

## Matériaux et Techniques Editorial for 2026: Where does the journal wish to go?

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We would like to use the opportunity of the new year to share our thoughts about *Matériaux et Techniques* and its place in its ecosystem – and to connect to our readers, our authors, our editorial committee, and our faithful reviewers.

We are all aware of the exponential explosion of publications and of the number of scientific and technical journals. This is a sign of the globalization of R&D and of the requirement for PhD students to publish several papers before they write their dissertation, not to mention the pressure on the professors. The Global South is thus reclaiming its righteous position in science and technology storytelling, which is clearly good news!

However, this emergence of scientific publications in the world of big data does raise a number of issues. First, the volume of papers has become such that a researcher struggles to keep up with the pace of publications in his own field (scientific intelligence) and that reviewers wonder about the relevance of references, which rarely go back more than a few years, as if anything older has lost any value. The worst thing is the fashion now to publish meta-analyses to generate a review article but based on a limited database, for example, articles in English only published within the past 10 years! Then is raised the matter of peer review, as larger and larger numbers of publications are competing for the same reviewers, so finding them has become a headache for editors. Last, publication numbers increase faster than those of researchers, which might mean that articles are written faster and faster [1].

It is also a pity that industrial research is less and less represented in journals [2]. Does this mean that companies are keeping their work secret, or that they have reduced their R&D effort, or that they are outsourcing it to academic laboratories? Perhaps all three?

To these questions, which are almost metaphysical, our journal can only bring answers by highlighting its practices and values:

– First, the journal has been published since 1913: it published about 1700 articles written by 5400 authors over the 106 years of actual publication. This pinpoints

the fact that long temporalities<sup>1</sup> and the handcrafted production of articles<sup>2</sup> have been core values of *Matériaux et Techniques* – Nature, a journal that sits at the apex of what are considered as the best journals, would produce the same number of papers in less than two years.

- The journal is focused on materials, a subtle kind of artifact produced by human activities since the deepest prehistorical times, thus for times that predate history [3,4]. This is also anchoring the journal in the long time.
- The list of materials has been constantly evolving, which means that materials are overarchingly reaching from the past to a proactive present and to the future. Next to structural materials, such as metals, polymers, composites, ceramics, aggregates like concrete, or nature-based materials, which are continuously being reinvented, have emerged functional materials, i.e., those that exhibit special functions related mostly to quantum mechanical effects or that exist at original scales (thin films and nanomaterials). *Matériaux et Techniques* has kept track of their emergence and remains focused on reporting about them all. This means that, sometimes, Materials Science has to hand the reins to other disciplines, for example, the *Physics of Condensed Matter*, when the language of research wanders too far from its own — and thus, *Matériaux et Techniques* refuses some papers as “out of scope.”
- Materials are also made (cf. the words steelmaking or ironmaking) in laboratories but also in industrial processes. *Process Engineering* is thus also a core theme of the journal.
- Materials are embedded in the Spheres of Ecology [5] and their coproducts, emissions, and connections with raw materials are also at the core of the journal, for example, via methodologies such as life cycle assessment (LCA) or material flow analysis (MFA).

<sup>1</sup> *Matériaux et Techniques* constitutes an encyclopedia of materials, organized over the long time of history. Its contents have evolved at the same time as materials changed.

<sup>2</sup> The industrialization of article publishing is related to capitalistic management, whereas our journal favors the work of goldsmiths, cabinetmakers, or even marquetry makers.

- The *Immersion of Materials in Society* is also of interest in the journal, which means that experts in social sciences and humanities co-author papers, for example, historians, sociologists, anthropologists, philosophers, and ethicists. *Matériaux et Techniques* has thus published the most outstanding papers from the *Society and Materials Conferences* over the past 20 years. For example, the idea that “materials have agency” in spite of “being social constructs” was debated in the Journal [6].
- Last, *the journal has kept its French name*, even though most of the papers it hosts are written in English, the *lingua franca* of scientific publications. It was always felt important to stress that the globalization of research should not be conducted under the rule of a single language: a few articles in French are therefore still published in its pages: Are there not still 300 million French locutors and many more readers?

In a practical way, this all means that the journal is *an incubator of ideas about materials and their role in society*. As such, *Matériaux et Techniques* publishes papers that are collected in special issues, not so much for propose review papers<sup>3</sup>, but rather to explore new paradigms and methodologies, all the more so, as they are pluridisciplinary.

The journal wishes to also welcome the younger researchers, who are building the science and technology of tomorrow in connection with materials.

This may eventually lead to reengineering the *bibliometric indicators*, which, today, are not properly driving

the writing of good papers nor evaluating the contribution of researchers, of those who still publish, anyway [7].

And going one step further, one may push the idea of *slow science* [8]?

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<sup>3</sup> Which are “click machines,” to take an analogy with the digital world.