Laura Bossi (ed.), *The Origins of the World: The Invention of Nature in the Nineteenth Century*, Paris: Musée d'Orsay/The Montreal Museum of Fine Arts, 2021, 384 pp. ISBN: 9782354333188

In 2021, the Musée d'Orsay launched an exhibition later presented at the Montreal Musée des beaux-arts. Considering the trace with which we are left, this collective volume edited by the curator, Laura Bossi, it must have been magnificent. It is not easy to review the catalog of an exhibition one has not seen. Neither it is to comment on a thirty-seven-chapter book mobilizing some thirty contributors and canvassing the arts, sciences, letters, and culture of a very long European nineteenth century stretching roughly from Buffon to Kandinsky – in other words, from Enlightenment natural history to the artistic avant-gardes.

To begin with, the edition is impeccable: this is a luxurious volume with beautiful images and carefully-chosen texts. Short and well-written, and some simply brilliant, all the chapters revolve, in one way or another, around one central theme: evolution and its impact in the imaginary of the European nineteenth century, the place of man in nature, and the question of origins – those of the earth, those of mankind, and those of life.

Darwin, Darwinian controversies, social Darwinism, the relationship of Darwinism with socialism, racism, and Nazism, but also the works of Lamarck, Spencer, Huxley, and specially Haeckel take up a good number of the chapters. Like that of Newton for the eighteenth century, the figure Darwin looms large over Western thought and arts during the period between 1859 and 1919. Historians of science will recognize well-known authors in these topics, like Pietro Corsi, who writes on the various theories of evolution that coexisted at the time, and Marie-Noëlle Bourguet, who deals with travels of exploration. These are two important and interrelated topics, since the discovery of time was narrowly tied to new understandings of space: think of "the power of place" at the basis of Darwin's work, to paraphrase Janet Browne, or of the central role of islands and geology in the theory of evolution.

The volume explores capacious themes. That of origins, to take but one example, stretches from the Garden of Eden to J.M.W. Turner's "The Deluge" by way of Athanasius Kircher's take on Noah's Ark. Adam and Eve are the Renaissance precedents to the fossil man – the great enigma, the missing link. When was mankind born? How old is it? Were the earliest forms of mankind different from ours? How many human species have there been? What is a hominid? What was hominization about? Several chapters deal with the beginnings of prehistory and the relations between paleontology, archeology and the history of earth. It is fascinating to learn that a discipline originated in Northern Europe (prehistory's early steps took place in Scandinavia) and fueled by the ideology of progress ended up conquering the Mediterranean and the deep past. If space was important to understand life (hence biogeography, ecological niches, and environmental adaptation), so was time—that multiform element (lineal, cyclical…) the vast dimensions of which were then revealed to biologists thanks to geology.

As one progresses through the book, interesting topics follow one after another: landscape painting, fossils, the way in which oceans came to replace the Garden of Eden as a place of origins. That is why the sea and seaborn creatures occupy such a prominent place in both texts and images of the period: think of Haeckel's jellyfish, coral, or Radiolaria—with geometries that even inspired a pavilion at the 1900 Paris Universal Exposition. And there is of course *Twenty Thousand Leagues Under the Sea*,

with the incredible illustrations by Riou and Neuville and Georges Méliès's cinematographic versions of Jules Verne's novels.

The whole catalog, in fact, seems to take part in the spectacular, almost theatrical spirit of the great universal expositions – as probably did the exhibition from which it is issued. "Step right up!" one seems to hear once and again. Someone pulls a mermaid out of the hat, then a centaur stops by. Here one deals with Art Nouveau and the decorative arts, there another with child art and fauvism; there are Monet's water lilies in here, Odilon Redon's oneiric fantasies in there. Everything fits. The topics of science are many and versatile, their public endless, their genres uncountable.

Among the animals that make an appearance in the catalog, two kinds deserve particular attention: dinosaurs and simians. The former because, from the times of Richard Owen and Benjamin Waterhouse Hawkins's Crystal Palace Dinosaurs in the early 1850s to our days, they are the uncontested stars of preadamite life. The latter because they occupy that disturbing middle space that embraces the ridiculousness and the inner ugliness, as Claude Blanckaert argues in his contribution: that Janus-faced creature that concentrates all the beginnings and all the ends. "Art the Ape of Nature," it is often said. Oscar Wilde thought the contrary: that nature imitated art. In any case, this is a compelling and century-old discussion – one in which if nature said the first word, perhaps it is to art – that is, culture and science – to say the last.

The very last word or image: that of extinction, one of those topics as thick and attractive as a black hole. Much is said in these pages about Georges Cuvier, his catastrophically theories, and his lost worlds. Extinction, obviously, also echoes today's environmental crisis, which awakes some of our ancestral fears. The COVID-19 pandemic and even the hanging threat of a nuclear war are occasionally brought up. To talk about origins is to talk about the end. Life without death has no meaning. "One would say the man is destined to exterminate himself after having rendered the globe inhabitable," said Lamarck, as Fae Brauer reminds us in her revealing chapter.

This and other dualisms are discussed in this very rich catalog. The final chapters, for example, allude to Philippe Descola, Bruno Latour and other gurus of the social sciences that have questioned the dialectics nature/culture as an outdated binomial. The volume is closed with a text by Laurent Grasso in which he comments on one of his films, *Artificialis*, which was projected during the exhibition. It shows various aerial views of eerie and disturbing landscapes that remind us of the climate crisis and the post-Anthropocene debates. He is not the only artist to take part in the catalog – precisely another of the appealing elements of a book conceived for a very diverse readership.

The Origins of the World, in sum, is difficult to summarize and easy to enjoy. Visually, it is simply spectacular: a delight to the eyes. The texts fulfill the most demanding requirements of scholarly popular science, for they combine an engaging style and a broad-ranging approach with the rigor, up-to-dateness, and sophistication of the best academic research. This is, no doubt, an indispensable book for all those interested in the cultural and public dimensions of the life sciences during the long nineteenth century.

Juan Pimentel
IH, CSIC
juan.pimentel@cchs.csic.es