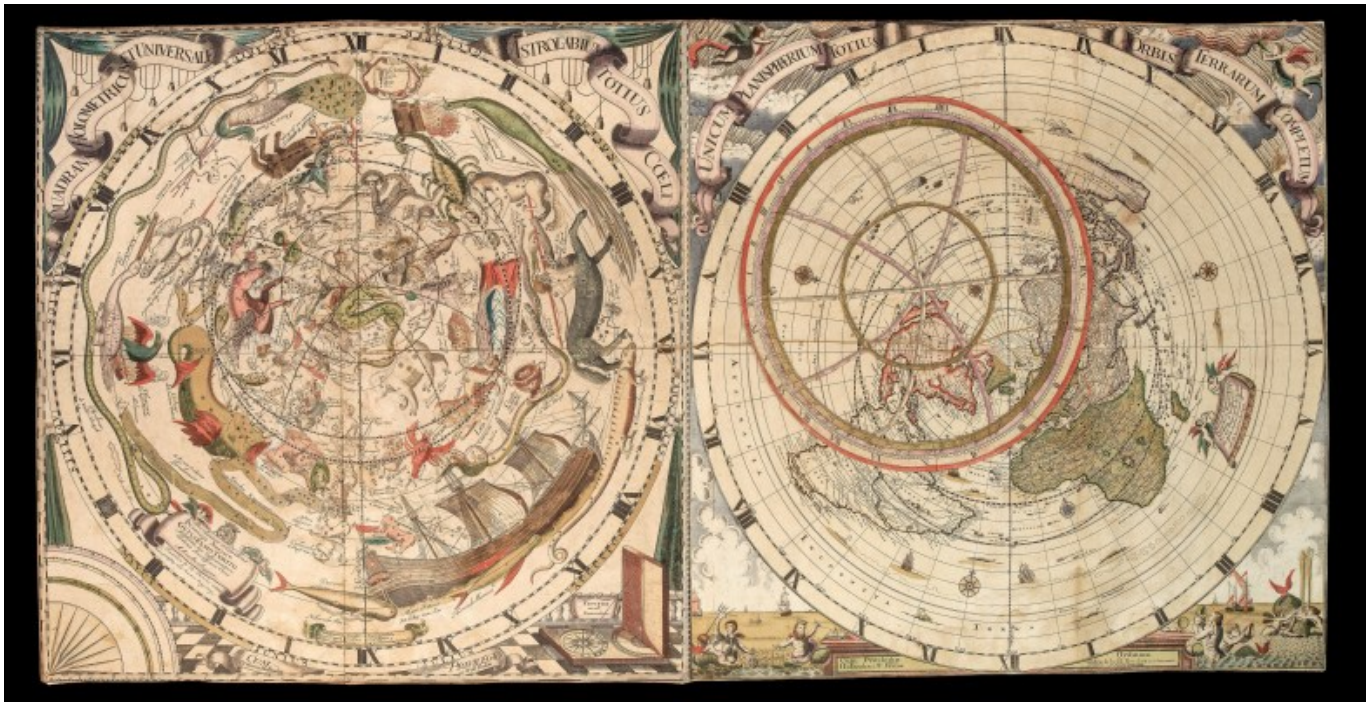

Two engraved maps, trimmed to neatline, backed on original paper and joined, with fine original full wash colour, a few old tears skilfully repaired.

MOVING HEAVEN AND EARTH

Unicum Planisphaerium Totius Orbis Terrarum Completum [together with] Quadrans Holometricus et Universale Astrolabium Totius Coeli.

Author
DONCKER, Hendrik [and] Andreas van LUCHTENBURG

Publication date
[1685-1689].

Publisher
H. Doncker,

Publication place
Amsterdam,

Physical description
Two engraved maps, trimmed to neatline, backed on original paper and joined, with fine original full wash colour, a few old tears skilfully repaired.

Dimensions
(each) 620 by 620mm (24.5 by 24.5 inches); (joined) 620 by 1240mm (24.5 by 49 inches).

Notes
An unrecorded separately issued pair of maps of the heavens and the earth by Andreas van Luchtenburg – the earliest paper instrument of its type.

The maps are both on an equidistant azimuthal projection, centred on the north pole, with the latitudes appearing as equidistant concentric circles. Clearly intended as a pair, similar in

decoration and the same size, with the volvelle and original string, they show the exact position of the stars for any part of the world.

The Celestial Chart

The celestial chart shows 53 constellations, with a rotating volvelle or rete to indicate the part of the sky visible at a particular moment. The rete has a tab at 52 N degrees latitude (the approximate latitude of Rotterdam), suggesting that, were the string to be inserted there, the rete would show the stars visible from that latitude at different times of the year. However, as it ranges free, the string can be used align the time in the volvelle with the date in the border of the chart, so that the part of the sky visible at that moment appears inside the volvelle. The chart with its volvelle, scales and string can also be used to calculate times for the rising and setting of constellations at various dates (or to calculate the present time based on the position of the stars).

Although astrolabes had long used a rotating off-centre ring to denote the part of the sky visible at a given time, such a ring combined with a planispherical star chart (like the cardboard or plastic star finders still popular today) is often supposed to be a nineteenth-century invention. This is not correct. Indeed, the present pair of charts, previously unseen, appear to be those advertised by their publisher, Hendrick Doncker in 'Nieuwe Groot Stuurmans Straetsboeck' in 1664 as "Hemelsch en Aerdsch Pleyn, door Andreas van Luchtenburg met het onderswijs van dien". If so, then this work would have a claim to be the earliest known paper instrument of its type. However, 1664 was evidently a busy year for publishing moveable star charts at Mr Doncker's establishment as, also advertised but unseen, Jan Jansz. Stampioen (tutor to William II, Prince of Orange, and the famous mathematician Christiaan Huygens) seems also to have published something similar at the very same time, apparently following his father's 'Coelestum Planum', mentioned in a 1619 patent and documented in 1621. Whether or not these two previously unseen charts were in fact, one and the same thing, is difficult to ascertain.

The Terrestrial Map

The highly unusual, and imaginative, equidistant azimuthal projection was first outlined by Le Mayerne Turquet, in 1648, in his 'Discourse Sur La Carte Universelle'. Le Mayerne Turquet's work also inspired Jean-Dominique Cassini, who produced a monumental, now lost, world map, for the floor of the Paris Observatory, in the 1680s.

Date

Although the pair are not dated, they can be attributed to between 1685 and 1689. The world map is dedicated to Dr. Willem van Schuylenburch (1646-1707), described as Secretary to William of Orange, a position which he held from 1685; the celestial chart is dedicated to Prince William of Orange, i.e. his title before he became King William III of Great Britain, in 1689.

This would place the pair's production around the same time as the large four-sheet world map by Hendrik Doncker and Jacob Robyn (c.1687), of which later states are also signed "A.L." (i.e. Andreas van Luchtenburg) (Shirley, 534). Both maps are on the same equidistant azimuthal projection and bear very similar, often identical, geographical information, some of which is distinctly out-of-date, as, for example, the configuration of the Great Lakes and the naming of New York as "Nieu Nederland", which it had not been called since 1664. The present example, however, is distinct in its greater number of place names and in its presentation of the celestial information in a separate chart, rather than in a band encircling the world, as in the Doncker-Robyn map.

The mapmaker

Andreas van Luchtenburg (c1643-1709) was a Dutch seventeenth-century mathematician, astronomer, Italian teacher, bookkeeper, cartographer, and educator. He served as a city official (stadtmeester) of Tholen and taught celestial, terrestrial, and maritime navigation in Rotterdam and Amsterdam, later working as a mathematician in Willemstad.

Van Luchtenburg is known for developing the “Luchtenburg calendar,” as he disagreed with the Julian and Gregorian calendar calculations. He was reportedly the first Dutch scientist to predict a solar eclipse accurately in advance (6 December 1695), though it was not visible in the Netherlands due to cloud cover that day.

He wrote several works on astronomy, navigation, and geography, including celestial globes, almanacs, and treatises on navigation tools. Additionally, he produced predictive maps of solar eclipses, such as one for the eclipse of 12 May 1706, published shortly before the event. His career combined scientific, educational, and cartographic contributions in the late seventeenth- and early eighteenth centuries in the Netherlands

Rarity

We have been unable to trace any institutional examples of either the celestial or the terrestrial chart. Daniel Crouch Rare Books sold, in 2011, a Visscher composite atlas, containing an example of the world map.

Bibliography
Not in Shirley or Warner; c.f. Shirley World 534 and 582.

Provenance

Price: £95000

Inventory reference: 24071