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From Academia

The Future's So Bright...?

Predicting the future is an extremely difficult endeavor – as Prof. Michał Kleiber, President of the Polish Academy of Sciences and head of the “Poland 2020” National Foresight Program, aptly points out (p. 40). Whatever the future is like, it will surely be a world transformed by new technologies. Traditionally we have imagined the future on the macro-scale (envisioning cosmic highways and mighty skyscrapers). But today’s scientific vision of the future is more a world of microchips, microgels, and microbes.

We start our exploration of this brave new world with a field likely to yield extraordinary advances in medicine and environmental protection (*Synthetic Biology*, p. 4). Might we soon be using semi-synthetic bioreactors to manufacture the substances we need most? Thanks to advances in genomics, not long from now medicine will be using **drugs tailor-made** for each patient (p. 12), and livestock farmers will be better able to **choose the best animals** to raise (p. 24). Advances in materials science, in turn, are bringing us closer to understanding the properties of gels and liquid crystals – **intermediate states** between liquid and solid (p. 36).

Demographic processes, metropolization, the rise of “information society” and the impact on the Polish economy are all addressed in *From Here to the Future* (p. 8) and *Economic Fortune-Tellers* (p. 34). How does economic development affect society – does it level out or intensify **societal inequalities**? Some answers to these questions may be gleaned, for instance, from a vast body of data amassed on 19-year-old Polish military conscripts (p. 20).

What lies ahead for our planet itself? Much depends on whether we manage to view the Earth’s problems from a global perspective. On p. 31 we examine the **future of the Arctic region**, and how Arctic research is improving our understanding of the climate at large. Or perhaps the planet faces a global catastrophe? The **asteroid Apophis** will soon pass quite close to the Earth – although specialists conclude that we should continue to sleep soundly (p. 28).

We also asked researchers about the future of science (in interviews on p. 40 and p. 46), and they feel the condition of Polish science will begin to improve. Without a doubt, interdisciplinary projects like the **GeoPlanet Center** forged by several Polish Academy of Sciences institutes, profiled on p. 48, point to the way of the future. And who knows – such new avenues of research may one day end up a **science museum**, as the museum concept is now witnessing a revival (p. 16).

ACADEMIA staff



Polyptych no. 1 from the “Kinoszias, Miast” cycle (2005), private collection

Cecylia Malik (b. 1975)

– a painter and curator affiliated with “Art Bunker” in Kraków, winner of the Kulturalne Odloty award in 2008 for her contribution to the gallery’s “Mały Klub” initiative, winner of a grant from the mayor of Kraków. Her cycle “The City” (“Miasto”) presents images of everyday objects reminiscent of alchemic signs and arcane symbols. Arranged into polyptychs like icons, their function and significance become altered