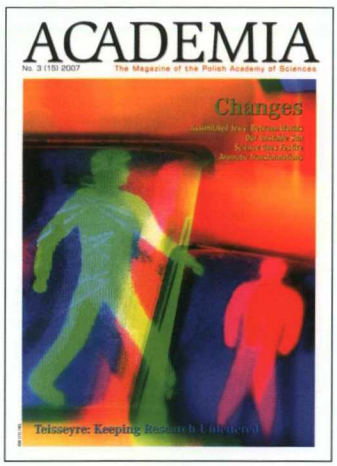

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The Law of Change

The Greek philosopher Heraclitus perhaps summed things up best: "Nothing endures, but change." For centuries, the world's inherent instability has been a key point of inquiry for philosophers and topic of study for researchers. Changes often stir fear and uncertainty, yet sometimes offer hope for the future. Tracking, recording, and anticipating change has always been one of the fundamental tasks of science, though from the human perspective many changes are hard to notice, let alone predict. One thing is certain – change and transformation are everywhere.

Changes of a chemical and physical nature can be harnessed to serve human purposes. Very discrete modifications of molecules, for example, can alter a disagreeable scent into a pleasant aroma, as described in the article ***"From Gasoline to Hyacinth"*** *(p. 34). Adding structures rich in* ***boron atoms*** *to biologically active molecules can transform them into an effective weapon against cancers and viruses, as described on page 36. Within living cells, molecules are ceaselessly being broken down and synthesized anew – research on* ***cellular cleaners*** *in simple organisms can help us to understand the causes of many human diseases and offer a strategy for their effective therapy (p. 16).*

Many changes occurring on Earth and in the wider Universe may be threatening to mankind. Only precise observation and scientific measurements enable us to comprehend what impact the ***unsteady Sun*** *will have on our terrestrial climate (p. 4).*

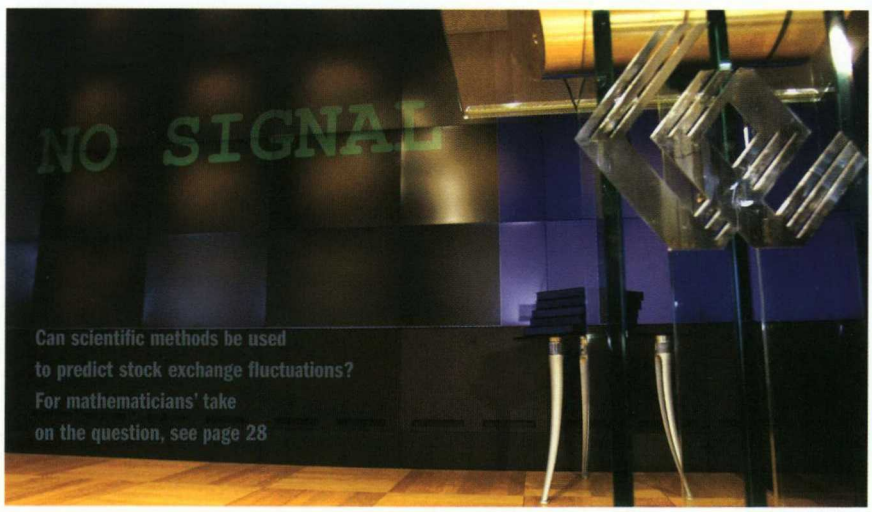
Humans, of course, also alter their own environment. For instance, radioactive isotopes do exist in nature, and we expose ourselves to them even when drinking a glass of milk. In ***"Radioactivity Around Us"*** *on page 20 we discuss the ways human activity increases such radioactivity in nature and whether an alternative exists to nuclear energy.*

Changes and their consequences often become particularly evident over the course of time – something historians and sociologists know full well. The changing status of Jews striving to assimilate in pre-WWII Poland, somehow suspended ***between worlds****, is portrayed on page 24. Disturbing demographic changes now observed in Polish society and ways of alleviating their consequences, in turn, are presented in* ***"Live a Good, Long Life"*** *(p. 12).*

Changes in one field can often engender consequences in another. On page 32, we assess to what extent Poland's current economic situation has made it a country "manufacturing" ***researchers for export****.*

"Academia" itself is not immune to the irresistible power of change. Yet invariably and unswervingly we continue in our quest to make readers better aware of the achievements, objectives, and challenges of research pursued within the Polish Academy of Sciences.

ACADEMIA staff



Jerzy Dudek, Fotorzepa