



[MONOGRAPH]

The challenges of science

Monograph coordinated by Pere Puigdomènech i Rosell

The preconceived ideas we have about the world and about many aspects of our lives are deeply influenced by the results of the research activity we call science. A large part of the decisions we make as a society and as individuals depends on information that needs to be rigorous; that is, scientific. This is the reason why having information about scientific results and ideas is essential for citizens today. Science is an ongoing process of reflection, rather than immutable and monolithic doctrine, so we need tools to develop these complex ideas and make them available for everyone.

Current times can be especially critical for our global human society. The human species has reached very high levels of expansion and longevity. We have reached the most inhospitable corners of the planet and the effects of our activity can be perceived in all of them. At the same time, we have created procedures that allow us to have a profound effect on matter and on living beings, including our species. We have built all sorts of artifacts and incorporated them into our daily life, improving our communication, our transportation, or our ability to manufacture new artifacts. Everything we know and everything we created should allow us to answer our pending challenges, but also create new ones. In this monograph, we present reflections on some of these challenges, such as food and energy production, environmentalism, the processing of information, genetic modification, or synthetic biology.

PERE PUIGDOMÈNECH I ROSELL. Graduate in Physics and PhD in Biology. He is a research professor at the Centre for Research in Agricultural Genomics (CSIC-IRTA-UAB-UB) in Cerdanyola (Barcelona, Spain), has worked in the fields of biophysics, molecular biology, and genomics and his research focuses on plants. Some of the topics he has touched upon in his papers include the communication of research to the citizenry, scientific policy, and the integrity of science. He has managed research centres and is an active member of European-level and Catalan-language institutions.

✉ pere.puigdomenech@cragenomics.es

This *Mètode Science Studies Journal* monograph is illustrated with the series «In search of lost time» by artist Manuel Sáez (Castelló, Spain, 1961), which presents typical laboratory work tools from different perspectives and with a striking combination of colours and textures.

On the left, Manuel Sáez. *In search of lost time (X)*, 2018. Graphite, watercolour, and tempera on paper, 50×71 cm.