

FROM THE EDITORS

SIMULATIONS AND US

The British psychologist and memeticist Susan Blackmore argues that imitation is the driving force of cultural evolution. Indeed, quite a number of mankind's discoveries and inventions have notably involved copying solutions observed in nature. The practice of model-making – understood as developing an abstract, working representation of a certain fragment of reality that is meant to help us simulate or better understand the whole – lies at the very foundation of scientific inquiry, especially in the natural sciences.

This issue of *Academia* magazine investigates how modern researchers understand the importance of simulations, how they create models and use them in practice. Prof. Lech Łobocki describes the numerical models used in weather forecasting, and Dr. Monika Okońska explains those used to study water migration processes. Scientists from various disciplines are working together to develop systems able to mimic human thought processes well enough to handle certain tough decisions on our behalf; Dr. Aleksandra Przegalińska talks to us about how the creation of truly intelligent systems differs from mere "imitation." Simulations are not just practical tools, however; they are also a method for seeking answers to age-old philosophical dilemmas about how much we can ever truly know and understand about the external world. In the humanities, we frequently encounter the notion of simulation interpreted as an artifice, an illusion, a projected reality, in which the value and importance of things get mixed up. We live surrounded by such fiction and indeed we imbibe it. These fascinating issues are discussed by Prof. Stanisław Filipowicz, Vice-President of the Academy, in a lengthy interview, and also by Dr. Katarzyna Kasia in a pithy essay closing the issue.

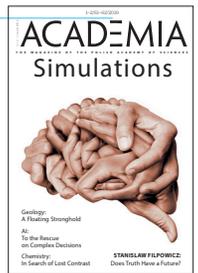
Lastly, an organizational point: in 2019 *Academia* magazine has been appearing with considerable delays, which we sincerely regret. From 2020 on, issues will be appearing regularly, on schedule, and in a new "freshened-up" format. And this declaration on my part is no simulation of reality, but rather a real simulation.

PROF. JERZY DUSZYŃSKI, PRESIDENT OF THE POLISH ACADEMY OF SCIENCES



"Eye," Rafał Olbiński (born 1943)

Olbiński graduated from the Faculty of Architecture Warsaw Technical University, and has lectured at the School of Visual Arts in New York since the 1980s. He works as an illustrator, painter, poster designer, and set designer, including for the New York City Opera and Philadelphia Opera. His work has been presented at numerous exhibitions around the world and published in *Newsweek*, *Time*, *Der Spiegel*, *The New York Times* and *The New Yorker*. He has garnered many awards, including in the "New York City Capital of the World" competition (1995) and the Gold Medal "Gloria Artis" (2005).



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