

Après lui le déluge

Buffon

by Jacques Roger

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When about to be guillotined in 1794, “Buffonet”, the unfortunate son of the French naturalist Georges Louis Leclerc, Count of Buffon (1707–88), appealed to the people by shouting “Citizens, my name is Buffon!”, in the hope that this would perhaps save him. He was aware that the considerable fame of his late father, who had died a year before the French Revolution, had survived the turmoils of the terror.

Buffonet failed, but Buffon still remains dear to the heart of the French layman. Until the 1950s, French popular books on animals frequently referred to Buffon (*The Children's Buffon*, *The Family's Buffon*, and so on).

What made Buffon so different from other ‘savants’ of the past two centuries? He was admittedly a pioneer of many new fields, tackling such issues as the antiquity of the Earth, the biological species concept and historical biogeography. But time has passed; we now live in the age of evolution, dominated by the glorious shadow of Darwin, and Buffon’s writings sound obsolete.

Jacques Roger (1920–90), a world-renowned historian of eighteenth-century science, devoted most of his academic life to Buffon. His book, first published in French (*Buffon, un Philosophe au Jardin du Roi*, 1989), is now translated into English — admirably so — and provides not only a biography of Buffon, but also a thorough analysis of his views in the framework of the philosophical debates in the second half of the eighteenth century.

Roger points out previously unnoticed aspects of Buffon’s innovative insights, but he also puts back in their right place several overinterpreted sections of Buffon’s 44-volume *Histoire Naturelle Générale et Particulière*.

The French are usually prone to defending humble scientists who are victims of oblivion or authority, such as Lamarck, but their sympathy for Buffon is at odds with this tradition. Buffon was not a victim, nor a rejected genius, nor an introverted scientist. He loved life, food, women, wealth, power and honours, and he was perfectly conscious of the success of his popular style. He was also a good businessman and a talented manager.

Nevertheless, he was moderate enough in both his scientific statements and his political involvements to avoid having severe problems with either the censor or the progressive circles of his time. He seemed to cope very well with his society, although he fore-

saw the revolution (“I see a large movement coming, and no one to lead it”).

What the layman liked above all in Buffon was his skill for popularizing the natural sciences, largely using common sense as a basis for deeper questions, covering all fields from astronomy to anthropology, and all this in an explanatory historical framework that did not seem too shocking to religious minds.

The situation was quite different in academic circles. During his lifetime, Buffon faced strong criticism from some French and foreign scientists (in particular the followers of Linnaeus) who accused him of being a superficial observer, a flabby experimenter and an “empty and bombastic” thinker. During the revolution and empire, Buffon faded into the past as a typical character of the *ancien régime*, although his fame remained great among the public, as shown by the numerous editions of his *Histoire Naturelle*.

With Darwin and the rise of modern evolutionary thought, and until recently, some tried to find in Buffon’s works cryptic allusions to descent with modification. The aim was to show that Buffon was a pioneer of this idea as well, rather than Lamarck who, unjustly, bore alone the burden of the theory of the inheritance of acquired characters. The famous chapter on the ass, where Buffon precisely describes all the evolutionary consequences of the classifications and suddenly rejects them as if in fear of the censor, is often cited as evidence for his transformist convictions.

Roger, however, rejects this interpretation. When Buffon feared the censor, such as in the case of the age of the Earth, he used to express his ideas in a cautious way, as a mere theory, but with numerous factual arguments in support of it. On the contrary, in the case of the ‘transmutation’ of species, his rejection was straightforward because his strict species concept, based on the immutability of the “interior mould” and intersterility through time, could in no way allow it.

Moreover, had he been a transformist, he could have referred to Maupertuis who, in 1751, had already proposed a theory of evolution based on successive, fortuitous mutations within species (to which Darwin later added natural selection). But Buffon rejected this view with a number of arguments that would be repeated by antievolutionists throughout the nineteenth century.

Chapter 14 of Roger’s book will be extremely useful to historians of biology, as it clearly explains Buffon’s concepts of species, genus and family, which are different from Linnaeus’s view and, in addition, changed with time.

Nevertheless, Buffon’s ideas about species and systematics are strangely convergent with those of some modern systematists and phylogeneticists. He considered the species as the only entity in nature that sur-



“Courly rouge du Brésil,” from Buffon’s *Histoire Naturelle des Oiseaux*.

vives unchanged in time, and he regarded groups of species (taxa) as mere speculations based on arbitrary sets of characters. Modern systematists would add that these sets of characters no longer need to be arbitrary if demonstrably inherited from a common ancestor and, in a sense, are more real than species themselves, but they would agree that taxa are not real.

This book is full of amusing anecdotes, such as the vivid reaction of Thomas Jefferson to Buffon’s statement that North American animals were smaller than European ones because North America was cooler than Europe at equal latitude (Buffon was obsessed by the relationship between heat and life). This was unacceptable for Americans and later led Jefferson to try to find living mammoths in the West.

Roger’s book reads like a novel but also explains the rise of Buffon’s ideas in the general context of the debates of his time. Its numerous notes, references and extensive index make it a major tool for historians of science. I would also recommend it to professional biologists and biology students, for whom serious biology often starts only with Darwin.

The book clearly shows that Buffon addressed many questions that are still pertinent to biology and that some sections of his *Histoire Naturelle* are amazingly modern in comparison with later, nineteenth-century views (in particular his observations on the uniqueness and biogeographical history of the human species).

The English translation by Sarah L. Bonnefoi is superb, as it preserves both the accuracy of Roger’s style and the elegance and subtlety of Buffon’s, which he himself regarded as most important in conveying his ideas. □

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