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Current Problem Geography

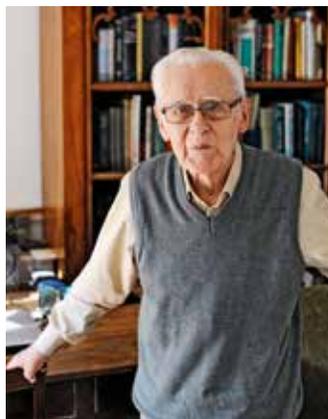
Shrinking Midsize Cities We discuss the ongoing phenomenon of depopulation with Prof. Przemysław Śleszyński from the PAS Institute of Geography and Spatial Organization. **4**



Women in Science

New Female Members of the Academy

We talk about career paths with Prof. Hanna Bogucka, Prof. Małgorzata Kossowska and Prof. Bożena Kamińska-Kaczmarek **10-21**



Briefly Speaking

Predicting Gravitational Waves

I was sure that gravitational waves exist and they would be detected sooner or later, especially given the rate at which technologies have been developing over the last half century – Prof. Andrzej Trautman tells us. **52**

FROM THE EDITORS

MYSTERIOUS TECHNOLOGIES?

Back in the 1990s, automation first appeared in Polish certain households in the form of a Japanese dog named Aibo. The little robot was like a real pooch: it barked, dozed, peed, even fell sick. A very good solution for a child, parents concluded. The educational benefits remained – it needed to be given food and water, petted and entertained – but not to be regularly walked. It was just a toy, which like other such objects would one day end up sitting in a corner, and so it did not trigger a cultural and technological revolution. Such a revolution nevertheless came soon thereafter when extraordinary, intriguing and mysterious devices, called personal computers, turned up in some Polish households. When friends brought such a PC back from more advanced countries, they would organize a party to showcase their new prize.

It was curiously awe-inspiring and underwhelming at the same time. For us, bought up on Stanisław Lem's "Star Diaries" and George Lucas's "Star Wars," automation had always seemed to involve gigantic machines, humanoid robots, and spaceships chock full of complicated devices that took unimaginable sums of government money to create. But here, on our desk, stood just a screen and keyboard, connected by cables to a smallish box.

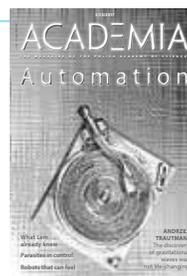
Today automation is truly at arm's reach for everyone – never farther away than our smartphone – but who knows whether it might now be even more mysterious. We know that there are robots and applications out there to solve any problem. We understand that they are very person-like and are indeed replacing people everywhere: in production, services, banking, logistics. They are soon meant to appear in such fields as child-rearing and caring for the elderly.

Obviously, an issue of *Academia* magazine can only showcase a mere fraction of the possibilities that automation technologies are ushering in. And given how inventive scientists and R&D engineers are, we will probably have to revisit the topic again and again in the near future.



Rafał Bujnowski (1974). "Landscape 3", 2010.

Born in 1974, Bujnowski is a painter, graphic designer, and initiates artistic activity addressing the utility of art and the artist. He questions the issue of an artwork's originality, by contrasting it against the serial nature of his own paintings. He draws themes from his close environs, leading to a close intermingling of art and everyday life.



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