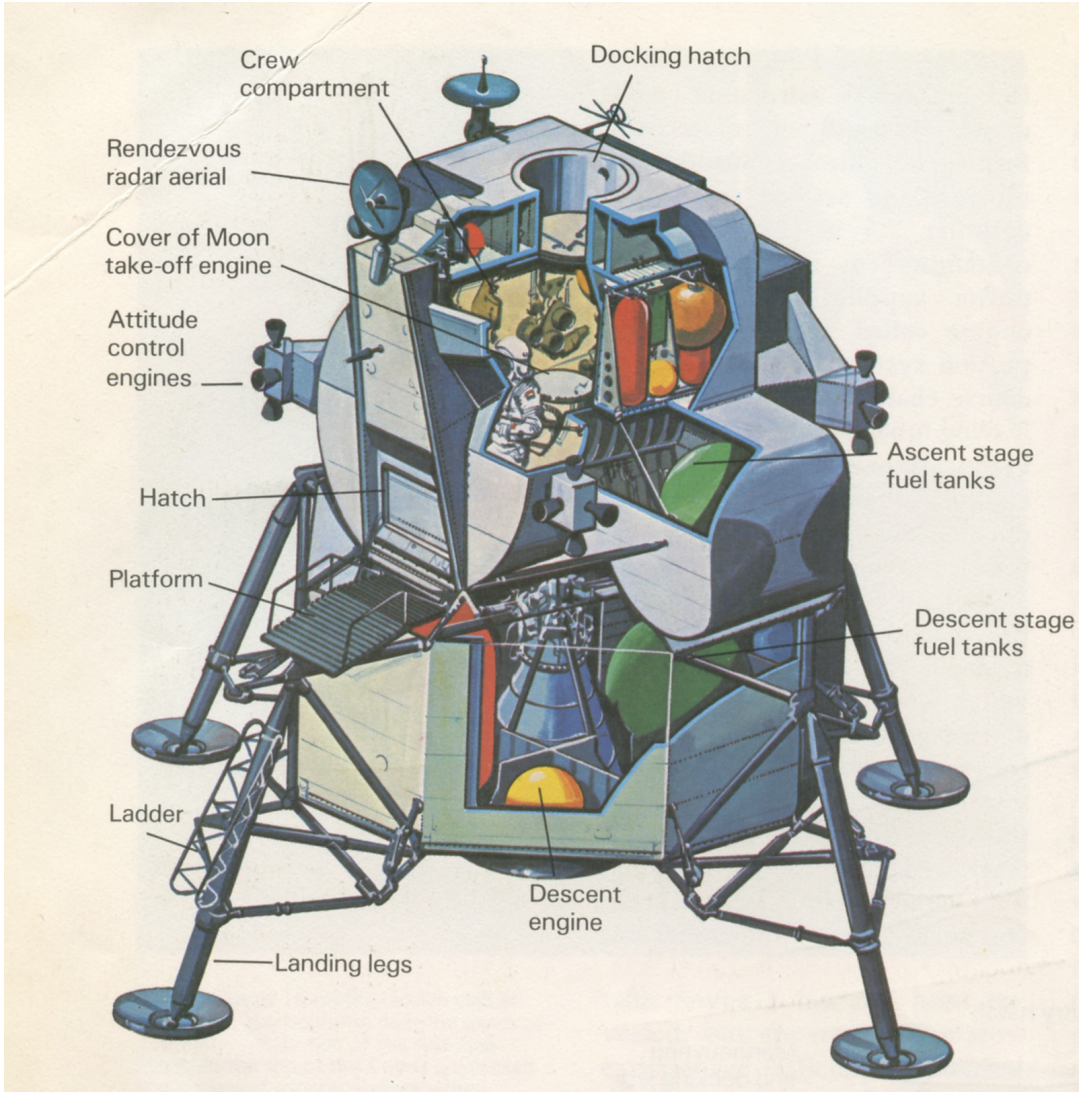


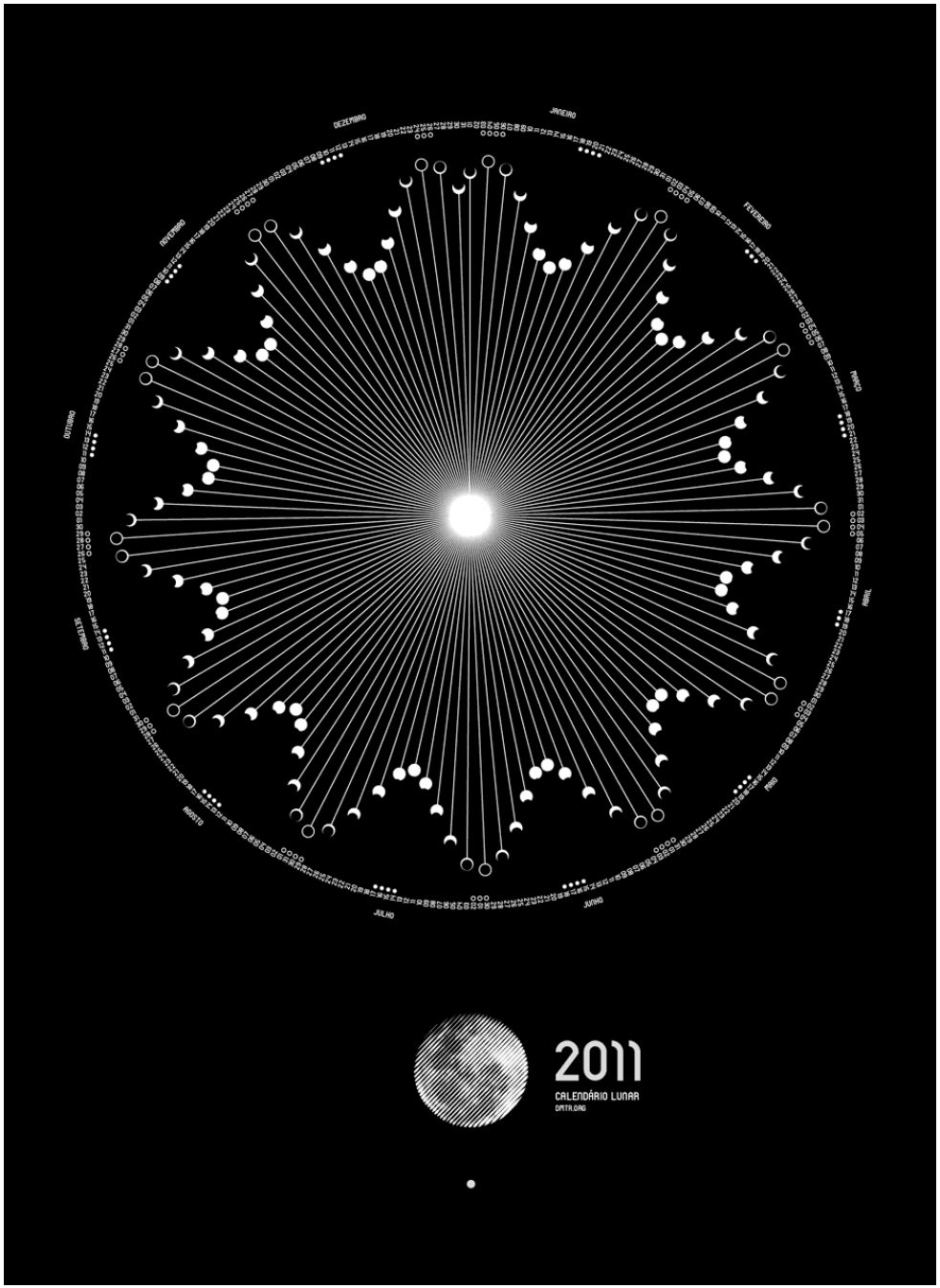

USA

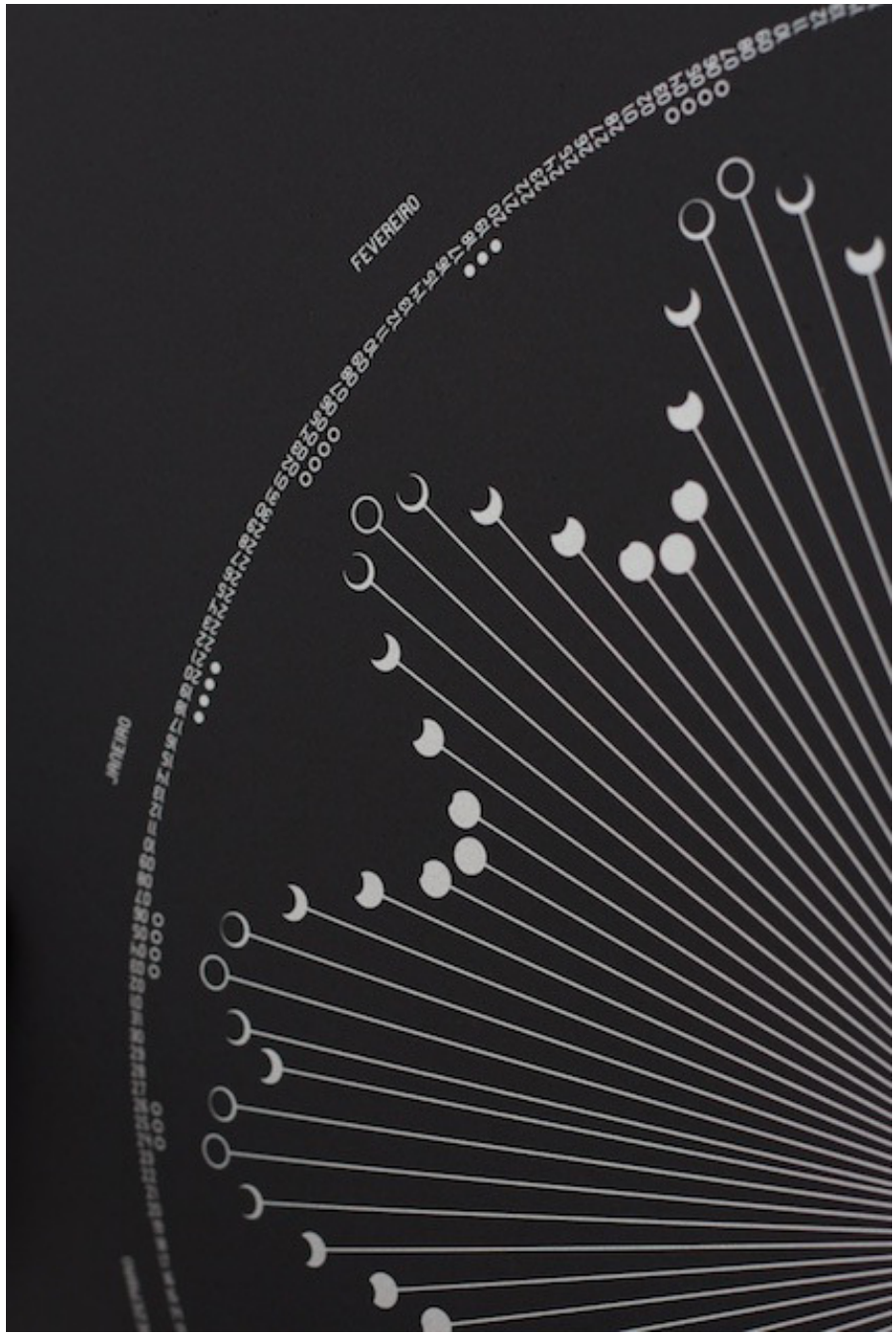



Attitude control fuel tanks
Equipment module
Retro rockets
Exit hatch
Control rockets
Window
Radio aerial
Crew compartment
Manoeuvring thrusters
Parachute
Cooling system pumps
Liquid-oxygen tanks
Drinking water
Water tank
Controls and instruments


Pitch engines
Entry hatch
Manoeuvring and docking jets
Fuel tanks
Control panel
Pressure cabin
Main engine of service module
Attitude control engines
Helium tank
Fuel cells
Fuel tanks


Crew compartment
Docking hatch
Rendezvous radar aerial
Cover of Moon take-off engine
Attitude control engines
Ascent stage fuel tanks
Hatch
Platform
Descent stage fuel tanks
Ladder
Descent engine
Landing legs


DEZEMBRO
JANEIRO
FEVEREIRO
MARÇO
ABRIL
MAIO
JUNHO
JULHO
AGOSTO
SETEMBRO
OUTUBRO
NOVEMBRO
2011
CALENDÁRIO LUNAR
OMTR.ORG


FEVEREIRO
JANEIRO