

Francisco Pelayo. *Del diluvio al megaterio: Los orígenes de la paleontología en España*. (Book review in English). *Isis* 91(1):134-135. (2000)

Francisco Pelayo. *Del diluvio al megaterio: Los orígenes de la paleontología en España*. (Cuadernos Galileo de Historia de la Ciencia, 16.) 312 pp., bibl. Madrid: Consejo Superior de Investigaciones Científicas, 1996.

It is uncommon for a pocket book to be so rich in information and so useful for understanding the development of a particular branch of science in a particular country. Understanding the development of paleontology in Spain is what Francisco Pelayo's book is all about.

To be sure, Pelayo is not working in a vacuum. He carefully researched the history of paleontology, particularly in reference to considerations of the origin and nature of fossils since the ancient Greeks and explanations of why marine fossils were found on dry land, especially at great altitudes. Ideas from the universal flood to catastrophism are reviewed. More important, Pelayo carefully describes the influence of non-Spanish authors on Spanish scientists by analyzing their correspondence. He puts special emphasis on the influence of the French among Spanish intellectuals, an influence that began in 1700 with the attempt of Phillip V to imitate the French absolutist model and reached its pinnacle with the translation into Spanish of Buffon's *Histoire naturelle* in 1785.

In chronological order, Pelayo describes the works of Spanish researchers who wrote on fossils, including Benito Jerónimo Feijoo, Antonio

José Rodríguez, and Fernando López de Cárdenas. But it is José Torrubia (1698–1761) who receives the most attention, and rightfully so. Torrubia was a Franciscan monk who collected fossils not only in Spain but also in the Philippines, Cuba, and continental America. At a time when most authors either uncritically copied what others wrote or indulged in unsubstantiated speculation, Torrubia insisted on the importance of fieldwork, the use of modern (and at the time little used) instruments such as the microscope, and the comparison of one's own specimens with those from other collections, something he did thoroughly with collections from Italy and France. Yet all his care did not keep him from believing in fossils of inorganic origin or from suggesting, on the basis of fossil bones from giant ground sloths, that America, particularly Patagonia, had been populated by "giant" humans (*gigantes*).

For Pelayo, Georges Cuvier's scientific description of the fossil ground sloth, the *Megatherium*, in 1796 marks the end of major myths in the development of paleontology, not only in Spain but in the Western world more generally. Curiously, as Pelayo points out, Thomas Jefferson—who some call the first American paleontologist and who later became president—had the opportunity to describe this fossil from Argentina but missed the chance.

This is an extremely well-researched book that represents a key contribution to the early history of paleontology not only in Spain and its colonies but also in Europe. If there is a criticism to be made it is that it lacks a subject and author index. This is unfortunate in a volume in which more than a hundred authors are mentioned.

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