



Imaging the Cosmos

Cosmos: The Art and Science of the Universe. Roberta JM Olson and Jay M Pasachoff (Reaktion Books, London, 2019). Pp. 303. \$49.95. ISBN 9781789140545.

Universe: Exploring the Astronomical World. Phaidon Editors with Paul Murdin and David Malin (Phaidon Press, London; New York, 2017). Pp. 352. £39.95. ISBN 9780714874616. Midi-Format Edition (Phaidon Press, London; New York, 2019). Pp. 352. £24.95. ISBN 9781838660154.

Readers are fortunate to have a choice between two recent books focusing on the visual imagery of the heavens. Both contain text written by well-known authorities in their fields and both are lavishly illustrated and beautifully produced; but the manner in which the material is presented in each volume differs strikingly. As a result, comparisons between the two raise a series of interesting questions about how, and to what end, these authors are communicating their passion for the subject to their readers.

Olson and Pasachoff have been writing articles and books together since 1985. Their aim in this volume is to present (and, in some cases, re-present) material they have accumulated during their 30 years as collaborators. Their intended audience is “a general but intellectually acute audience interested in the compelling story of the discovery of how the universe is arranged and how it functions” (p. 7). To this end, they have created a series of chapters, each dedicated to “the most extraordinary representations of the superstars of the firmament and universe” (p. 7). The “superstars” themselves begin to appear in Chapter 3 and include the Sun, Moon, comets, meteors and their kin, primordial matter, planets, and the aurora borealis. The structure of each chapter is generally chronological, using the images of these “superstars” created by successive generations as the backbone of the narrative. In some cases, these images are visual records of what has been observed; in others, they are imagined constructs, mechanical models, fantastical dreamings, satirical cartoons, artistic interpretations, or decorative *homages* – such as pieces of jewellery, commemorative crockery, and articles of clothing.

The appeal of this mode of presentation is immediate, as the reader is taken on a journey from Neolithic burial goods to medieval copes, from Giotto to Roy Lichtenstein (via Leonardo, Raphael, Rubens, Blake, Escher, and Pink Floyd). At the same time, however, it is slightly frustrating on three levels. First, despite the fact that the volume is extensively illustrated, the assiduous reader will still hanker for those pictures that are discussed but not illustrated – such as William Gilbert’s or Thomas Harriot’s drawings of the Moon; Van Gogh’s *Willows at Sunset* (1888); Paul Klee’s *Solar Eclipse* (1918), and, even, Monet’s *Impression, Sunrise* (1872). This lack is most keenly felt with regard to imagery pre-dating the early Renaissance. For even though the authors mention the

importance of Mesopotamian and Greco-Roman astronomy as the cultural bedrock of the modern science, the corresponding imagery is sparse – with only one Babylonian cylinder seal, one Roman coin, one-and-a-half Hellenistic statues (since the upper half of the statue of *Urania Ludovisi* is a nineteenth-century restoration), and a particularly uninformative picture of the Antikythera mechanism used to represent more than 3000 years of astronomical enquiry.

Second, the pace of the text can be rather relentless, particularly for those chapters where a good deal of visual and documentary material is available. It is an onerous comparison, but if one juxtaposes the section outlining the contributions of English astronomers to our understanding of comets with the much more detailed treatment that appears in Olson and Pasachoff's superb study of this topic – *Fire in the sky: Comets and meteors, the decisive centuries, in British art and science* (Cambridge University Press, 1998) – the former comes across as judderingly synoptic. Similarly, discussions of several key works of art have been abbreviated to such an extent that important components of the previous scholarship have been lost. For example, the intimation that the constellations that Raphael depicted on the surface of the celestial globe in the ceiling panel depicting “Urania” or “Astronomia” in the Stanza della Segnatura “were in the autumnal sky when Julius II was elected to the papacy on 31 October 1503 (11 November of the Gregorian calendar)” obscures the fact that it is impossible to determine a time or a date for any such representation without other temporal markers, such as an indication of the proposed time of day or the inclusion of the Sun, Moon, or the planets.

Finally, the decision not to include footnotes signals either the authors' or the publisher's decision that *Cosmos* is not intended to be taken as an academic work; but such a decision means that the “intellectually acute audience” for whom the book is intended is left slightly in the lurch. This sense is exacerbated by the fact that a number of the citations in the bibliography and page references in the index are incorrect.

There is so much that is good and interesting in this book. The scientific sections are sound and clearly conveyed and the breadth of the authors' expertise across a wide range of topics is undeniable. Certainly, the “intellectually acute” reader will be enticed, and – one hopes – encouraged to turn to Olson and Pasachoff's other books and articles as a next step.

Universe explores a wide range of images that “are all in their own way records of the same quest: that of understanding the heavens and what they tell us about ourselves” (p. 11). The “project” is credited to the editors at Phaidon and a list of authors is included in the acknowledgements at the end of the volume. As well as writing a significant percentage of the text, Paul Murdin has contributed a thought-provoking introduction; and David Malin provides a useful overview of the history of the instruments and devices that have been used to view the universe. (As partial disclaimer, my name appears as part of the “international advisory panel,” though I did nothing more than offer a few observations on an early iteration of the picture list.)

As Murdin explains in his preface, “rather than being arranged chronologically or thematically, the book pairs complementary or contrasting pairs of images to underline continuity, innovation or change” (p. 7). Each image is accompanied by a short text of 300 to 400 words that explains what the reader is seeing and sets it within a historic or cultural context. The range of material presented is wider and more culturally diverse than one finds in *Cosmos* and the quality of the reproductions is superb (the larger 2017

format is truly sumptuous, but the 2019 midi-format is much easier to carry and consult). The text is reassuringly authoritative, while allowing room for admissions where our collective understanding is still in flux.

There is a pairing of the *Hall of the Bulls* from Lascaux (c. 15000 B.C.E.) with a digital photograph from 2012 of M45 (with the nice tag of “dimensions variable”) that leads one to speculate on the possibility that the former might contain an early depiction of the Pleiades. A seventeenth-century copper engraving of the Moon by the astronomers Gian Domenico Cassini and Jean Patigny is set beside a painting of *Moon Dreaming* by the aboriginal artist Mick Namarari Tjapaltjarri (1978), prompting questions about how one expresses what one “knows to be true.” The mapping of galaxies is addressed by the contemporary Argentinian artist Tomás Saraceno (2008) and the Sloane Digital Sky Survey Team III, led by Daniel Eisenstein (2016). The schematic rendering of the night sky, painstakingly carved on the surface of the Tal Qadi stone from Malta (c. 3000–2500 B.C.) vies with the jaunty rendering of *Constellation: Towards the Rainbow* by Joan Miró (1941). And a woodblock print of the *Hare in the Moon* by the Japanese artist Matsumura Go Shun (1801–1850) is set alongside the well-known image of a rocket landing in the eye of “the Man in the Moon” from George Méliès’s film, *Le Voyage dans le lune* (1902).

In some ways, then, the arrangement of the pictures mimics the experience of walking through an intelligent and well-curated museum exhibition, where the “visitor” is provided with sufficient information to encourage active engagement with the subject at hand, but is left free to browse and discover, to muse and opine, to reflect and challenge. As such, it panders – in the best of ways – to our curiosity and sense of wonder.

KRISTEN LIPPINCOTT
The Saxl Project, London
kl@thesaxlproject.com