

**BABEŞ-BOLYAI UNIVERSITY, CLUJ-NAPOCA
FACULTY OF THEATRE AND FILM
DOCTORAL SCHOOL OF THEATRE AND FILM**

Cinematography and Media domain

**The Sky between Sphere and Globe.
Spherical Intermedial Encounters of the Anthropocene and
Non-Western Cultures in the Planetarium**

Summary

Scientific Coordinator

Assoc. Prof.Ph.D. habil. Florin ȚOLAȘ

Ph.D. Candidate

Adela-Iuliana MUNTEAN (NEGUSTOR)

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Summary

Through the lens of the paradoxical perspectives of sphere and globe, the doctoral thesis - entitled *The Sky between Sphere and Globe, Spherical Intermedial Encounters of the Anthropocene and Non-Western Cultures in the Planetarium* - presents the evolution of the representation of the sky through the three stages of globalization and the paradigmatic Human-Universe shifts arising from the transition from geocentrism to heliocentrism, the dissolution of the celestial sphere and the relation of humanity to the infinity of the Universe.

In seeking to understand its position in the Universe, man has made countless shifts between its central and peripheral positioning. Although the transition from the geocentric Earth-centred model to the heliocentric Sun-centred model is well known, this shift in perspective is only one aspect of the complex relationship humanity has with celestial space. Another type of perspectival exploration between centre and periphery is strictly related to the positioning of Man observing the Sky. This lesser-known exploration is rooted between the perspectives that configure the Sky between sphere and globe. The spherical perspective takes shape when observing the sky and celestial bodies from the Earth. From this position, Greek philosophers postulated that the Earth is the core of a spherical universe, with celestial bodies moving in circular orbits. However, there was an incessant curiosity about what lay beyond the boundaries of this celestial sphere, so using intellect and imagination, Greek philosophers embarked on symbolic journeys beyond its limits. From this distant angle, they looked back to the Earth now perceived as small and insignificant. This acorporal navigation marked the inauguration of the Apollonian perspective which makes it possible for the celestial sphere hitherto viewed from within to be reconceived as a globe viewed from without. Apollo, the Greek god who drove the golden chariot of the sun flew high enough to see the Earth from above. This view of the globe significantly influenced philosophical, anthropological, psychological and representational thinking, introducing the ability to see the universe from a detached, divine point of view. In addition to their imaginative travels, the Greeks also made this Apollonian perspective possible by creating the celestial globe, a small-scale model of the spherical universe that places the Earth at its centre and represents the constellations in a way that reflects their actual positions in the sky. This mode of representation marked a significant departure from the conventional view of the spherical perspective, since to meet the challenge of presenting the constellations from an external perspective, the globe

makers ingeniously used reverse images of the constellations, matching the way an observer would see them from outside the celestial sphere where the constellations are reconceived in a mirror image on the a globe seen from the outside. This approach highlighted the contrast between gnomonic (interior) and orthographic (exterior) projections, embodying the observer's dual ability to perceive the sky from both inside and outside the celestial sphere. Thus the shift from geocentrism to heliocentrism, which took nearly 1700 years to fully embrace, represents just one of humanity's existential crises. Throughout this period, Copernicus, while proposing the heliocentric model, did not deny the existence of the celestial spheres that made it possible to configure the heavens between sphere and globe. It was Tycho Brahe who challenged the notion of a crystalline sphere that contained the Earth at its centre. So an even greater upheaval than the shift from geocentrism to heliocentrism was triggered by the disintegration of the concept of the celestial sphere and the placing of humanity in an infinite universe. This shift has ignited conflicts between human perception and intellect, as well as between science and religion.

However, following the dissolution of these spheres, mankind created the dome of the planetarium, a hemispherical space, as a sanctuary to contemplate its role on Earth and in the Universe. Sheltered beneath this cupola, humanity finds itself in the midst of another existential dilemma whose threat to the existence of all life calls for a reassessment of our relationship to the planet and the universe. A new vision of this paradigm is the Anthropocene, a concept that highlights humanity's significant impact on Earth's ecosystems.

In this study I investigate the transformative potential of immersive environments, such as fulldome movies and other intermedial projects shown in planetariums, in offering a spherical view of the world. Unlike the traditional eccentric view of the globe, which positions viewers as external observers, this immersive technology offers a focused inward encounter, fostering a deeper sense of connection with our surroundings. Through detailed case studies, I explore how planetariums can reshape attitudes towards environmental and human rights issues. Tracing the historical evolution of the sphere and its complicated relationship with the globe, I navigate the complex interplay between the embrace of the spherical perspective and the detachment associated with the globe viewpoint, revealing their paradoxical coexistence.

Based on these considerations summarized above, there are also the reasons why I have chosen to deal with this topic: on the one hand there is a subjective motivation given by my concerns for the planetarium and spherical projections in portable domes. This

direction of activity has manifested itself in several practical projects in which I have implemented various artistic and cultural programs. Thus I managed to bring to the Romanian cultural landscape and not only the concept of digital projection in the planetarium and the mobile dome (see *My Dome projects: 2016-2024*).

Besides this practical side, after some theoretical research, I found that this topic is almost unknown and undervalued in the Romanian literature. This was the second reason that motivated the choice of the PhD topic.

In my approach I started from several research questions, which were designed to explore the complex connections between historical changes in astronomical understanding, technological advances and their cultural and societal impact.

A first question is how did the spherical concept of the kosmos developed by the Greeks influence the philosophical, theological and scientific perspectives of later civilizations, including the medieval Christian and Renaissance periods? What were the key factors that led to the shift from the concept of celestial spheres to the acceptance of an infinite universe, and how did this shift influence subsequent scientific and philosophical thought and the system of celestial representation? How have technological advances, such as the use of telescopes and Earth observation satellites, transformed our exploration and understanding of the universe? What has been the impact of cinematography and chronophotography on scientific research, particularly in astronomy, and how has this relationship evolved? How have planetariums evolved since their founding in 1924 in terms of technology, architecture and their role at the intersection of science, art and education, and how has invention and the integration of new technologies into planetariums transformed the public's understanding of the environment? How do planetariums reflect and influence humanity's relationship with the Earth in the Anthropocene era?

Research sources

In order to answer these questions I have used an extensive bibliography covering all the historical periods analysed. One of the difficulties I faced was selecting and using the most relevant texts (volumes or articles) to outline each chapter. In the international literature, there is a lot of research that is directly related or connected to the topic of this thesis, but no approach that provides a comprehensive analysis from an interdisciplinary perspective. The richness of the bibliographical material researched, belonging to specialists in various fields of research (geography, philosophy, astronomy, natural sciences, art history, etc.), has helped me to create an overview of the diachronic view on

the representation of the Sky. The second category of sources I used is case studies, in the specialized language full-dome audio-visual productions about the Anthropocene and the nuances they imply. I have attempted to answer the above research questions in the three chapters of the PhD thesis: chapter I entitled *METAPHYSICAL GLOBALIZATION* outlines the evolution of cosmic understanding from the spherical concepts of the Greeks to the intellectual exchanges of the Middle Ages. This period encompasses the astronomical contributions founded by Greek philosophers, Roman and Byzantine adaptations in architecture and iconography, and the critical role of Arab scholars in preserving and improving knowledge taken from the Greeks. This leads to a synergy from the Middle Ages of ancient wisdom, Christian theology and intellectual renaissance, setting the stage for the Renaissance and Enlightenment. The chapter illustrates humanity's persistent quest to understand the cosmos, presenting a centuries-long journey of inquiry and expression that has profoundly shaped our view of the universe and our place in it.

Chapter II entitled *TERRESTRIAL AND CELESTIAL GLOBALIZATION* traces the monumental shift from geocentrism to heliocentrism, the dissolution of the celestial sphere, and the placement of humanity in the infinity of the Universe with its evolutionary narrative extending into the Age of Exploration, highlighting the intertwined evolution of celestial navigation and terrestrial discovery. In addition, the chapter explores the transition from private knowledge to the establishment of the Museum with public access, exemplified by the creation of immersive spheres that symbolized humanity's quest to understand the Earth and the Sky. Chapter II also encapsulates the evolution of planetariums since their establishment in 1924, highlighting their role in bringing together science, art, and technology. This chapter traverses significant milestones in the history of scientific discovery and collaboration from the late 19th to the early 20th century, highlighting how these developments have reshaped our understanding of celestial space and our research methods.

In its first part, Chapter III entitled *DIGITAL GLOBALIZATION* presents the complex relationship between humanity and Earth in the Anthropocene, examining how planetariums serve as platforms for exploring this dynamic. The second part of this chapter explores the transformative potential of planetariums in presenting a more inclusive and pluralistic view of the universe, highlighting the importance of integrating non-European perspectives and diverse cultural stories of the sky through full-dome cinematic case studies that enrich dominant historical narratives.

Conclusions

The Greek contribution to the spherical understanding of the cosmos serves as a cornerstone in the evolution of scientific and philosophical thought. By combining mathematical rigour with philosophical depth, the Greeks not only transformed humanity's view of the cosmos, but also established a legacy of research that continues to inspire the quest for knowledge about the universe. Their ability to visualize and represent the celestial sphere both internally and externally fostered a unique form of conscious reflexivity, embodying an Apollonian vision resonating through the centuries, shaping the fabric of contemporary global thought and geographical imagination.

The journey from Roman architectural symbolism to the Byzantine fusion of political and religious iconography, and the pivotal role of the Arab world in preserving and enhancing ancient knowledge, highlights a rich Greek continuum of human inquiry and expression. This historical odyssey reflects the enduring quest to understand the cosmos, manifesting itself in the material, symbolic and intellectual achievements of successive civilizations. The legacy of these periods - from the tangible grandeur of the Pantheon to the intellectual contributions of Arab scholars - illustrates the profound impact of cultural exchange and adaptation in shaping our collective understanding of the universe and our place in it.

The Middle Ages witnessed a profound interaction between Roman and Greek intellectual heritages, Christianity, and the integration of ancient knowledge into medieval thought. This complex relationship, shaped by the conversion of German conquerors to Christianity, facilitated the preservation and transformation of Roman and Greek knowledge within Christian doctrine and symbolism.

Tycho Brahe's discoveries challenged the dominant Aristotelian cosmology, leading to the dissolution of the traditional celestial spheres and initiating the decline of geocentrism. The disappearance of the celestial spheres had profound implications, triggering existential fears and contributing to a change in worldview during the Renaissance, eventually leading to a new understanding of the celestial space. Johannes Kepler's groundbreaking contributions to astronomy, based on Tycho Brahe's observations, marked a transformative change in Western cosmological thinking.

Spherical Intermedial Encounters of the Anthropocene explores the interplay between the man-made anthropo-noo-spheres and the spheres of the Earth, highlighting the fusion of scientific inquiry and artistic expression in the Planetarium environment. The evolution of planetarium technology has revolutionised our understanding of the universe

and our connection to Earth. Digital projectors enable complex celestial and terrestrial imagery, allowing exploration of complex Earth systems through Earth System Science (ESS). Digital planetariums provide powerful geoscientific visualizations, educating and engaging the public about geography, geology and climate change. Earth System Science recognizes these interactions, illustrating how changes in one sphere affect others, including the emerging anthroposphere.

As a general conclusion regarding the role of the Planetarium in the Anthropocene, we can state that it offers the opportunity to diversify globalized knowledge by presenting a more inclusive and pluralistic view of the celestial space, highlighting the importance of integrating non-European perspectives of the sky. The many fulldome cinematographic case studies I have used enrich the dominant historical narratives by offering audiences glimpses into the rich tapestry of sky stories belonging to different cultures.

Bibliography

- Abu-Lughod, Janet. "Before European Hegemony: The World System A.D. 1250–1350." *World Development*, vol. 19, no. 10, Oct. 1991, p. 1475, doi:10.1016/0305-750x(91)90090-5.
- Adams, Matthew. "Indigenizing the Anthropocene? Specifying and Situating Multi-species Encounters." *International Journal of Sociology and Social Policy*, vol. 41, no. 3/4, Nov. 2019, pp. 282–97, doi:10.1108/ijssp-04-2019-0084.
- Addivinola, Gabriella. *An infinite sphere, whose centre is everywhere and whose circumference is nowhere*. warwick.ac.uk/fac/cross_fac/iatl/funding/fundedprojects/studentperformance/addivinola. Accessed 15 July 2023.
- Adler Planetarium. "Historic Atwood Sphere - Adler Planetarium." *Adler Planetarium*, 8 May 2023, www.adlerplanetarium.org/explore/exhibits/historic-atwood-sphere. Accessed 24 July 2023.
- Alfaro, Carmen. *Colchis, Wool and the Spinning Fates in Catullus Carmen: Spinning Fates and the Song of the Loom, The Use of Textiles, Clothing and Cloth Production as Metaphor, Symbol and Narrative Device in Greek and Latin Literature*. Edited by Giovanni Fanfani et al., Oxbow Books Limited, 2016.
- Altick, Richard Daniel. *The Shows of London*. Harvard UP, 1978.
- "Anaxagoras." *Maths History*, mathshistory.st-andrews.ac.uk/Biographies/Anaxagoras.
- Anaximander | *Internet Encyclopedia of Philosophy*. iep.utm.edu/anaximander.
- Anon. "Terracotta spindle whorl | Greek, Attic | Archaic–Classical | The Metropolitan Museum of Art." *The Metropolitan Museum of Art*, www.metmuseum.org/art/collection/search/252889.
- Anonymus. "Qusayr 'Amra." *World Monuments Fund*, www.wmf.org/project/qusayr-amra. Accessed 12 July 2023.
- Asimov, Isaac. *In Memory yet Green: The Autobiography of Isaac Asimov, 1920–1954*. 1979, ci.nii.ac.jp/ncid/BA74899569.
- Atkin, Lara. "Popular Exhibitions, Science and Showmanship, 1840-1910." *Journal of Victorian Culture*, vol. 20, no. 2, Oxford UP, Mar. 2015, pp. 261–63, doi:10.1080/13555502.2015.1024045.
- Australia, Cinema. "Scientists and Indigenous Artists Set to Explore the Mysteries of the Universe in Star Dreaming." *Cinema Australia*, 30 Nov. 2020, cinemaaustralia.com.au/2020/11/30/scientists-and-indigenous-artists-set-to-explore-the-mysteries-of-the-universe-in-star-dreaming. Accessed 14 Feb. 2024.
- Bäck, Allan. "The Islamic Background: Avicenna (b. 980; d. 1037) and Averroes (b. 1126; d. 1198)." *Individuation in Scholasticism: The Later Middle Ages and the Counter-Reformation, 1150-1650*, SUNY Press, 1993, pp. 39–69.
- Bagrow, Leo. "The Gottorp Globe in Russia." *Imago Mundi*, Taylor and Francis, Jan. 1949, pp. 95–96, doi:10.1080/03085694908591946.
- Barentine, John C. "The Lost Constellations." *Springer eBooks*, 2016, doi:10.1007/978-3-319-22795-5.

- Beech, Martin. "Richard Long's Great Sphere and Baron Munchausen's Queen-Mab Carriage: a possible ring of truth?" *Bulletin of the Scientific Instrument Society*, no. 134, 2017.
- Belisle, Brooke. "Nature at a Glance: Immersive Maps From Panoramic to Digital." *Early Popular Visual Culture*, vol. 13, no. 4, Taylor and Francis, Oct. 2015, pp. 313–35, doi:10.1080/17460654.2015.1111590.
- Bendall, D. S. "Robert Hill." *Royal Society Publishing*, 1994, royalsocietypublishing.org/doi/10.1098/rsbm.1994.0033.
- Bergson, Henri. *Creative Evolution: Henri Bergson*. Createspace Independent Publishing Platform, 2018.
- Besse, Jean-Marc. "Embrasser la terre d'un seul coup d'œil" : The First Parisian Georamas. Maps and Society." *HAL Open Science France*, 2003, shs.hal.science/halshs-00113279.
- Beyer, Isabella Marzena. *Le Passage - Towards the Concept of a New Knowledge Instrument*. University of Plymouth, School of Art, Design and Architecture, 2019, hdl.handle.net/10026.1/14745.
- Birx, H. James, and Stacey L. Edgar. *Encyclopedia of Time: Science, Philosophy, Theology, and Culture*. SAGE Publications, 2009.
- Blaauw, Adriaan. *History of the IAU: The Birth and First Half-Century of the International Astronomical Union*. Springer Science and Business Media, 2012.
- Blakinger, John R. *Gyorgy Kepes: Undreaming the Bauhaus*. 2019, ofppt.scholarvox.com/catalog/book/88870459.
- "BnF." *Monde En Spheres*, expositions.bnf.fr/monde-en-spheres/en/the-world-of-spheres/index.html.
- Boeke, Kees. *Cosmic View: The Universe in 40 Jumps*. John Day Company, Incorporated.
- Boulding, Kenneth E. "The Economics of the Coming Spaceship Earth." *Resources for the Future*, 1966, pp. 3–14. *Johns Hopkins University Press*, notendur.hi.is/bdavids/UAU101/Readings/BOULDING.pdf.
- Bond, W. N. "LXXXIX. a Wide Angle Lens for Cloud Recording." *The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science*, vol. 44, no. 263, Taylor and Francis, Nov. 1922, pp. 999–1001, doi:10.1080/14786441208562576.
- Borges, Jorge Luis. *Other Inquisitions, 1937-1952*. 1968.
- Boullée, Etienne Louis, et al. *Architecture, Essay on Art*. 1976.
- Brague, Rémi. *The Wisdom of the World: The Human Experience of the Universe in Western Thought*. University of Chicago Press, 2004.
- . *The Wisdom of the World: The Human Experience of the Universe in Western Thought*. University of Chicago Press, 2020.
- Brendel, Otto J. *Symbolism of the sphere: a contribution to the history of earlier Greek philosophy*. 1977.
- "A Brief History of Panoramic Photography | Articles and Essays | Panoramic Photographs | Digital Collections | Library of Congress." *The Library of Congress*, www.loc.gov/collections/panoramic-photographs/articles-and-essays/a-brief-history-of-panoramic-photography. Accessed 8 Aug. 2023.

- Brient, Elizabeth. "Transitions to a Modern Cosmology: Meister Eckhart and Nicholas of Cusa on the Intensive Infinite." *Journal of the History of Philosophy*, vol. 37, no. 4, Johns Hopkins UP, Jan. 1999, pp. 575–600, doi:10.1353/hph.2008.0851.
- Bruno, Giuliana. *Atlas of Emotion: Journeys in Art, Architecture, and Film*. Verso Books, 2018.
- . *Atmospheres of Projection: Environmentality in Art and Screen Media*. University of Chicago Press, 2022.
- Bucciantini, Massimo, et al. "Galileo's Telescope: A European Story." *Choice Reviews Online*, vol. 53, no. 01, Association of College and Research Libraries, Aug. 2015, pp. 53–0215, doi:10.5860/choice.191416.
- Buck, Wilfred. "'Legends of the Northern Sky': Movie Explores Cree Culture's Connection to the Stars." *CBC*, 10 Apr. 2019, www.cbc.ca/news/canada/edmonton/legends-of-the-northern-sky-telus-world-of-science-cree-1.5092709. Accessed 14 Feb. 2024.
- Buettner, Elizabeth. *Europe After Empire: Decolonization, Society, and Culture*. Cambridge: Cambridge UP., 2016.
- . "European Entanglements." *ECHOES: European Colonial Heritage Modalities in Entangled Cities*, 2018. <https://keywordsechoes.com/>.
- Bureau International des Expositions. "The Apotheosis of Electricity at Expo 1900 Paris." *BIE*, 9 Mar. 2017, www.bie-paris.org/site/en/blog/entry/the-apotheosis-of-electricity-at-expo-1900-paris. Accessed 24 July 2023.
- Business Insider India. "New, detailed pictures of planets, moons, and comets are neither photos nor animations - they're made using data from 50 years of NASA missions | Business Insider India." *Business Insider*, www.businessinsider.in/slideshows/miscellaneous/new-detailed-pictures-of-planets-moonsand-comets-are-neither-photos-nor-animations-theyre-made-using-data-from-50-years-of-nasamissions/slidelist/73503737.cms. Accessed 8 July 2023.
- Cahill, Susan. *Smiles of Rome: A Literary Companion for Readers and Travelers*. Turtleback Books, 2005.
- Calder, Alexander. *What Abstract Art Means to Me: Statements by Six American Artists: George L.K. Morris, Willem de Kooning, Alexander Calder, Fritz Glarner, Robert Motherwell, Stuart Davis*. 3rd ed., vol. 18, Museum of Modern Art Bulletin, 1951.
- Canales, Jimena. "Desired Machines: Cinema and the World in Its Own Image." *Science in Context*, vol. 24, no. 3, Cambridge UP, July 2011, pp. 329–59, doi:10.1017/s0269889711000147.
- . "Movement before Cinematography: The High-Speed Qualities of Sentiment." *Journal of Visual Culture*, vol. 5, no. 3, 2006, pp. 275–94, doi:10.1177/1470412906070518.
- . "Photogenic Venus." *Isis*, vol. 93, no. 4, University of Chicago Press, Dec. 2002, pp. 585–613, doi:10.1086/375953.
- . "Sensational Differences: The Case of the Transit of Venus." *Cahiers François Viète*, no. I-11/12, Sept. 2006, pp. 15–40, doi:10.4000/cahierscfv.1527.
- Canepa, Matthew P. *The Two Eyes of the Earth: Art and Ritual of Kingship Between Rome and Sasanian Iran*. Univ of California Press, 2017.

- Chabard, Pierre. "Architects of Knowledge." *Aesthetics of Universal Knowledge*, edited by Simon Schaffer et al., 2017, pp. 53–77, doi:10.1007/978-3-319-42595-5.
- Chartrand, Mark R. "A Fifty Year Anniversary of a Two Thousand Year Dream." *The Planetarian*, vol. 9, 1973, pp. 95–101, www.ips-planetarium.org/page/a_chartrand1973.
- Cheliotis, L. *Roots, Rites and Sites of Resistance: The Banality of Good*. Springer, 2010.
- Chowers, Eyal. *The modern self in the labyrinth: Politics and the entrapment imagination*. Harvard UP, 2004.
- Christian Science, and Anon. "*How Do You See the World?* experience." *Christian Science*, www.christianscience.com/find-us/visit-the-mother-church/visit-the-christian-science-plaza/how-do-you-see-the-world-experience. Accessed 27 July 2023.
- Chung, Hye Jean. *Media Heterotopias: Digital Effects and Material Labor in Global Film Production*. Illustrated, Duke UP Books, 2018.
- Coen, Deborah R. "Knowledge in the Anthropocene." *Science*, vol. 367, no. 6475, 2020, pp. 256–256, doi:10.1126/science.aba1244.
- Colavito, Jason. "Book of the 24 Philosophers." *JASON COLAVITO*, www.jasoncolavito.com/book-of-the-24-philosophers.html. Accessed 14 July 2023.
- Committee, The Invisible, and Robert Hurley. *To Our Friends (Semiotext(e) / Intervention Series)*. Illustrated, Semiotext(e), 2015.
- Cosgrove, Denis E. *Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination*. 2001.
- Cottam, Stella, and Wayne Orchiston. "Eclipses, Transits, and Comets of the Nineteenth Century." *Springer eBooks*, 2015, doi:10.1007/978-3-319-08341-4.
- Couprie, Dirk L. *Heaven and Earth in Ancient Greek Cosmology: From Thales to Heraclides Ponticus*. Springer Science and Business Media, 2011.
- Cowan, James. "The Celestial City Symbolic Architecture and the Heavenly Abode." *Academia.edu*, 1AD, pp. 1–12, www.academia.edu/22022485/The_Celestial_City_symbolic_architecture_and_the_heavenly_abode.
- Crampton, Jeremy W., and John Krygier. "An Introduction to Critical Cartography." *ACME: An International Journal for Critical Geographies*, vol. 4, no. 1, Jan. 2005, pp. 11–33, 142.207.145.31/index.php/acme/article/view/723/0.
- Cruikshank, George. *All the world to see the great exhibition of 1851*. 1851, exploreuk.uky.edu/catalog/xt74xg9f5h51_665_1.
- Crutzen, Paul J., and Eugene F. Stoermer. "The Anthropocene (2000)." *Yale University Press eBooks*, 2017, pp. 479–90, doi:10.12987/9780300188479-041.
- Curtis, Scott. *The Shape of Spectatorship: Art, Science, and Early Cinema in Germany*. 2015, www.amazon.com/Shape-Spectatorship-Science-Germany-Culture/dp/0231134037.
- Danezis, E., et al. "The cosmology of Democritus." *Bulgarian Astronomical Journal*, vol. 13, 2010.
- Dawes, Gregory W. *Galileo and the Conflict Between Religion and Science*. Routledge, 2016.

- De Luca, Tiago. *Planetary Cinema: Film, Media and the Earth*. Film Culture in Transition, 2021.
- De Yourcenar, Marguerite. "Memoirs of Hadrian." *The smiles of Rome, a literary companion for readers and travelers*, edited by Cahill Susan, Turtleback Books, 2005.
- Dekker, Elly. "FEATURING THE FIRST GREEK CELESTIAL GLOBE." *Globe Studies*, no. 55/56, 2009. *JSTOR*, www.jstor.org/stable/23993955.
- . "On the dispersal of knowledge of the southern celestial sky / Zur verbeitung von wissen über den südlichen sternenhimmel." *Der Globusfreund*, vol. 35/37, 1987, pp. 211–30, www.jstor.org/stable/41628839.
- . "The Provenance of the Stars in the Leiden Aratea Picture Book." *Journal of the Warburg and Courtauld Institutes*, vol. 73, no. 1, University of Chicago Press, Jan. 2010, pp. 1–37, doi:10.1086/jwci41418712.
- Dekker, Elly, and Stamatina Mastorakou. "Illustrating the Phaenomena: Celestial Cartography in Antiquity and the Middle Ages." *Aestimatio : Critical Reviews in the History of Science*, Institute for Research in Classical Philosophy and Science, Dec. 2015, doi:10.33137/aestimatio.v11i0.26063.
- Dekker, Evelien. "Early Explorations of the Southern Celestial Sky." *Annals of Science*, vol. 44, no. 5, Taylor and Francis, Sept. 1987, pp. 439–70, doi:10.1080/00033798700200301.
- Del Popolo, Antonino. *Invisible Universe, The: Dark Matter, Dark Energy, And The Origin And End Of The Universe*. World Scientific, 2021.
- Di Blasi, Luca. "Anthropozänische Schuld. Zur Dezentrierung Des Menschen in Der Gegenwart." *the æGermanic Review*, vol. 96, no. 2, Apr. 2021, pp. 159–76, doi:10.1080/00168890.2021.1897504.
- Di Pasquale, Giovanni Di Pasquale, and Claudio Parisi Presicce, editors. "Archimedes: the Art and Science of Invention." *Catalogue of the Exhibition in Rome, Musei Capitolini, May 30 2013 - January 12, 2014*, 2012.
- Didi-Huberman, Georges. "Artistic Survival." *Common Knowledge*, vol. 9, no. 2, Duke UP, Apr. 2003, pp. 273–85, doi:10.1215/0961754x-9-2-273.
- "Different Cultures, Same Sky - Google Arts and Culture." *Google Arts & Culture*, artsandculture.google.com/story/different-cultures-same-sky-fundacion-elkano/yQXh7K7RtJgPJQ?hl=en. Accessed 14 Feb. 2024.
- Dilke, O. a. W. "Greek and Roman Maps." *The American Historical Review*, vol. 91, no. 4, Oxford UP, Oct. 1986, p. 891, doi:10.2307/1873338.
- Dilke, Oswald Ashton Wentworth. "The Culmination of Greek Cartography in Ptolemy." *cartography in prehistoric, ancient, and medieval europe and the mediterranean*, Chapter 11, vol. II, 1987, press.uchicago.edu/books/HOC/HOC_V1/HOC_VOLUME1_chapter11.pdf.
- Dimitrijevic, Milan S., and Aleksandra Bajić. "MYTHOLOGICAL ORIGIN OF CONSTELLATIONS AND THEIR DESCRIPTION: ARATUS, PSEUDO-ERATOSTHENES, HYGINUS." *Publ. Astron. Soc.* "Rudjer Bošković," no. 20, 2020.

- Djudjic, Dunja. "The history of the fisheye lens and why it's used for album covers." *DIY Photography*, 20 Dec. 2019, www.diyphotography.net/the-history-of-the-fish-eye-lens-and-why-its-used-for-album-covers. Accessed 27 Aug. 2023.
- Doane, Mary Ann. *The Emergence of Cinematic Time: Modernity, Contingency, the Archive*. Harvard UP, 2002.
- Dobeson, Alexander. "Between Openness and Closure: Helmuth Plessner and the Boundaries of Social Life." *Journal of Classical Sociology*, vol. 18, no. 1, SAGE Publishing, June 2017, pp. 36–54, doi:10.1177/1468795x17704786.
- Dolan, Marion. *The role of illustrated Aratea manuscripts in the transmission of astronomical knowledge in the Middle Ages*. University of Pittsburgh, 2007.
- . *The role of illustrated Aratea manuscripts in the transmission of astronomical knowledge in the Middle Ages*. University of Pittsburgh, 2017, core.ac.uk/download/pdf/12209655.pdf.
- Dreyer, J. L. E. *A History of Astronomy From Thales to Kepler*. Courier Corporation, 1953.
- Dürer, Albrecht. *The Celestial Globe-Southern Hemisphere*. 1515, www.metmuseum.org/art/collection/search/358367.
- Dye, Guillaume. "Review Reason and Necessity: Essays on Plato's Timaeus." *Duckworth and the Classical Press of Wales*, edited by M. R. Wright, Jan. 2000.
- Eddy, Mary Baker. "PRIMITIVE CHRISTIAN HEALING ROLAND HALL SHARP." *The Christian Science Journal*, 1937, journal.christianscience.com/shared/view/1s3lpmrj9tg.
- Edson, Evelyn. *The World Map, 1300-1492: The Persistence of Tradition and Transformation*. JHU Press, 2007.
- Elderkin, G. W. "Two Mosaics Representing the Seven Wise Men." *American Journal of Archaeology*, vol. 39, no. 1, 1935, pp. 92–111.
- Elias, Amy J., and Christian Moraru. *The Planetary Turn: Relationality and Geoaesthetics in the Twenty-First Century*. Northwestern UP, 2015.
- Élisée, Reclus. "A Great Globe." *The Geographical Journal*, vol. 12, no. 4, 1898, pp. 401–08.
- Elleström, Lars. "The Modalities of Media: A Model for Understanding Intermedial Relations." *Palgrave Macmillan UK eBooks*, 2010, pp. 11–48, doi:10.1057/9780230275201_2.
- Empedocles, Anaxagoras, and the Atomists* / Encyclopedia.com. www.encyclopedia.com/humanities/culture-magazines/empedocles-anaxagoras-and-atomists.
- Ernste, H. "The Geography of Spheres: An Introduction and Critical Assessment of Peter Sloterdijk's Concept of Spheres." *Geographica Helvetica*, vol. 73, no. 4, Copernicus Publications, Oct. 2018, pp. 273–84, doi:10.5194/gh-73-273-2018.
- Esses, Daniel. *Images of the World: Cosmology and Rhetoric in Plato's Timaeus and Laws*. 2018.
- Estrada, Andrea. "Art for the Masses." *The Current*, 17 July 2014, www.news.ucsb.edu/2014/014326/art-masses. Accessed 20 July 2023.

- Etlin, R. "The Pantheon in the Modern Age." *The Pantheon from Antiquity to the Present*, Cambridge UP, 2015, pp. 380–442.
- Evans, G. R., and Professor of History G. R. Evans. *Alan of Lille: The Frontiers of Theology in the Later Twelfth Century*. CUP Archive, 1983.
- Evans, James. "The Material Culture of Greek Astronomy." *Journal for the History of Astronomy*, vol. 30, no. 3, SAGE Publishing, Aug. 1999, pp. 238–307, doi:10.1177/002182869903000305.
- Evans, James, and J. Lennart Berggren. *Geminus's Introduction to the Phenomena: A Translation and Study of a Hellenistic Survey of Astronomy*. Princeton UP, 2018.
- Evans, James, and Mes Evans. *The History and Practice of Ancient Astronomy*. Oxford UP, 1998.
- Faidit, Jean-Michel, and Marvin Bolt. "The magic of the Atwood Sphere." *Planetarian*, vol. 42, no. 2, 2012, cdn.ymaws.com/www.ips-planetarium.org/resource/resmgr/pdf-pubs/Faidid_and_Bolt_Atwood_Spher.pdf.
- . "The magic of the Atwood Sphere." *Planetarian*, vol. 42, no. 2, 2012, pp. 10–16, cdn.ymaws.com/www.ips-planetarium.org/resource/resmgr/pdf-pubs/Faidid_and_Bolt_Atwood_Spher.pdf.
- Falchi, Fabio, et al. "The new world atlas of artificial night sky brightness." *Science Advances*, vol. 2, no. 6, 2016, doi:10.1126/sciadv.1600377.
- Falser, Michael. *Angkor Wat – a Transcultural History of Heritage: Volume 1: Angkor in France. From Plaster Casts to Exhibition Pavilions. Volume 2: Angkor in Cambodia. From Jungle Find to Global Icon*. Walter de Gruyter GmbH and Co KG, 2020.
- Ferguson, Kitty. *Pythagoras: His Lives and the Legacy of a Rational Universe*. Icon Books Ltd, 2011.
- Fernández-Serrano, Martino Peña, and José Calvo López. "Projecting Stars, Triangles and Concrete." *Architectura*, vol. 47, no. 1–2, Deutscher Kunstverlag, Aug. 2017, pp. 92–114, doi:10.1515/atc-2017-0006.
- Ferretti, Federico. *Anarchy and Geography: Reclus and Kropotkin in the UK*. Routledge, 2018.
- . "Situated Knowledge and Visual Education: Patrick Geddes and Reclus's Geography (1886–1932)." *The Journal of Geography*, National Council for Geographic Education, Aug. 2016, doi:10.1080/00221341.2016.1204347.
- Fideler, David. *Jesus Christ, Sun of God: Ancient Cosmology and Early Christian Symbolism*. Quest Books (IL), 1993.
- . *Pythagoreanism* / *Encyclopedia.com*. www.encyclopedia.com/history/dictionaries-thesauruses-pictures-and-press-releases/pythagoreanism.
- Fierro, Alfred. "Géorama." *Mappe Monde*, vol. 3, no. 87, pp. 33–35.
- Fieser, James. "The Presocratics: Where Western Philosophy Begins." *Brewminate: A Bold Blend of News and Ideas*, 31 Dec. 2016, brewminate.com/the-presocratics-where-western-philosophy-begins.
- Firebrace, William. *Star Theatre: The Story of the Planetarium*. Reaktion Books, 2017.
- Flammarion, Camille. "Le passage de Vénus." *La Nature*, Nov. 1875, pp. 356–57, static1.squarespace.com/static/5b6888ca2714e5f98508920a/t/5b70541103ce64d11

- b7d95aa/1534088214813/Canales-Photogenic-Venus-The-Cinematographic-Turn-and-Its-Alternatives-in-Nineteenth-Century-France.pdf.
- Ford, Brian J. *Images of Science: A History of Scientific Illustration*. Oxford UP, USA, 1993.
- Foucault, Michel. *The Order of Things: An Archaeology of the Human Sciences 1st (first) edition*. Routledge, 1994.
- Fragio, Alberto. *Paradigms for a Metaphorology of the Cosmos: Hans Blumenberg and the Contemporary Metaphors of the Universe*. 2015.
- . *Paradigms for a Metaphorology of the Cosmos: Hans Blumenberg and the Contemporary Metaphors of the Universe*. 2015.
- Françoise, Launay. "The great Paris exhibition telescope of 1900." *Journal for the History of Astronomy*, vol. 38, 2006, pp. 459–75.
- Frank, Roslyn M. "Origins of the 'Western' Constellations." *Springer eBooks*, 2014, pp. 147–63, doi:10.1007/978-1-4614-6141-8_11.
- Frankenberg, Pablo V. "Museum Utopia. A Brief Architectural History of the Ideal Museum." *Art History Supplement*, vol. 2, no. 3, 2011.
- Fraser, Craig G. "The cosmos: a historical perspective." *Choice Reviews Online*, vol. 44, no. 06, Association of College and Research Libraries, Feb. 2007, pp. 44–3272, doi:10.5860/choice.44-3272.
- Frey, Aline. *Eco-Fourth Cinema: Indigenous Rights and Environmental Crises*. 18 Mar. 2019, doi:10.14264/uql.2019.172.
- Friedberg, Anne. "Window Shopping." *University of California Press eBooks*, 1993, doi:10.1525/9780520915510.
- Furley, David J. "The Greek Theory of the Infinite Universe." *Journal of the History of Ideas*, vol. 42, no. 4, 1981, pp. 571–85, doi.org/10.2307/2709119.
- Ganshirt, Tim. *The Greco-Roman Influence on Early Christian Art*. Xavier University, Cincinnati, OH, 2022, www.exhibit.xavier.edu/hab/47.
- Garbasso, Toni. "Immersive photography - Cameras and panoramic techniques." *Toni Garbasso - Studio Argento*, www.studioargento.com/immersiva/foto-immersiva4_en.html. Accessed 8 Aug. 2023.
- Gärdebo, Johan. "Technosphere Verticality." *Technosphere Magazine*, 15 Nov. 2016, technosphere-magazine.hkw.de/p/Technosphere-Verticality-cJSZntQ5B1FVnGxQsh2htg. Accessed 8 July 2023.
- Gaycken, Oliver. *Devices of Curiosity: Early Cinema and Popular Science*. 2015, openlibrary.org/books/OL28557339M/Devices_of_Curiosity.
- Geertz, Clifford. *The Interpretation of Cultures*. Basic Books, 1973.
- Geimer, Peter. *Inadvertent Images: A History of Photographic Apparitions*. University of Chicago Press, 2018.
- Gendler, Robert, et al. "Treasures of the Southern Sky." *Springer eBooks*, 2011, doi:10.1007/978-1-4614-0628-0.
- Geppert, Alexander. "Fleeting Cities." *Palgrave Macmillan UK eBooks*, 2010, doi:10.1057/9780230281837.

- Gernsheim, Helmut, and Alison Gernsheim. *The History of Photography: From the Camera Obscura to the Beginning of the Modern Era*,. 1969, ci.nii.ac.jp/ncid/BA23042659.
- “The Globe: A scientific sensation – still today - Gottorfer Globus.” *Globus*, gottorfer-globus.de/en/the-globe-a-scientific-sensation--still-today. Accessed 20 July 2023.
- Goldstein, Bernard R. “Copernicus and the Origin of His Heliocentric System.” *Journal for the History of Astronomy*, vol. 33, no. 3, SAGE Publishing, Aug. 2002, pp. 219–35, doi:10.1177/002182860203300301.
- Goldstein, Bernard R., and Peter Barker. “The Role of Rothmann in the Dissolution of the Celestial Spheres.” *The British Journal for the History of Science*, vol. 28, no. 04, Cambridge UP, Dec. 1995, p. 385, doi:10.1017/s000708740003346x.
- Gregory, Derek. *Geographical Imaginations*. Wiley-Blackwell, 1994.
- Griffiths, Alison. *Shivers Down Your Spine*. 2008, www.amazon.com/Shivers-Down-Your-Spine-Immersive/dp/0231129882.
- “Guided practice: continuity and change in the Byzantine Empire (article) | Khan Academy.” *Khan Academy*, www.khanacademy.org/humanities/world-history/medieval-times/byzantine-empire/a/the-rise-of-the-byzantine-empire. Accessed 12 July 2023.
- Guignard, Laurence. “Les installations célestes. Simulations du cosmos à l’Exposition universelle de 1900: Panoramas, parcs à thème et autres dispositifs immersifs.” *Simulations Du Monde*, Metis Presses, 2019.
- Habermann, Katharina. “Auf den Spuren Erhard Weigels in Göttingen.” *Erhard Weigel (1625–1699) und seine Schüler*, Universitätsverlag Göttingen, 2016, pp. 231–46, univerlag.uni-goettingen.de/bitstream/handle/3/isbn-978-3-86395-259-4/habermann_weigel.pdf?sequence=1&isAllowed=y.
- Habermann, Katharina, and Klaus-Dieter Herbst. *Erhard Weigel (1625-1699) Und Seine Schüler*. Göttingen UP, 2016.
- Hahn, H. *Scenes of Parisian Modernity: Culture and Consumption in the Nineteenth Century*. Springer, 2009.
- Hamacher, D. W., and M. Nakata. “Research Frameworks in Indigenous Astronomy.” *Australian Perspectives on Indigenous Knowledge*, edited by Marcia Langton and Michael-Shawn Fletcher, Melbourne: Melbourne UP.
- Hannah, Robert. “The Stars in Ancient Greece.” *Historical & cultural astronomy*, Springer International Publishing, 2021, doi:10.1007/978-3-030-64606-6_10.
- Hansen, Rahlf. “Antike Sonnenkulte;Antike Sonnenkulte;Ancient Cults of the Sun.” *NASA/ADS*, 2005, ui.adsabs.harvard.edu/abs/2005AcHA...25...66H/abstract.
- Harley, John Brian, and David Woodward. *Greek Cartography in the Early Roman World, The History of Cartography: Cartography in prehistoric, ancient, and medieval Europe and the Mediterranean*. 1987, press.uchicago.edu/books/HOC/HOC_V1/HOC_VOLUME1_chapter10.pdf.
- . “The Foundations of Theoretical Cartography in Archaic and Classical Greece.” *Greek Cartography in the Early Roman World, the History of Cartography: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, vol. 1, 1986, press.uchicago.edu/books/HOC/HOC_V1/HOC_VOLUME1_chapter8.pdf.

- Harper, Douglas. "theory | Etymology, origin and meaning of theory by etymonline." *Etymonline*, www.etymonline.com/word/theory. Accessed 16 July 2023.
- Haraway, Donna. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies*, vol. 14, no. 3, 1988, pp. 575–99.
- Harries, Karsten. "Infinity and Perspective." *The MIT Press eBooks*, 2001, doi:10.7551/mitpress/3755.001.0001.
- . "The Infinite Sphere: Comments on the History of a Metaphor." *Journal of the History of Philosophy*, vol. 13, no. 1, Johns Hopkins UP, Jan. 1975, pp. 5–15, doi:10.1353/hph.2008.0143.
- Harris, Bill. *Five Hundred Buildings of New York*. Hachette UK, 2011.
- Hart, Graham. *Starry Messenger: Hipparchus and the Astrolabe*. www.sites.hps.cam.ac.uk/starry/hippaslabe.html. Accessed 7 July 2023.
- . "Starry Messenger: Ptolemy on Astrolabes." *Department of History and Philosophy of Science*, www.sites.hps.cam.ac.uk/starry/ptolaslabe.html.
- Hawley, John F., and Katherine A. Holcomb. *Foundations of Modern Cosmology*. OUP Oxford, 2005.
- Hayley, Jean. *Connecting Art and Science: An Artist's Perspective on Environmental Sustainability*. University of Vermont, Environmental Studies, 2019, scholarworks.uvm.edu/envstheses/54.
- Heath, Thomas. *Aristarchus of Samos: The Ancient Copernicus*. Courier Corporation, 2014.
- Herlihy, Anna Friedman. "Renaissance Star Charts." *The History of Cartography*, Part 1: Cartography in the European Renaissance, vol. III, University of Chicago Press, 2007, pp. 99–122, press.uchicago.edu/books/HOC/HOC_V3_Pt1/HOC_VOLUME3_Part1_chapter4.pdf.
- Hladký, Vojtěch. "Empedocles' Sphairos." *Rhizomata*, vol. 9, no. 1, De Gruyter, Jan. 2017, pp. 1–24, doi:10.1515/rhiz-2017-0001.
- Hladký, Vojtech. "Empedocles' Sphairos and Its Interpretations in Antiquity, III: Zoogony and Plato's Symposium." *Eirene: Studia Graeca Et Latina*, vol. 52, no. 52, Jan. 2016, pp. 359–86, dialnet.unirioja.es/servlet/articulo?codigo=6691353.
- Hoffmann, Susanne. "The genesis of Hipparchus' celestial globe." *arXiv (Cornell University)*, Cornell University, June 2020, doi:10.5281/zenodo.1477980.
- Hooper, Walter. *C.S. Lewis: A Companion and Guide*. HarperCollins Publishers, 1996.
- Horky, Phillip Sidney. *Cosmos in the Ancient World*. Cambridge UP, 2019.
- Housefield, James. *Playing With Earth and Sky: Astronomy, Geography, and the Art of Marcel Duchamp*. Dartmouth College Press, 2016.
- Hristova, Aneta, and Meri Batakoja. "Frames of References – Art Museums as Unique Visual Media." *Культура/Culture*, vol. 5, no. 12, 2015, pp. 53–64, journals.cultcenter.net/index.php/culture/article/view/181.
- Hughes, Stefan. *Catchers of the Light: The Forgotten Lives of the Men and Women Who First Photographed the Heavens*. ArtDeCiel Publishing, 2012.
- "IAU HISTORY | IAU100:Under One Sky." *IAU100:Under One Sky*, www.iau-100.org/iau-history. Accessed 25 July 2023.

- Informatique, Centre. *The beginnings of celestial cartography – Les Globes de Mercator de l'UNIL*. 2 Dec. 2016, www2.unil.ch/mercator/en/the-beginnings-of-celestial-cartography/index.html. Accessed 16 July 2023.
- Informatique, Centre, and Anonymus. *The beginnings of celestial cartography – Les Globes de Mercator de l'UNIL*. 2 Dec. 2016, www2.unil.ch/mercator/en/the-beginnings-of-celestial-cartography/index.html. Accessed 12 July 2023.
- Ingold, Tim. *The Perception of the Environment*. 2011, nomadicartsfestival.com/wp-content/uploads/2015/02/the-perception-of-the-environment.pdf.
- . *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. Routledge, 2021.
- “Islamic Astronomy.” *Museo Galileo*, brunelleschi.imss.fi.it/galileopalazzostrozzi/multimedia/IslamicAstronomy.html. Accessed 13 July 2023.
- Ivins, William M., Jr. *Prints and Visual Communication*. MIT Press, 1969.
- Jacob, Christian. “Looking at the Earth from Outer Space: Ancient Views on the Power of Globes.” *Globe Studies. The Journal of the International Coronelli Society*, 2001, pp. 3–17, hal.science/hal-00131577.
- Jacobs, Lewis. *The Documentary Tradition*. W W Norton and Company Incorporated, 1979.
- Jasanoff, Sheila. “Technologies of humility.” *Nature*, vol. 450, no. 7166, 2007, pp. 33–33, doi:10.1038/450033a.
- Jernajzyk, Jakub, and Bartłomiej Skowron. *Circle and sphere - geometrical speculations in philosophy*. Edited by P. Błaszczyk and B. Pieronkiewicz, Mathematical Transgressions 2018, 2015.
- Jeske, Cornelia. “From the Bauhaus to the Black Mountain - Google Arts and Culture.” *Google Arts & Culture*, artsandculture.google.com/story/from-the-bauhaus-to-the-black-mountain-stiftung-bauhaus-dessau/hQWhQvKkBEt-IA?hl=en. Accessed 25 July 2023.
- “Jeux d'enfants - Panrama - Gilbert Comparetti.” *30enscene*, 30enscene.free.fr/cinema/cm_locaux/jeux_d_enfants.php. Accessed 27 Aug. 2023.
- Johnson, Jr., Arthur W. “Recent advances in 35-mm hemispheric cinematography for the planetarium.” *Journal of the International Planetarium Society*, vol. 12, no. 2, May 1983, pp. 5–6, cdn.ymaws.com/www.ips-planetarium.org/resource/resmgr/planetarian/v12n2-1983qtr2.pdf.
- Jones, Alexander Raymond. “Ptolemaic system | Definition and Facts.” *Encyclopedia Britannica*, 20 July 1998, www.britannica.com/science/Ptolemaic-system.
- Jowett, B. “Plato describes the planets.” *Maths History*, mathshistory.st-andrews.ac.uk/Extras/Plato_planets.
- Kalachanis, Konstantinos, et al. *Astronomical and Astrophysical Transactions: The Journal of the Soviet Astronomical Society*. 4th ed., vol. 30, 2018.
- Kanas, Nick. “Star Maps.” *Springer eBooks*, 2012, doi:10.1007/978-1-4614-0917-5.
- Kaplan, Aline, et al. “Boston’s Hidden Gems: Mapparium.” *The Next Phase Blog - Social Commentary and Informed Opinions*, 6 Apr. 2021, aknextphase.com/bostons-hidden-gems-mapparium. Accessed 27 July 2023.

- Katzenstein, Rane. "A Carolingian Masterpiece, THE LEIDEN ARATEA Ancient Constellations in a Medieval Manuscript." *The J.Paul Getty Museum*, 1988, www.getty.edu/publications/resources/virtuallibrary/0892361425.pdf.
- Kaufmann, Emil. *Three Revolutionary Architects: Boullée, Ledoux, and Lequeu*. 1952.
- Keefer, Cindy. "Raumlichtmusik' - Early 20th Century Abstract Cinema Immersive Environments." *Leonardo Electronic Almanac*, vol. 16, no. 6–7, Sept. 2009, pp. 1–5.
- Kenderdine, Sarah. "3D Immersive DomeLab Premieres at UNSW." *UNSW Newsroom*, 14 Sept. 2015, newsroom.unsw.edu.au/news/art-architecture-design/3d-immersive-domelab-premieres-unsw. Accessed 14 Feb. 2024.
- Kenneth, Chan. *You can now use this orb to change the lights at Science World (PHOTOS, VIDEO)*. 21 July 2017, dailyhive.com/vancouver/science-world-light-control-art-installation-2017. Accessed 8 July 2023.
- Kerr, Robert. *A General History of Voyages and Travels to the End of the 18Th Century*. Palala Press, 1810.
- King, David A., et al. "Astronomical Handbooks and Tables From the Islamic World (750-1900): An Interim Report." *Suhayl. International Journal for the History of the Exact and Natural Sciences in Islamic Civilisation*, vol. 2, no. 2, Jan. 2001, pp. 9–105, diposit.ub.edu/dspace/bitstream/2445/69637/1/522286.pdf.
- Kishlansky Et Al. "The Crystal Palace exhibition of 1851 symbol of a new age." *Civilization in the West*, 7th ed., 2006, pp. 684–85.
- Kitson, Hermione, and Stefano Borghini. "Nero's palace reopening signals return of tourism in Rome." *CGTN*, 4 July 2021, newseu.cgtn.com/news/2021-07-04/Nero-s-palace-reopening-signals-return-of-tourism-in-Rome-11BuNbELRv2/index.html.
- Knorr, Wilbur Richard. "Plato and Eudoxus on the Planetary Motions." *Journal for the History of Astronomy*, SAGE Publishing, Nov. 1990, doi:10.1177/002182869002100401.
- Koyré, Alexandre. "From the Closed World to the Infinite Universe." *Princeton University Press eBooks*, 2018, pp. 53–62, doi:10.2307/j.ctvc777f0.10.
- Kragh, Helge S. *Conceptions of Cosmos: From Myths to the Accelerating Universe: A History of Cosmology*. OUP Oxford, 2007.
- Kratochwil, Stefan. "Der ‚Pancosmos‘ von Erhard Weigel." *Globe Studies*, no. 57/8, 2010, pp. 11–21. *JSTOR*, www.jstor.org/stable/23993561.
- . "Einige Bemerkungen zum Weigelschen Himmelsglobus im Stadtmuseum Jena." *Jenaer Jahrbuch zur Technik- und Industriegeschichte*, 2003, pp. 78–81.
- Kuehne, Ulrich J. "Evidence for a new interpretation of the Berlin Celestial Globe fragment SK1050A." *PhilSci Archive*, 2011, philsci-archive.pitt.edu/16462.
- La Rocca, Eugenio. "Agrippa's Pantheon and Its Origin." *Cambridge University Press eBooks*, 2015, pp. 49–78, doi:10.1017/cbo9781139015974.003.
- Lakoff, George, and Mark H. Johnson. *Metaphors We Live By*. 1980, www.berliner.dk/mediesnak/opgaver/lj_noter.pdf.
- Landecker, Hannah. "Microcinematography and the History of Science and Film." *The History of Science Society*, 2006, pp. 121–32.

- Landsat NASA. "About | Landsat Science." *Landsat Science | a Joint NASA/USGS Earth Observation Program.*, 17 Dec. 2021, landsat.gsfc.nasa.gov/about.
- Launay, Françoise. "The Astronomer Jules Janssen." *Springer eBooks*, 2012, doi:10.1007/978-1-4614-0697-6.
- "Le Monde en Sphères." *BnF*, expositions.bnf.fr/monde-en-spheres/en/basic-notions/index.html. Accessed 21 July 2023.
- . expositions.bnf.fr/monde-en-spheres/en/spheres-in-medieval-western-europe/index.html. Accessed 16 July 2023.
- Le Photorama Lumière - Le Photorama.* www.institut-lumiere.org/musee/les-freres-lumiere-et-leurs-inventions/photoramas.html. Accessed 8 Aug. 2023.
- Le rêve d'un astronome.* 1898.
- Leboux, Georges Paul. *La Grande Lunette de 1900.* 1900, collections.vam.ac.uk/item/O730017/poster-leroux-georges-paul.
- Lee, Annette S., et al. "Indigenous Astronomy: Best Practices and Protocols for Including Indigenous Astronomy in the Planetarium Setting." *arXiv (Cornell University)*, Aug. 2020, arxiv.org/pdf/2008.05266.pdf.
- Lehmann, Karl. *The Dome of Heaven.* 1945.
- Lewis, Clive Staples. "*The Discarded Image: An Introduction to Medieval and Renaissance Literature.* 1964.
- Lightman, Bernard. "Spectacle in Leicester Square: James Wyld's Great Globe, 1851–61." *Popular Exhibitions, Science and Showmanship, 1840–1910*, edited by Joe Kember Et Al., University of Pittsburgh Press, 2016, pp. 19–40, www.jstor.org/stable/j.ctt1djmj49.7.
- Long, Roger. *Astronomy, in Five Books.* By Roger Long, ... *Of 2*; Gale Ecco, Print Editions, 2018.
- Loukissas, Y. A. "Software Takes Command." *Journal of Design History*, vol. 28, no. 1, 2014, pp. 107–08, doi:10.1093/jdh/epu017.
- Luhmann, Thomas. "A historical review on panorama photogrammetry." *University of Applied Sciences, Institute for Applied Photogrammetry and Geoinformatics*, 2007.
- Lühning, Felix. *Gottorf Im Glanz Des Barock: Kunst und Kultur am Schleswiger Hof: 1544-1713.* S. Schleswig-Holsteinisches Landesmuseum, 1997.
- "Luke 2:1 - Bible Gateway." *Bible Gateway*, www.biblegateway.com/verse/en/Luke%20%3A1. Accessed 12 July 2023.
- MacPherson, Hector. "The cosmological ideas among the Greeks." *Popular Astronomy*, vol. 24, 1916, adsabs.harvard.edu/full/1916PA.....24..358M.
- Malpas, Jeff. "In The Vicinity of the Human." *International Journal of Philosophical Studies*, vol. 25, no. 3, Taylor and Francis, May 2017, pp. 423–36, doi:10.1080/09672559.2017.1320014.
- Manovich, Lev. *Software Takes Command (International Texts in Critical Media Aesthetics).* Illustrated, Bloomsbury Academic, 2013.
- . "The Mapping of Space: Perspective, Radar, and 3-D Computer Graphics." *Monoskop*, 1992, manovich.net/index.php/projects/article-1993.
- Marchant, Jo. "Archimedes' legendary sphere brought to life." *Nature*, vol. 526, no. 7571, Nature Portfolio, Sept. 2015, p. 19, doi:10.1038/nature.2015.18431.

- Marché, Jordan. *Theaters of Time and Space: American Planetaria, 1930-1970*. Rutgers UP, 2005.
- Marder, Tod A., and Mark Wilson Jones. *The Pantheon: From Antiquity to the Present*. Cambridge UP, 2015.
- Mark, Joshua J. "Xenophanes of Colophon." *World History Encyclopedia*, Sept. 2022, www.worldhistory.org/Xenophanes_of_Colophon.
- Martin, Thomas R. *Ancient Greece: From Prehistoric to Hellenistic Times*. Yale UP, 2000.
- Matuszewski, Boleslaw. *A New Source of History: animated photography what it is, what it should be*. 1999.
- McClellan, Andrew. *The Art Museum From Boullée to Bilbao*. 2008.
- McConville, David. *On the Evolution of the Heavenly Spheres*. Plymouth University, 2014, core.ac.uk/download/pdf/74388491.pdf.
- McCormick, Anne. *Andrea Corsali and the Southern Cross*. Hordern House, Sydney, 2019, hordern.com/images/upload/corsali-essay.pdf.
- McGuffie, K., and A. Henderson-Sellers. "Almost a Century of 'Imaging' Clouds Over the Whole-Sky Dome." *Bulletin of the American Meteorological Society*, vol. 70, no. 10, Oct. 1989, pp. 1243–53, journals.ametsoc.org/view/journals/bams/70/10/1520-0477_1989_070_1243_aacoco_2_0_co_2.xml.
- McKirahan, Richard. *Philosophy Before Socrates: An Introduction with Texts and Commentary*. Second Edition, 2010, ci.nii.ac.jp/ncid/BA23184303.
- McLeod, Alexis. *Astronomy in the Ancient World: Early and Modern Views on Celestial Events*. Springer, 2016.
- McLuhan, Marshall. *Understanding Media: The Extensions of Man*. Gingko, 1964.
- McNeil Powrie, Sarah. *The infinite sphere: the history of a metaphor in theology, science and literature (1100-1613)*. The Centre for Medieval Studies University of Toronto, 2006, hdl.handle.net/1807/121858.
- Mercier, Sébastien. *The Year 2440: A Dream If Ever There Was One*. 1770.
- Miller, Michelle. "AD Classics: Cenotaph for Newton / Etienne-Louis Boullée." *ArchDaily*, 6 Nov. 2018, www.archdaily.com/544946/ad-classics-cenotaph-for-newton-etienne-louis-boullee.
- Millesima, Iulia, and Iulia Millesima. "Cesare Ripa: Wheels, Spindles and Celestial Pointers." *Labyrinth Designers & the Art of Fire*, 1 May 2023, www.labyrinthdesigners.org/alchemic-pictures/cesare-ripa-wheels-spindles-and-celestial-pointers/#:~:text=Cosmography%20is%20%E2%80%9D%20the%20art%20that,so%20mething%20more%20than%20mere%20measurements. Accessed 17 July 2023.
- Mitchell, Timothy. *Colonising Egypt: With a new preface*. Univ of California Press, 1991.
- . "The World as Exhibition." *Comparative Studies in Society and History*, 2nd ed., vol. 31, Cambridge UP, 1989, pp. 217–36, www.jstor.org/stable/178807.
- Moholy-Nagy, László. *A Light-Play in Black-White-Gray 'Ein Lichtspiel schwarz weiss grau.'* 1931. <https://www.imdb.com/title/tt0234104/>.
- Moholy-Nagy, Laszlo. *Laszlo Moholy-Nagy Painting, Photography, Film: Bauhausbucher 8 1925*. 2019.

- Moholy-Nagy, László. *Light-space Modulator*. 1930.
<http://www.medienkunstnetz.de/works/licht-raum-modulator/>.
- . *Von Material Zu Architektur*. 1929.
- Mokre, Jan. *The Symbolism of the Globe – Past and Present*.
www.academia.edu/14735863/The_Symbolism_of_the_Globe_Past_and_Present.
 Portland, ME, United States of America.
- Molvig, Ole. “12. The Berlin Urania, Humboldtian Cosmology, and the Public.” *Duke University Press eBooks*, 2020, pp. 325–44, doi:10.1515/9780822392507-015.
- The Moon at one Meter*. 1899, beinecke.library.yale.edu/article/moon-one-meter.
- Mooney, H. A., et al. “Evolution of natural and social science interactions in global change research programs.” *Proceedings of the National Academy of Sciences*, vol. 110, no. Supplement_1, 2013, pp. 3665–72, doi:10.1073/pnas.1107484110.
- Moussas, Xenophon. “EARLY GREEK ASTROPHYSICS: THE FOUNDATIONS OF MODERN SCIENCE AND TECHNOLOGY.” *American Journal of Space Science*, vol. 1, no. 2, Feb. 2013, pp. 129–44, doi:10.3844/ajssp.2013.129.144.
- . *The Antikythera Mechanism: The Oldest Computer and Mechanical Cosmos*. 2014.
- Mumford, Lewis. *Technics and Civilization*. Harcourt, Brace and Company (US) Routledge (UK), 1934.
- Muntean, Adela. “SPHERICAL ENCOUNTERS OF HUMAN RIGHTS.” *Zenodo (CERN European Organization for Nuclear Research)*, May 2022, doi:10.5281/zenodo.6558067.
- . “Spherical Encounters of the Anthropocene: From Telescope to Kaleidoscope.” *Ekphrasis*, vol. 24, no. 2, Dec. 2020, pp. 144–66, doi:10.24193/ekphrasis.24.8.
- Murray, Stuart. *Images of Dignity: Barry Barclay and Fourth Cinema*. Huia Pub, 2008.
- Museum, Nature. “Wallace Atwood and the Atwood Celestial Sphere.” *Peggy Notebaert Nature Museum*, 16 June 2020, naturemuseum.org/2016/07/wallace-atwood-and-the-atwood-celestial-sphere. Accessed 24 July 2023.
- Naddaf, Gerard. *The Greek Concept of Nature*. SUNY Press, 2005.
- National Museum of Australia. *Songlines: Tracking the Seven Sisters | National Museum of Australia*. www.nma.gov.au/exhibitions/songlines. Accessed 14 Feb. 2024.
- Neale, Margo. “‘The Empire Strikes Back’: Lauded Australian Show Begins European Tour.” *The Guardian*, 19 Oct. 2022, www.theguardian.com/artanddesign/2021/oct/17/the-empire-strikes-back-lauded-australian-show-begins-european-tour. Accessed 14 Feb. 2024.
- Neugebauer, Otto. *A History of Ancient Mathematical Astronomy: Egypt. Early Greek astronomy. Astronomy during the Roman Imperial period and late antiquity*. 1975.
- Nielsen, Jesper Bo. “The World on a Whorl: Considerations on Aztec Spindle Whorl Iconography.” *PreColumbian Textile Conference VII / Jornadas De Textiles PreColombinos*, vol. VII., no. 5., Nov. 2017, doi:10.13014/k23n21kb.
- Nightingale, Andrea. “On Wandering and Wondering: Theoria in Greek Philosophy and Culture.” *Arion-a Journal of Humanities and the Classics*, vol. 9, no. 2, Jan. 2001, pp. 23–58, dialnet.unirioja.es/servlet/articulo?codigo=736646.
- Nightingale, Andrea Wilson. *Spectacles of Truth in Classical Greek Philosophy: Theoria in its Cultural Context*. Cambridge UP, 2004.

- Nissan, E., et al. "Reflected in Heaven." *MHNH Revista Internacional De Investigación Sobre Magia Y Astrología Antiguas*, vol. 19, 2019, pp. 87–166.
- North, Arthur Tappan. *Contemporary American Architects: Raymond M. Hood*. New York: Whittlesey House, McGraw-Hill Book Company, 1931.
- O'Connor, Ralph. *The Earth on Show: Fossils and the Poetics of Popular Science, 1802-1856*. University of Chicago Press, 2013.
- Oestmann, Günther, et al. "JOHANNES STOEFFLER'S CELESTIAL GLOBE / JOHANNES STOEFFLERS HIMMELSGLOBUS." *Der Globusfreund International Coronelli Society for the Study of Globes*, vol. no. 43/44, Dec. 1996, pp. 59-76. *JSTOR*, www.jstor.org/stable/41622069.
- Oettermann, Stephan. *The Panorama: History of a Mass Medium*. 1997.
- "OHU | Domes." *OHU Domes*, www.ohudomes.com/#stories. Accessed 14 Feb. 2024.
- Ostrow, Steven F. "Cigoli's Immacolata and Galileo's Moon: Astronomy and the Virgin in Early Seicento Rome." *Art Bulletin*, vol. 78, no. 2, College Art Association, June 1996, p. 218, doi:10.2307/3046173.
- Overpeck, Jonathan T., et al. "Climate Data Challenges in the 21st Century." *Science*, vol. 331, no. 6018, Feb. 2011, pp. 700–02, doi:10.1126/science.1197869.
- Pagliano, Alessandra. "Heaven in the stone." *Proceedings of the IMProVe 2011 International conference on Innovative Methods in Product Design*, 2011.
- Palmer, John. "The Oxford Handbook of Presocratic Philosophy, Classical representations and uses of the presocratics." *Oxford University Press eBooks*, 2008, doi:10.1093/oxfordhb/9780195146875.001.0001.
- Panrama, Louis Ceschino. "Panrama : recherche et production." *Panrama*, www.panrama.net/pages/histoire.html. Accessed 27 Aug. 2023.
- Pápay, Gyula. "Ptolemy's Methodological Principles in the Creation of His Map Projections." *KN - Journal of Cartography and Geographic Information Volume*, vol. 72, no. 2, Mar. 2022, pp. 89–101, doi:10.1007/s42489-022-00101-x.
- Parker, Freda, and John Ochsendorf. "The Pantheon: A Temple to All Gods." *Monolithic Dome Institute*, 26 Apr. 2023, monolithicdome.com/pantheon-a-temple-to-all-gods.
- Parrilha Da Silva, Josie Agatha, and Marcos Cesar Danhoni Neves. *Disturbing the Perspective: The Church against the New Perspective of Galileo and Cigoli*. www.researchgate.net/publication/341626408_Disturbing_the_Perspective_The_Church_against_the_New_Perspective_of_Galileo_and_Cigoli.
- Passage de Venus*. 1874, www.imdb.com/title/tt3155794.
- Pasternack, Alex. "This amazing new planetarium show is like Google Earth for the universe." *Fast Company*, 31 Jan. 2020, www.fastcompany.com/90453808/this-amazing-new-planetarium-show-is-like-google-earth-for-the-universe.
- Paul, Carole. *The First Modern Museums of Art: The Birth of an Institution in 18th- and Early- 19th-Century Europe*. Getty Publications, 2012.
- Péaud, Laura. "Faire discipline : la géographie à la Société de Géographie de Paris entre 1800 et 1850." *Carnets De Géographes*, no. 11, Sept. 2018, doi:10.4000/cdg.1507.
- Peters, Fayola. "Greek Philosophical Terms : A Historical Lexicon." *New York University Press eBooks*, 1967, ci.nii.ac.jp/ncid/BA07562512.
- Pirenne, Henri. *Mohammed and Charlemagne*. Courier Corporation, 2001.

- Pitte, Jean-Robert. "Qui sommes-nous ?" *Société De Géographie*, 18 Dec. 2020, socgeo.com/qui-sommes-nous. Accessed 21 July 2023.
- Ponte, Alessandra. "Clair de Terre, Paris 1900." *Transbordeur. Photographie Histoire Société*, vol. 4, 2020, pp. 128–43.
- Popper, Karl. "The World of Parmenides." *Routledge eBooks*, 2012, doi:10.4324/9780203120361.
- Pythagoreanism* | *Encyclopedia.com*. www.encyclopedia.com/history/dictionaries-thesauruses-pictures-and-press-releases/pythagoreanism.
- Raisz, Erwin. *General Cartography*. New York : McGraw-Hill Book Company, 1948.
- Ramachandran, Ayesha. *The Worldmakers: Global Imagining in Early Modern Europe*. 2015, chicago.degruyter.com/view/title/560212.
- Randles, W. G. L., and Owen Gingerich. "The Unmaking of the Medieval Christian Cosmos, 1500–1760: From Solid Heavens to Boundless Aether." *Physics Today*, vol. 53, no. 6, AIP Publishing, June 2000, pp. 58–59, doi:10.1063/1.1306376.
- Rappenglück, M. "The 'domestication' of the world into a house and a home: Cosmographic symbolism as a basic expression of the human mind." *Cognitive Archaeology as Symbolic Archaeology, Portugal: British Archaeological Reports*, edited by F. Coimbra and G. Dimitriadis, 2008.
- Rappenglück, M. A. "Heavenly Messengers: The Role of Birds in the Cosmographies and the Cosmovisions of Ancient Cultures." *ASPC*, vol. 409, Aug. 2009, p. 145, ui.adsabs.harvard.edu/abs/2009ASPC..409..145R/abstract.
- Rasmussen, Anne. *L'internationale scientifique 1890-1914*. École des Hautes Études en Sciences Sociales, 1995, www.theses.fr/1995EHES0099.
- Reef Distribution. "Legends of the Northern Sky - Reef Distribution." *Reef Distribution*, 23 Aug. 2023, www.reef-distribution.com/catalogue/legends-of-the-northern-sky.
- Reno, Joshua. "Earths." *Punctum Books, Anthropocene Unseen*, 2020, pp. 133–37, doi:10.2307/j.ctv11hptbw.23.
- Ridpath, Ian. *Constellation boundaries*. www.ianridpath.com/boundaries.html#:~:text=ONE%20of%20the%20tasks%20undertaken,had%20no%20properly%20defined%20boundaries. Accessed 25 July 2023.
- . *Star Tales - the Dürer hemispheres*. www.ianridpath.com/startales/durer.html. Accessed 17 July 2023.
- Ridpath, Ian, and Wil Tirion. *Stars and Planets: The Complete Guide to the Stars, Constellations, and the Solar System*. 2017.
- Riley, Mark J. "Ptolemy's Use of His Predecessors' Data." *Transactions of the American Philological Association*, vol. 125, Johns Hopkins UP, Jan. 1995, p. 221, doi:10.2307/284353.
- Rius Piniés, Mònica. "Science in Western islam : circulation of knowledge in the Mediterranean." *Springer eBooks, Biographical Encyclopedia of Astronomers*, Jan. 2014, doi:10.1007/978-1-4419-9917-7.
- Rivera, Dorothy. "Christian Science Sentinel. 'Items of Interest.'" *Christian Science Publications, Chester Lindsay Churchill*, 1932.

- Robins, Anthony W. "DAILY NEWS BUILDING." *Landmarks Preservation Commission*, 1980, s-media.nyc.gov/agencies/lpc/lp/1982.pdf.
- Romm, James. "The Edges of the Earth in Ancient Thought: Geography, Exploration, and Fiction." *American Journal of Philology*, vol. 115, no. 2, Johns Hopkins UP, Jan. 1994, p. 304, doi:10.2307/295308.
- Rosen, Edward M. "The Dissolution of the Solid Celestial Spheres." *Journal of the History of Ideas*, vol. 46, no. 1, Jan. 1985, p. 13, doi:10.2307/2709773.
- Rosenheim, Jeff L. "Électricité - MetCollects -." *The Metropolitan Museum of Art*, www.metmuseum.org/art/online-features/metcollects/man-ray-electricite. Accessed 25 July 2023.
- Ross, Julian. *Beyond the frame. Intermedia and expanded cinema in 1960-1970s Japan*. The University of Leeds School of Modern Languages and Cultures Centre for World Cinemas, 2014.
- Rubenstein, Richard. *Aristotle's Children: How Christians, Muslims, and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages*. 2003, activity.scar.gmu.edu/book/aristotles-children-how-christians-muslims-and-jews-rediscovered-ancient-wisdom-and-illuminated.
- Ruiz-Lapuente, P. "On The Nature of Tycho Brahe's Supernova." *Frontiers in Astronomy and Space Sciences*, vol. 10, Frontiers Media, Mar. 2023, doi:10.3389/fspas.2023.1112880.
- Runia, David T. "The Sources for Presocratic Philosophy." *Oxford University Press eBooks*, 2009, pp. 27–54, doi:10.1093/oxfordhb/9780195146875.003.0002.
- Ryan, John. *PhD Thesis Science and Poetry in the Early Reception of Aratus' Phaenomena*. Graduate School of the University of Cincinnati, Department of Classics of the College of Arts and Sciences, 2016, etd.ohiolink.edu/apexprod/rws_etd/send_file/send?accession=ucin1464964828&disposition=inline.
- Ryan Wyatt. "International One Sky Project Highlights Importance and History of Indigenous Astronomy Through Film." *TIO*, www.tmt.org/news/603. Accessed 14 Feb. 2024.
- Sandywell, Barry. *Presocratic Reflexivity: The Construction of Philosophical Discourse c. 600-450 B.C.: Logological Investigations: Volume Three*. Routledge, 2002.
- Sauron, Gilles. "Architectural Representation of the Kosmos from Varro to Hadrian." *Cosmos in the Ancient World*, edited by Phillip Sidney Horky, Cambridge UP, 2019, pp. 232–47, doi:10.1017/9781108529082.
- Savage-Smith, Emilie. "Celestial Mapping." *The History of Cartography, Book 1, Cartography in the Traditional Islamic and South Asian Societies*, vol. 2, Chicago: University of Chicago Press, 1992, pp. 12–70.
- . *Islamicate Celestial Globes, Their History, Construction, and Use*. 1985.
- Schaumberg, Erica M. *Carved Ivory Puzzle Balls – Wonders of Nature and Artifice*. wonder-cabinet.sites.gettysburg.edu/2017/cabinet/carved-ivory-puzzle-balls. Accessed 8 July 2024.
- Scheid, John, and Jesper Svenbro. *The Craft of Zeus: Myths of Weaving and Fabric*. 1996, ci.nii.ac.jp/ncid/BA27575812.

- Schmitt, Carl. *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum*. Telos Press Publishing, 2006.
- Schneider, Laurel C. *Beyond Monotheism: A Theology of Multiplicity*. Routledge, 2007, philpapers.org/rec/SCHBMA-3.
- Sedley, David. "Empedoclean Superorganisms." *Rhizomata*, vol. 4, no. 1, De Gruyter, Jan. 2016, doi:10.1515/rhiz-2016-0006.
- Shah, Nadiya. "The Disenchantment of Modernity and The Re-Enchantment of the Cosmos." *Shah, Nadiya.*, 7 June 2019, www.nadiyashah.com/articles. Accessed 16 May 2020.
- Shah, Nisha K. "Cosmopolitanizing and decosmopolitanizing globalization: Metaphorical re-description and transformations of political community." *Globalizations*, vol. 3, no. 3, Taylor and Francis, Sept. 2006, pp. 393–411, doi:10.1080/14747730600870258.
- Shahîd, Irfan. *Byzantium and the Arabs Late Antiquity*. 2006.
- Sloterdijk, Peter. *Globes: Spheres Volume II: Macrospherology*. National Geographic Books, 2014.
- . *Globes: Spheres Volume II: Macrospherology*. National Geographic Books, 2014.
- Small, Robin. "Nietzsche and a Platonist Tradition of the Cosmos: Center Everywhere and Circumference Nowhere." *Journal of the History of Ideas*, vol. 44, no. 1, University of Pennsylvania Press, Jan. 1983, p. 89, doi:10.2307/2709306.
- Smith, Earl Baldwin. *The Dome: A Study in the History of Ideas*. 1971.
- Societegeo. "Manifeste « Redonner le goût de la géographie pour mieux habiter la planète »." *Société De Géographie*, 20 Apr. 2021, socgeo.com/2021/04/20/manifeste-redonner-le-gout-de-la-geographie-pour-mieux-habiter-la-planete. Accessed 21 July 2023.
- Söderlund, Inga Elmqvist Söderlund. "Inga Elmqvist Söderlund. Taking Possession of Astronomy: Frontispieces and Illustrated Title Pages in 17th-Century Books on Astronomy. The Center for History of Science. Stockholm: The Royal Swedish Academy of Sciences, 2010. 400 pp. index. append. illus. bibl. 150 SKr. ISBN: 978-91-7190-137-8." *Renaissance Quarterly*, vol. 64, no. 2, University of Chicago Press, Jan. 2011, pp. 584–87, doi:10.1086/661826.
- Soltes, Ori Z. "The Emotive Power of an Evolving Symbol: The Idea of the Dome from Kurgan Graves to the Florentine Tempio Israelitico." *DigitalGeorgetown, Georgetown University*, Dec. 2013, repository.library.georgetown.edu/handle/10822/707296.
- Sparavigna, Amelia Carolina. "From Rome to the Antipodes: The Medieval Form of the World." *International Journal of Literature and Arts*, vol. 1, no. 2, Science Publishing Group, Jan. 2013, p. 16, doi:10.11648/j.ijla.20130102.11.
- Sparavigna, Amelia Carolina, and Lidia Dastrù. "The Pantheon, eye of Rome, and its glimpse of the sky." *HAL Open Science*, 2017, hal.science/hal-01800694/document.
- Staal, Julius D. W. *The New Patterns in the Sky: Myths and Legends of the Stars*. 1988.

- Stahl, William H. "The Greek Heliocentric Theory and Its Abandonment." *Transactions and Proceedings of the American Philological Association*, vol. 76, Johns Hopkins UP, Jan. 1945, p. 321, doi:10.2307/283344.
- Sullivan, Jill A. *Popular Exhibitions, Science and Showmanship, 1840–1910*. Routledge, 2015.
- Sutton, Gloria. *The Experience Machine: Stan VanDerBeek's Movie-Drome and Expanded Cinema*. MIT Press, 2015.
- Szpakowska-Loranc, Ernestyna. "The Sphere in Architecture as an Example of an Elementary Form." *Czasopismo Techniczne*, vol. 6, Wydawnictwo Uniwersytetu Jagiellońskiego, Jan. 2019, pp. 91–106, doi:10.4467/2353737xct.19.063.10616.
- Tatarkiewicz, Władysław. "Paradoxes of Perfection." *Dialectics and Humanism: The Polish Philosophical Quarterly*, translated by Christopher Kasparek, vol. VII, no. 1, Philosophy Documentation Center, Jan. 1980, doi:10.5840/dialecticshumanism19807159.
- "TELUS World of Science." *TELUS World of Science*, telusworldofscienceedmonton.ca/explore/experiences/legends-northern-sky.
- "The Terrestrial Globe at the Paris Exhibition." *Nature*, vol. 40, no. 1029, Nature Portfolio, July 1889, pp. 278–80, doi:10.1038/040278b0.
- Terzoglou, Nikolaos-Ion. "Ideas of space from Isaac Newton to Étienne-Louis Boullée." *SAJAH*, vol. 27, no. 1, 2012, pp. 29–44.
- The Editors of Encyclopaedia Britannica. "Conrad Malte-Brun | Geographer, Cartographer, Historian." *Encyclopedia Britannica*, 20 July 1998, www.britannica.com/biography/Conrad-Malte-Brun. Accessed 21 July 2023.
- Thuras, Dylan. "100 Wonders: The Mapparium." *Atlas Obscura*, 19 Apr. 2016, atlasobscura.com/articles/100-wonders-the-mapparium. Accessed 27 July 2023.
- Timpano, Andrea. "Boston Landmark: The Mapparium." *Boston Magazine*, 23 Feb. 2016, www.bostonmagazine.com/property/2015/12/01/mapparium. Accessed 27 July 2023.
- Tosi, Virgilio. *Cinema Before Cinema: The Origins of Scientific Cinematography*. British Universities Film and Video, 2005.
- Toute la mémoire du monde (All the Memory in the World)*. 1956, www.imdb.com/title/tt0049869.
- Trubshaw, Don. "The Re-Enchantment of the World' as Social Theory and Critique." *Societal Values*, 13 June 2017, www.societalvalues.co.uk/the-re-enchantment-of-the-world-as-theoretical-critique-and-social-practice. Accessed 16 May 2020.
- Turner, Edith. *Communitas: The Anthropology of Collective Joy*. Palgrave Macmillan, 2011.
- Turner, Victor. "Liminal to Liminoid, in Play, Flow, and Ritual: An Essay in Comparative Symbolology." *Rice Institute Pamphlet - Rice University Studies*, vol. 60, no. 3, July 1974, scholarship.rice.edu/handle/1911/63159.
- Usanmaz, Uygur Ozan. "A Glimpse into the Origins of Roman Concrete Domes." *Akdeniz Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (AKSOS)*, 2022, pp. 30–52.

- Vamvacas, Constantine J. *The Founders of Western Thought – The Presocratics: A diachronic parallelism between Presocratic Thought and Philosophy and the Natural Sciences*. Springer Science and Business Media, 2009.
- VanDerBeek, Stan. “Cine Dreams.” *stanvanderbeek.com*, 20 Feb. 1972, stanvanderbeek.com/_PDF/CineDreams_final.pdf. Accessed 27 Aug. 2023.
- Vanderbeek, Stan. “‘Culture: Intercom’ and Expanded Cinema: A Proposal and Manifesto.” *The Tulane Drama Review*, vol. 11, no. 1, Jan. 1966, pp. 38–48, doi:10.2307/1125263.
- Vaquero, J. M., and M. Vázquez. *The Sun Recorded Through History*. Springer Science and Business Media, 2009.
- Vermeer, Johannes. *The Astronomer*. 1668, collections.louvre.fr/en/ark:/53355/cl010064324.
- . *The Geographer*. 1669, sammlung.staedelmuseum.de/en/work/the-geographer.
- Villedieu, Françoise. “Les secrets de la salle à manger de Néron.” *LEFIGARO*, 21 Dec. 2018, www.lefigaro.fr/histoire/2018/12/21/26001-20181221ARTFIG00122-les-secrets-de-la-salle-a-manger-de-neron.php.
- Villiger, Walter. *Das Zeiss-Planetarium*. 1926.
- Virilio, Paul. *Open Sky*. Verso, 1997.
- . *Politics of the Very Worst: An Interview by Philippe Petit*. Semiotext, 1999.
- Volker, Judy. *Star Lore Mythology*. judy-volker.com/StarLore/Myths/MythsandLegends.html. Accessed 17 July 2023.
- Von Falkenhausen, Susanne. “The Sphere: Reading a Gender Metaphor in the Architecture of Modern Cults of Identity.” *Art History*, vol. 20, no. 2, Wiley-Blackwell, June 1997, pp. 238–67, doi:10.1111/1467-8365.00057.
- Waite, Clea Theresa Von Chamier. *SOMATIC MONTAGE SUPRA-DIMENSIONAL COMPOSITION IN CINEMA AND THE ARTS*. FACULTY OF THE USC GRADUATE SCHOOL UNIVERSITY OF SOUTHERN CALIFORNIA, 2019.
- Wallerstein, Immanuel. “The Modern World-System and Evolution.” *Journal of World-Systems Research*, Aug. 1995, pp. 512–22, doi:10.5195/jwsr.1995.46.
- Weibel, Peter. “The Post-Medial Condition.” *Arte ConTexto*, vol. 6, 2005, pp. 11–15.
- Weigel, Erhard. “Der Pancosmos von Erhard Weigel | Erhard Weigel (1625–1699), Pancosmus Aethereus and Sublunaris, hoc est, Nova Globi Coelestis & Terrestris Adornatio. Jena.” *Erhard-Weigel-Gesellschaft*, 1670, www.erhard-weigel-gesellschaft.de/weigeliana/himmelsgloben/pancosmos/#f3. Accessed 20 July 2023.
- Weinhold, Ulrike. “Carrying the world on his shoulders-reflections on the two globe goblets from Augsburg in the Grünes Gewölbe (historic green vault) in Dresden, Germany.” *Globe Studies, International Coronelli Society for the Study of Globes*, vol. 59/60, 2014, pp. 126–41, www.jstor.org/stable/44755480.
- Wellmann, Janina. *Cinematography, Seriality, and the Sciences*. 2011.
- . “Science and Cinema.” *Science in Context*, Cambridge UP, July 2011, doi:10.1017/s0269889711000135.

- Werner, Michael, and Bénédicte Zimmermann. "Penser L'histoire Croisée : Entre Empirie Et Réflexivité." *Annales. Histoire, Sciences Sociales*, vol. 58, no. 1, Feb. 2003, pp. 5–36, doi:10.1017/s0395264900002547.
- "Western philosophy | History, Figures, Schools, Movements, Books, Beliefs, and Facts." *Encyclopedia Britannica*, 6 June 2023, www.britannica.com/topic/Western-philosophy/Ancient-Greek-and-Roman-philosophy.
- Wilkins, Peter, editor. "The Pantheon as a Globe-Shaped Conception." *The Pantheon: "Symbol of the universe" and "The Interpretation in Northern Europe,"* 2002.
- Williams, Matt. "Southern Cross Constellation - Universe Today." *Universe Today*, 26 Apr. 2016, www.universetoday.com/85158/southern-cross-constellation. Accessed 17 July 2023.
- Wilson, Raymond N. *Reflecting Telescope Optics I: Basic Design Theory and its Historical Development*. Springer, 2014.
- Winther, Rasmus Grønfeldt. "Cutting the Cord: A Corrective for World Navels in Cartography and Science." *The Cartographic Journal*, vol. 57, no. 2, Mar. 2019, pp. 147–59, doi:10.1080/00087041.2018.1534043.
- . "World Navels." *Cartouche*, no. 89, 2014.
- Wood, R. W. "XXIII. Fish-eye Views, and Vision Under Water." *The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science*, vol. 12, no. 68, Taylor and Francis, Aug. 1906, pp. 159–62, doi:10.1080/14786440609463529.
- Wörz, Adèle Lorraine. *The Visualization of Perspective Systems and Iconology in Dürer's Cartographic Works: An In-Depth Analysis Using Multiple Methodological Approaches*. Oregon State University, 2006.
- Wright, M. R. *Cosmology in Antiquity*. Burns and Oates, 1995.
- Wright, Michael. *Archimedes - Archimedes' planetarium*. exhibits.museogalileo.it/archimedes/object/ArchimedesPlanetarium.html. Accessed 7 July 2023.
- . "THE PLANETARIUM OF ARCHIMEDES." *Centre for the History of Science, Technology and Medicine, Imperial College*, 2012.
- Yavetz, Ido. "On the Homocentric Spheres of Eudoxus." *Archive for History of Exact Sciences*, vol. 52, no. 3, Springer Science+Business Media, Feb. 1998, pp. 221–78, doi:10.1007/s004070050017.
- Youngblood, Gene. *Expanded Cinema: Introd. by R. Buckminster Fuller*. 1970.
- Yu, K.C., et al. "Gaia Journeys: A Museum-based Immersive Performance Exploration of the Earth." *International Journal of Digital Earth*, vol. 2, no. 1, Mar. 2009, pp. 44–58, doi:10.1080/17538940902745951.
- Yu, Ka Chun, et al. "DATA TO DOME 06/14, the Ground Beneath Our Feet: Earth Sciences in the Planetarium." *Planetarian September 2014 - Vol. 43, No. 2*, Sept. 2014, www.ips-planetarium.org/page/%20DataDome0614. Accessed 8 July 2023.
- Zalasiewicz, Jan, et al. "Scale and Diversity of the Physical Technosphere: A Geological Perspective." *the α Anthropocene Review*, vol. 4, no. 1, Nov. 2016, pp. 9–22, doi:10.1177/2053019616677743.
- Zedda, Sergio, and M. R. Wrig. "How to build a world soul: a practical guide." *Reason and Necessity, Essays on Plato's Timaeus*, 2000, pp. 23–43.

- Zeyl, Donald, and Barbara Sattler. *Plato's Timaeus (Stanford Encyclopedia of Philosophy)*. 13 May 2022, plato.stanford.edu/entries/plato-timaeus.
- Zhang, Peter. "Media Ecology and Techno-ethics in Paul Virilio." *Explorations in Media Ecology*, vol. 12, no. 3, Dec. 2013, pp. 241–57, doi:10.1386/eme.12.3-4.241_1.
- Zucker, Arnaud. "Exploring the Relevance of the Star-positions in the Medieval Illuminated Manuscripts of Hyginus' De Astronomia." *HAL (Le Centre pour la Communication Scientifique Directe)*, French National Centre for Scientific Research, 2017, hal.science/hal-02264747.
- Zylinska, Joanna. *Nonhuman Photography (The MIT Press)*. 1st ed., The MIT Press, 2017.

Case studies

- "Bella Gaia Beautiful Earth." Bella Gaia - Beautiful Earth, 2019 Remedy Arts, www.bellagaia.com/ events.html. Accessed 16 June 2020.
- "Dynamic Earth – Fulldome Show." *Fulldome Database*, Fddb, 2012, www.fddb.org/fulldome-shows/dynamic-earth. Accessed 16 May 2020.
- Fraction. "ENTROPIA." *Vimeo*, uploaded by Fraction, 6 May 2015, vimeo.com/129903465. Accessed 16 May 2020.
- "Fragile Planet: Earth's Place in the Universe – Fulldome Show." *Fddb*, 2008, www.fddb.org/fulldome-shows/fragile-planet-earths-place-in-the-universe. Accessed 16 May 2020.
- "Future Room and Liminal Spaces (Re-Edited) 360° Film screening." In Kepler's Gardens, Ars Electronica Linz GmbH & Co KG, ars.electronica.art/keplersgardens/en/future-room/?fbclid=IwAR1Tg3JtZ9Uh07Qyti9g9ZASctNu9oAyAdVwCBM7Np17ggzYHMeFTBKVcr4. Accessed 16 May 2020.
- "HOW IT WAS TOLD TO ME: Māori Legends From New Zealand (2014, 2016, 2019, 2020)." *Fddb*, www.fddb.org/fulldome-shows/how-it-was-told-to-me-maori-legends-from-new-zealand. Accessed 17 Mar. 2024.
- Interaction, Tangible. "OH! For Science World." *Vimeo*, uploaded by Tangible Interaction, 5 Oct. 2018, vimeo.com/258193854. Accessed 16 May 2020.
- "Legends of the Northern Sky (2019)." *Fddb*, www.fddb.org/fulldome-shows/legends-of-the-northern-sky. Accessed 17 Mar. 2024.
- "Mission Earth – Fulldome Show." *Fddb*, 2019, www.fddb.org/fulldome-shows/mission-earth. Accessed 16 May 2020.
- MySquare, Francois Moncarey. "KosmoVision-MySquare-2019." *Vimeo*, uploaded by Francois Moncarey, 1 Feb. 2020, vimeo.com/388964788. Accessed 16 May 2020.
- "One Sky." OneSkyProject, oneskyproject.org. Accessed 17 Mar. 2024.

- “Our Living Climate – Fulldome Show.” *FDDDB*, 2019, www.fddb.org/fulldome-shows/our-living-climate. Accessed 16 May 2020.
- Pluriel, Kondition. “Future Room - a 360° Fulldome Installation.” Vimeo, uploaded by konditionpluriel, 27 Jan. 2020, vimeo.com/387432819. Accessed 16 May 2020.
- “Songlines: Tracking the Seven Sisters (2017).” National Museum Australia, www.nma.gov.au/exhibitions/songlines. Accessed 17 Mar. 2024.
- “Star Dreaming.” *FDDDB*, 2021, www.fddb.org/fulldome-shows/star-dreaming. Accessed 17 Mar. 2024.
- “Super Salvador – Fulldome Show.” *FDDDB*, 2019, www.fddb.org/fulldome-shows/super-salvador. Accessed 16 May 2020.
- “The Trouble with Space Junk | Flandrau Science Center & Planetarium.” *FLANDRAU Science Center and Planetarium*, The Arizona Board of Regents on behalf of The University of Arizona, flandrau.org/news/2019/02/trouble-space-junk. Accessed 16 May 2020.