

the mouth and nostrils of victims as well as to the bowels through the anus by means of a tube. By the late eighteenth century, after the fashion of surgical kits produced for voyaging and the elaboration of varied apparatuses for delivering clysters, dedicated technologies arose for making tobacco smoke and directing it to internal organs. By 1776 the Scots surgeon John Hunter worried that application of tobacco smoke compromised the “animal forces” of the victim, yet the London Humane Society continued recommending tobacco smoke therapy.

Part 4 examines a heterogeneous collection of myths, popular culture, and legends and brings in Jonathan Swift’s satirical *Gulliver’s Travels* and De Maillet’s *Telliamed*. Here Serdeczny’s interest is in the cultural repository of motifs for contextualizing resuscitation. It also strives to connect reanimation with transgressive carnivalesque practices enumerated in Mikhail Bakhtin’s studies of Rabelais and to a lesser extent in the scholarship of Natalie Z. Davis. There may indeed be a connection between reanimation techniques and popular cultural events and certainly there are similarities of gesture, restorative or not, involving tubes or straws and derrieres. Nonetheless, I found myself asking, for example, for firmer connections between the infusion of either air or tobacco smoke into drowning victims and ancient theories of pneuma (or breath), soul, and tobacco smoke as therapy. The value of this study resides in the novelty of its topic and the attempts of the author to connect diverse genres of sources. It should appeal especially to scholars of Enlightenment France and literary scholars and others interested in the carnivalesque.

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**Gerhardt Stenger** (Editor). *Les singularités de la nature*. (Complete Works of Voltaire, 65B.) xxi + 383 pp., figs., index. Oxford: Voltaire Foundation, 2017. £105 (cloth). ISBN 9780729411523.

This volume of the immense *Complete Works of Voltaire* project, begun in 1968 and yet to be completed, must have been a real challenge for the editors. In *Les singularités de la nature*, first published in 1768, the peculiarity of Voltaire’s mind and his vast and eclectic erudition are at their most evident, and the editors had to help the various types of readers that might open the book navigate through it. Let me say from the start that not only did the editors achieve this goal, but they even manage to leave the reader with a coherent view both of Voltaire’s situation in the history and philosophy of sciences and of the sciences’ role in Voltaire’s intellectual trajectory.

*Les singularités de la nature* is a book that Voltaire intended to be a polemical charge against a number of developments in natural philosophy that, in his view, were contributing dangerously to the spread of materialism among his contemporaries. The text presents itself as a collection of thirty-eight short and witty essays on a variety of subjects, ranging from fossils and snails to the formation of mountains, from the generation of animals and the distribution of races in humankind to the nature of matter. It was written while he was working on alphabetical works like his *Dictionnaire philosophique portatif* and his *Questions sur l’Encyclopédie*. The editors, thus, had to pull together all the documentation that would help contextualize Voltaire’s positions in these various scientific debates and show how these positions varied over time. This documentation is presented in a very exhaustive and accurate footnote apparatus, which presents authors who are the victims of Voltaire’s sarcasms (Needham, Buffon, de Maillet, among others), authors who are his allies (Du Châtelet, Spallanzani, La Sauvagère, etc.), and also those who dared to criticize him (Bonnet, Guettard, and Wartel among them). It also points out a great number of correspondences with other works by Voltaire, highlighting how he was using and reusing his material, sometimes reinterpreting it and even admitting, at times, that he had to change his mind after a particular discovery. Two aspects of Voltaire’s relation to natural philosophy become clear: his strong commitment to a Newtonian

antihypothesis experimental method (often making his own experiments and observations), which led him to reject the audacious conjectures of natural philosophers like Buffon on geological transformation or the evolution of species; and the somewhat skeptical stance he adopts regarding the pretensions of reason to grasp the very principles of nature, which made him suspicious of the precipitous conclusions drawn by some of his contemporaries, like Needham.

In order to give a more complete view of the genesis and the reception of the *Singularités de la nature*, the volume offers some interesting pieces. The first is a “pamphlet” published by Voltaire at the time he was working on his book *Les colimaçons du révérend père l’Escarbotier* (edited by Gerhardt Stenger and Jean Mayer), a fictitious correspondence between a cook-monk and a Thomist father. The former claims to have experimented on the regeneration of snails in his kitchen and sends the Thomist a dissertation he had just received from a physicist who criticizes Needham’s spontaneous generation theory, Buffon’s transformist approach to animal species, and de Maillet’s historical account of the formation of mountains. Interestingly, the Thomist gives theological arguments to support the criticized view, giving the reader the impression that they must be considered as pre-Newtonian conceptions. The volume also offers two very rare texts that are direct critiques of the *Singularités*: a “Réponse à Voltaire au sujet de la formation des pierres et coquilles,” a manuscript by Jean-Etienne Guettard (edited by Patricia Crépin-Obert, who actually found the manuscript), which presents a clear and forceful account of some of Voltaire’s misunderstandings from a scientific point of view; and an excerpt from a reply to Voltaire by Georges Wartel, who defends the biblical chronology of the creation of nature.

Stenger opens the volume with an imposing hundred-page essay entitled “Voltaire naturaliste.” Here he argues for a kind of rehabilitation of Voltaire as a scientist, against an enduring tradition that minimizes such qualities on the grounds that his philosophy and religious beliefs were obstacles. Stenger’s argument—rather convincing—is that if Voltaire did adopt positions that were meant to be rejected by later scientists, it is for good epistemological reasons. After studies of his views in the domains of life sciences, racial anthropology, and Earth sciences, Stenger concludes that Voltaire’s skepticism is essentially a weapon against the “esprit de système” and that, far from limiting the scope of scientific research, his battle against the highly conjectural emerging natural philosophy was an effort to preclude the transgression of the standard of rationality set by Newtonian science.

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## Modern

**Michel Bourdeau; Mary Pickering; Warren Schmaus** (Editors). *Love, Order, and Progress: The Science, Philosophy, and Politics of Auguste Comte*. xi + 402 pp., notes, bibl., index. Pittsburgh: University of Pittsburgh Press, 2018. \$49.95 (cloth). ISBN 9780822945222.

**Johannes Feichtinger; Franz L. Fillafer; Jan Surman** (Editors). *The Worlds of Positivism: A Global Intellectual History, 1770–1930*. xx + 367 pp., index. Cham, Switzerland: Springer, 2018. €96 (cloth). ISBN 9783319657615.

In 1905, the Brazilian mathematician Raimundo Teixeira Mendes traveled to Paris to celebrate the opening of the Temple of Humanity, a chapel of the positivist religion of humanity. Two years earlier, the