

Art and Science in LACMA's
Cosmologies Exhibition

2024

Stephen Little



Mapping Space and Time



**Neolithic Stone Circle, Nabta Playa, Nubian Desert, southern Egypt, c.
7500–5400 BCE**



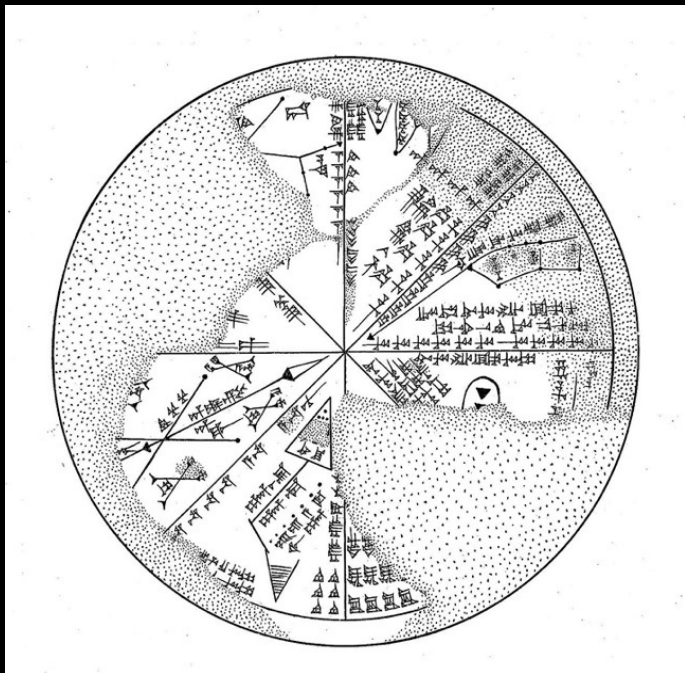
**Tablet: Planisphere with
Constellations, from the Library of
Ashurbanipal**

Neo-Assyrian, 650 BCE

From Kouyunjik (ancient Nineveh),
Iraq

Clay; diam. 14.10 x 3.20 cm

British Museum
(K.8538)



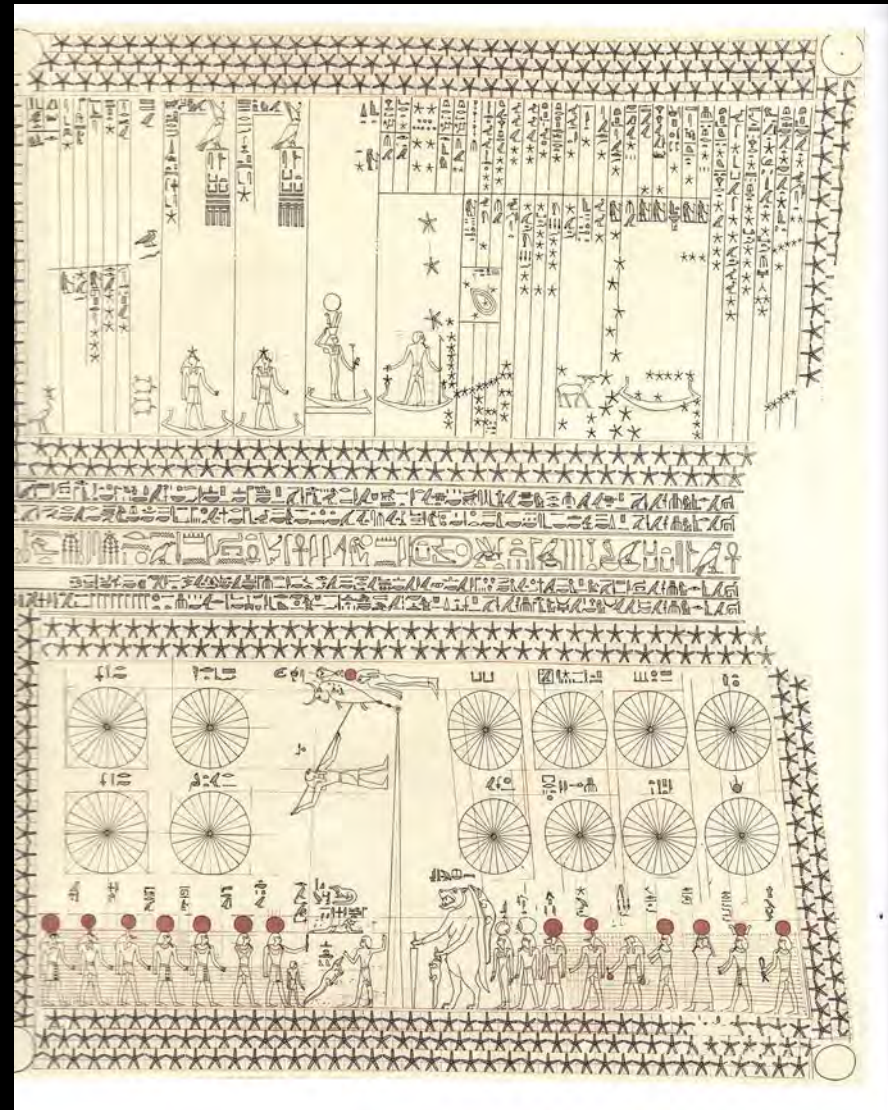
Charles K. Wilkinson (1897–1986)

**Drawing of the Astronomical Ceiling
Paintings in the tombs of Senenmut
(Egypt, Dynasty 18, c. 1479–1458 BCE)**

28 3/4 × 22 1/4 in. (73 × 56.5 cm)

Metropolitan Museum of Art, New York,
Rogers Fund, 1948
(48.105.52)

A schematic guide to the night sky that
decorates a ceiling in the tomb of Senenmut (TT
353) at Deir el-Bahri



Merkhet (Device for Measuring Space and Time)

Egypt, Late Period c. 600 BCE

Bronze, electrum (gold-silver alloy),
and textile

Science Museum, London,
Gift of Dr. Howard Carter
(1929–585)



“[The] inscription indicates it was the property of Bes, son of Khonsirtis (Khensardais var.), an astronomer priest of the god Horus of Edfu in Upper Egypt. [The device] used to layout axes of buildings and to determine the hours of the night by observing the passage of selected stars across the north-south meridian.”



Zodiac Chart from the Osiris Chapel of the Temple of Hathor

Ptolemaic Period, 50 BCE

Dendara, Egypt, from *Description de l'Egypte, ou Recueil des observations et des recherches qui ont ete faites en Egypte pendant l'expedition de l'armee francaise*

Bound book; ink on paper / Paris: Imprimerie Imperiale, 1817)

Getty Research Institute, Los Angeles



'Abd al-Rahman ibn 'Umar al-Sufi (903–986)
The Constellation Pegasus, from Kitāb ṣuwar al-kawākib
(Book of the Constellations of Fixed Stars)

Persia, 14th century

Bibliothèque nationale de France, Paris

Muhammad ibn 'Abd al-'Aziz al
Khama'iri

Astrolabe

Seville, Spain, 1226–1227 CE / 624
AH

Gilt copper alloy; 8 3/8 x 5 1/2 x 1
1/8 in. (21.28 x 13.97 x 2.86 cm)

LACMA, Gift of Carolyn Merchant
(M.2003.116a-k)



**The Buddha Shakyamuni at Mount
Meru**
(at the center of the multiple world
systems)

Tibet, 1700–1800

Thangka; colors on cotton
39 1/8 x 25 5/8 in. (99.4 x 65.1 cm)

Asian Art Museum of San Francisco,
The Avery Brundage Collection
(B60D13+)





Mirror with Cosmological Designs

China, Tang dynasty (618–906)

Bronze; D. 26.4 cm.

American Museum of Natural
History, New York, Berthold
Laufer Collection
(70/11671)



Star Chart

Southern Song dynasty, 1247
Confucian Temple, Suzhou,
Jiangsu Province, China





**Panel with Inscription Referring to
the Date of Creation**

Mexico, Maya, 9th century

Limestone

52 $\frac{7}{10}$ x 18 $\frac{7}{10}$ x 3 $\frac{4}{5}$ in.
(133.858 x 47.498 x 9.652 cm)

Los Angeles County Museum of Art,
Anonymous gift
(M.2010.115.112)

Cosmic Deities



Censer Stand with Solar Deities

Maya, 650–850 CE

Post-fire painted ceramic
42 1/2 x 24 x 8 1/2 in. (107.95 x
60.96 x 21.59 cm)

Los Angeles County Museum of
Art, Anonymous gift
(M.2010.115.426)

Codex Borgia (detail)

Mexico, Aztec, early 16th century

Rome, Biblioteca Apostolica Vaticana

This page symbolically illustrates the transformation of the planet Venus taking place during the inferior conjunction in the month of the winter solstice.





**Inanna (Ishtar), Goddess of Love and War, with her Deputy, the Goddess
Ninshubur, a Lion, and the Planet Venus (Inanna's celestial manifestation)**

Iraq, Akkadian, ca. 2334–2154 BCE

Cylinder Seal Impression

Oriental Institute of the University of Chicago



**Nun, the Primordial Being, Lifting the Solar Barque, from the Book of the Dead of Anhay
[Anhai]**

Egypt, 20th dynasty (1189–1077 BCE)

Ink and colors on papyrus

46 x 65 cm

British Museum (EA10472 / 1888,0512.222.1)



Ma'at, Goddess of Cosmic Order and Justice

**Egypt, New Kingdom, 19th Dynasty,
reign of Seti I (c. 1290–1279 BCE)**

**Painted limestone bas-relief;
H. 74 cm.**

**National Archaeological Museum
of Florence, Palazzo della Crocetta
(SA FI 42469)**





Brahma, the God of Creation

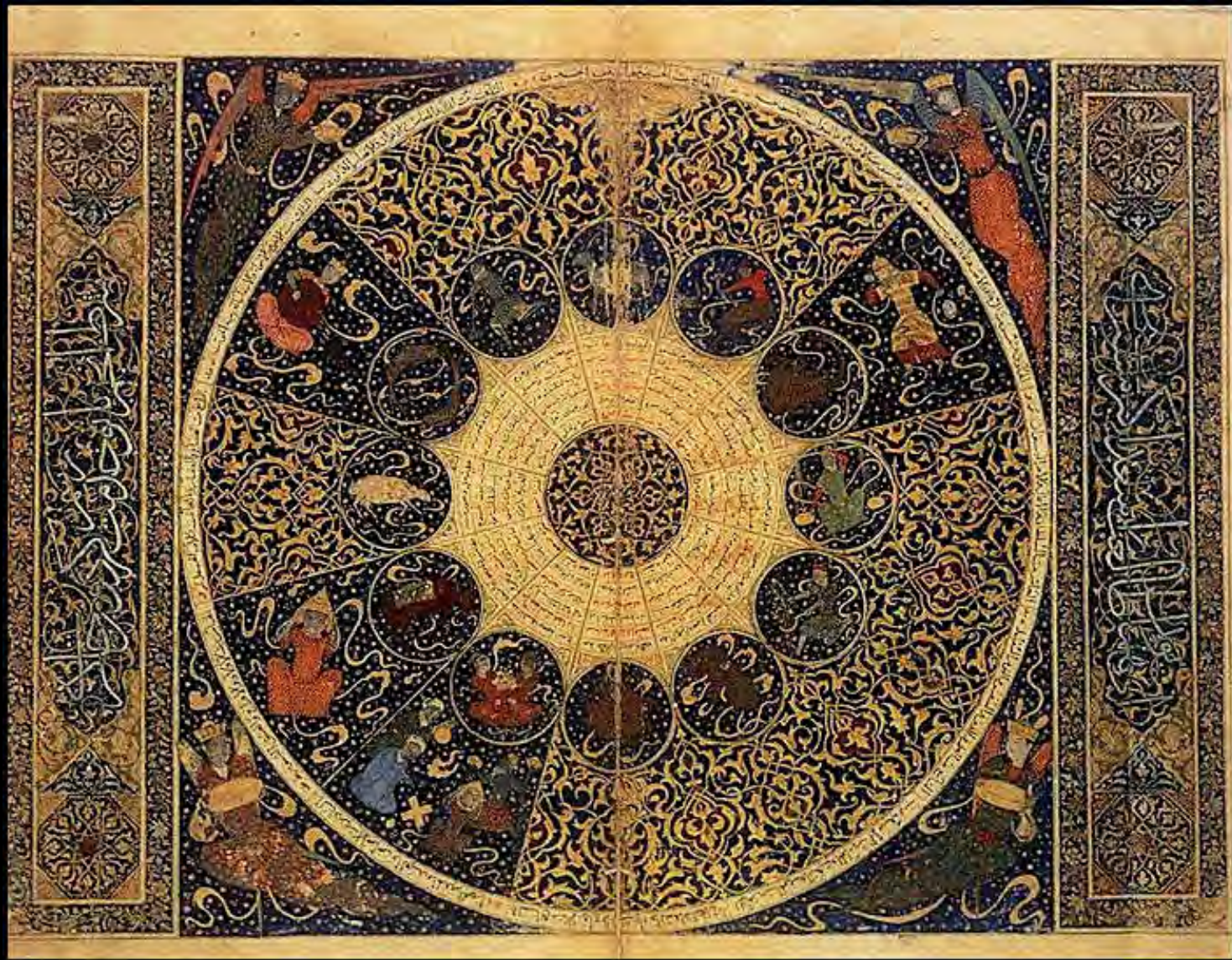
Indonesia, Central Java, 9th century

Volcanic stone (andesite)

45 3/4 x 17 1/2 x 12 1/2 in. (116.2 x
44.45 x 31.75 cm)

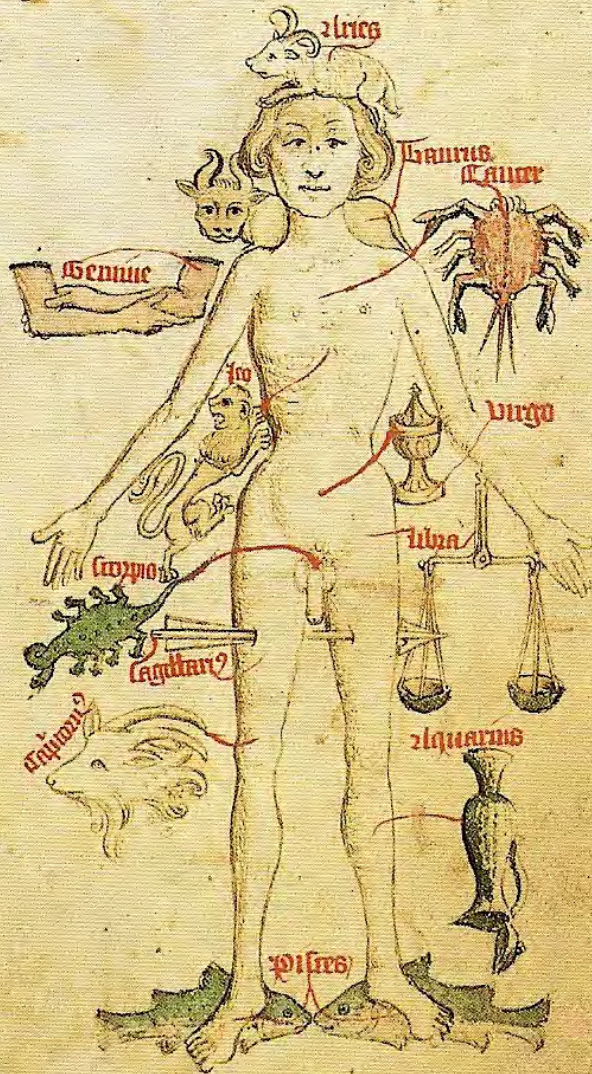
LACMA, Gift of the 2000 Collectors
Committee
(M.2000.30)

Astronomy and Astrology



Mahmud ibn Yahya ibn al-Hasan al-Kashi
Zodiac Chart / Persia, 1411
Wellcome Library, London

Homo: signorum



The Astrological Body, from the Guild-Book of the Barber- Surgeons of York

England, 15th century

British Library, London
(MS Egerton 2572, f. 50v)

Twelve Deities of the Chinese Zodiac

Ming dynasty, 1454

Hanging scroll; ink and colors on silk

Musée Guimet, Paris



Cosmology and Power

Stela of Shamshi-Adad V

Neo-Assyrian, 824–811 BCE

From the Temple of Nabu at
Nimrud, Iraq

Limestone; 195.24 x 92.54 x 71.96
cm

British Museum (118892)





Coronation Stone of Motecuhzoma II (Stone of the Five Suns). Mexico, Aztec, 1503.

Basalt, 55.9 × 66 × 22.9 cm. The Art Institute of Chicago, Major Acquisitions Fund (1990.21)

This sculpture conflates cosmic and historical time, with glyphic carvings of the four previous suns (or eras) at the four corners of the monument, with the current sun (4 Movement) depicted in the center. The monument marks the coronation of Motecuhzoma II in 1503 CE, and thus his central place in the cosmic order of birth, death, and regensis.

The Rise of Modern Cosmology

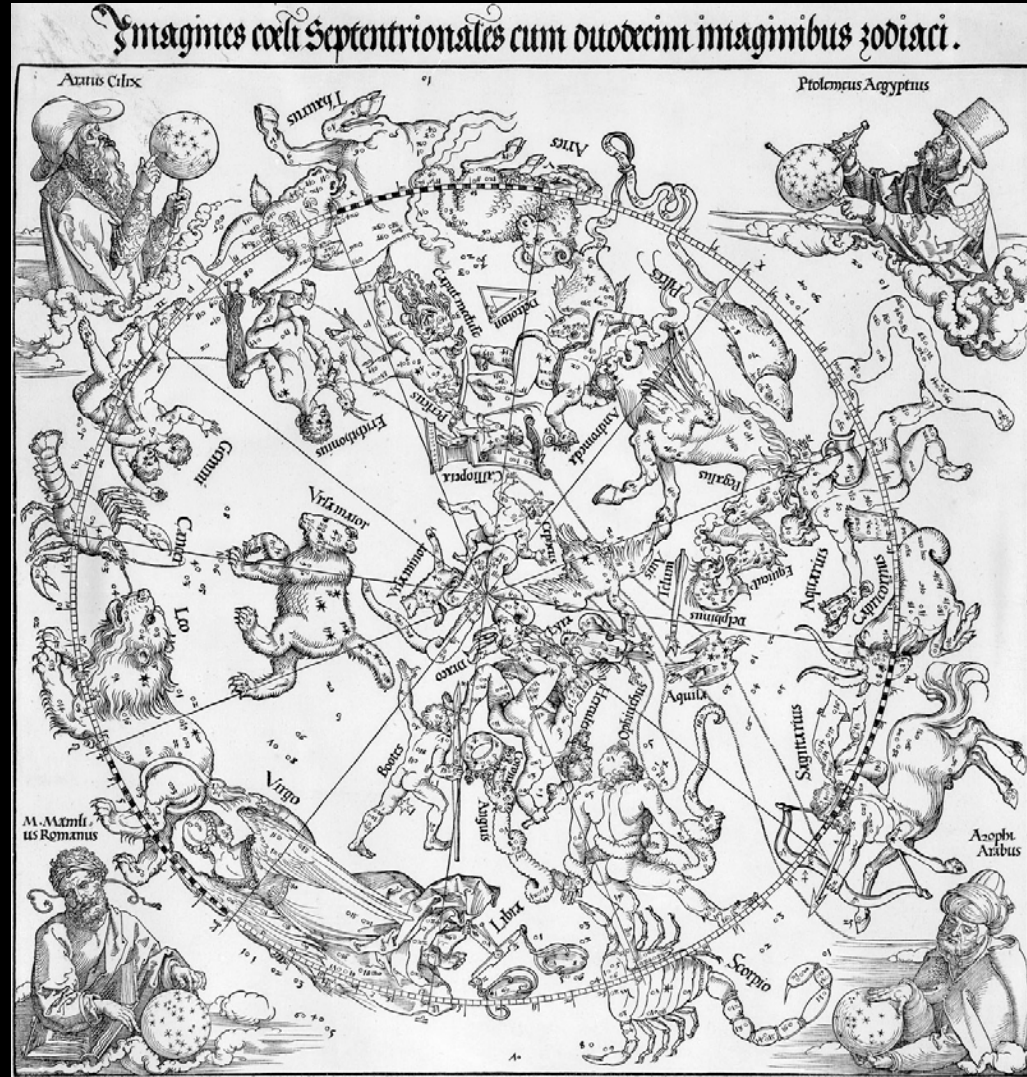
Albrecht Dürer (1471–1528)

Imagines coeli septentrionales cum duodecim imaginibus zodiaci, 1515

Etching; 48.4 x 44.1 cm

National Maritime Museum,
Greenwich, England

Print depicting the northern sky with twelve images of the Zodiac. In the four corners are the authorities on whom the constellations are based: Aratus Cilix (Aratus of Soli), Ptolemaeus Aegyptus (Ptolemy), M Mamilius Romanus (Marcus Manilius), and Azophi Arabus ('Abd al-Rahman al-Sufi).

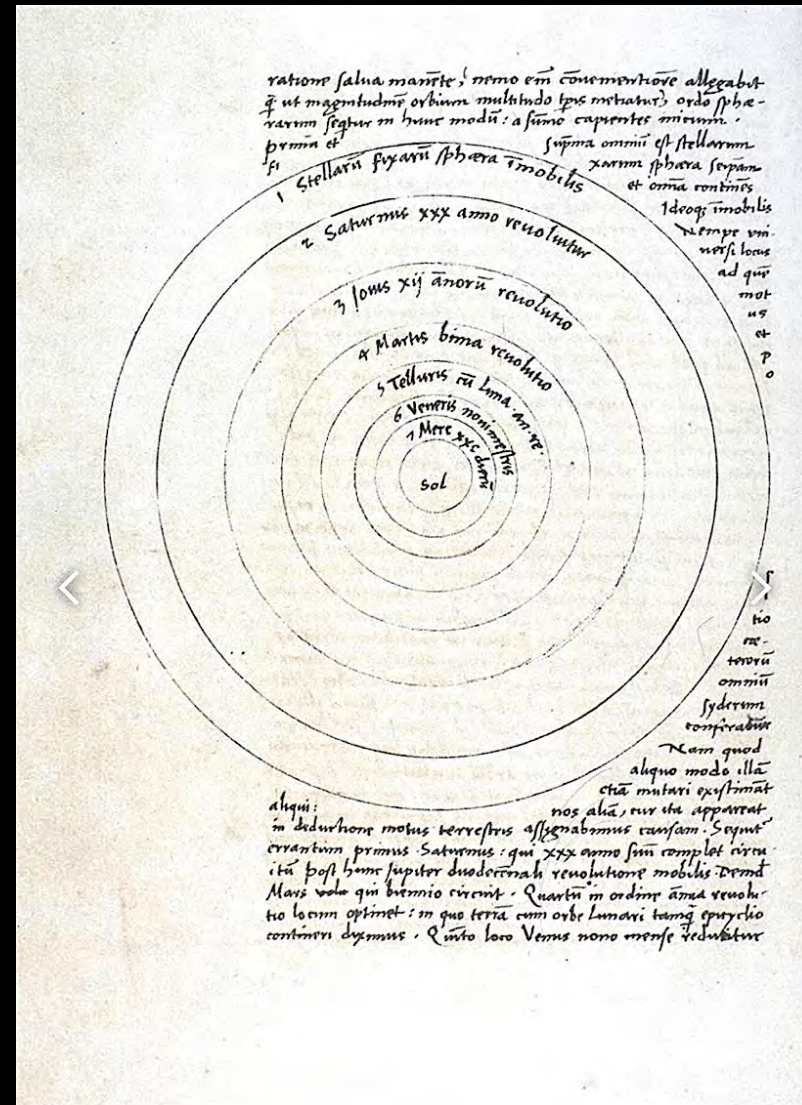


Nicolaus Copernicus
(Mikołaj Kopernik, 1473–1543)

Diagram of a Heliocentric Solar
System from
*De revolutionibus orbium
coelestium*
(*The Revolutions of the Celestial
Spheres*), 1543

Printed in Nuremberg, Holy Roman
Empire
Bound book, ink on paper

Houghton Library, Harvard



SIDEREVS NVCNCIVS

MAGNA, LONGEQVE ADMIRABILIA
Spectacula pandens, suspiciendaque proponens
vnicuique, præsertim verò

PHILOSOPHIS, atq; ASTRONOMIS, qua à
GALILEO GALILEO
PATRITIO FLORENTINO

Patauini Gymnasij Publico Mathematico

PERSPICILLI

Quæper à se reperti beneficio sunt obseruata in TVN. ET ACIE, FIXIS IN
NUMERIS, LACTEO CIRCVLO, STELLIS NEBVLOSIS,

Apprime verò in

QVATVOR PLANETIS

Circa IOVIS Stellam disparibus intervalis, atque periodis, celesti-
tate mirabili circumuolutis; quos, nemini in hanc vsque
diem cognitos, nouissimè Author depre-
hendit primus; atque

MEDICEA SIDERA NVCNCVPANDOS DECREVIT.



VENETIIS, Apud Thomam Baglionum. M DC X.

Superiorum Permissu, & Privilegio.

M VIII: 11. 14.

Title page

RECENS HABITAE. 23

dentalis proxima min. 2. ab hac vero elongabatur oc-

Ori. * ○ * * Occ.

cidentalior altera min. 10. erant præcisè in eadem rec-
ta, & magnitudinis æqualis.

Die quarta hora secunda circa Iouem quatuor sta-
bant Stellæ, orientales duæ, ac duæ occidentales in

Ori. * * ○ * * Occ.

eadem ad vnguem recta linea dispositæ, vt in proxi-
ma figura. Orientalior distabat à sequenti min. 3. hæc
verò à Ioue aberat min. 0. sec. 40. Iuppiter à proxima
occidentali min. 4. hæc ab occidentali min. 6. ma-
gnitudine erant ferè æquales, proximior Ioui reliquis
paulo minor apparebat. Hora autem septima orien-
tales Stellæ distabant tantum min. 0. sec. 30. Iuppiter

Ori. ** ○ * * Occ.

ab orientali viciniori aberat min. 2. ab occidentali ve-
rò sequente min. 4. hæc verò ab occidentali dista-
bat min. 3. erantque æquales omnes, & in eadem recta
secundum Eclipticam extensa.

Die quinta Cælum fuit nubilosum.

Die sexta duæ solummodo apparuerunt Stellæ me-

Ori. * ○ * Occ.

dium

Observations of the orbits of
Jupiter's four largest moons

PLEIADVM CONSTELLATIO.



Quod tertio loco à nobis fuit obseruatum, est ipsius-
met LACTEI Circuli essentia, seu materies, quam Per-
spicilli beneficio adeò ad sensum licet intueri, vt & alter-
cationes omnes, quæ per tot sæcula Philosophos excrucia-
runt ab oculata certitudine dirimantur, nosque à verbosis
disputationibus liberentur. Est enim GALAXYA nihil
aliud, quam innumerarum Stellarum coæruatim con-
sitarum congeries, in quamcumq; enim regionem illius Per-
spicillum dirigas, statim Stellarum ingens frequentia se se
in conspectum profert, quarum complures satis magnæ, ac
valde conspicuæ videntur, sed exiguarum multitudo pro-
fus inexplorabilis est.

Ac cum non tantum in GALAXYA lacteus ille candor,
veluti albicantis nubis spectetur, sed complures consimilis
coloris arcule sparsim per æthera subfulgeant, si in illarum
quamlibet Specillum conuertas Stellarum conspatarum
cætum

The Pleiades

Galileo Galilei (1564–1642)
Sidereus nuncius (The Starry Messenger)

Pisa, 1610

Printed book, ink on paper
Houghton Library, Harvard

Johannes Vermeer (1632–1675)

The Astronomer

c. 1668

Oil on canvas; 20 × 18 in.
(51 × 45 cm)

Musée du Louvre, Paris





Thomas Wright (1711–1786)

**Universe with Multiple Star
Systems,
from the book, *An Original
Theory or New Hypothesis of the
Universe***

1750

Mezzotint

Wolbach Library, Harvard University,
Cambridge MA



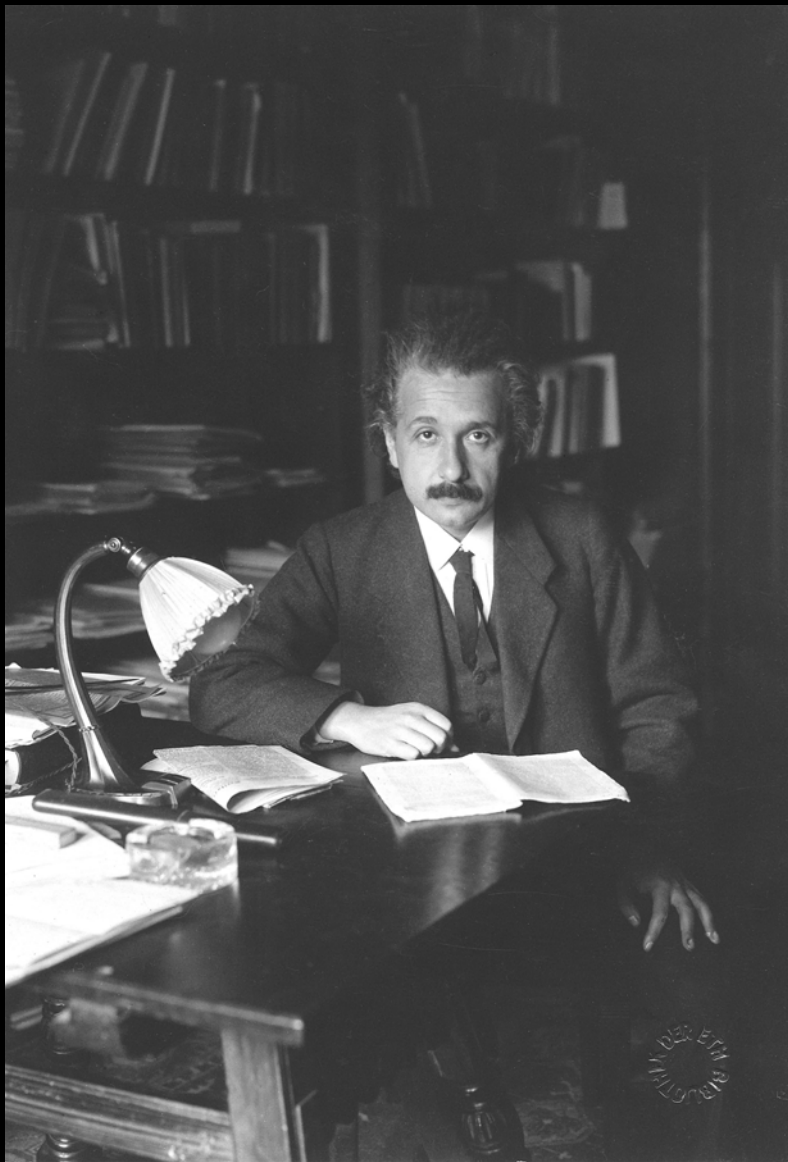
Etienne Léopold Trouvelot

Saturn

1875

Charcoal on paper

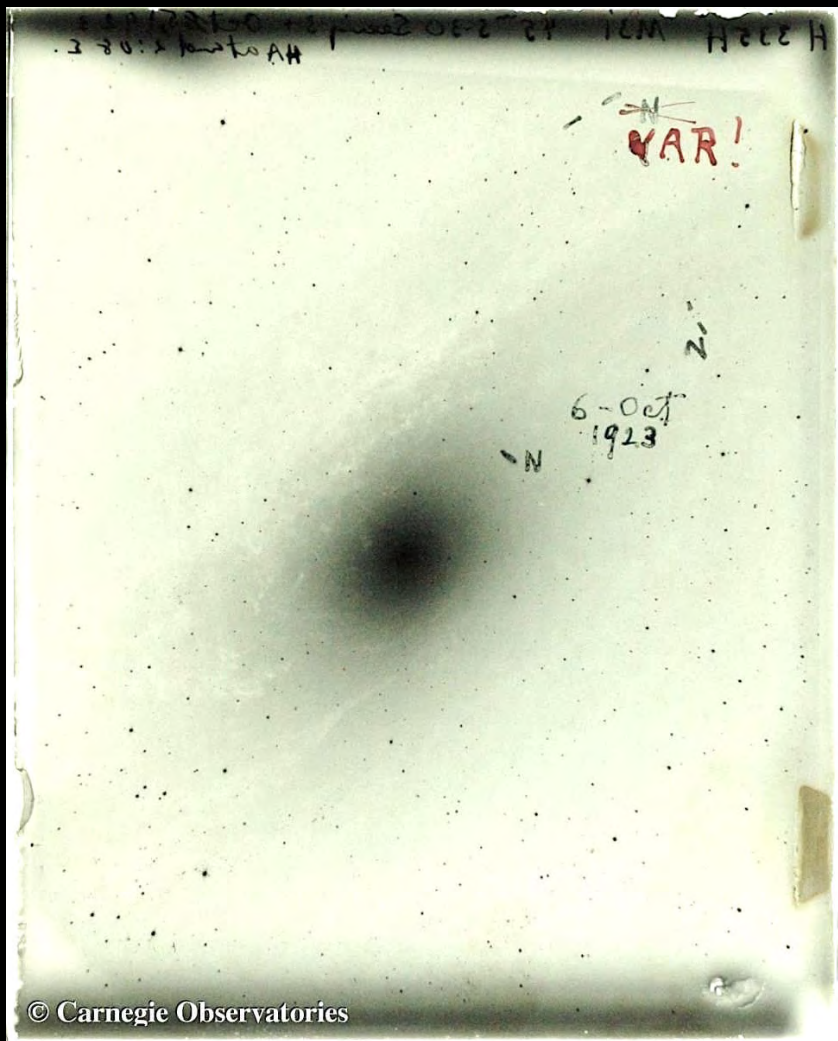
US Naval Observatory, Washington, DC



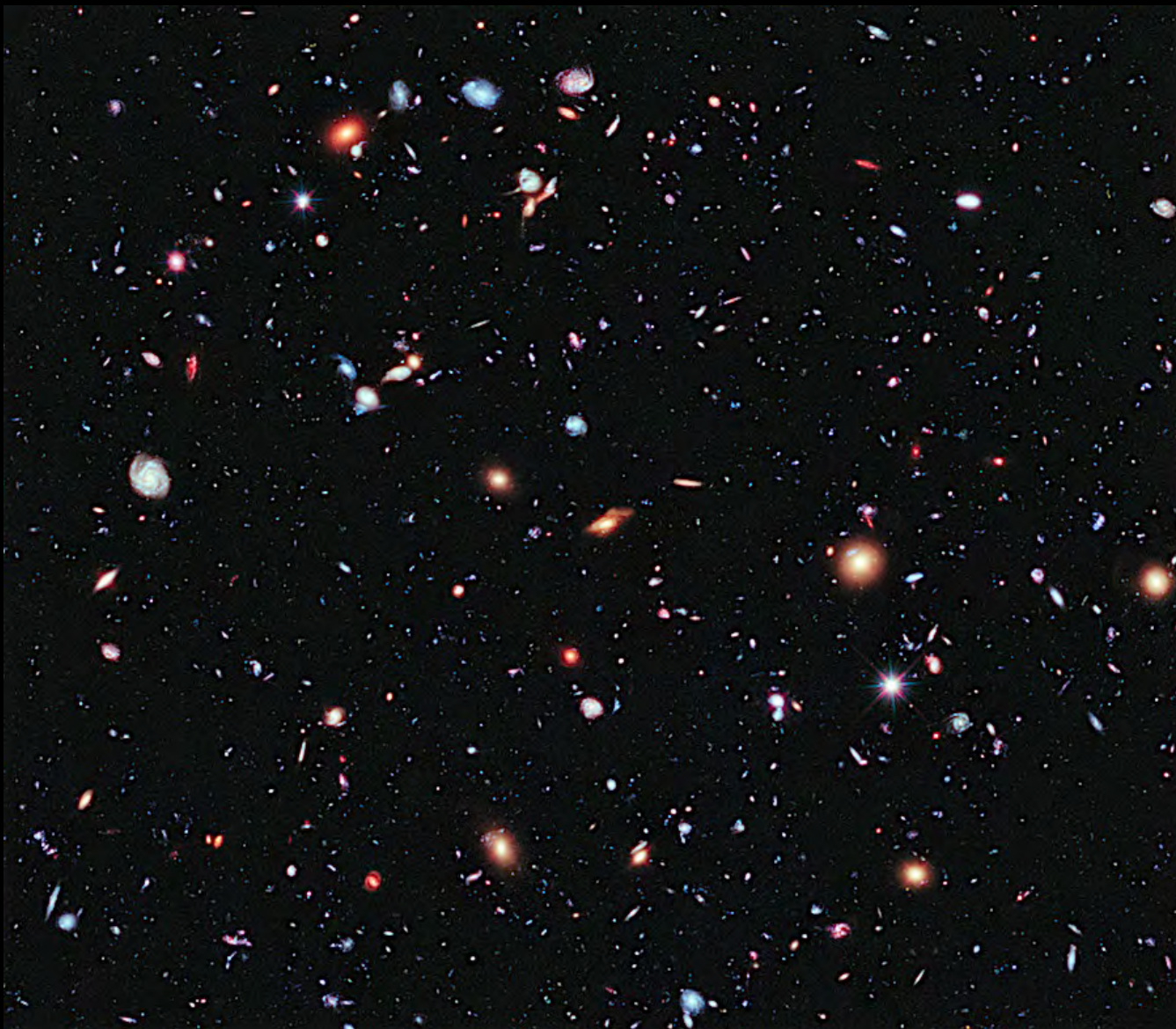
Albert Einstein (1879–1955)



Edwin Hubble (1889–1953)

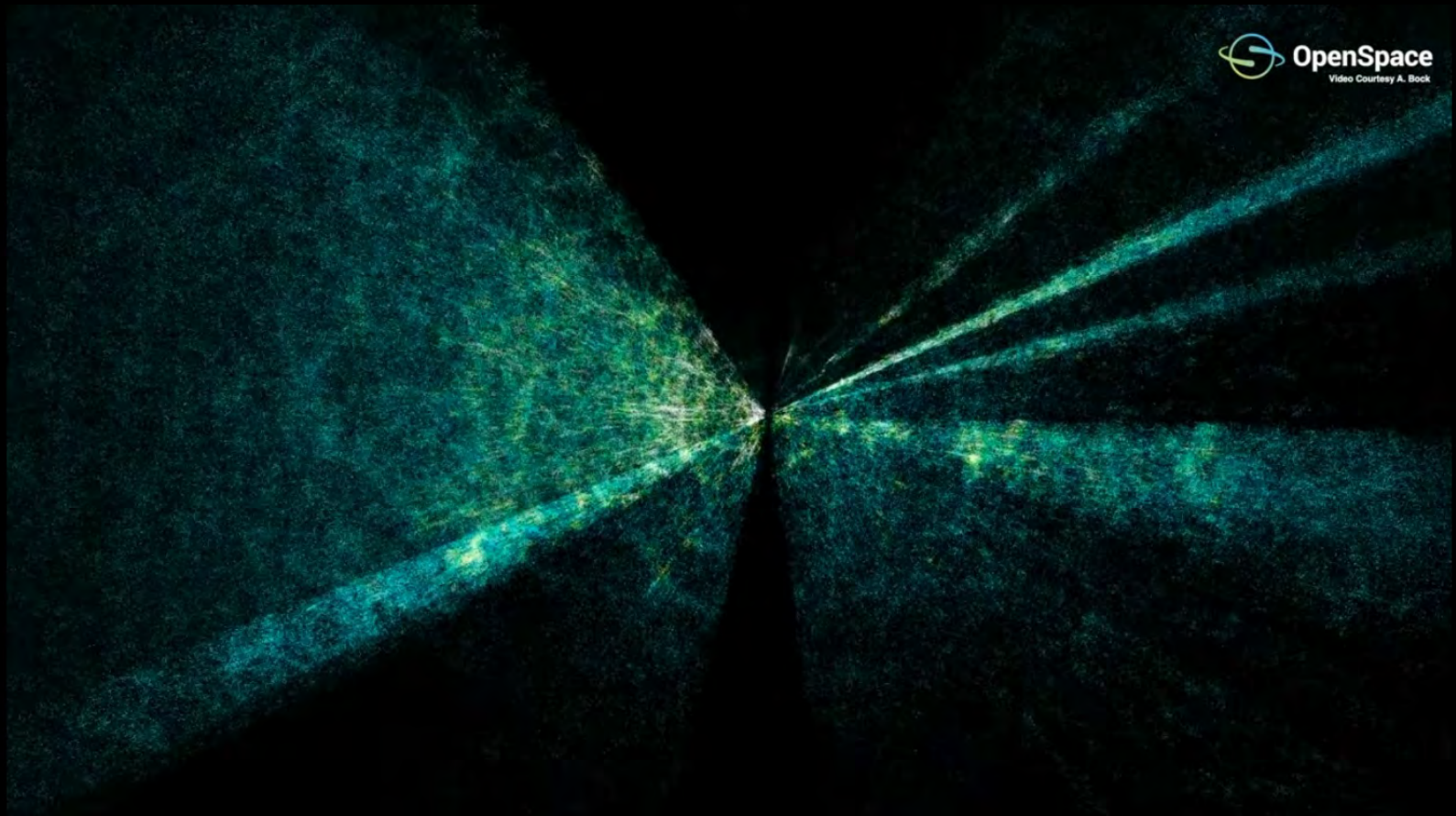


Edwin Hubble,
**Glass plate negative identifying a variable star in
the Andromeda Galaxy**
October 6, 1923
Carnegie Observatories,
Pasadena



The Hubble eXtreme Deep Field (2012)

NASA



Sloan Digital Sky Survey Map of Galaxies

(Screen shot from Juna Kollmeier's TED Talk Video)

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