Aestimatio
Sources and Studies in the History of Science

Cycles de la nature, cycles de l'histoire: de la découverte des météores à la fin de l'âge d'or edited by Estelle Bertrand and Rita Compatangelo-Soussignan

Courtney Roby

Volume 2, Number 1, 2021

URI: https://id.erudit.org/iderudit/1087171ar
DOI: https://doi.org/10.33137/aestimatio.v2i1.37722

See table of contents

Publisher(s)

Institute for Research in Classical Philosophy and Science

ISSN

1549-4470 (print)
1549-4497 (digital)

Explore this journal

Cite this review

Roby, C. (2021). Review of [Cycles de la nature, cycles de l'histoire: de la découverte des météores à la fin de l'âge d'or edited by Estelle Bertrand and Rita Compatangelo-Soussignan].*Aestimatio*, *2*(1), 141–144. https://doi.org/10.33137/aestimatio.v2i1.37722

Cycles de la nature, cycles de l'histoire: de la découverte des météores à la fin de l'âge d'or edited by Estelle Bertrand and Rita Compatangelo-Soussignan

Scripta Antiqua 76. Bordeaux: Ausonius éditions, 2015. Pp. 296. ISBN 978–2–35613–128–7. Paper €25.00

Reviewed by
Courtney Roby*
Cornell University
croby@cornell.edu

This volume of essays represents the fruit of an ambitious project driven by two working groups (Sociétés, milieux, climats and Normes et représentations du pouvoir) of the Centre de Recherche en Archéologie, Archéosciences, Histoire at Le Mans Université.[1] The project aims to explore theories from antiquity about the cyclical patterns that guide both natural processes and human history, and at the same time to question the place of those theories in the modern world, where scientific exploration comes to be dominated by theories of linear progress rather than cyclical repetition.

This is obviously a weighty analytical task, and it is to the credit of the editors that this compact volume manages to take in as many of the relevant questions as it does. Naturally, the reader does not leave the volume feeling that the questions have been settled. Rather, the volume serves as a provocation to think not only about the questions addressed by the individual essays, but also about the challenges and rewards of attempting to establish a mutually intelligible conversation between the histories of premodern and modern science, incommensurable as they are often regarded.

The editors have opted to bisect the essays into the eponymous "cycles de la nature" and "cycles de l'histoire", but to indicate in the brief preface to the volume (each of the two halves also receives its own brisk introduction) that the reader should expect analogies, reflections, and symmetries to bind the two halves together. The strategies employed by ancient authors to liken

* Courtney Roby is an associate professor of classics at Cornell University. Her work focuses on the literary and cognitive aspects of ancient Greek and Roman writing on science and technology. She is currently finishing a monograph on Hero of Alexandria, to be published by Cambridge University Press.

[1] http://www.univ-lemans.fr/fr/recherche/panorama-de-la-recherche/les-laboratoires/creaah.html.

the duration of mankind to the life of a man (with an infancy, prime, and old age) or to the span of a day (with a dawn, noon, twilight, and dark), or to liken a single human being to a world (in the Democritean tag with which the editors close the volume), are a constant refrain here.

The volume's essays on ancient science largely land in "meteorological" territory, in both the ancient and the modern senses of the word: floods and weather cycles, comets, and tides—a welcome addition to a corpus of scholarship on ancient meteorology recently brought more into the mainstream by Liba Taub's *Ancient Meteorology*. The initial essay, by Germaine Aujac, casts a glance further upward into the celestial domain, offering an informative yet readable review of the cycles of celestial bodies through the eyes of Geminus, Hipparchus, and Ptolemy. The second brings the reader back down to Earth for Frédéric Le Blay's consideration of analogical links between meteorological and medical thought in Aristotle and the Stoics, arguably the volume's strongest fulfillment of the preface's promise to invoke connections between biological and cosmic cycles.

Modern science, or at any rate geoscience, appears in the form of two essays inset within the "cycles de la nature" section: Pierre Savaton's "James Hutton (1726–1797): pour une histoire cyclique de la surface du globe" and Nathalie Richard's "Cycles glaciaires et préhistoire humaine: les premiers débats (France et Grande-Bretagne, 1850–1914)". Savaton traces the biography and career of Hutton, whose *Theory of the Earth* (1795) proposed that the Earth was subject to a never-ending cycle of self-formation, as rocks were upheaved by subterranean heat, eroded, and shifted to new sites to be transformed anew through heat, pressure, and sedimentation. Hutton's cyclical theory is often situated in a simplistic narrative of the struggle of "modern" geology to supplant biblical theories of the Earth's sharply delimited temporality. Savaton's treatment provides a more nuanced view of Hutton's influences (including Descartes, Hooke, and Buffon) and the development of his theories in the competitive crucible of contemporary scientific discourse.

A still more productive reflection on ancient and modern thinking about history (natural and unnatural) caps Philippe Leveau's chapter on meteorological prodigies and catastrophes in antiquity, where he uses the recent earthquake at Aquila as a lens for comparing modern and ancient reactions to anomalous meteorological phenomena that damaged cherished religious images after not having been correctly predicted by technical experts (be they seismologists or haruspices). Leveau begins his essay by reflecting on the "deep past" proposed in Stephen Jay Gould's *Time's Arrow, Time's Cycle*,

follows through by considering data on floods of the Tiber from the fifth century BC to the present alongside more discursive accounts from ancient historians, and ultimately concludes with some provocative comparisons between ancient and modern ways of conceiving temporality. This comes with nods to Jean-Louis Le Moigne's discrimination between "entropique", "anthropique", and "téléologique" ways of conceiving ecological time-frames, as well as David Lewis' modal theory. This essay is perhaps the volume's most successful marriage of big ideas that span natural and human history, literature and science, antiquity and modernity.

Anca Dan also works to span the distance between antiquity and modernity by mentioning modern investigations into the geology and hydrology of the Black Sea. Questions about the currents leading into and out of the Black Sea, particularly the "double current" of the Bosphorus, and concomitant questions about the shifting geology of the area, fascinated authors including the Presocratics, Eratosthenes, Strabo, Seneca, and Diogenes of Apollonia. Dan situates these ancient readings of the peculiarities of the Black Sea in a richly meaningful context of ancient chronological thought, finding in Pontus an opportunity to question the conventional focus on cyclical models of time in antiquity and to tease out some fascinating ancient thinking about linear flows of time. While she is principally concerned with the changing significance of "Pontus" as a cultural touchstone for the "tension" between linear and cyclical models of time in antiquity, Dan touches as well on modern hydrological theories about the Bosphorus and the Black Sea's geomorphology more generally.

Out of regard for the readers of *Aestimatio*, I have focused principally on the chapters of the volume of interest to historians of science, and in doing so have surely done injustice to the chapters oriented more purely toward historiography. A few words, then, about some standouts among these.

Christian cosmology makes its most sustained appearance in Therese Fuhrer's "Déchéance – échecs – régénération: une figure de pensée dans la littérature antique", which traces thinking about the world's old age from the myth of the "Iron Age," through Christian thought of late antiquity, to Gibbon's *Decline and Fall*. Without question the second of these is Fuhrer's primary concern.

Abdellatif Idrissi offers the volume a glimpse of the development of Muslim models of historiography, beginning from the institution of the Hegira cycle and its gradual incorporation of the traditions of *hadith* and prophetic biography, which carried historiographical weight of their own. Idrissi further

follows the adaptation of Arab Muslim historiography as it absorbed and responded to the Persian historiography of the Sassanids, Roman imperial history, and even the Greek past (largely in the form of fantastical histories of Alexander and his line). This multilayered history was marked, Idrissi argues, by a kind of "selective amnesia" which allowed Muslim historians to craft a richly multicultural narrative that nevertheless remained theirs distinctly.

In short, this volume offers the reader a varied menu of thought-provoking readings, and while one might wish that the collection were integrated more robustly as a whole, this fascinating and ambitious project certainly serves to suggest a wide field of future work that promises to bring scholars of ancient science and ancient history into closer touch. The editors follow Aldo Schiavone's *Storia e destino* in proposing a "spiral" as an alternative to a purely cyclical or linear topology of time. While Schiavone's model does not in any sense become a guiding dogma of the volume's essays as a group, it does stand as a neat symbol for the potential trajectory of the work done here: onward and outward.