

## Reviews

emphatically visible means of applying paint. This stylistic change necessitated a concurrent change in the customary trope used to describe the painting of female portraits. The application of make-up no longer served as an accurate description of the manner in which artists such as Manet, Cassatt, or Cézanne – let alone Picasso and Matisse – created portraits of female sitters. In a work such as Manet's *Nana* (1877), for instance, the artist abandons the metaphorical association between paint and make-up. The semi-naked prostitute stands before a mirror, lipstick in one hand, swan-down powder puff in the other, while her top-hatted patron enjoys the privilege of watching her apply her make-up. Yet the red paint of *Nana*'s lipstick sits on the surface of the canvas with an insistence that emphasises its materiality, making no effort to disguise that it is, in fact, merely paint.

The author appears most engaged with her subject matter in the first three chapters of the book. Using the Prologue as a springboard, Garb delves into the interpretation of the portrait of *Madame de Senonnes* with a verve that makes the traditional iconographical readings of paintings characteristic of so much art historical writing seem like placid, disengaged scholarship. For instance, in discussing the influence of Raphael's work on Ingres, Garb juxtaposes the profane *La Fornarina* with the sacred *Madonna della Sedia* (two images that Ingres himself united in his series of drawings and paintings 'Raphael and the Fornarina'), ultimately returning to the portrait of *Madame de Senonnes* and the manner in which the binary sentiments in Raphael's works are united in the portrait. The second chapter discusses Manet's portrait of his student, Eva Gonzalès, shown sitting at her easel in a frothy white dress while presumably putting the finishing touches on a still life. Throughout the chapter, Garb traces the first steps in the rejection of the metaphor that defined the painting of Ingres and his followers:

In Realist painting, this ethos of exteriority in which the author functions as an observer, recording the 'affairs of men', was rendered problematic by the manifest presence of the artist, whose own corporeality was registered (and proclaimed) in the mark-making left visible on the canvas . . .

The remaining chapters contain their share of interesting ideas, but often they

read as if the author's affinity for her subject matter had diminished as the art became more modern. The chapter on Cézanne relies overly on post-Freudian theory, which, in its time, contributed novel ideas to the study of the paintings, but now, to a large extent, reads as overly familiar terrain. The chapters on Picasso and Matisse are disappointing in light of the high level of anticipation set by the earlier chapters on Ingres, Manet, and Cassatt. For a book replete with so many wonderful ideas, it appears to have been edited hastily with scant attention to detail. A woman's coiffeur is described as a 'fashionable hat'; a 'checked' turban is, in fact, striped; an orange is mistakenly described not once, but twice, as a lemon; and hands that sit side-by-side without touching are said to have interlaced fingers. These are, admittedly, minor quibbles, but they give the impression that Garb has not studied the paintings with a keen enough eye to sort out their details. Yet, in light of the far-reaching conclusions she draws throughout the book, it is easy to overlook such details as misidentified fruit, missing commas, or a too-frequently used word (for example, 'adumbration' crops up with unnatural frequency, once even in back-to-back sentences). These reservations aside, Tamar Garb has written an extraordinary book, one that offers answers to some of the most substantial questions posed by the discipline of art history, all the while presenting her ideas in a manner that will appeal to both casual readers and serious scholars of nineteenth-century painting and portraiture.

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### HARMONIA MACROCOSMICA

ANDREAS CELLARIUS  
ROBERT VAN GENT (ED)

Taschen 2006 £79.99 \$125.00 €99.99  
240 pp. Fully illustrated  
Text in English, German, French  
ISBN 978-3-8228-5290-3

This stunningly beautiful book brings together the 29 plates of the 1660 atlas by one of the greatest celestial cartographers, Andreas Cellarius. They were engraved, printed, then hand coloured, and the volume was published in Amsterdam, a second edition appearing in

1661; a further edition appeared in 1708. The copper plates were then sold to another Amsterdam printer who issued individual prints well into the eighteenth century, and many of them are still familiar today, even being reproduced on mouse mats!

The importance of Cellarius' *Harmonia Macrocosmica* is two-fold. It is first of all a visual history of the three prominent world systems that had been proposed by Ptolemy, Copernicus, and Tycho Brahe. Secondly, it is the first atlas to combine terrestrial and celestial maps in the same plate and portrayed using spherical projection, thus being the first major departure in art from Euclidean geometry. The *Harmonia Macrocosmica* was to have been the first of two atlases by Cellarius, who intended the second to be devoted largely to contemporary astronomy, but he died in 1665 and there are no known plates for it.

As a history of astronomical interpretations of the universe, Cellarius devotes the first three plates to Ptolemy's geocentric world system in which Earth is placed at the centre and occupies a fixed position in the cosmos around which the Sun, Moon and planets revolve. This view of the order of the universe was held from about fifth-century in classical Greece and dominated Renaissance thought, to be gradually displaced by the Copernican view, published in 1543. In the two plates that demonstrate the new view, a magnificent and brilliant Sun shines its rays out from the centre of the celestial realm, around which the planets revolve. One is shown in a planimetric view, the traditional two-dimensional map in which the circular rings of the paths of the planets predominate; the other uses stereographic or spherical projection, which correctly shows that the orbits are elliptical, and on which the maps of Earth are also spherically represented. The use of spherical projection is one of the most outstanding features of the *Harmonia Macrocosmica* since, unlike Renaissance linear perspective, it does not distort what is being represented. Rather, it is the geometry of engineering and, it would seem, natural to Cellarius, who had previously published a book on the design and construction of fortifications.

The *Harmonia Macrocosmica* is of great importance to the art historian of whatever epoch since the plates make visible the dominant world system. Of particular interest for the post-Renaissance period is the fact that Cellarius complements his

stereographic maps with typical Renaissance linear perspective paintings in the corners in a post-Raphael style. They show the different astronomers and their instruments for the observation and measurement of the positions of the Sun, Moon, planets and stars. In the last six plates, representing the constellations, Cellarius beautifully depicts the human and animal figures of the zodiac using spherical projection, the figures being adapted to the curved surface of the dome of heaven. This juxtaposition between two geometries is extremely important for the history of art. Although used by Albrecht Durer in 1515, this new geometry was fully exploited only in the seventeenth and eighteenth centuries, especially for the great mural cycles of a Tiepolo, for example, where the world is seen both from Earth looking upwards and also from the heavens looking outwards onto the harmonious and all-encompassing macrocosm.

This macrocosm that is Cellarius' atlas includes not only maps of Earth with all the recent knowledge recorded by the great explorers from the fifteenth century, but also the revolutions of the planets, the positions of the constellations from the different hemispheres, climate zones, the summer and winter solstices and the spring and autumn equinoxes, the seasons, the year, months, and days. On one of the most famous and most often reproduced plates, number 19, one sees not only the phases of the moon but also how to gauge the shadows of the sun, useful to every painter at the time. Another plate, number 8, shows Earth as a reclining female figure in the centre around which the planets circle, represented in medallions of the Roman gods – Mercury, Venus, Mars, Jupiter and Saturn – and they are described in extracts from Pliny. These extracts also contain information about the relation of the planets to the human being, the humours, and the four elements of fire, earth, air and water. This is a picture in which the human being truly belongs to the macrocosm.

With this plate Cellarius introduces the world system that combines a geocentric with a heliocentric view of the cosmos. It is attributed to the Greek poet, Aratus of Soli (fl. 275 BC), but in fact is that of Martianus Capella (fifth century AD). Cellarius places it among his plates devoted to the late sixteenth-century world model of the Danish astronomer, Tycho Brahe, who also espoused a combined



*Hemisphaerium Boreale Coeli et Terrae Sphaerica Scenographia*; Spherical scenograph of the celestial and terrestrial northern hemispheres. From *Harmonia Macrocosmica* by Andreas Cellarius; edited by Robert van Gent.

system in which the Sun and Moon revolve around Earth, while the other planets revolve around the Sun. Brahe was considered to be one of the most accurate astronomical observers of his time, and his data were used by Johannes Kepler to develop his laws of planetary motion, still used today to navigate space.

This new *Harmonia Macrocosmica* is taken from the copy in the University Library in Amsterdam. Its editor, Robert van Gent, is a Dutch astronomer and has published widely on 'Celestial atlases, celestial globes, and world systems', the title of his introductory essay. Van Gent also introduces each of the plates with historical information on the different theories of astronomy relative to the plates, indicating, for example, that a heliocentric world system was proposed in the third century BC by the Greek astronomer, Aristarchus of Samos. Van Gent's texts and the glossary of the planets and constellations are a mine of historical and interpretative information and are extremely helpful to the non-astronomer and the historian.

The original *Harmonia Macrocosmica* contains some 300 pages of explanation by Andreas Cellarius, but these texts are not included in this facsimile edition of the plates. It would be interesting to have this material, but not including it in this luxurious double folio volume can be understood: the plates are reproduced in their original size of 43 by 51 cm (17 by 21

inches), so the book needs a large library lecturn to support it. A smaller version would, however, have deprived the reader from seeing the abundance of detail and the extraordinary skill of the master engravers, most of whom are anonymous.

It is significant that a celestial atlas brings to a close a project that had begun nearly 100 years before. Initiated by the cartographer, Gerard Mercator, in 1569, the *Novus Atlas* series would describe ancient and modern geography, the seas, the cities of the world, and the firmament. Mercator published the first four volumes of his terrestrial atlas between 1585 and 1589, and a fifth volume was published in 1595 after his death. Not until the 1630s did the project resume with a new publisher in Amsterdam, Janssonius, who brought out a volume of nautical maps, one on the cartography of the ancient world and an eight-volume compilation on various cities. Finally, he published Cellarius' *Harmonia Macrocosmica*, a title which, as if in response to Mercator's aim, meant 'the concordance and harmony of the great world, which consists of three principles or origins and seven qualities or compositions'. In other words, it contained all the history and philosophy of the world.

## Reviews

In *Harmonia Macrocosmica* we are placed among the gods and angels of the outermost celestial spheres, sharing a heavenly view of Earth nested within the Zodiac and looking down onto our world as if through a transparent globe. We are in the space of the cosmos, with all the cupids depicted in the plates, thanks to this wonderful and important book that was and remains a triumph of human innovation.

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