

unite without distinction of party.” This book, which requires no more preparation than high school algebra and geometry (and a willingness not to panic at the sight of formulas), harks back to a day when even politicians understood that, in math, beauty is proof and proof beauty.

—David Luban

BUFFON:

A Life in Natural History.

By Jacques Roger. Sarah Lucille

Bonnefoi, trans. L. Pearce

Williams, ed. Cornell University Press.

512 pp. \$49.95

In our time it is nearly impossible for a scholar, however driven, to achieve true eminence both as a scientist and as a philosopher of science. It is even harder to achieve both these goals *and* write a best seller. Not so in the 18th century, when the great questions of scientific method—what is the proper role of hypothesis . . . of received religious truth . . . of observation?—were still urgent and of interest to the reading public. George Louis LeClerc (1707–88), born of upwardly mobile laborers in the small town of Montbard, Burgundy, seized the opportunity for fame offered by these questions. Educated by the Jesuits and later in the law, LeClerc chose a life in science instead. He became the Comte de Buffon and wrote his century’s most celebrated work of natural history, in which he came down on the side of empiricism and materialism, yet managed to avoid the blacklist.

This admirable biography, the lifework of the late French historian of science Jacques Roger, is not driven (or defaced) by any particular sociopolitical-epistemological theory, although Roger was alert to the theoretical implications of his subject. The book provides a rich, expertly documented assessment of Buffon’s science and philosophy, but it does not discount or overlook those scars and blemishes that were the marks of Buffon’s humanity—and of his time.

Buffon was a sycophant and seeker after preferments, who assiduously cultivated his king (Louis XV) and the courtly circle, doled out favors to family and supporters, and heaped scorn on critics and those with less influence. He was also an effective manager of people, of his estate, and of the Jardin du Roi in Paris, which he turned into one of the leading scientific institutions of Europe. He produced an awe-inspiring body of work based not only upon the research of others but upon his own large-scale observations and experiments.

Buffon was the antagonist of the Swedish taxonomist Carol von Linne (Linnaeus, 1707–78) and of all “arbitrary,” hierarchical “systems” of classification. Yet his own system for the investigation of nature was as comprehensive as Aristotle’s. A good deal of it was murky or wrong, even in its day. But some of it was right. Buffon took issue, for example, with the prevailing explanation of embryological development. He argued that the notion of a miniature, preformed being—a “homunculus” or “animalcule” “instantaneously” present in the mixture of male and female sexual fluids—was absurd, a case of infinite regress. Living things are not dolls-within-dolls, he asserted. Against this preformationist view and its powerful clerical support, Buffon proposed his own, empirically based theory that, if not a complete account of epigenesis (the assembly of the embryo from substances in the fertilized egg), was nevertheless a rational and courageous step toward it.

Buffon was a predecessor of Charles Darwin, at least to the extent of his insistence upon natural explanations for natural phenomena—from the formation of the embryo to the origin of the planets. While outwitting the Doctors of the Sorbonne, the censors, and his enemies, and while preserving his reputation and fortune, he helped to set the life sciences on the independent, secular path they have followed ever since.

—Paul R. Gross