

# Altea Gallery

## e-catalogue 16

### Astronomy





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#### Opening Times

Weekdays: 10am - 6pm  
Saturday: 10am - 4pm

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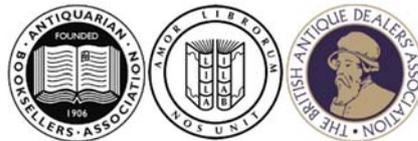
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Each item is in good condition unless otherwise noted in the description, allowing for the usual minor imperfections. Measurements are expressed in millimeters and are taken to the plate-mark unless stated, height by width. (100 mm = approx. 4 inches)

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# Astronomy

## e-Catalogue 16: February 2022



*Detail item 9.*

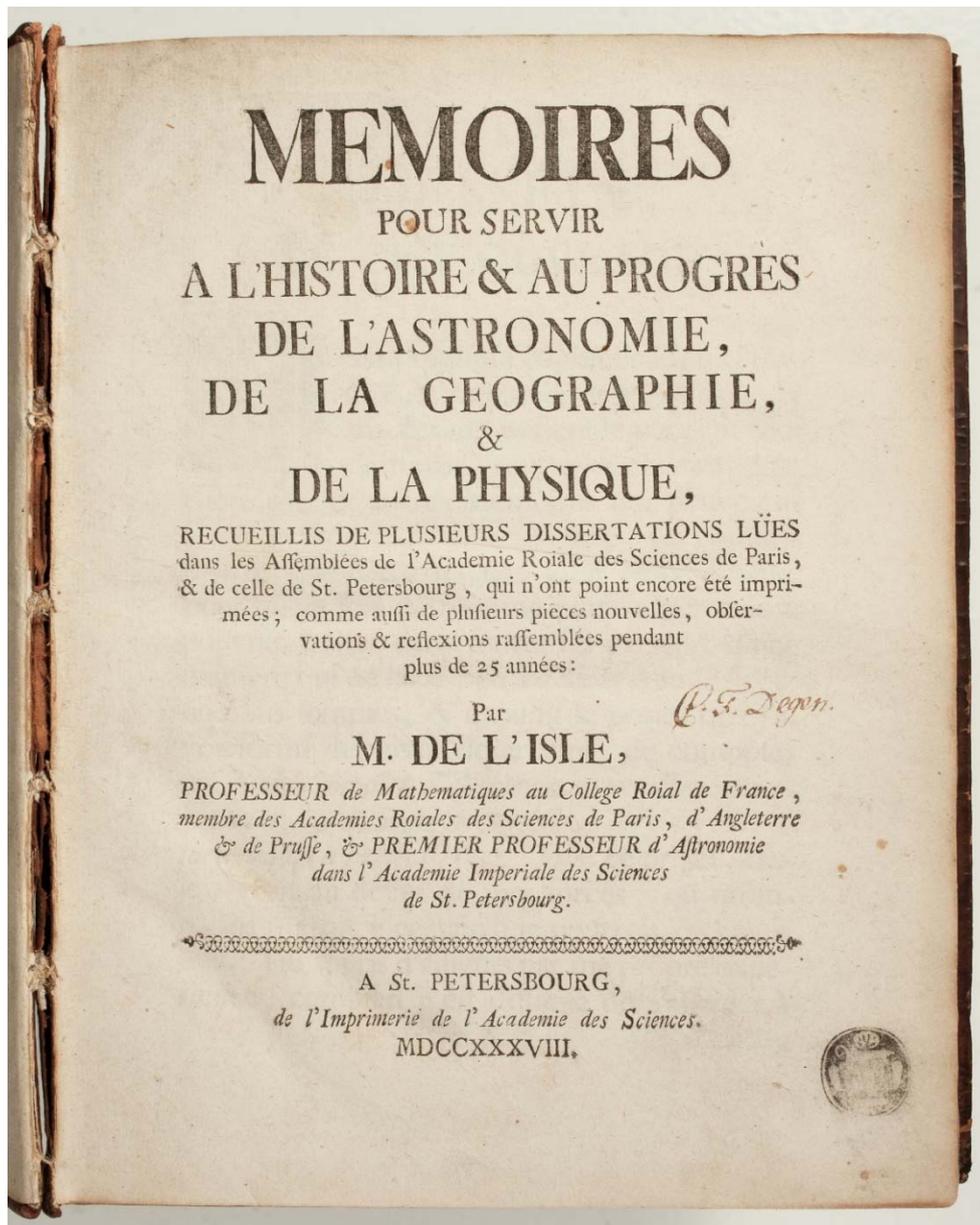
Dear Customer

Our latest e-catalogue is a selection of our stock of celestial maps and related items, dating from the 15<sup>th</sup> to the 20<sup>th</sup> centuries, with a large selection of the superb charts of Andreas Cellarius. and three large wall maps of the moon.

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An account of recent advances in Astronomy and Geography



1 DELISLE, Joseph Nicolas.

Mémoires pour Servir a l'Histoire et au Progrès de l'Astronomie, de la Geography, & de la Physique.

St Petersburg: Academy of Sciences, 1738, First Edition. 4to; full calf gilt, inner hinges strained; pp. 284 + (12)(tables), 13 folding engraved plates. With the bookplate of Frank S. Streeter. £3,000

The first edition of this account of the advancements in the fields of Astronomy (as an aid to navigation), Geography and Physics, which includes the first accounts of Delisle's method for determining the heliocentric coordinates of sunspots, of his 'universal thermometer', and of the Aurora Borealis in Russia by his brother Louis.

Joseph Nicolas Delisle (1688-1741), a French astronomer and cartographer, founded the Academy of Sciences of St Petersburg and helped compile the 'Atlas Russicus', the first atlas of Russia.

Frank Sherwin Streeter was a book collector for forty years, from around 1966 until his death in 2006, specialising in atlases, books, pamphlets and maps on maritime exploration, as well as more theoretical works on mathematics and cosmography related to navigation. His collection sold at Christies in 2007.

## A scarce complete set of celestial cards in its original box



### 2 BLUNT, Charles F.

The Beauty of the Heavens: A Pictorial Display of The Astronomical Phenomena of the Universe. Exhibiting n One Hundred and Four Coloured Scenes, Accompanying and Illustrating A Familiar Lecture on Astronomy.

London: Whitehead & Co & Ackermann & Co, 1840, First Edition. Original box simulating a book, with half morocco, gilt illustrated on front board; with small 4to pamphlet with cloth gilt wrappers, pp. viii + 104; 104 loose numbered colour lithographic cards, as called for. A little spotting to plates, slight damp staining on pamphlet. £3,500

A very fine example of this set of decorative cards, designed to teach astronomy, with illustrations of the Sun, Moon, Earth and other planets, constellations and other bodies of the universe, as well as climatic phenomena such as the Aurora Borealis, clouds and the rainbow. Each card is explained in the enclosed pamphlet.

S/N 21945



## An incunable depiction of the sun and moon

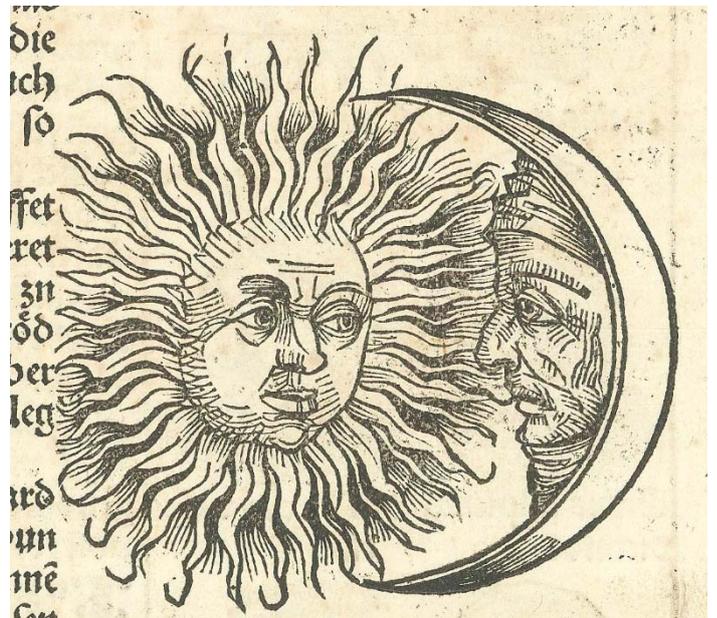
### 3 SCHEDEL, D. Hartmann.

Blat LXXVI.

Nuremberg, Anton Koberger, 1493, German text edition. Woodcut, image 80 x 80mm, set in text with woodcut portraits. Some old ink mss. marginalia, some damp staining. £425

A sheet from the famous 'Nuremberg Chronicle', with a woodblock of the sun and moon, both with faces. The other woodcuts are portrait of Greeks and Romans, including Philip II of Macedon and his wife Olympias, parents of Alexander the Great.

S/N 20532



## Four theories of the Sun, Moon and Earth

### 4 HAPPEL, Eberhard Werner.

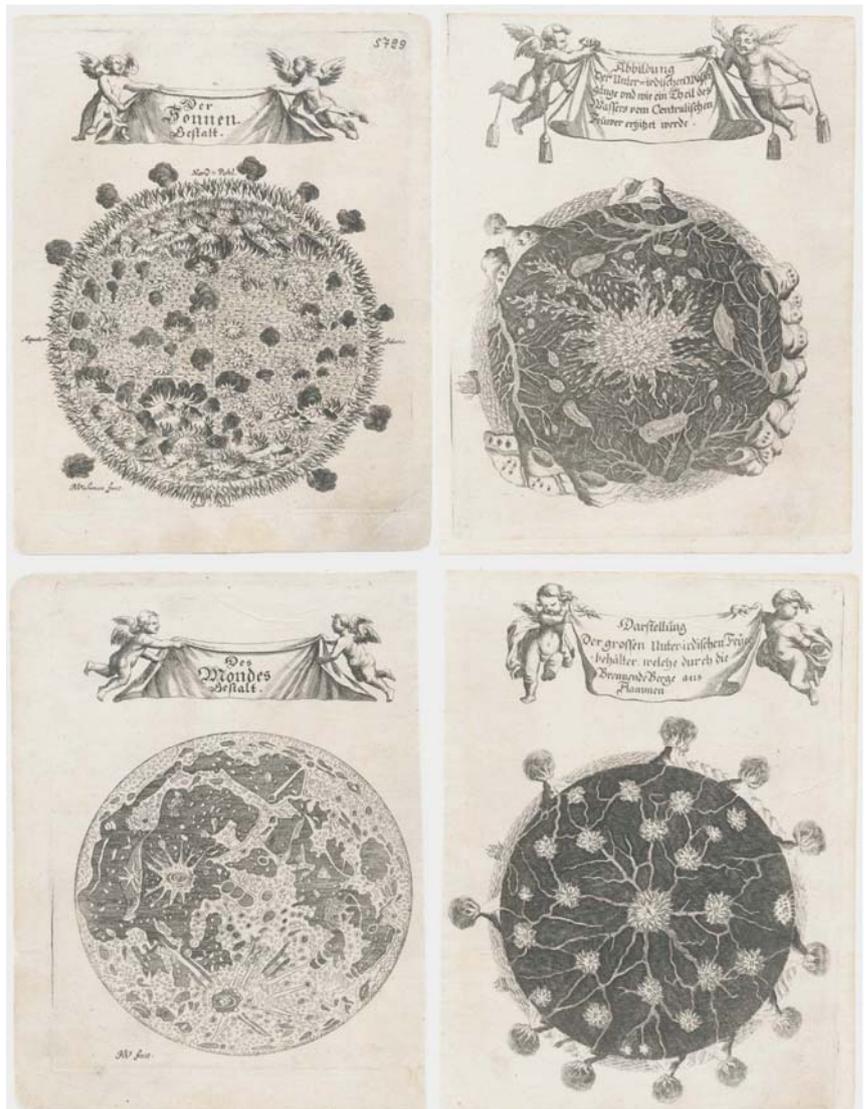
[The surfaces of the Sun and Moon, and the subterranean lava and river flows of Earth.]

Hamburg: Hertel Weiring, 1683. Four engravings, sheets 200 x 150mm. One plate with a repaired tear in the margin. £1800

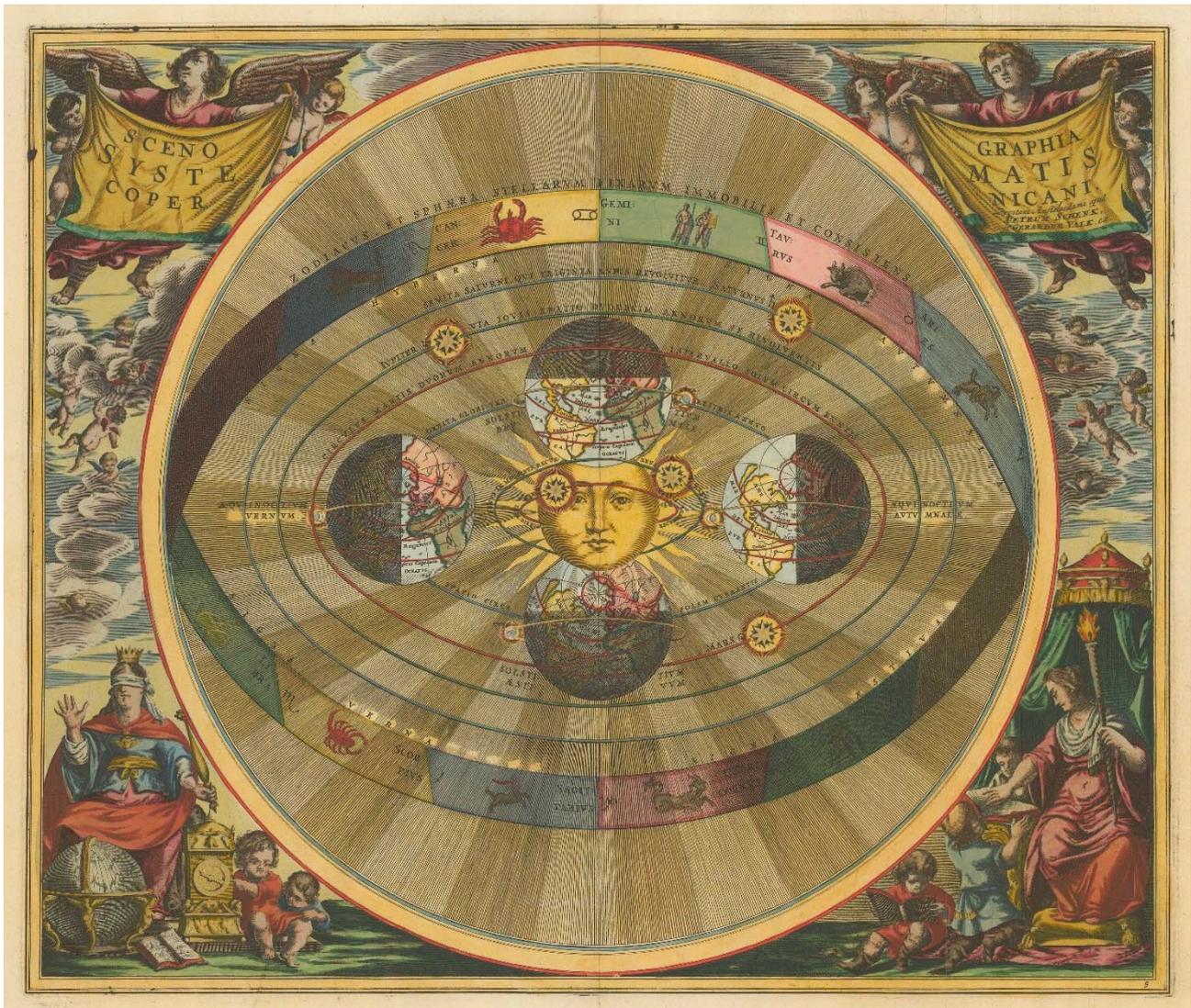
Four engravings based on Athanasius Kircher's *Cosmography*, illustrating contemporary theories of the construction of Sun, Moon and Earth. All have titles on banners held aloft by flying cherubs; two are signed by the engraver Joachim Wichmann (1648-1703).

The plates were published in "E. G. Happelii Gröste Denkwürdigkeiten der Welt Oder so genannte Relationes Curiosae", a compilation of current scientific thought.

S/N 21801



## The iconic depiction of the Copernican solar system



### 6 CELLARIUS, Andreas.

Scenographia Systematis Copernicani.

Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. 440 x 515mm, with good margins. £6,500

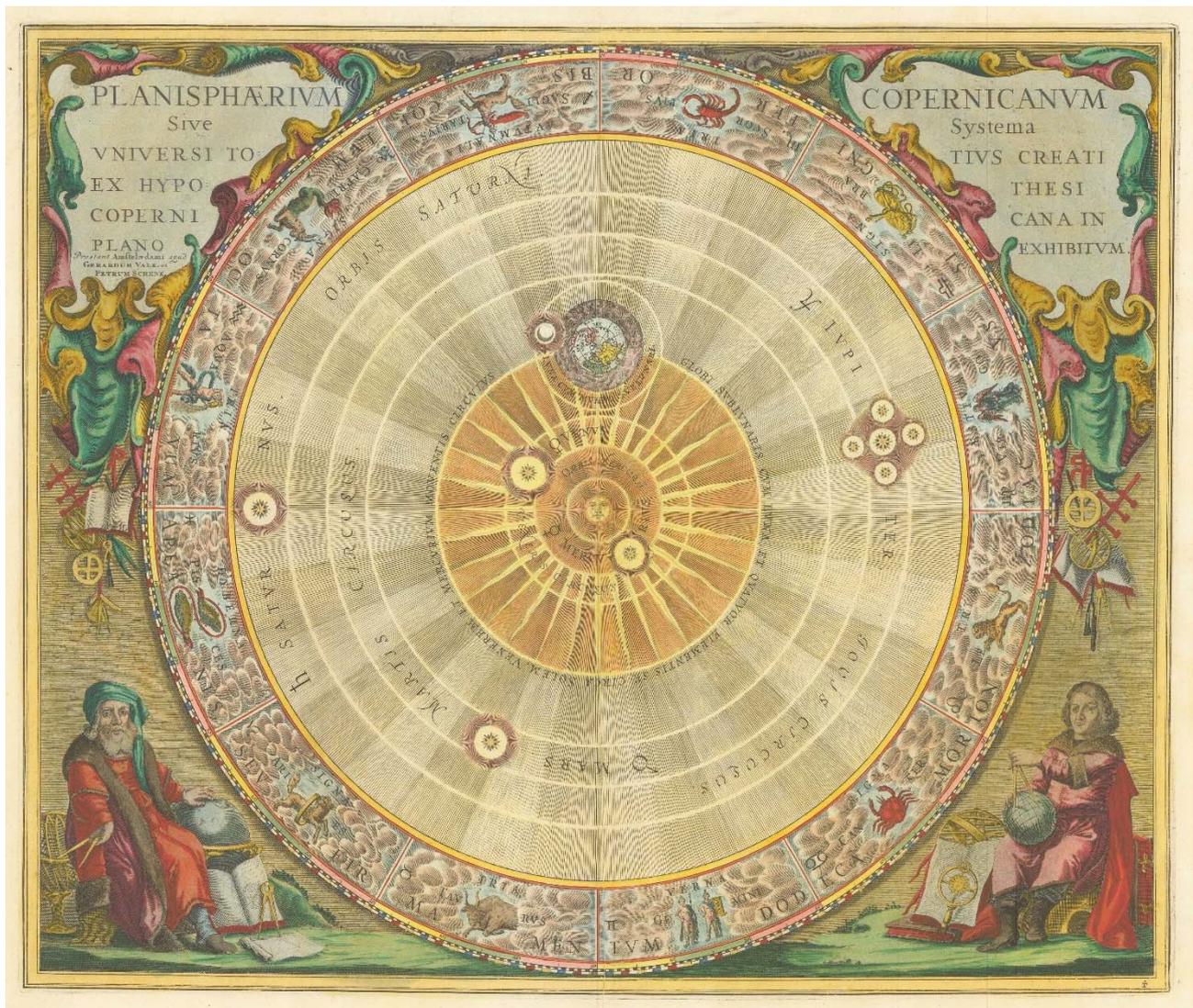
The most famous Dutch celestial chart, showing the heliocentric solar system as theorised by Nicolaus Copernicus. A human-faced sun dominates the plate, lighting the sides of four 'Earths', positioned at each equinox, all showing California as an island a circling Moon. Rings mark the orbits of the known planets, within a band decorated with the signs of the Zodiac.

The four corners are filled with angels, cherubs and allegorical figures.

It was engraved by Jan van Loon and for the 'Atlas Coelestis; seu Harmonia Macrocosmica', first published by Jan Jansson in 1660. This was the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced. KOEMAN: *Cel* 3.

S/N 22105

## A superb plan of the Copernican Solar System



### 6 CELLARIUS, Andreas.

Planisphaerium Copernicanum Sive Systeme Universi Totius Creati ex Hypothesi Copernicana in Plano Exhibitum.

*Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. 440 x 515mm, with generous margins. A few small repairs to verdigris weaknesses.*

£3,500

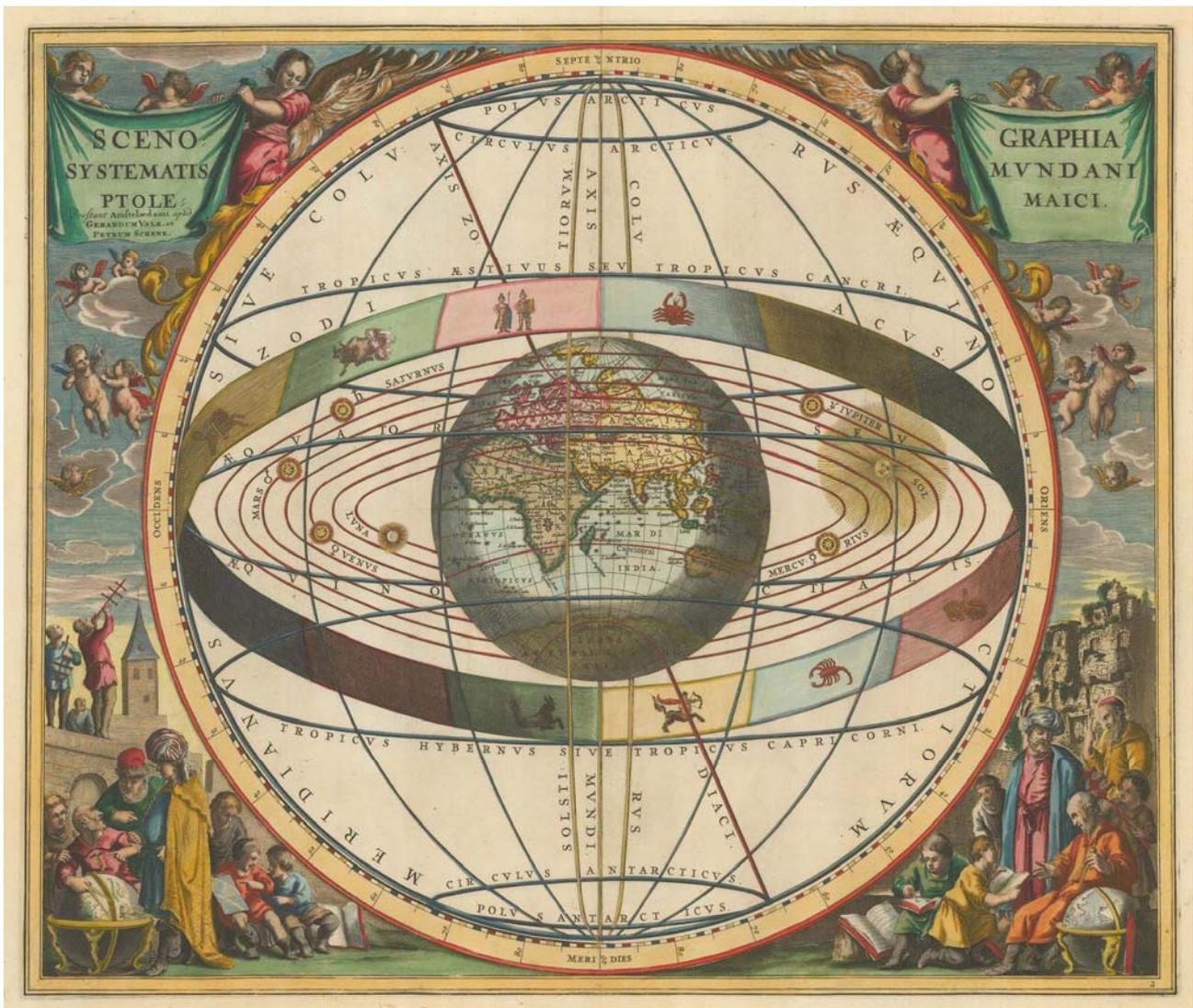
A beautiful chart of the solar system as hypothesised by Copernicus, with the Sun at the centre and the six known planets (Saturn the outermost) in rings around it. A final circle contains the signs of the Zodiac. The upper corners of the plate contain the title within two large cartouches; the lower corners full-length portraits of Galileo and Copernicus.

This chart was published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

It was originally published by Jan Jansson in 1660: this chart comes from Schenk & Valk's reissue. *KOEMAN: Cel 3.*

S/N 22115

## 17th century celestial chart of the Earth in Ptolemy's Universe



### 7 CELLARIUS, Andreas.

Scenographia systematis mundani Ptolemaici.

*Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. 440 x 515mm. A few small repairs to verdigris weaknesses. £2,700*

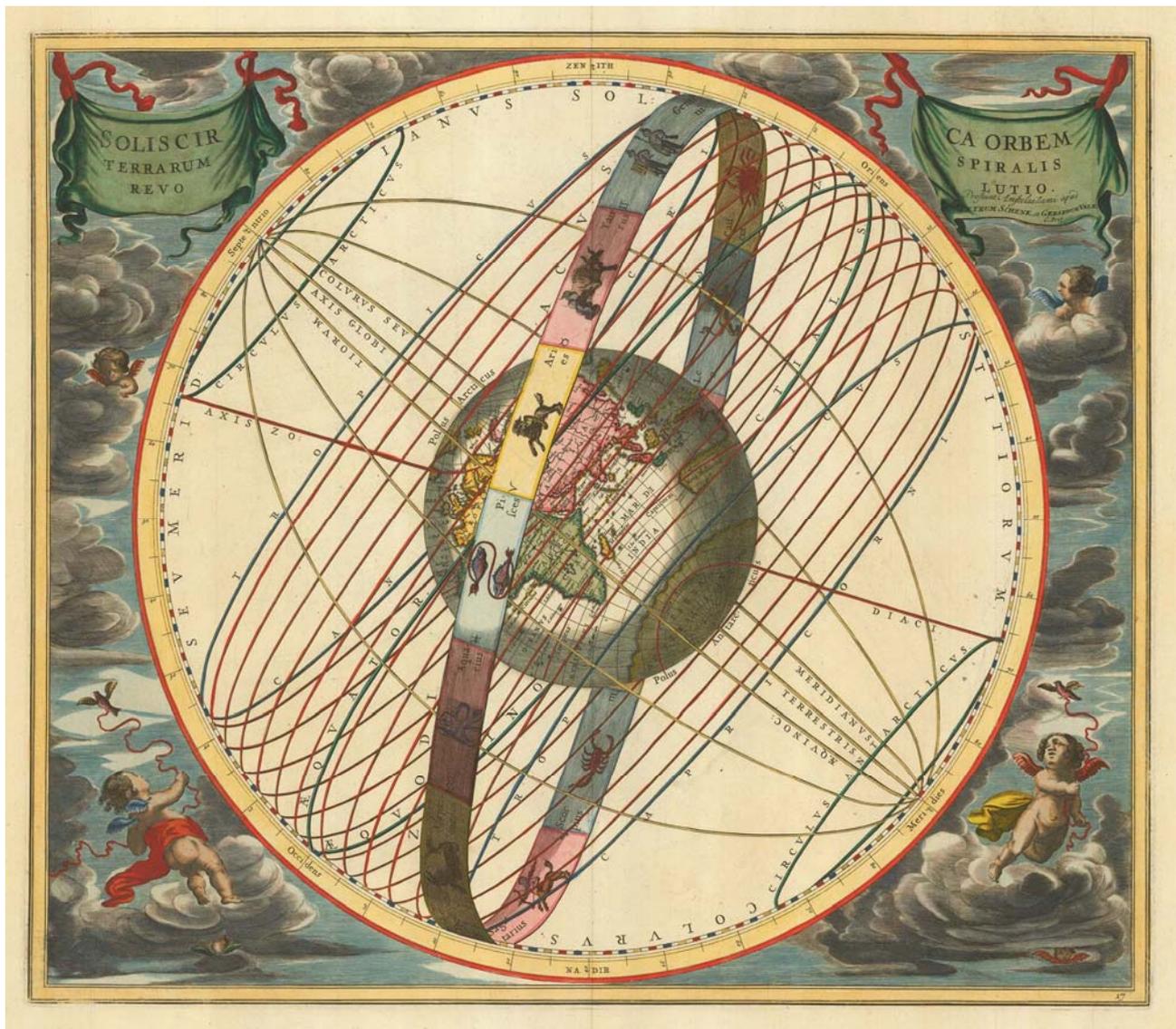
A beautiful celestial chart showing Ptolemy's theory of the Universe. At the centre is the Earth, showing its eastern hemisphere, being circles by the sun and planets, with the Zodiac on an outer ring. The borders contain the title on banners held up by putti and angels, with astronomers, including Ptolemy surrounded by globes, cross-staffs and other navigational instruments.

This chart was published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

It was originally published by Jan Jansson in 1660: this chart comes from Schenk & Valk's reissue. *KOEMAN: Cel 3.*

S/N 22113

## The apparent path of the Sun around the Earth



### 8 CELLARIUS, Andreas.

Solis Circa Orbem Terrarum Spiralis Revolutio.

Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. 440 x 515mm. £2,700

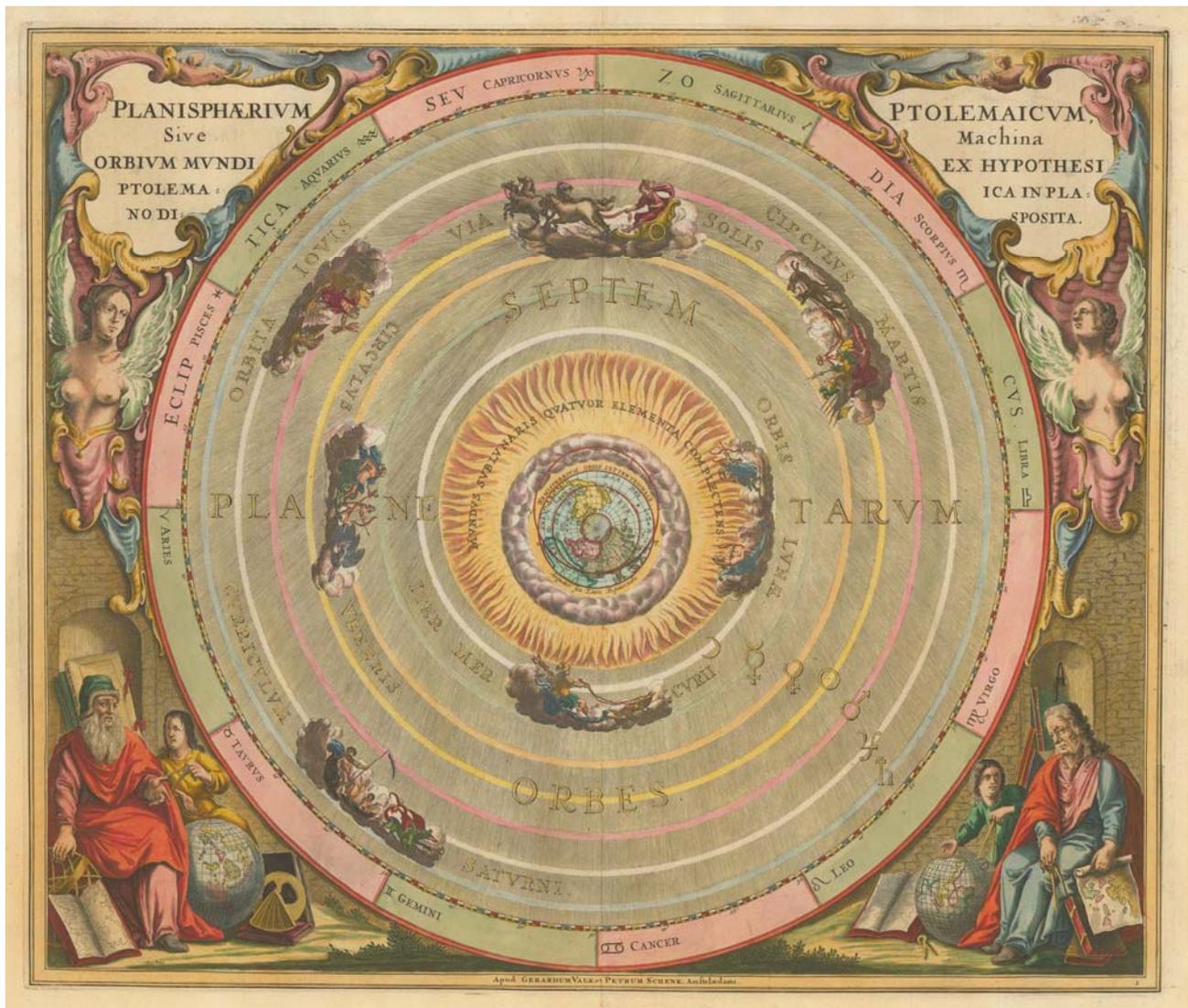
A beautiful celestial sphere showing the apparent spiral revolution of the sun around the Earth. with the signs of the zodiac shown on a central band. The borders contain the title on banners, with two putti with birds on strings.

This beautiful chart was published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

It was originally published by Jan Jansson in 1660: this chart comes from Schenk & Valk's reissue. KOEMAN: Cel 3.

S/N 22111

## Ptolemy's model of the Solar System



### 9 CELLARIUS, Andreas.

Planisphaerium Ptolemaicum, Sive Machina Orbium Mundi Ex Hypothesi Ptolemaica In Plano Disposita.

Amsterdam, Schenk & Valk, 1708. Original colour with additions. 440 x 515mm.

£3,200

A superbly decorated map illustrating Ptolemy's geocentric Solar System. At the centre is the world, showing the Northern Hemisphere (with California as an island), surrounded by rings of cloud and fire, followed by the orbits of the Moon, Sun and the known planets, represented by the Roman gods in chariots. Bottom right is a portrait of Cladius Ptolemy; bottom left is another astronomer, believed to be Aristotle.

It was engraved by Jan van Loon and published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

Originally published by Jan Jansson in 1660, this example comes from Schenk & Valk's reissue.

S/N 22107

## 18th century map of the Sun

### 10 THOMAS, Corbinianus.

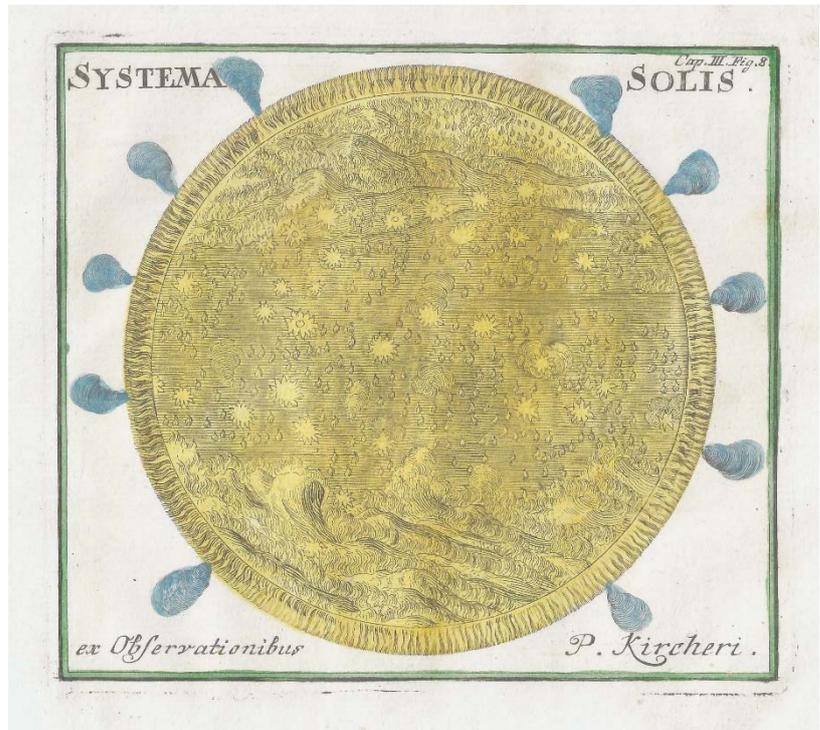
Systema Solis ex Observationibus P. Kircheri.

Frankfurt, 1730. Original colour. 125 x 270mm. £300

An unusual attempt to depict the surface of the Sun, based on the work of Athanasius Kircher. It was engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosophici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21479



## 18th century illustration of the Solar System of the Ancient Egyptians

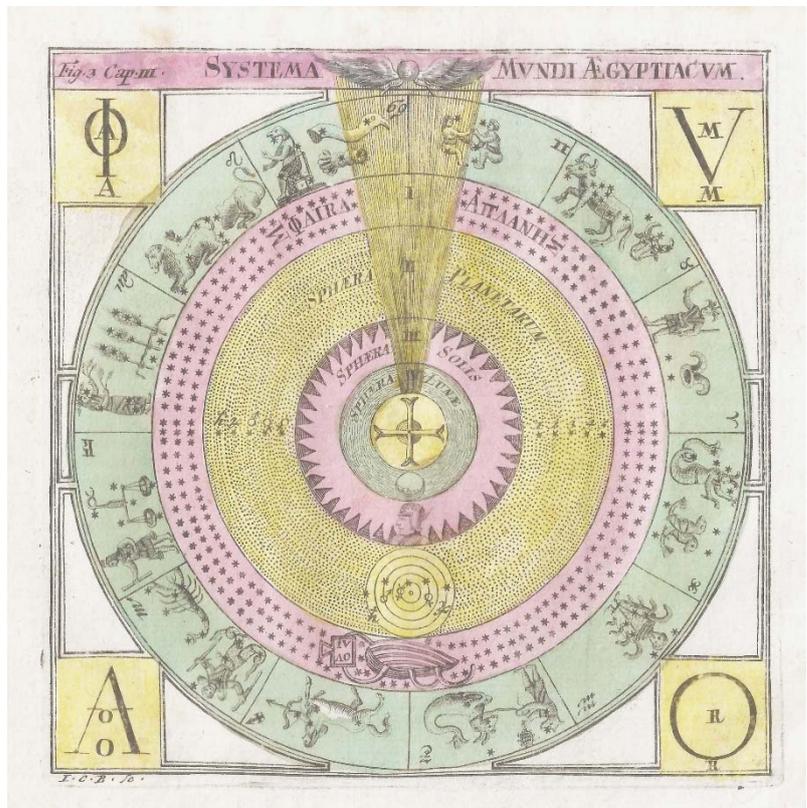
### 11 THOMAS, Corbinianus.

Systema Mundi Aegyptiacum.

Frankfurt, 1730. Original colour. 145 x 140mm. £280

A chart of the Egyptian solar system, surrounded with their Zodiac, engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosophici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.



S/N 21481

## The path of the 1706 total solar eclipse over Europe

### 12 DOPPELMAYR, Johann Gabriel.

Eclipseos Solis Totalis cum mora, d.12 Maji 1706, horis autem: in Europa celebratae...

Amsterdam: Pieter Schenk, c.1710.  
Original colour. 485 x 570mm. Minor repairs in bottom margin. £1,000

A rare map of the route of the 1706 solar eclipse across Europe, which was total across southern Spain and France, central Germany, northern Poland, Livonia, eastern Finland Russian Lapland. One diagram explains the science of an eclipse and another predicts the path of the 1715 eclipse, the one observed by Halley.



S/N 18580

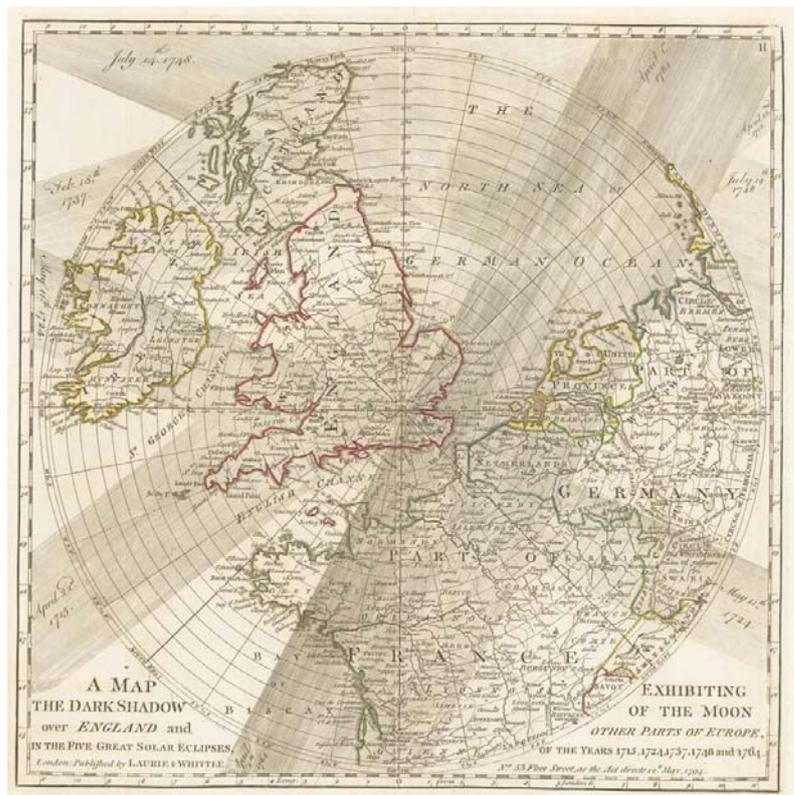
## A plan of eclipses over England in the 18th century

### 13 DUNN, Samuel.

A Map Exhibiting the Dark Shadow of the Moon over England and other parts of Europe, in the Five Great Solar Eclipses, Of the Years, 1715, 1724, 1737, 1748 and 1764.

London: Laurie & Whittle, 1794. Original outline colour. 315 x 310mm, with wide margins. £350

An unusual and separately published circular map, centred on London, showing the paths of total (1715, 1724) and partial (1737, 1748, 1764) solar eclipses that were visible from Europe. The extent of the map includes Ireland, England, Scotland, and parts of continental Europe including Germany and France. Each eclipse is labelled with its date and depicted as a shadowed path. The shadowed path design is visually impactful and a clear way to communicate how the moon passes in front of the sun.



S/N 22159

# A scarce broadsheet guide to a 19th century solar eclipse in Philadelphia

## 14 POULSON, John.

Approaching Solar Eclipse. The lovers of Astronomical Science will perhaps be highly gratified with the opportunity which may on Monday be afforded them, of beholding this interesting phenomenon...

*Philadelphia: printed by John Poulson, n.d., but 1806. Letterpress broadsheet with wood-engraved diagram and border. Sheet 535 x 220mm. Repair to split in fold repaired with loss of a line of text; a few other letters mis-inked.* £2,800

Broadsheet with a wood engraved diagram of the phases of the solar eclipse due on June 16, 1806, as seen from Philadelphia.

S/N 22373

### Approaching Solar Eclipse.

THE lovers of Astronomical Science will perhaps be highly gratified with the opportunity which may on Monday be afforded them, of beholding this interesting celestial phenomenon. And although you shall not be favoured, in this city and its neighbourhood, with a view of a total obscuration of the solar disk, which, it will be perceived by the ensuing paragraph, may be observed by the inhabitants of some parts of New York, and of the Eastern States, yet the few observations which follow, and which are extracted from a pamphlet on the subject, lately published at Boston, will be applicable to the phenomena visible here, and may perhaps be acceptable to those who are fond of contemplating the wonderful variety, harmony, motions and appearances of the heavenly bodies.

The course of the moon's shadow over the globe is described in the following manner:—

As the eclipse of the sun, which will happen the 16th of this month, will be the most extraordinary of any that has happened for a long time, or that will be observed the present century, by the inhabitants on this part of the globe, we present the following account of its course will be uninteresting:—

The centre of the shadow enters upon the globe in the Pacific ocean, about 15 degrees to the eastward of the Sandwich islands, lat. 29 deg. 35 m. N. long. 65 deg. W. from Philadelphia, from thence it takes its course eastward, passing through New Mexico, Louisiana, crosses the Mississippi about 80 miles above its confluence with the Missouri, and passes on to the eastward through the state of Ohio, the north part of Pennsylvania, and a part of New York, crossing Hudson's river about 40 miles to the south of Albany—enters into Massachusetts about 15 miles north of the Connecticut line, and passes through Northampton, Worcester and Boston. Thence it takes across the Atlantic, bending its course towards the south, enters upon the continent of Africa, a little to the south of the Canary islands, then with a S. E. course passes through the western part of the great Desert of Barbary, in the country of Nigritia, where it finally leaves the globe, the sun setting centrally eclipsed, lat. 14 deg. N. long. 80 deg. 30 m. E.—*Atlas.*

The observations of the author of the pamphlet above alluded to, are thus introduced.

The Science of Astronomy, in all ages, has been a subject of admiration, and a justly claims the distinction of superlative excellence. By its discoveries, knowledge has been diffused in rich variety over the face of the civilized world; and imagination has found a field where it can rove without restraint or limitation. Though it relates principally to objects whose distances are immeasurable, and whose numbers are infinite; yet we are not to conclude that they have no relation with terrestrial objects, or that they are disconnected with that system of which we form a part.

The discoveries which have been made in this science within the three last centuries, have exceeded the warmest expectations of human reason; for the mind, which was once limited to the narrow confines of a little earth, is now able by the telescope to travel space, and make excursions into the distant regions of the heavens; and a prospect is now opened to us, as wonderful as it is infinite. But its sublimer are not its only recommendations: by its science has been improved, navigation promoted, and knowledge and invention carried to the utmost boundaries of human ingenuity. By its aid the mechanic arts have flourished, and by their union, have yielded the richest harvest of intellectual gratification.

The daily rising and setting of the sun and moon, with the milder glories of a nocturnal firmament, are some of the common specimens of celestial magnificence. We admire, indeed with propriety, the sublime indications of an "infinite creative mind"; and while we are charmed with the usual displays of his wisdom and goodness, we are led to make a transition from "nature to nature's God." But these are scenes which, from their frequency, are regarded with indifference; they are too often repeated to impress the mind with a remembrance of their origin, or a recollection of their destiny in the perfection of the present system.

But on some occasions, nature assumes a surprising aspect. The novelty of the event produces inquiry and universal astonishment. Either the reverberating echo of distant thunder, or the alarm of an approaching earthquake, awakens the mind from its indifference, and excites to reason, thought, and reflection. But a total eclipse of the sun is still more remarkable, as such an appearance so very seldom occurs. And probably many ages may pass before the same phenomenon will be repeated.

The DIAGRAM which accompanies the present remarks, represents the Eclipse as seen in Philadelphia. The upper part exhibits it at the moment in which the centre of the moon passes directly over that of the sun; or, in other words, the time of the greatest obscuration: the lower shows the gradual progress of the moon over the disk of the sun.

Beginning, 9 h. 42 m. A. M. Middle, or greatest obscuration, 11 h. 6 m. 30 s. End, 12 h. 36 m. 15 s. Duration, 2 h. 54 m. 15 s. Digits eclipsed 11-13 on the sun's North limb. The first impression of the moon on the solar disk, will be seen about 76 degrees from the sun's vertex on the right hand.

At Philadelphia the moon will appear to pass north of the sun's centre, and as seen from thence will not be total. On the contrary, at West Portland, about 500 miles north-east of Boston, the moon will pass south of the sun's centre, and as viewed from that place, the sun's north side will be visible in the middle of the eclipse; and consequently cannot there be total. But it would be an endless affair to describe this eclipse at all places, because the distance of 50 miles will occasion some difference. If we could translate ourselves to the earth's centre, and could view the eclipse through the dark body of the earth, the sun would appear only one third eclipsed; and at London it will be less than a third.

At the time of Philadelphia, the moon's dark shadow covers a circular spot on the earth's surface of about 104 miles in diameter; and Boston will be in or near the centre of this dark circle at the time of the middle of the eclipse. Consequently, persons remote from Boston, 50 or 60 miles north or south, will see a part of the sun; and to them the eclipse cannot be total. But as the motion of the shadow is in an easterly direction, those who live in that or a westerly direction will be more likely to see the eclipse total than those differently situated.

During the eclipse, the sun's shadow will be at the rate of 39 miles every minute of time; and with the same velocity her shadow will travel over the earth's surface, which is almost five times as swift as the motion of a cannon ball. It is true we shall not be sensible of this motion, because we are not in a proper situation to observe it.

Although the moon's dark shadow will not much exceed two miles in breadth; yet her penumbra, or faint shadow will cover an extent of almost five thousand miles on the earth's surface, viz. from 11 degrees to 82 degrees north latitude, within which the sun will appear more or less obscured, as the observer is less or more distant from the centre of the shadow. Beyond the above limits the whole body of the sun will appear. This eclipse will probably be seen total in some parts of Africa in the Atlantic ocean.

This eclipse is such a novelty in the phenomena of nature, that a similar may not again take place for many succeeding ages.

This eclipse can be seen with most advantage by a good telescope; but as few persons are possessed of this instrument, perhaps the best substitute is one of the dark glasses of a common quadrant. By this means the sun can be viewed without any offence to the eye. As the sun at the time of the day will be very high in the heavens, it may be convenient to view his image by a common looking glass, by which means he may be seen in any direction; and to look directly into the glass instead of the sun. In this case the darkened glass must be used as in the first instance. The management of this apparatus will not be difficult. Those who are possessed of a woman's quadrant will find it extremely convenient in viewing the sun. By this instrument, the sun's image can be seen in any position, so shall please the observer.

A common spy glass may be made to answer extremely well instead of a telescope. The front glass must be closed by something to intercept the greatest part of the sun's rays to take off the glare of light. Perhaps a piece of very thick green glass will do very well. But every one must try that which best answers his purpose.

Those who are not possessed of any of the contrivances above mentioned, must have recourse to a piece of common window glass, smoked on both sides sufficiently to prevent any injury to the eye. The glass should be several inches square to be used with good advantage, and it will be much more convenient than a small piece. The smok of a common lamp is probably the best for this purpose, as the glass will not be so liable to crack.

Eclipses of the sun are more frequent than those of the moon; but we have more visible eclipses of the moon than of the sun, because a lunar eclipse is seen from all those places on the earth which are directed towards her. Consequently an eclipse of the moon may be seen by one half of the world at the same time. But an eclipse of the sun can be seen only at those places, which lie in the passage of the moon's shadow. It is much like a cloud passing over the sun, while he is visible to the adjacent country, and the sun may be totally eclipsed at one place, and not the least obscuration be seen in another.

The number of eclipses in any year cannot be less than two, nor more than seven; the most usual number is four, and it is very rare to have more than six. When there are only two eclipses in a year, they are always both of the sun; and when there are seven, four are of the sun, and three of the moon.

A total eclipse of the sun can never happen at any time and place without the moon's disk appears larger than the sun. It must also be attended with a concurrence of many other circumstances; so that two total solar eclipses may not happen at the same place for many centuries. There are upon record, accounts of such eclipses, which have been seen in different countries, and in different ages of the world.

In astronomy, eclipses of the moon are of great use in ascertaining the periods of her motions, especially such eclipses are observed to be alike in all circumstances, and have no long intervals of time between them. In geography, the longitude of places may be found by eclipses of the moon. In chronology, both solar and lunar eclipses serve to determine the time of any past event: for there are so many particulars observable in every eclipse, with respect to its quantity, the places where it is visible, if of the sun, and the time of the day or night, that it is impossible there can be two like eclipses, in the course of centuries.

We may therefore plainly see, that every event in nature has a natural cause; and instead of being alarmed by groundless apprehensions, we must be convinced that it is all the consistent result of a well regulated frame; and that no operation in the visible system, however novel or incomprehensible to us, is any digression from that established harmony which prevails in every part. It cannot be expedient, that beings situated as we are, can have a perfect knowledge of the design of creation. There are effects produced in the heavens and in the earth, whose origin we cannot trace, and whose causes we cannot explore.

It is the advantage of the present age, that genius has been directed to its proper channel; and that it has involved in its progress the perfection of every art, the improvement of every science; and which has made a delightful transition in the condition of society, and in the face of things. As the common appearances in nature can generally be traced to natural and rational causes, we have reason to be thankful for the improvements and discoveries which have been made in universal knowledge; and which form a conspicuous contrast between the philosophy of the present day, and the darkness of some of the preceding ages. And as our inquiries have hitherto been so successful, there is reason to hope and believe, that the progress of science in the present period will be such, that future posterity will rise up, and realize the improvements of the nineteenth century.

These are the extracts from the Boston pamphlet, which we have imagined would prove interesting to our readers, of this city.

Of the early knowledge of solar eclipses, the following paragraph, translated from the French, will bear historic testimony.

Total Eclipses of the sun, are spoken of in Homer and Pindar in Pindar, book chap. 12, and in Demetrius of Sicily, book 4d.—This last author says, that there were total Eclipses of the sun, at the birth and death of Romulus, when the darkness was as great as midnight. Herodotus informs us, that in the 6th, year of the war, between the Egyptians and the Medes, during the time of a battle, the day was changed into night. Thales, the Milesian, had foretold its appearance that year. &c.—*See La Lande's Astronomy Abridged, p. 257, 258.*

A digit is a twelfth part of the diameter of the sun or moon—So that only 1-12 of the sun's diameter will be visible.

The sun's higher edge we call the west; the lower the east; on the right hand the south; and on the left hand the north side of his body.

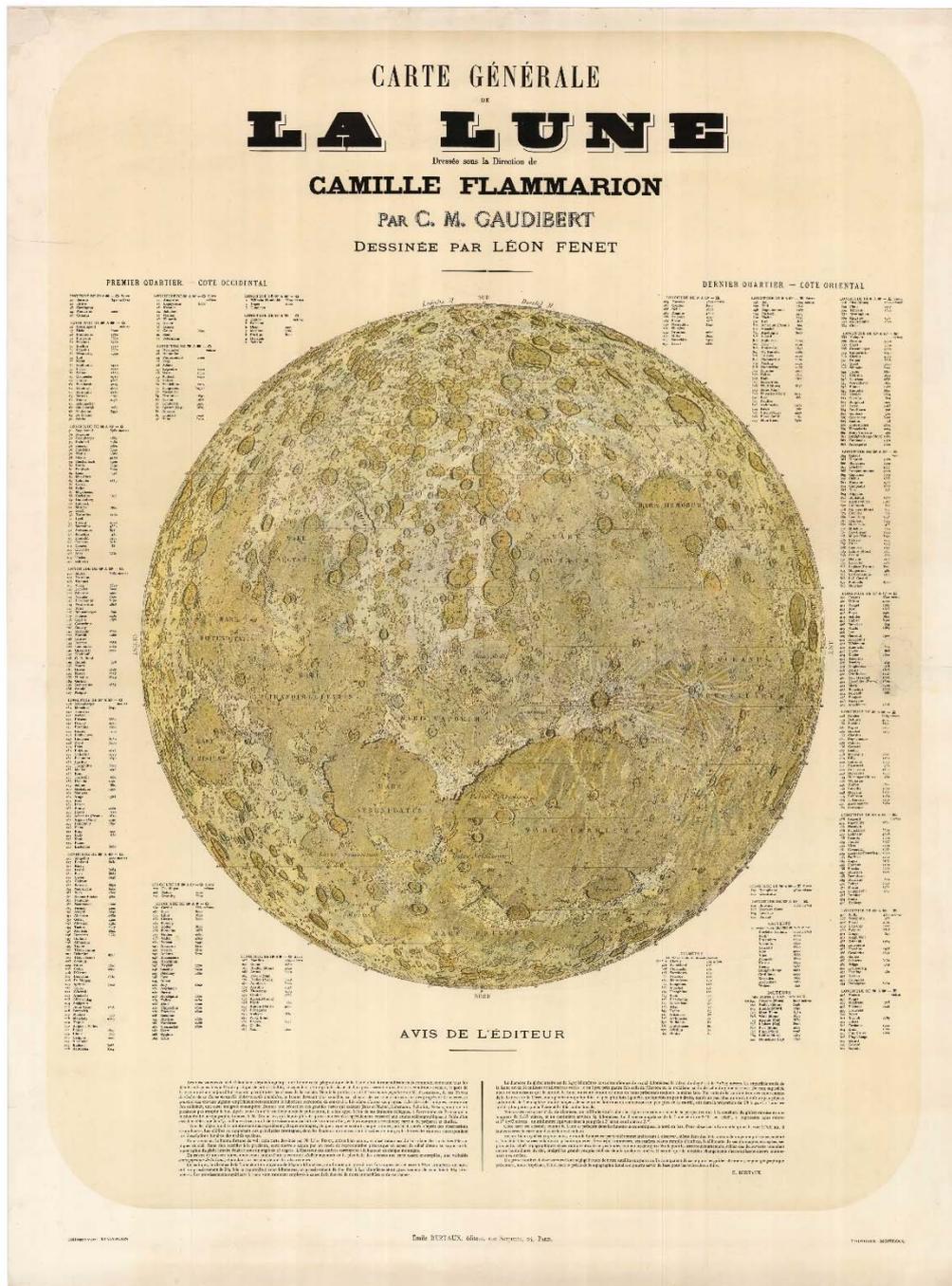
The moon's penumbra is a faint shade surrounding the dark one. When the penumbra touches any place on the earth's surface, the eclipse begins at that place; and when the penumbra leaves it, the eclipse ends. Within the centre of this penumbra lies the dark shadow, whose breadth is greater or less, according as the moon's apparent diameter exceeds the sun's. When the sun appears larger than the moon, at the time of any eclipse, there is no dark shadow at that time; and to all those places over which the centre of the penumbra then passes, the sun will be centrally eclipsed like a ring, appearing like a circle made of brass wire. Of this description was the remarkable eclipse which happened April 3, 1771, on Sunday morning.

To represent, by a figure, the moon's penumbra, with the dark shadow in the centre, chalk a large circle on the floor, about three feet in diameter, which shall represent the penumbra; in the centre make another circle of about two inches in diameter; this last shall represent the dark shadow. This dark shadow can only happen at the time of a total eclipse of the sun.

Conceive the large circle, which we have just made, to travel over the earth's surface; when its edge touches any place the eclipse then begins at that place; and when its opposite edge leaves that place, the eclipse ends. These circumstances constitute the beginning and ending of an eclipse of the sun.

PRINTED BY JOHN POULSON

## A large and important 19th century map of the Moon



### 15 GAUDIBERT, Casimir Marie.

Carte Général de la Lune Dressé sous la Direction de Camille Flammarion Par C.M. Gaubibert. Dessinée par Léon Fenet.

Paris: Émile Bertaux, 1877. Heliogravure. Sheet 1210 x 895mm. Minor repairs, laid on linen.

£6,500

A rare map of the Moon, compiled by Léon Fenet from the observations of Casimir Marie Gaudibert (1823-1901), overseen by Camille Flammarion (1842-1925), founder and first president of the 'Société astronomique de France'. Around the map is a key of 509 craters.

Despite being an amateur astronomer, Gaudibert was praised for the precision of his observations, taking over 15 years. His fame was extended when Bertaux, the publisher of this map, created a lunar globe from his data. A crater on the Moon has been named in his honour.

S/N 21933

## A wall map of the Moon in preparation for the Lunar Landing



### 16 UNITED STATES AIR FORCE.

USAF Lunar Wall Mosaic. LEM-1B.

Washington, D.C.: Superintendent of Documents US Government Printing Office, 1966. Lithograph on two sheets conjoined, total printed area 1460 x 1550mm, linen-backed on rollers, as issued. Slightly trimmed at sides, as issued, with about 10mm loss of lettering on each side. £5,000

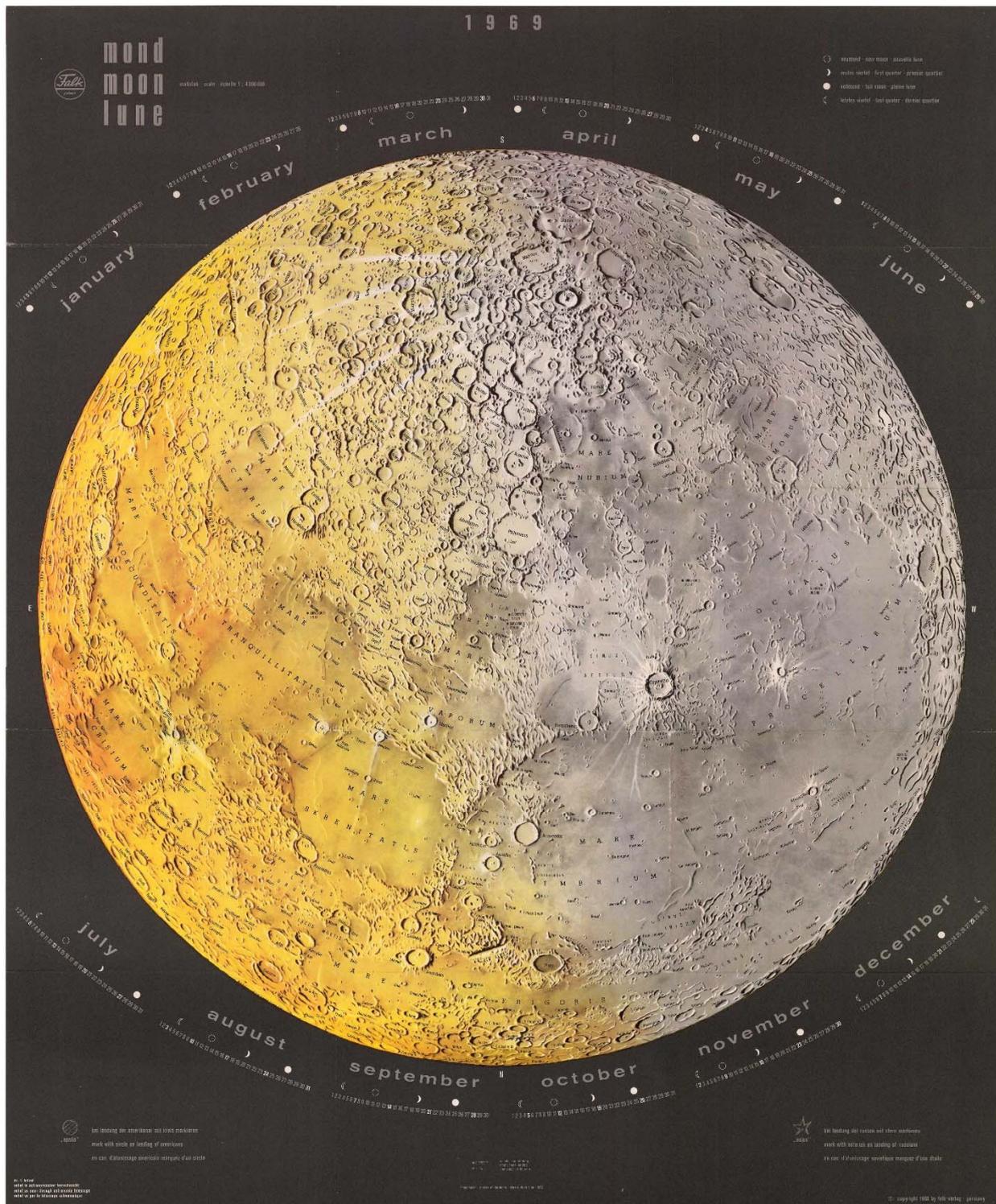
A huge map of the moon using an orthographic projection (i.e., as a sphere viewed from an infinite distance), compiled from hundreds of photographs, created during NASA's planning of the first Lunar Landing, that of Apollo 11 in 1969.

The first 'USAF Lunar Reference Mosaic' was published in 1960 in two scales, 1:10 million & 1: 5 million, but recompiled with improved photographic imagery in 1962, and issued with a third, larger scale, 1:2.5 million, as the Wall Mosaic (LEM-1B). This example is a second edition of the third, printed in blue and grey on a black background. Such is the size that the moon's diameter measures 1.39 metres. It was the USAF rather than NASA that produced the map because the project started before NASA was created in 1958.

The condition of this example is superb, with no damage or stains, with unfaded colour.

S/N 21830

## A plan of the Moon published for the 1969 landing



### 17 HÖLZEL, F.

Mond. Moon. Lune. 1969.

London: London Plan Publishing Co London Ltd, 1969. Colour printed map. Sheet 1040 x 885mm. Original folds flattened, laid on linen.

£1,500

A map of the moon based on the view from a telescope, with text in German, English and French, published for the 1969 Moon landing. The features of the Moon are named and the sites of the American and Russian probes marked. Around the globe is a calendar of the waxing and waning of the Moon for 1969.

S/N 21931

## A rare lunar relief globe celebrating man reaching the Moon

18 WIGHTMAN, A. J.

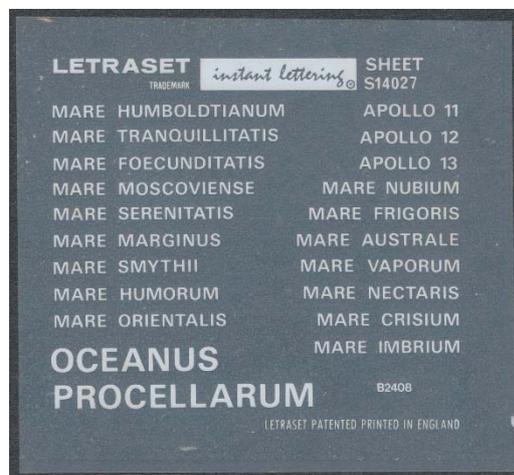
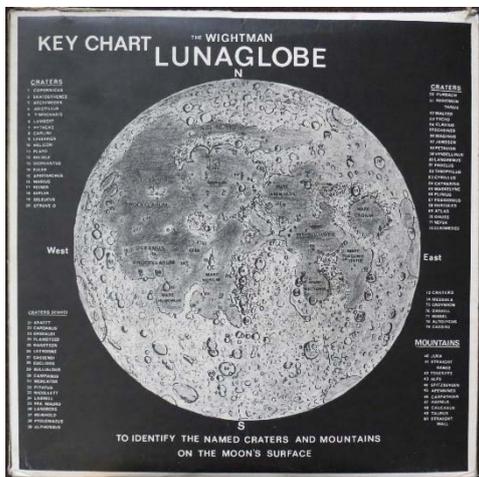
[A hand-made 12" lunar relief globe.]

*Penzance: Lunasphere Productions Ltd. 1969. 61cm (24") diameter, fibreglass sphere with white painted highlights, lettered with Letraset and painted mss, seated in plastic cradle. With the original illustrated cardboard box, four copies of a Letraset sheet for adding white names to the globe, and the 4pp. prospectus for Wightman's globes. Box lid defective; prospectus with split in upper fold and creasing.*  
£3,750



A rare lunar globe with raised relief, handmade by Arthur Wightman in Cornwall during the excitement of the race to put the first man on the Moon.

The globe was carefully cast to show the relief of craters and other features of the surface, brushed with white paint to show debris fields from such events. The American unmanned 'Surveyor' and 'Ranger' landing sites are marked with yellow squares; the Russian unmanned 'Lunar' sites are marked in red; the manned 'Apollo' missions (11 and 12, both 1969) are marked in blue. The Letraset sheet could be used label the globe, including the sites of the landing sites of Apollo 11 & 12 & and the intended site of the ill-fated Apollo 13

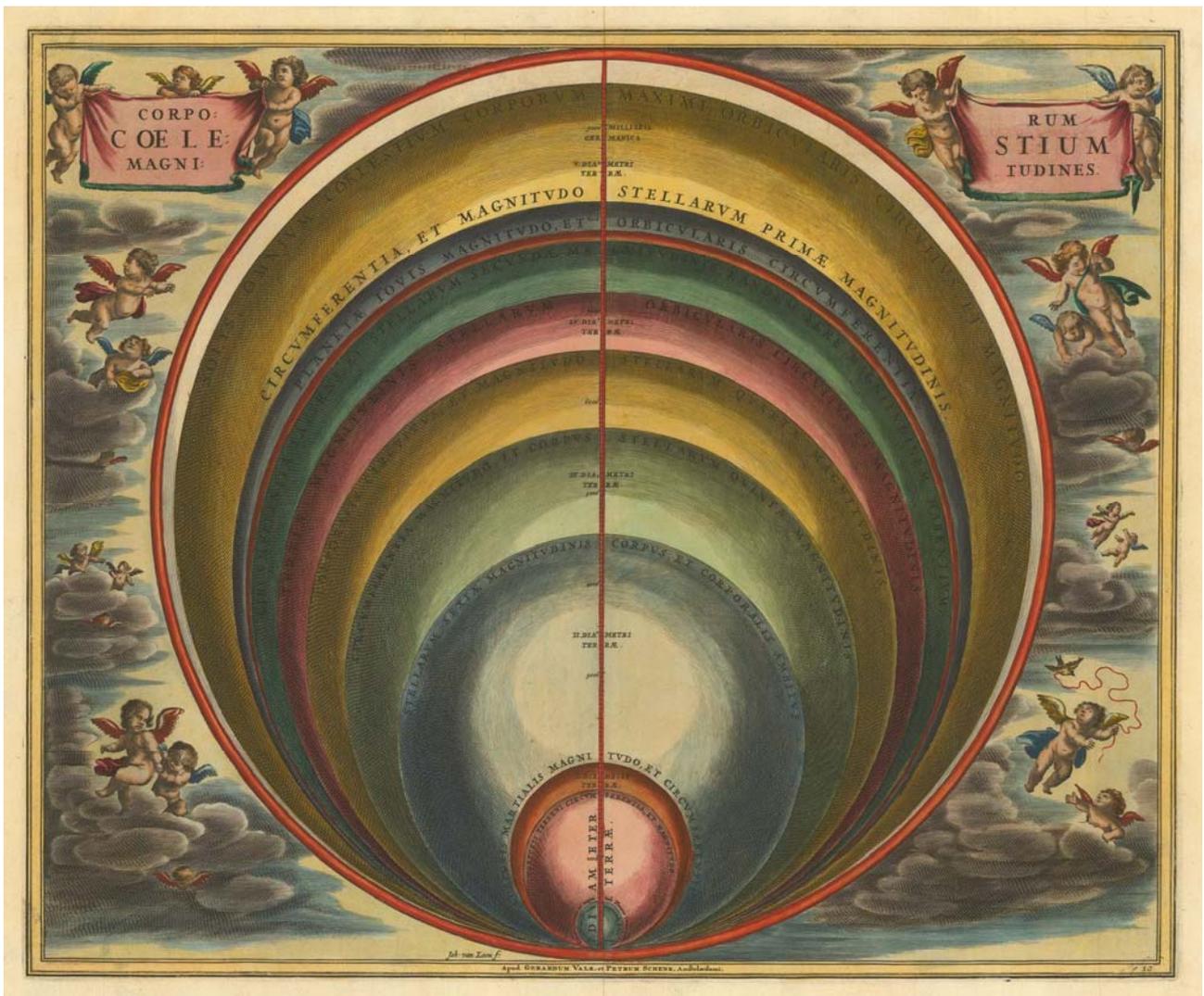


Whiteman's prototype, which took two years to create, was based on photographs supplied by NASA and was regarded as the most detailed plotting of the Moon available, even including the Dark Side. Whiteman sold three sizes, 8", 12" and this 24" globe, the largest and most impressive, with customers including NASA itself as well as Frank Borman, captain of Apollo 8.

A film in the Associated press online archive called 'The Man Who Sold the Moon' made by British Movietone in 1969, gives a fascinating behind the scenes glimpse of his workshop. (See Youtube: <https://youtu.be/8n8DQTJAL9I>). The 24" played a cameo role in the James Bond movie 'Diamonds are Forever' in 1971.

S/N 22378

## 17th century chart comparing the sizes of the planets & celestial bodies



### 19 CELLARIUS, Andreas.

Corporum coelestium magnitudines.

Amsterdam: Schenk & Valk, 1708. Original colour with additions. 440 x 515mm. Tiny pinhole in decorative border.

£2,000

An astronomical chart comparing the sizes of Earth, the planets, the sun and other stars. The borders are decorated with winged cherubs and windheads.

It was engraved by Jan van Loon and published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced. Originally published by Jan Jansson in 1660, this example comes from Schenk & Valk's reissue. *KOEMAN: Cel 3.*

S/N 22130

## Early attempts to depict the planets

Coloured wood engravings From 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt. London: David Bogue, c. 1845. Wood engraving. 150 x 190mm.

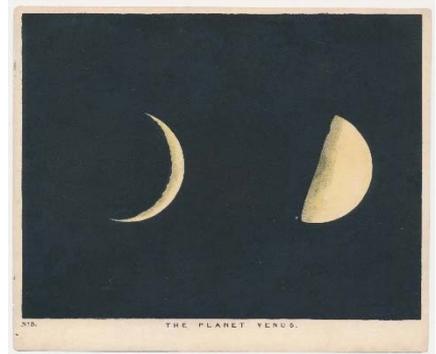
### Venus

#### 20 BLUNT, Charles F.

The Planet Venus.

£175

Two views of Venus on one plate  
S/N 22363



### Mars

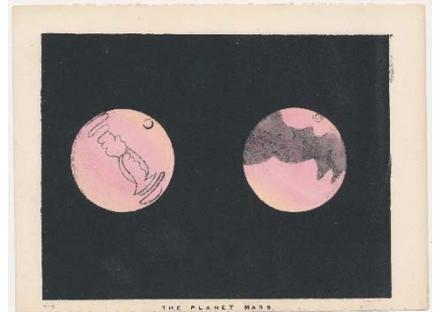
#### 21 BLUNT, Charles F.

The Planet Mars.

£175

Two views of Mars on one sheet.

S/N 15913



### Jupiter

#### 22 BLUNT, Charles F.

The Planet Jupiter.

£175

A view of the planet Jupiter, with its moons and spot.

S/N 22364



### Saturn

#### 23 BLUNT, Charles F.

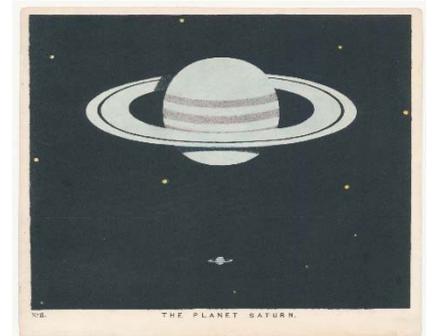
The Planet Saturn.

£175

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm.

The Planet Saturn with its ring.

S/N 22362



### Uranus

#### 24 BLUNT, Charles F.

The Planet Herschel.

£175

S/N 15925



## A pair of superb 17th century celestial hemispheres



### 25 CELLARIUS, Andreas.

Hemisphaerii Borealis coeli et terrae sphaerica scenographia. [&] Haemisphaerium Scenographicum Australe Coeli Stellati et Terrae.

*Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. Two plates, each 440 x 515mm. A few repairs to verdigris weaknesses. £7,500*

A beautiful part of celestial charts, with the constellations superimposed over the northern and southern hemispheres of Earth. In the top corners of both plates the title is on banderoles held aloft by cherubs and demons. The bottom corners have representations of astronomers and their pupils, holding scientific instruments.

These charts were published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

It was originally published by Jan Jansson in 1660: this chart comes from Schenk & Valk's reissue. *KOEMAN: Cel 3.*

S/N 22110



## Pair of celestial charts of the skies as known by the Ancients



### 26 CELLARIUS, Andreas.

Haemisphaerium Stellatum Boreale Antiquum. [&] Haemisphaerium Stellatum Australe Antiquum.

Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. Two plates, each 440 x 515mm. Small repairs to verdigris weaknesses. £7,500

A pair of beautiful celestial charts of the stars as known to the Ancients, with the classical constellations. The borders contain the titles on banners and several putti.

This chart was published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

It was originally published by Jan Jansson in 1660: this chart comes from Schenk & Valk's reissue. KOEMAN: Cel 3.

S/N 22109



## A superb pair of 17th century celestial hemispheres



### 27 CELLARIUS, Andreas.

Haemisphaerium Stellatum Boreale cum Subiecto Haemisphaerio Terrestri [&] Haemisphaerium Stellatum Australe Aequali sphaerarum proportione.

Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. Two plates, each 440 x 515mm, with good margins. 'North' with a few small repairs to verdigris weaknesses, £8,000

A pair of spectacular celestial charts of the northern and southern celestial spheres superimposed over the Earth. The northern sheet has Europe and Asia with parts of Africa and North America; the southern shows the Americas south of California and Florida and 'Terra Australis Incognita'. The skies are being supported by Atlas on one side and Hercules on the other.

The charts were published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced. It was originally published by Jan Jansson in 1660: this chart comes from Schenk & Valk's reissue. *KOEMAN: Cel 3.*

S/N 22104



## Unusual pair of celestial charts with Christian iconography



### 28 CELLARIUS, Andreas.

Coeli Stellati Christiani Haemisphaerium Posterioris. [&] Coeli Stellati Christiani Haemisphaerium Prius.

Amsterdam, Schenk & Valk, 1708. Original colour with additions, including gold highlights. Two plates, each 440 x 515mm. A few small repairs to verdigris weaknesses., £8,500

A beautiful pair of celestial charts of the constellations, depicting them not in the traditional Greco-Roman figures but in Christian imagery as envisaged by Julius Schiller in 1627 in an attempt to make the iconography of the stars more relevant to his day. Thus the Zodiac is represented by the Twelve Apostles and Pegasus has become Gabriel. All the figures are shown face on, because Schiller thought it would be an indignity to have them show their backsides. His changes caused him often to be ridiculed and did not catch on, but when they were published his charts were the most accurate available.

These charts were engraved by Jan van Loon and published in the 'Atlas Coelestis; seu Harmonia Macrocosmica', the only celestial atlas to be produced in the Netherlands before the nineteenth century. It was a compilation of maps of the Ptolemaic universe and the more modern theories of Copernicus and Brahe, and remains the finest and most highly decorative celestial atlas ever produced.

The atlas was originally published by Jan Jansson in 1660: this pair come from Schenk & Valk's reissue. KOEMAN: Cel 3.

S/N 22108



## Early 18th century double-hemisphere celestial chart

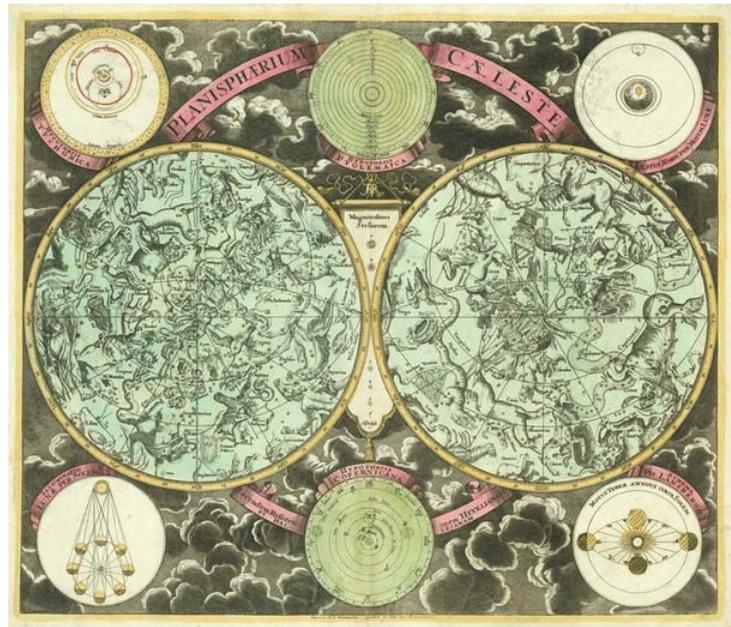
### 29 EIMMART, Georg Christoph.

#### Planisphaerium Caeleste.

Nuremberg, Homann, c.1720. Original colour. 500 x 580mm. £1,400

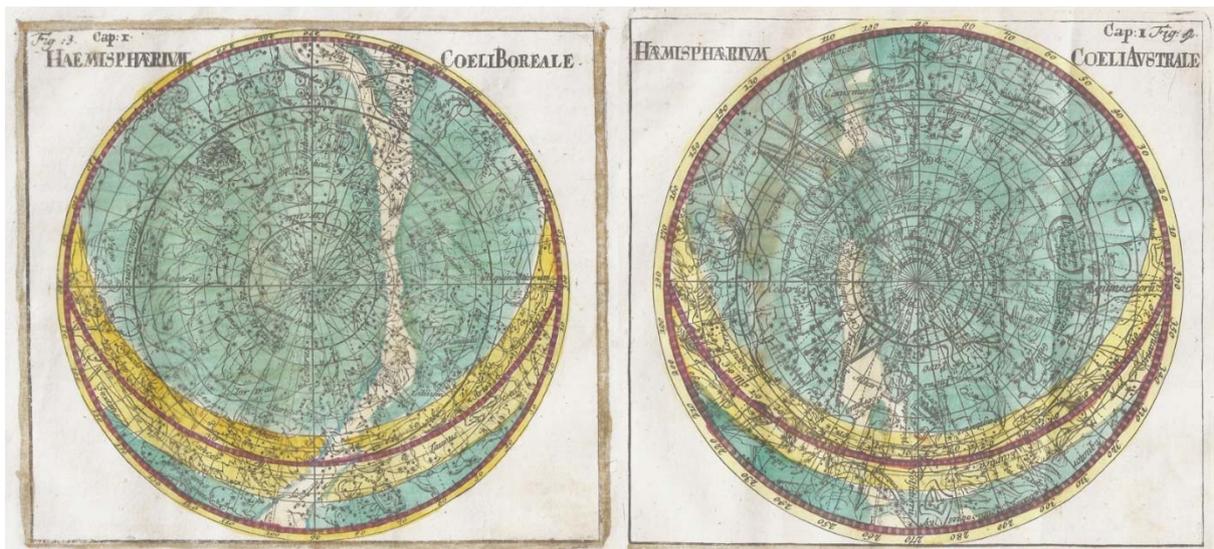
A double-hemisphere star-chart with the constellations shown in their classical forms. The decorative borders contain six more spheres, showing the solar system according to Ptolemy, Brahe and Copernicus, the lunar cycle, etc.

The chart was originally published by David Funck c.1690; Homann seems to have bought the plate after Funck's death c.1705. WARNER: p.76-77.



S/N 19278

## Pair of 18th century celestial charts of the northern and southern skies



### 30 THOMAS, Corbinianus.

Haemisphaerium Coeli Boreale. [&] Haemisphaerium Coeli Australe.

Frankfurt, 1730. Original colour. Two plates, each 125 x 135mm.

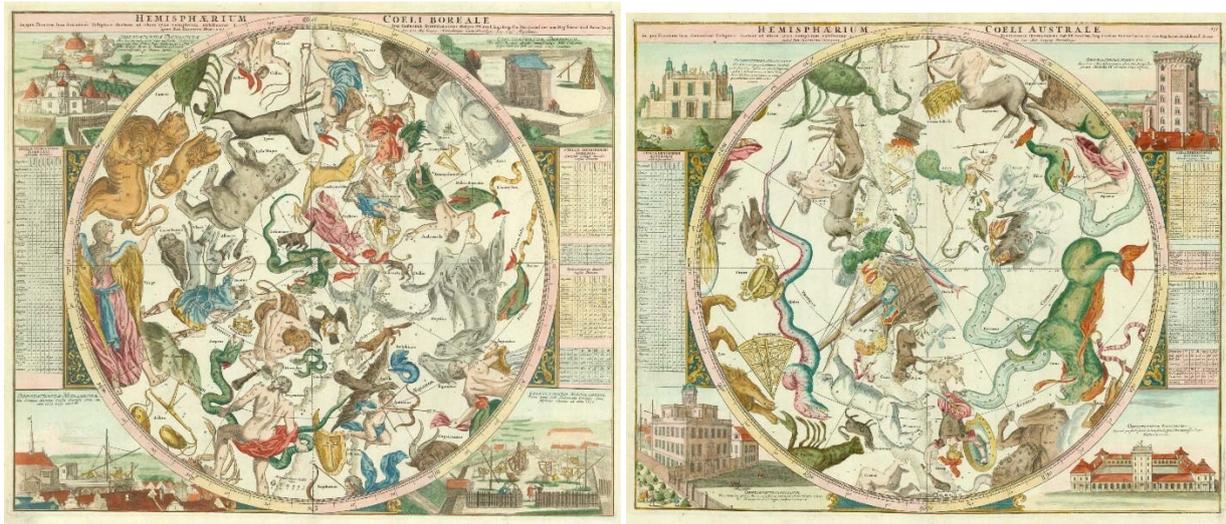
£400

The northern & southern celestial spheres, engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21482

## A fine pair of 18th century celestial hemispheres



### 31 DOPPELMAYR, Johann Gabriel.

Hemisphaerium Coeli Boreale. [&] Hemisphaerium Coeli Australe.

Nuremberg, Homann's Heirs, 1742. Coloured. Two sheets, ea. c.485 x 580mm.

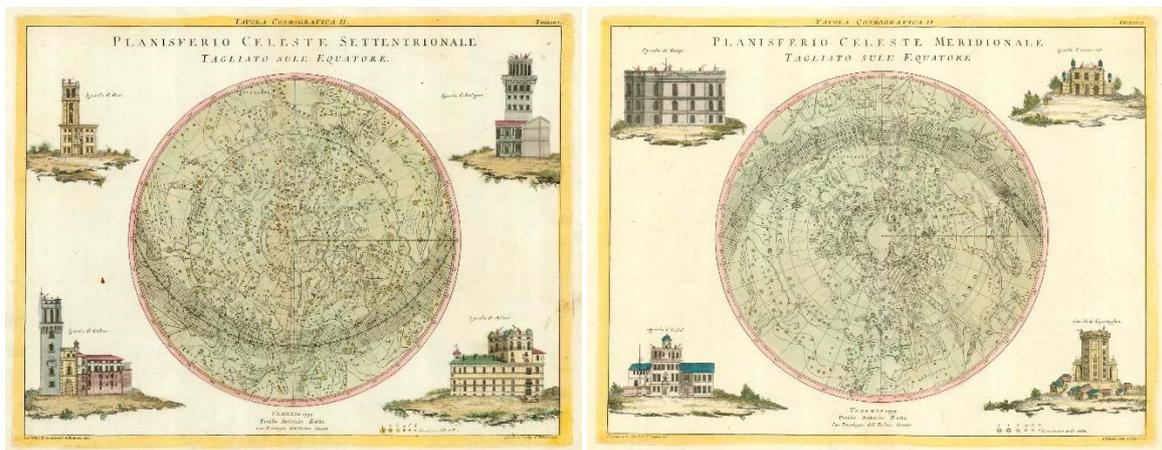
£2,800

The Northern and Southern skies, divided into the Classical Constellations. In the corners are elevations of eight of the most important observatories of Europe, including Greenwich.

Most of the constellations depicted are still familiar today, but on the Southern sheet is 'Robur Carolinum' (Charles's Oak), introduced by Edmund Halley in 1678 but not one of the 88 constellations recognised today.

S/N 18919

## Pair of 18th century celestial hemispheres



### 32 ZATTA, Antonio.

Planisfero Celeste Settentrionale Tagliato sul L'Equatore. [&] Planisfero Celeste Meridionale Tagliato sul L'Equatore.

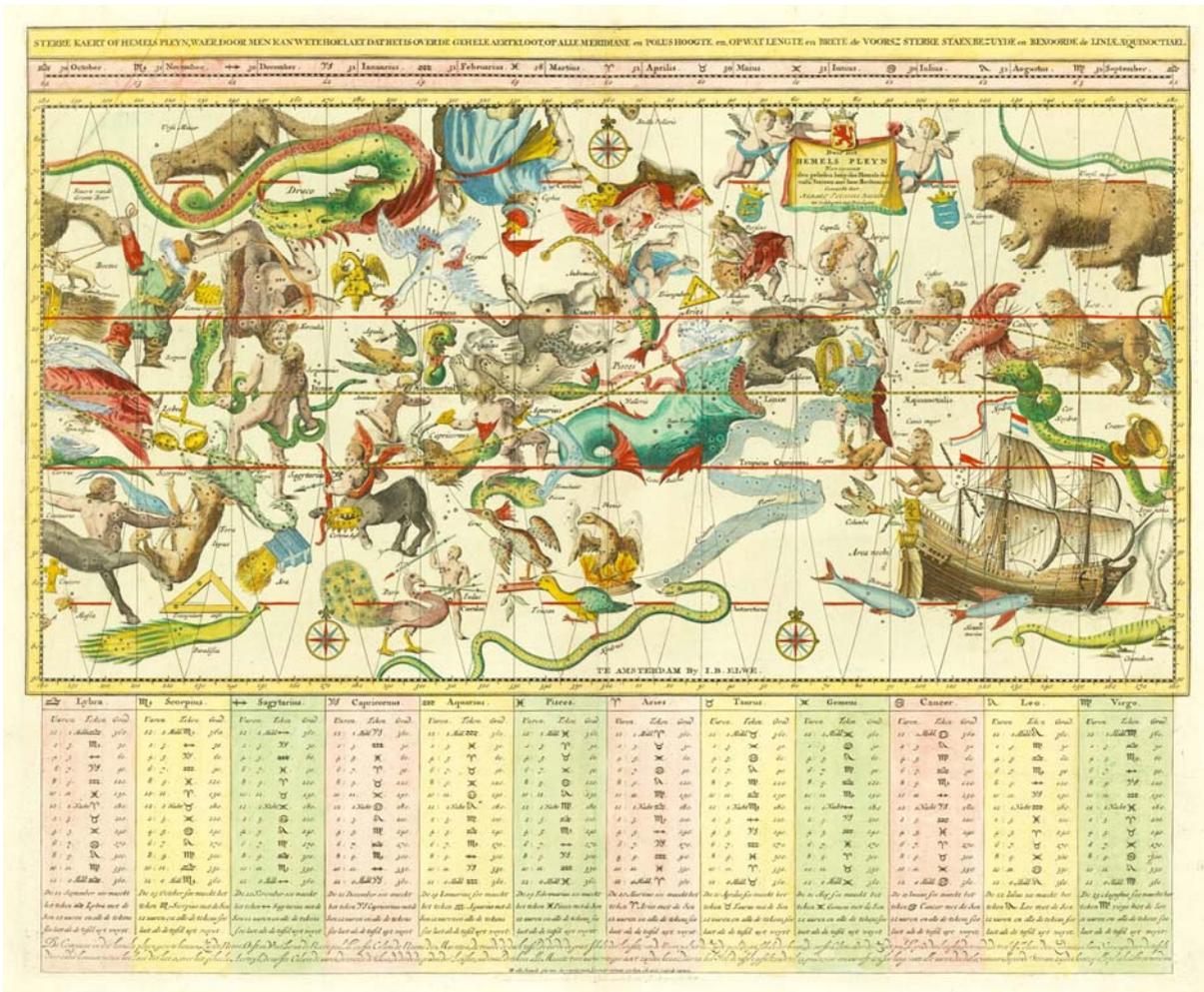
Venice, 1777. Original colour. Two sheets, each 325 x 415 mm.

£900

The northern and southern night sky. Each plate has four elevations of observatories: Pisa, Bologna, Padova and Milan; and Paris, Greenwich, Cassel and Copenhagen.

S/N 19314

## Uncommon star chart on a flat projection



### 33 BACKER, Remmet Teuniss.

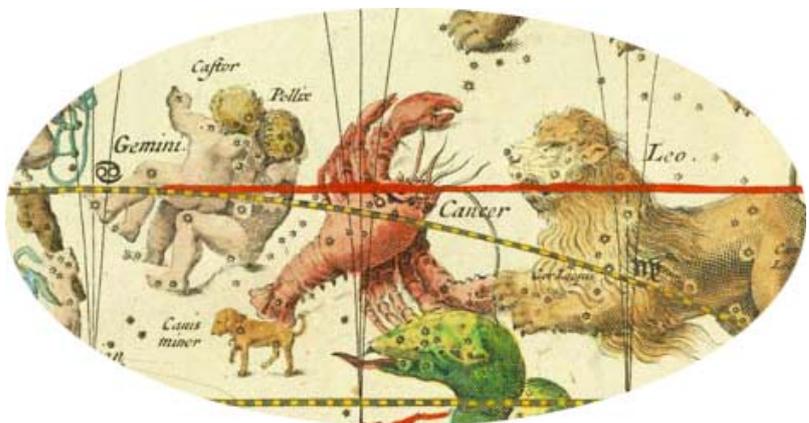
Sterre Kaert of Hemels Pleyne, Waer Door Men Kanwethoelaet dat het is Overde Gehele Aertkloot, pp alle Meridiane en Polus Hoogte, en, Opwat Lengte en Brete de Voorsz Sterre Staen, Bezuyde en Benoorde de Liniae Aequinoctiael.

Amsterdam: J.B. Elwe, 1792. Original colour. 475 x 585mm.

£1,600

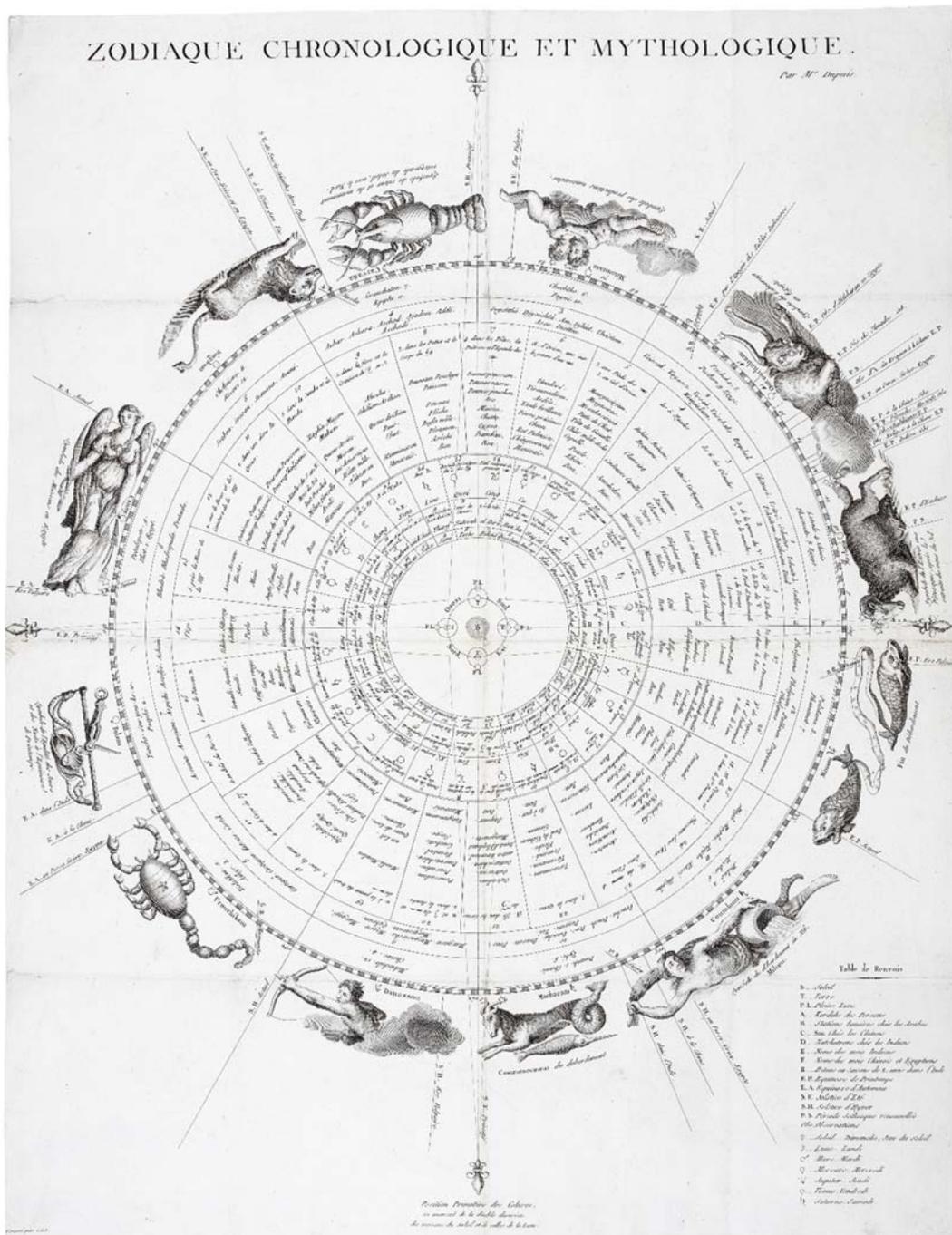
A chart of the Northern and Southern skies on a flat projection similar in style to Mercator's Projection on a map of the Earth. The twelve signs of the Zodiac dominate the centre, with Virgo being split between the two sides.

The plate has a long and convoluted history: originally published c.1684 by Johannes van Keulen (a namesake of the chart-maker), it was subsequently republished by de Ram (whose imprint is imperfectly erased outside the printed border at bottom), de la Feuille (who had married de Ram's widow), Ottens and finally Elwe, over a century later. KOEMAN: El 2; WARNER: 1d.



S/N 19259

## An anthropologist's diagram of the Zodiac



### 34 DUPUIS, Charles François.

Zodiaque Chronologique et Mythologique.

Paris: Courcier, 1806. Sheet 635 x 495mm. Binding folds flattened, repairs to corners of folds.

£1,250

A decorative table of the Zodiac, comparing the astronomical systems of the ancient civilizations, including the Egyptians, Greeks, Romans and Chinese, published in 'Memoire explicatif du Zodiaque chronologique et mythologique'.

Charles François Dupuis (1742-1809) was a French anthropologist who believed that the signs of the zodiac were invented by the ancient Egyptians and served them as a sort of astronomical and agricultural calendar. On this basis he built up a thorough system of mythology and chronology, accounting for the origin of religions. *The full text of the 'Memoire' is available on Google Books.*

## Aquarius

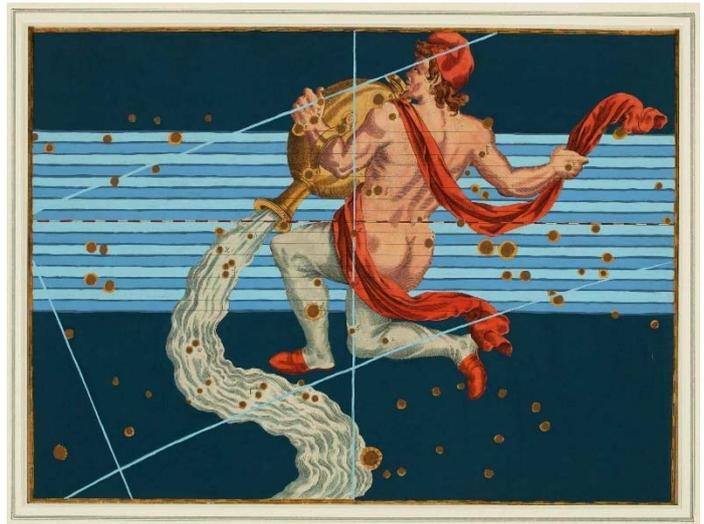
### 35 BAYER, Johann.

[Aquarius.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm. £1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: *Bayer 1*.



S/N 20007

### 36 THOMAS, Corbinianus.

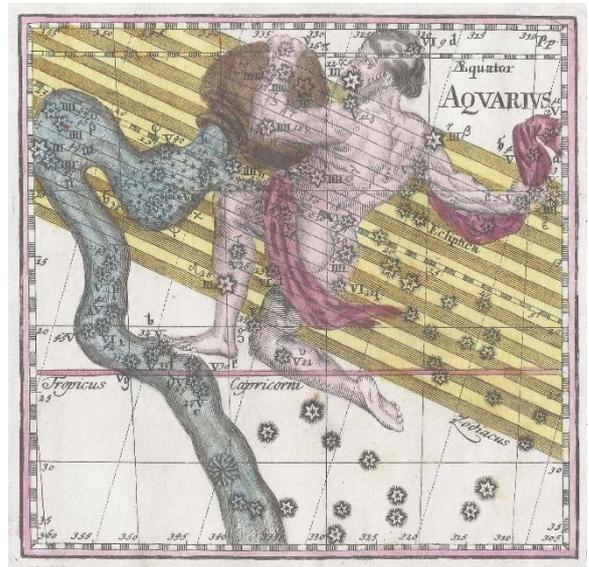
Aquarius.

Frankfurt, 1730. Fine original hand colour. 140 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosophici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour.

KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.



S/N 21464

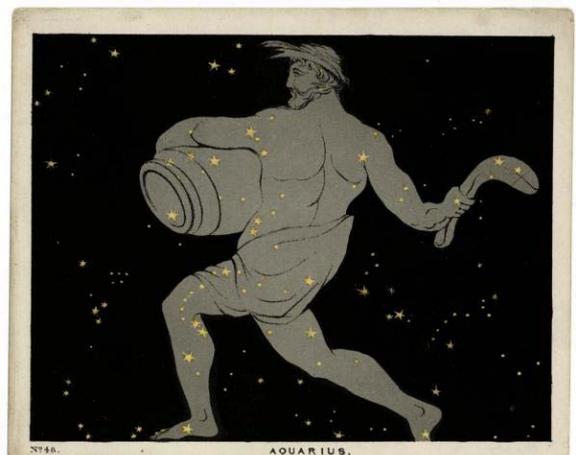
### 37 BLUNT, Charles F.

Aquarius.

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm. £275

From 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 19150



## Pisces

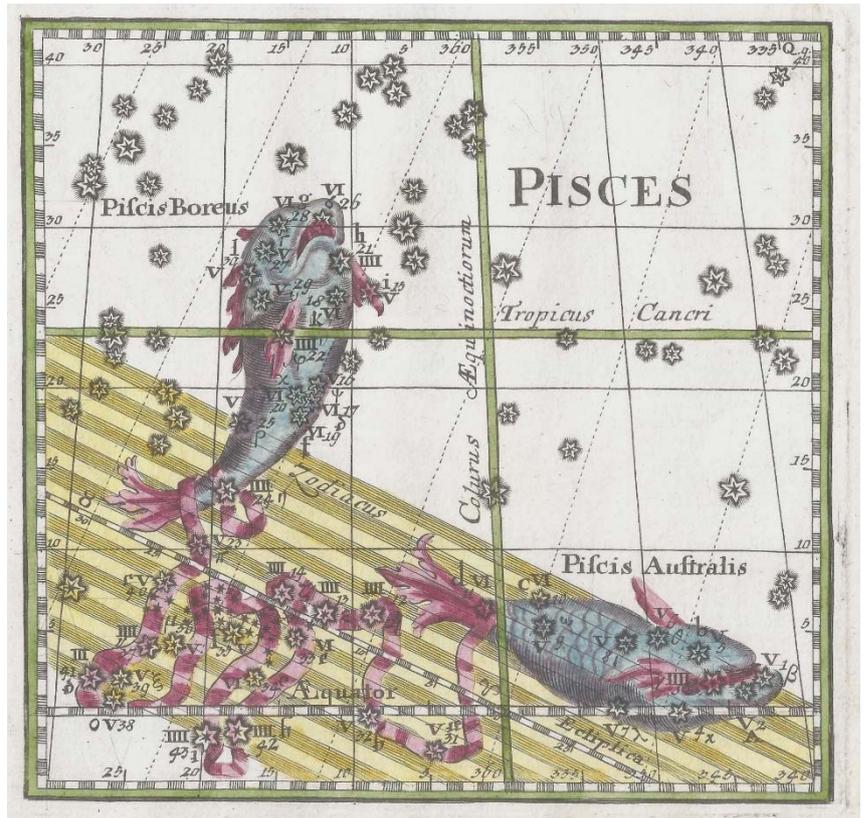
### 38 THOMAS, Corbinianus.

Pisces.

Frankfurt, 1730. Fine original hand colour. 140 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.



S/N 21465

### 39 BLUNT, Charles F.

Pisces.

London: David Bogue, c. 1845.  
Wood engraving. 150 x 190mm. £275

From 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22040



## Aries

### 40 BAYER, Johann.

[Aries.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm. £1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: *Bayer 1*.



S/N 19997

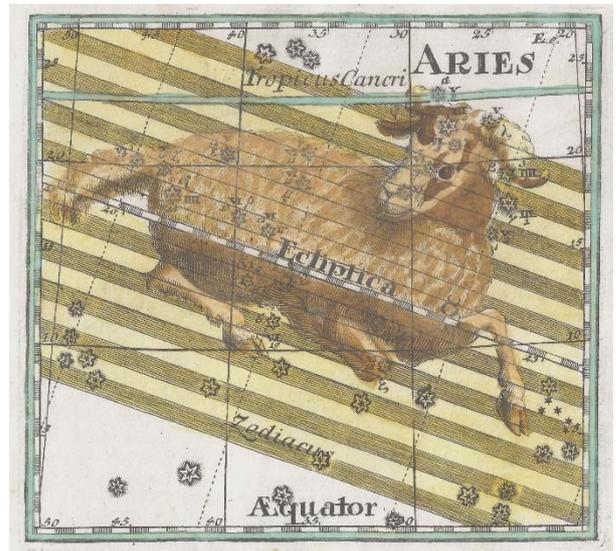
### 41 THOMAS, Corbinianus.

Aries.

Frankfurt, 1730. Fine original hand colour. 120 x 130mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphi Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.



S/N 21466

### 42 BLUNT, Charles F.

Aries.

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm. £275

From 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22038



# Taurus

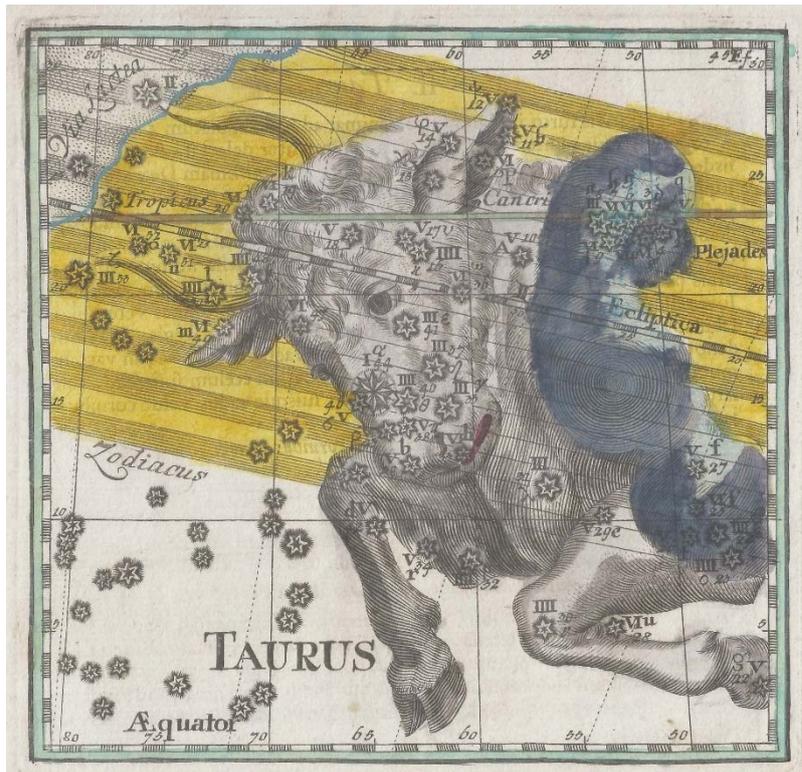
## 43 THOMAS, Corbinianus.

Taurus.

Frankfurt, 1730. Fine original hand colour. 135 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. *KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.*



S/N 21467

## 44 BLUNT, Charles F.

Taurus.

London: David Bogue, c. 1845.  
Wood engraving. 150 x 190mm. £275

Plate 39 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22044



## Gemini

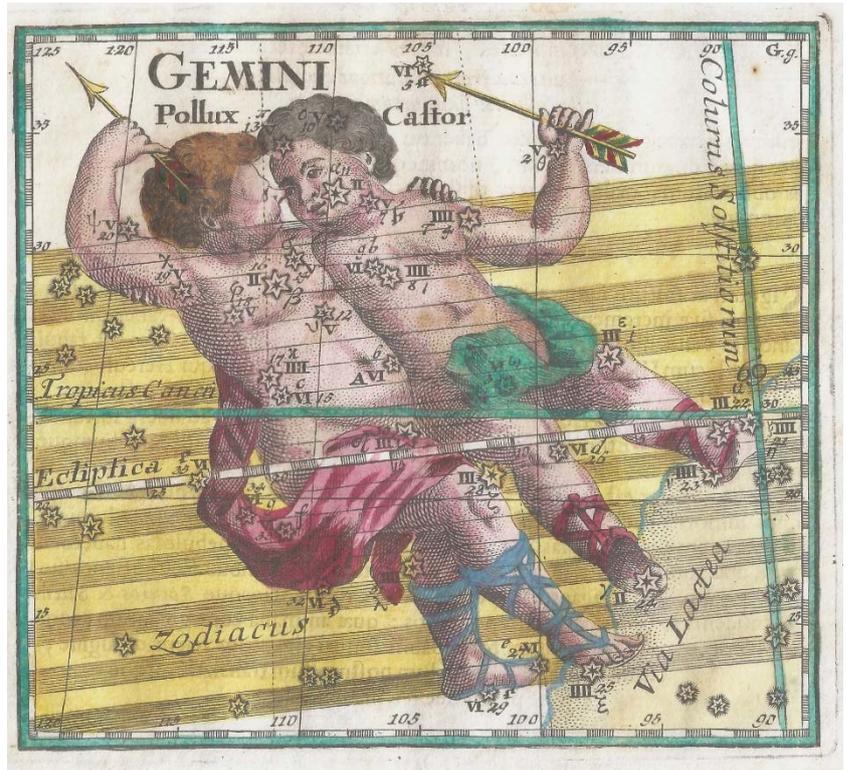
### 45 THOMAS, Corbinianus.

Gemini.

Frankfurt, 1730. Fine original colour.  
120 x 135mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. *KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.*



S/N 21461

### 46 BLUNT, Charles F.

Gemini.

London: David Bogue, c. 1845.  
Wood engraving. 150 x 190mm.  
£275

Plate 40 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22041



## Cancer

### 47 BAYER, Johann.

[Cancer.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm. £1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: *Bayer 1*.

S/N 20000



### 48 THOMAS, Corbinianus.

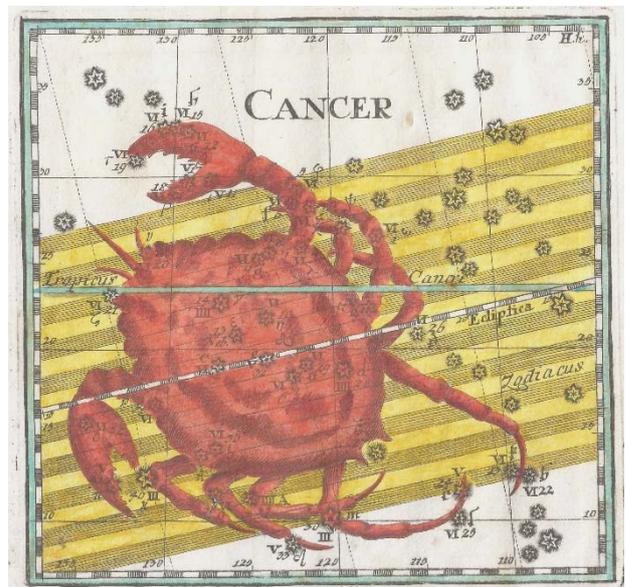
Cancer.

Frankfurt, 1730. Fine original hand colour. 135 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphi Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21463



### 49 BLUNT, Charles F.

Cancer.

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm. £275

Plate 41 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22042



## Leo

### 50 BAYER, Johann.

[Leo.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm. £1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: Bayer 1.

S/N 20001

### 51 THOMAS, Corbinianus.

Leo.

Frankfurt, 1730. Fine original colour. 120 x 130mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosophici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21460

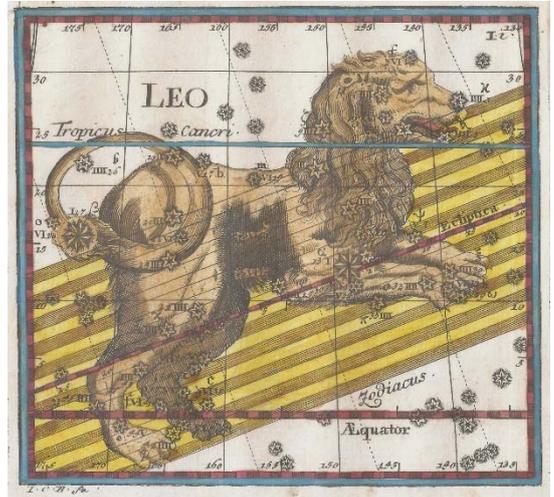
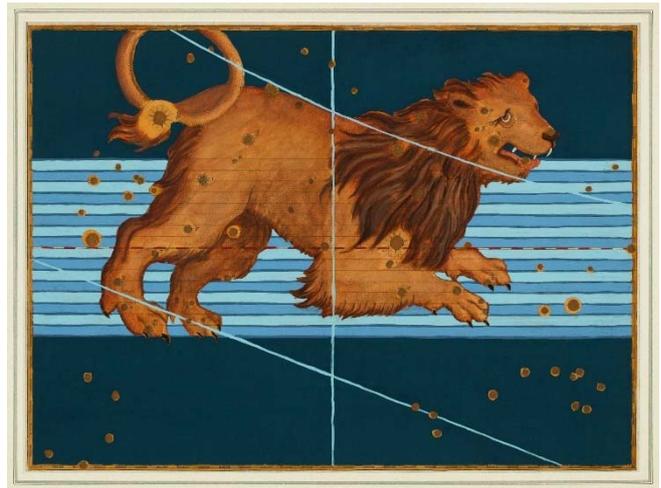
### 52 BLUNT, Charles F.

Leo.

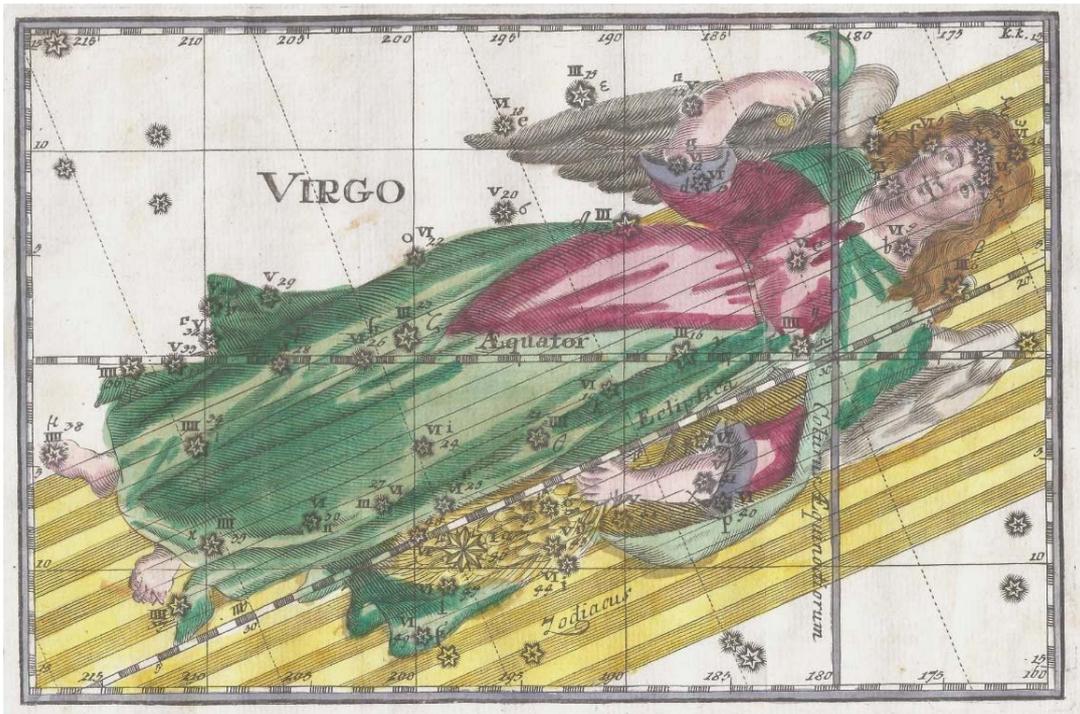
London: David Bogue, c. 1845. Wood engraving. 150 x 190mm. £275

Plate 42 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22039



# Virgo



## 53 THOMAS, Corbinianus.

Virgo.

Frankfurt, 1730. Fine original hand colour. 135 x 200mm.

£350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21457

## 54 BLUNT, Charles F.

Virgo.

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm. £275

Plate 43 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22043



## Libra

### 55 BAYER, Johann.

[Libra.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm.  
£1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: *Bayer 1*.

S/N 20003



### 56 THOMAS, Corbinianus.

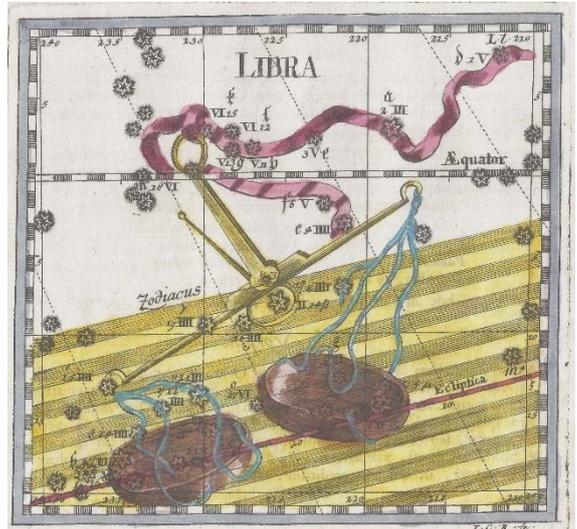
Libra.

Frankfurt, 1730. Fine original hand colour. 135 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21468



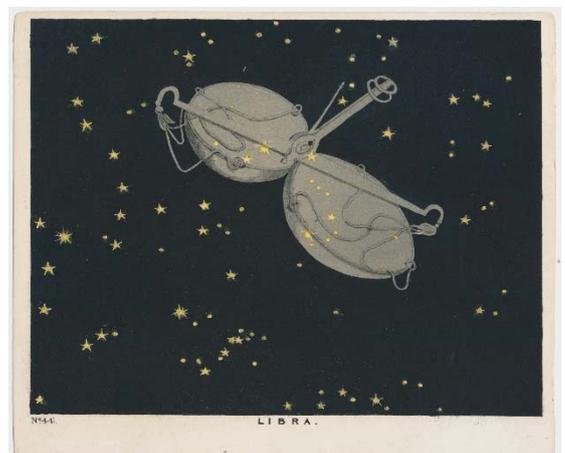
### 57 BLUNT, Charles F.

Libra.

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm.  
£275

Plate 44 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22037



## Scorpio

### 58 BAYER, Johann.

[Scorpio.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm. £1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: Bayer 1.

S/N 20004



### 59 THOMAS, Corbinianus.

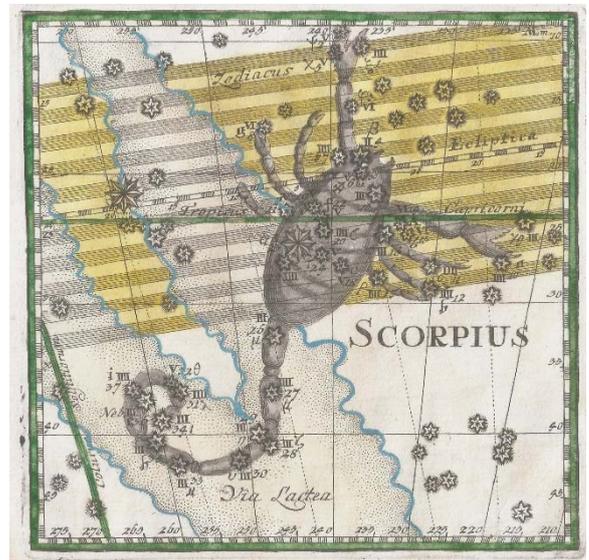
Scorpius.

Frankfurt, 1730. Fine original hand colour. 135 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosphici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.

S/N 21458



### 60 BLUNT, Charles F.

Scorpio.

London: David Bogue, c. 1845. Wood engraving. 150 x 190mm. £275

Plate 45 of 'The Beauty of the Heavens: a pictorial display of the astronomical phenomena of the universe' by Charles F. Blunt.

S/N 22036



# Sagittarius

## 61 BAYER, Johann.

[Sagittarius.]

Ulm, 1641. Coloured with watercolour and gouache, stars highlighted in gold. 285 x 380mm. £1,100

Engraved by Alexander Mair for Bayer's 'Uranometria', a star atlas that shaped the way the heavens would be perceived for more than two centuries.

Johann Bayer (1572-1625), an Augsburg lawyer, was an amateur astronomer in the years just prior to the invention of the telescope. His most important innovation was a new system of identifying stars by Greek and Roman letters, known today as the Bayer designation. His 'Uranometria' ('Measuring the Sky'), first published 1603, was the first celestial atlas to contain a chart of the stars in the Southern Hemisphere. WARNER: Bayer 1.

S/N 20005



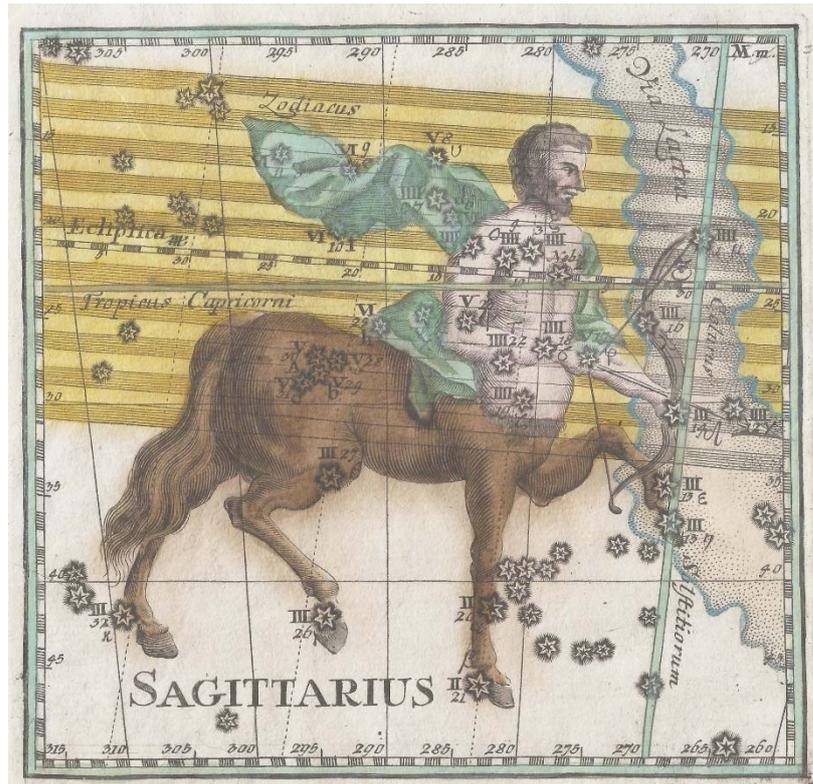
## 62 THOMAS, Corbinianus.

Sagittarius.

Frankfurt, 1730. Fine original colour. 135 x 140mm. £350

Engraved by Johann Christoph Berndt for the celestial atlas 'Mercurii Philosophici Firmamentum Firmianum', named for Thomas's patron, Leopold Anton von Firmian, Archbishop of Salzburg.

Corbinianus Thomas (1694-1767), a Benedictine monk, was Professor of Mathematics and Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations'; WARNER, p.251.



S/N 21462

## Capricorn

### 63 THOMAS, Corbinianus.

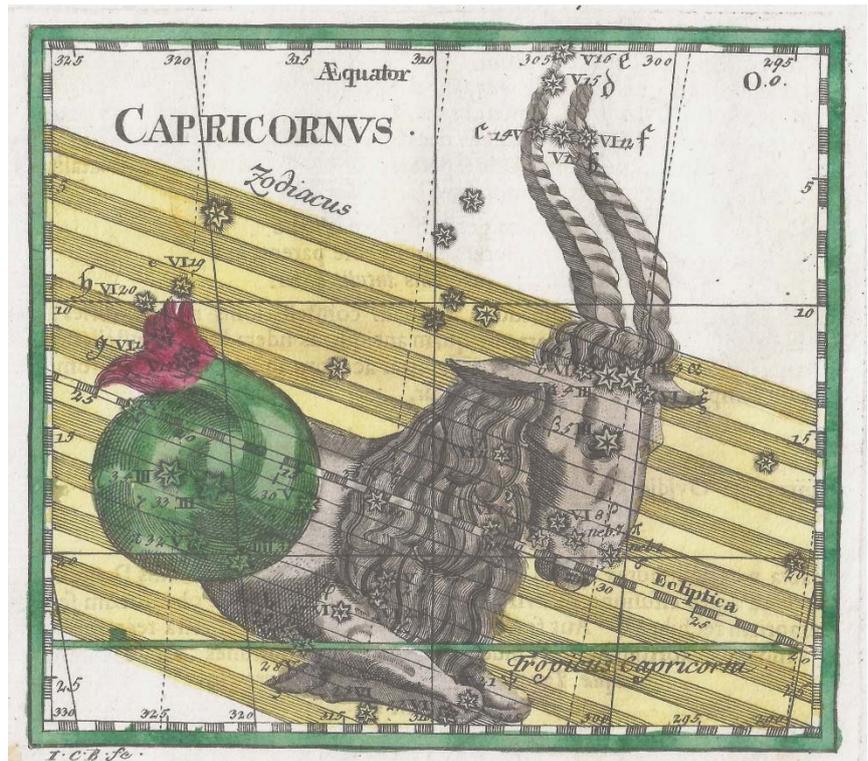
Capricornus.

Frankfurt, 1730. Fine original hand  
colour. 120 x 135mm. £350

A fine illustration of the  
constellation Capricorn, one of the  
twelve signs of the Zodiac. It was  
engraved by Johann Christoph  
Berndt for the celestial atlas  
'Mercurii Philosophici  
Firmamentum Firmianum',  
named for Thomas's patron,  
Leopold Anton von Firmian,  
Archbishop of Salzburg.

Corbinianus Thomas (1694-1767),  
a Benedictine monk, was  
Professor of Mathematics and  
Theology at the University of Salzburg. His star atlas was first published in 1730 at Frankfurt, with a second  
edition at Augsburg the following year. He used an odd system for nomenclature: Bayer Greek letter for the  
star, Roman numeral for the magnitude and Arabic numeral for the star catalogue reference. Individual  
zodiac signs of this period are uncommon, especially in original colour. KANAS: 7.7, 'beautiful illustrations';  
WARNER, p.251.

S/N 21459



### 64 BLUNT, Charles F.

Capricornus.

London: David Bogue, c. 1845.  
Wood engraving. 150 x  
190mm. £275

Showing the constellation of  
Capricornus (the goat), the  
tenth sign of the zodiac.  
Plate 47 of 'The Beauty of the  
Heavens: a pictorial display  
of the astronomical  
phenomena of the universe'  
by Charles F. Blunt.

S/N 22045



## A magnificent title page to a celestial atlas

### 65 CELLARIUS, Andreas.

Atlas Coelestis; seu Harmonia  
Macrocosmica.

Amsterdam: Schenk & Valk, 1708.

Original colour with additions, including  
gold highlights. 430 x 265mm. A little  
soiling in edges. £2,000

The superbly decorated title page  
engraved by F.H. van Hoesen for the  
'Atlas Coelestis; seu Harmonia  
Macrocosmica'. First published by Jan  
Jansson in 1660, it was the only  
celestial atlas to be produced in the  
Netherlands before the nineteenth  
century.

It depicts Urania, the Muse of  
Astronomy, at the centre, surrounded  
by the most important astronomers.  
Left to right they are: Tycho Brahe  
(1546-1601); Claudius Ptolemy (c.90-  
168 AD); probably the Islamic  
astronomer al-Battani (c.850-929);  
Alfonso X of Castile (1221-84), who  
had Arabic scientific texts translated  
into Castilian; Nicolaus Copernicus  
(1473-1543); and Philippe van  
Lansberge (1551-1632), pointing up  
at a zodiacal band held aloft by cherubs.  
At the feet of the astronomers are  
instruments of astronomy, including a  
globe, astrolabem armillary sphere  
and sextant. Two other cherubs hold  
cross-staffs.



S/N 22106



## A German pocket sundial



### 66 BERINGER, Paul.

[A diptych pocket sundial for latitudes 40° - 55° North. ]

Nuremberg?, c.1818. Wooden case (80 x 55 x 15mm closed) with three engraved labels with original hand colour pasted on; brass compass under glass with brass ring; string gnomon with brass pin; two latches (to hold closed and opened, with stabilising pin. With old ink mss. inscription on base: "Bought at the Fair at Calais July 1818". Label on outside slightly worn, but readable. £750

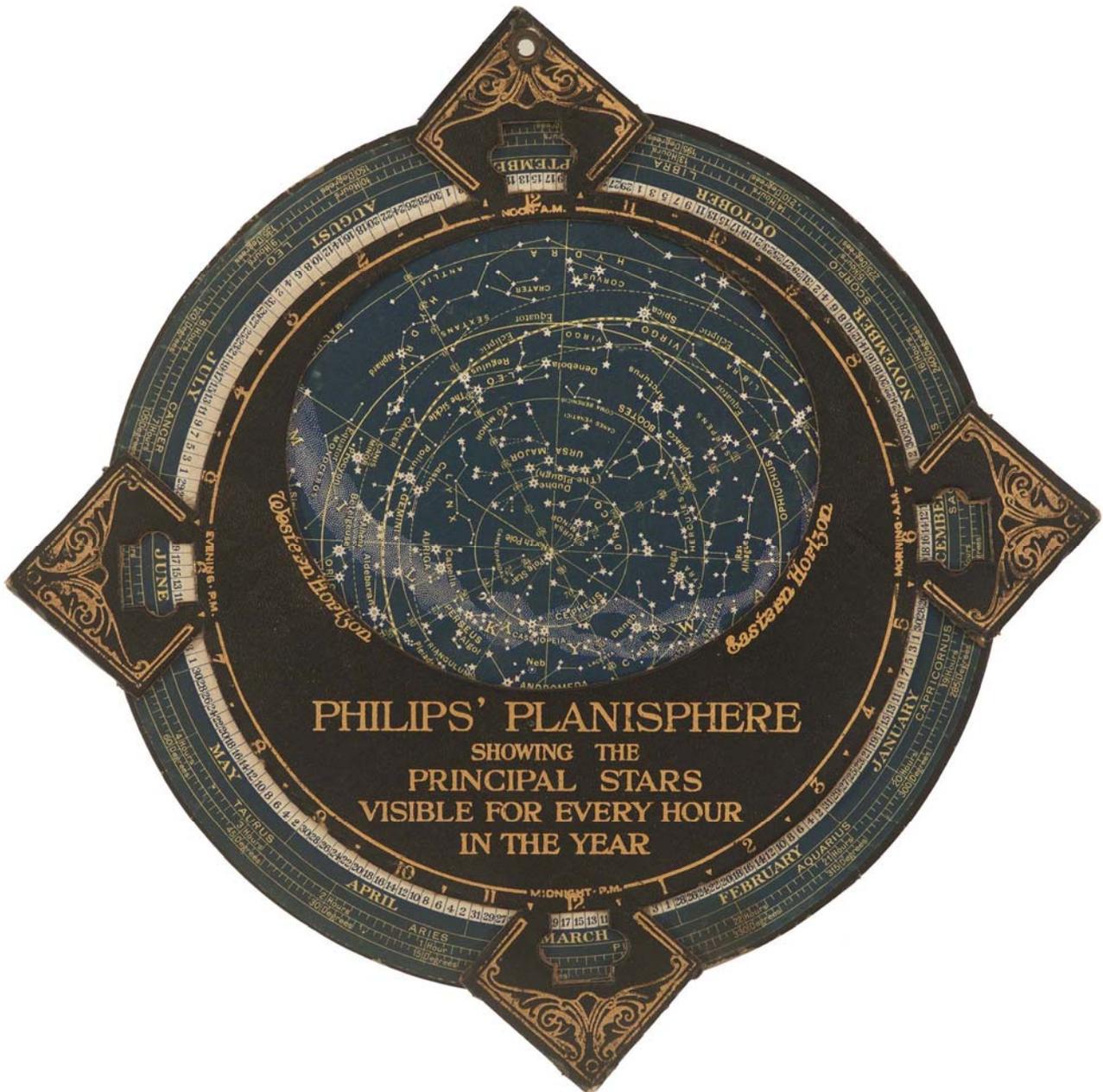
A pocket sundial in working order, designed for use in Europe. On the lid label is a list of the latitudes of major towns, allowing the string gnomon to be adjusted to the correct position (from 38 to 55°). The two inside labels are decorated with garlands. The compass is marked with eight points in German and the magnetic variation is marked at 18° west of north and is signed 'P.B.'.

Paul was the son of David Beringer (1756-1821), a master craftsman who specialised in scientific instruments such as these. See NATIONAL MARITIME MUSEUM: AST0150.

S/N 22151



## A 19th century moving-disc guide to the night skies



### 67 PHILIP, George.

Philips' Planisphere Showing the Principal Stars Visible for Every Hour of the Year.

London: George Philip & Son, c.1870. Printed card disc, 255mm (10") diameter, with gilt-stamped morocco overlay with cardinal points, hanging ring. Explanation on reverse. A little wear to edges, foxing on text on reverse. £750

A simple device for demonstrating which stars are visible from London (or  $51\frac{1}{2}^{\circ}$  N) at a particular time of night. The overlay can be rotated to select the date and time, with an oval window over a celestial map revealing the appropriate stars.

The firm published similar discs for use all over the world, including the Southern Hemisphere, continuing to issue them into the late 20th century. Although undated, we have estimated the date of this example from the address '32 Fleet Street' on the reverse, used by the Philips' between 1856-79, making this an early example. Later versions were made in Germany.

S/N 22377

## A satire of the Eclipse of 1820



### 68 MOTTE, Charles.

L'Eclipse du Septembre 1820. "Elle est totale et d'un bien beau vert".

Paris: Aaron Martinet, 1820. Lithograph with hand colour. Sheet 280 x 205mm. Small spot in right printed border. £220

A stout man looks through a telescope at the solar eclipse, commenting "It is total, and a beautiful green", not realising he is looking at the silk lining of his companion's hat.

The solar eclipse of 7th September 1820 was in fact annular, causing a halo around the moon.

S/N 22374

## A board game with the face of the moon

### 69 Anonymous.

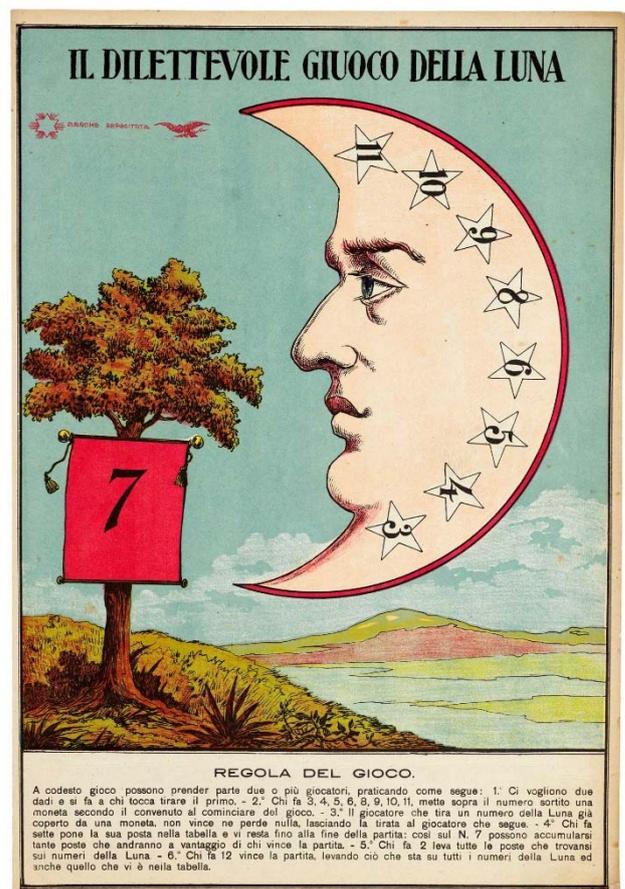
Il dilettevole giuoco della Luna.

Milan, c. 1920. Coloured lithograph. 485 x 330mm. Laid on canvas. £500

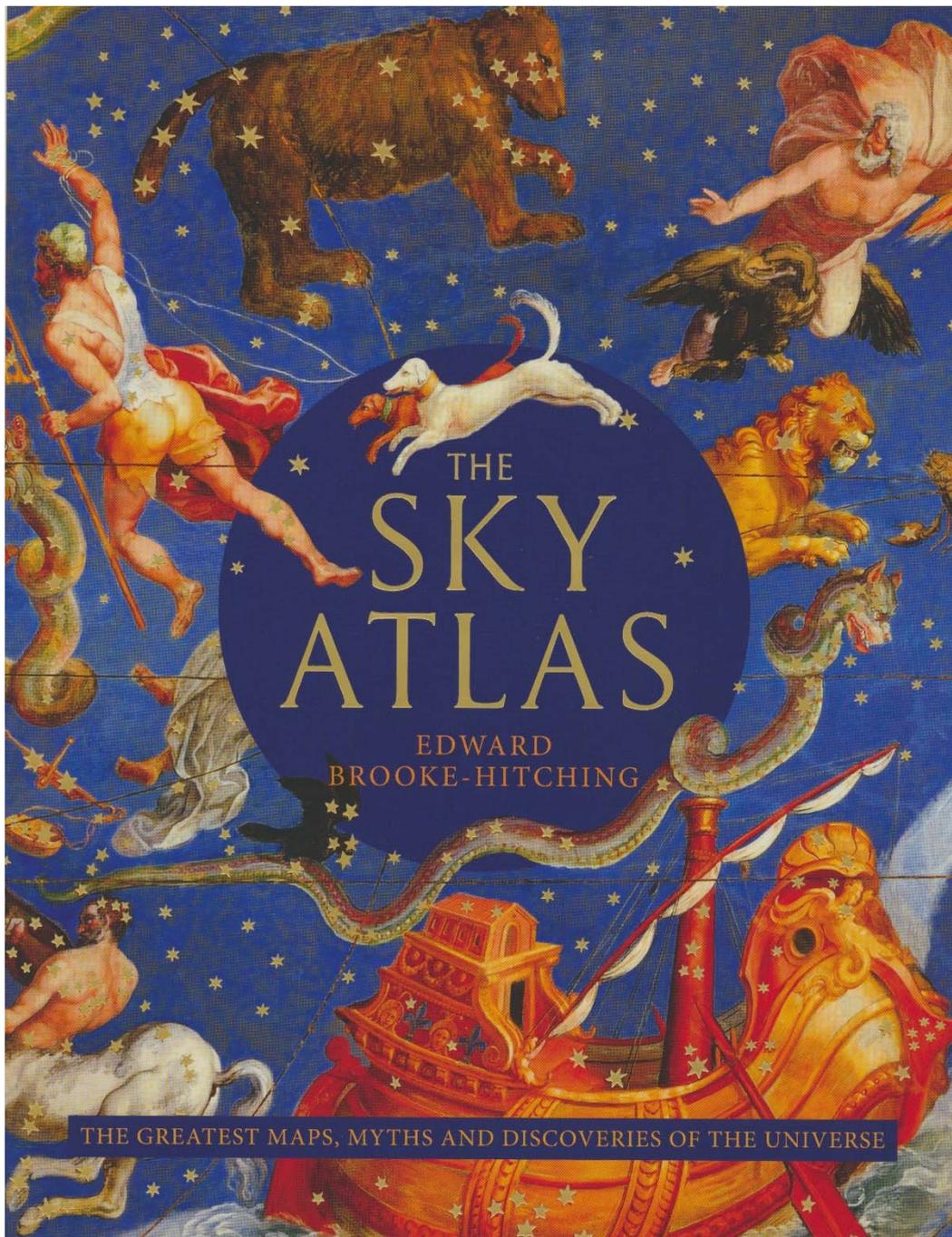
"The entertaining game of the moon."

The board depicts a crescent moon with the numbers 3, 4, 5, 6, 8, 9, 10, 11. The number 7 is placed on a tree-trunk. The game is played with two dice. Whoever rolls one of the numbers on the moon has to deposit a coin, but if the number is already occupied the player passes the dice to the next. If a player rolls 7 he puts the coin onto the tree-trunk, leaving in there until the end of the game. Whoever throws two wins the coins on the moon, and rolling twelve wins all the coins on the board.

S/N 19697



## A survey of celestial maps



### 70 BROOKE-HITCHING, Edward.

The Sky Atlas. The Greatest Maps, Myths and Discoveries of the Universe.

London: Simon & Schuster, 2019. 4to, cloth & illustrated d/w, pp. 256, profusely illustrated. SIGNED BY THE AUTHOR. New.

£30

A very readable study of celestial maps from pre-history to the Hubble Telescope. Several of the examples are illustrated from our library of images.

S/N 21365

