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LETTER FROM THE EDITOR

Heading toward the endless unknown

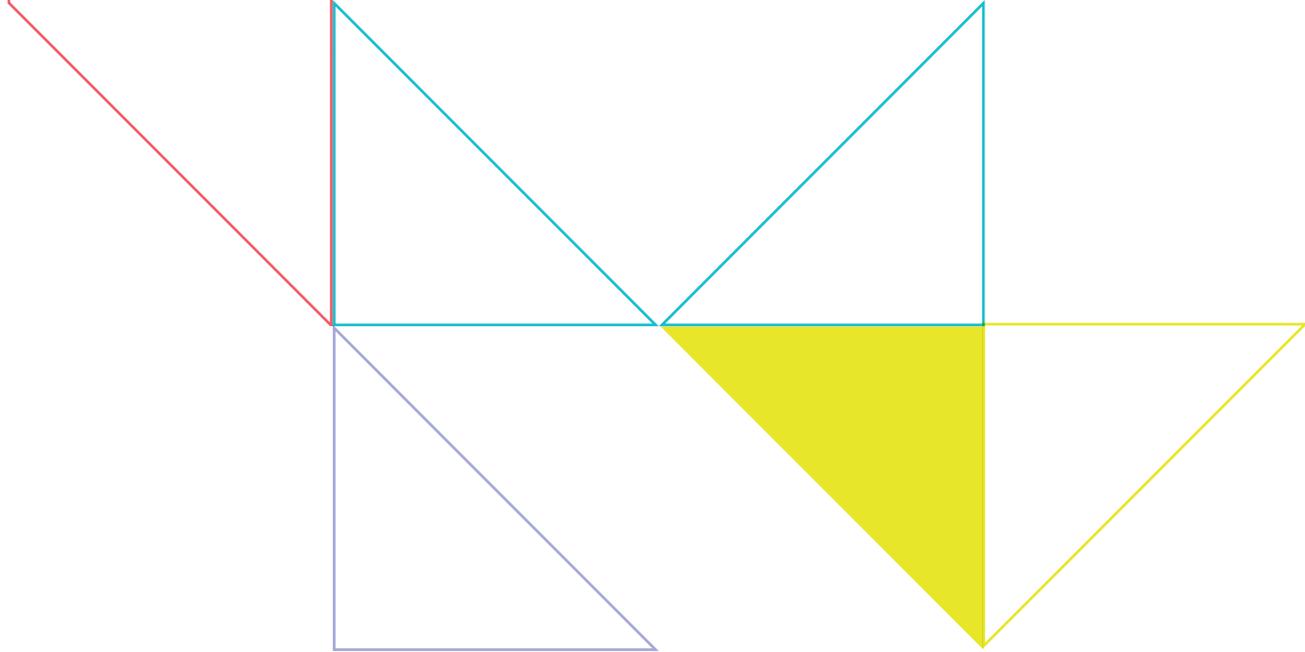
Mariluce Moura

EDITOR IN CHIEF

*“I dared not look into the bottomless pit
I was diving into, perhaps forever. There
was still time to give up.”*

The fine cover story of this *Pesquisa FAPESP* issue gave me an irrepensible wish to reread the Jules Verne 1864 classic *Journey to the Center of the Earth* due to a very basic association. This issue addresses studies that may not accomplish the dream of actually descending into the remotest depths of the Earth (only partially achieved by the audacious Professor Otto Lidenbrock in the French novel) but that probe these depths indefatigably (though, of course, with less risk) by resorting to tools more appropriate for the twenty-first century, such as computer simulations, that are far removed from the rugged adventures of the 1800s. Based on the virtual probing of the interior of our planet, the people responsible for these studies—primarily physicists, rather than geologists—have discovered new information about the structure and transformation of minerals formed thousands of kilometers below the surface of the Earth. They have also strengthened the hypothesis about the existence of a volume of water greater than an ocean that is spread “over the thick mass of rock under our feet,” as explained by our special editor, Carlos Fioravanti, beginning on page 14.

The reference to this mass of water within the Earth, with the word *ocean* (so suggestive of vastness) used as a sensitive measure of volume, may have been what impelled me toward Verne. That huge fictional underground sea on the way to the core of the planet emerged from my memory peopled by formidable prehistoric animals engaged in terrifying fights, shaken by cataclysms, cut by dizzying abysses. Facing this



sea and its astonishing events, now rather pale in my recollection, were three adventurers created by the famous writer: Lidenbrock, his nephew Axel (the narrator), and Hans, the brave and silent Icelandic guide. I had to sharpen these images; to determine how the contemporary *Pesquisa FAPESP* article had removed them from their remote mental refuges, I thirstily returned to the book.

First, I encountered Verne's clear love of science. I had failed to grasp his illuminist nature, broadly speaking, at the age of 10 or 11 years. "Well, I have learnt, Axel, that science can always be improved upon, and that each theory is soon replaced by another more recent one," warns Lidenbrock, talking to his nephew and disciple. These lessons in the abyss shed light upon the scientific method: "Science, my son, is full of errors; but errors that one should learn about, because, little by little, they lead to the truth." Statements about the nature of scientific knowledge are interspersed with explanations about geological, cosmological and biological theories that, at the time, lacked technological and technical solutions. Nevertheless, everything is so well blended and woven into the powerful structure of Jules Verne's narrative, so embedded in the tension-rich adventure toward the center of the Earth, so mixed with the fantastic inventions of the author's imagination, that one can intelligently absorb all this so that it becomes an experience of pure pleasure. I was thinking about this as I was finishing the book, and I suddenly recalled an old and marvelous feeling, one that Verne's works

triggered in me long ago: the feeling that one can do, redo, transform, create, and venture forth into the unknown and discover worlds. I did not yet know the name of the basic tool that Verne identified for this power of being.

Page 54 presents the exciting results of a scientific study in the field of the history of science that *Pesquisa FAPESP* brings to its readers in the cover feature this month. It is exciting because of the description of the adventures that led to finding a powder that suggests a material link between alchemy and chemistry at the venerable Royal Society in England, which excites the human imagination and provides the inclination to unravel (or, at least, to follow) the story of how the mysteries were solved.

This story becomes more interesting when one learns that the substance, after lying forgotten for approximately 350 years in a closed envelope among other documents at the institution's archives, was found by two Brazilian researchers. Nothing is more understandable than enthusiastically supporting our "team." The duo has been dedicated for several years to examining certain periods of the history of science to understand how the construction of scientific knowledge is fuelled by affluence of various sorts, even if, to our contemporary eyes, it seems radically anti-scientific. The authors take important steps in their reconstruction of the history of contemporary science. It is worthwhile to read the fine article by our humanities editor, Carlos Haag, which includes in the survey of the subject a dip, *in loco*, into the documents kept in London. ■