

Organisé par Pierre de
Jouvancourt et Sacha Loeve

Materials in the Anthropocene

a joint science
and humanities
conference

Elena Albergati / Bernadette Bensaude-Vincent

Mickaëla Eder / Jean-Baptiste Fressoz / Mario Giampietro

Olivier Hamant / Laurent Heux

Nelo Magalhães / Laurent Malaquin / Elise Rigot

Chiara Scarpitti / Christophe Vieu

Franck-Dominique Vivien

1 et 2 juillet 2024

Ecole Normale Supérieure de Lyon

Entrée libre

Since several decades, Earth sciences have been highlighting the enormity of the metabolic disturbances induced by mass productivism on the global scale. In total, the technosphere is now heavier than the non-human biosphere (Elhacham et al. 2020) and induces a huge global biogeochemical forcing, at magnitudes exceeding pre-industrial levels by several times in some cases. Whereas in the 19th century, Charles Lyell considered human geological activity to be infinitesimal compared to the amount of matter carried by the Brahmaputra, industrial societies today move more matter than ten times the volume of all the world's rivers (Cooper et al. 2018). As we know, these symptoms, coupled with other ones, have been gathered under the umbrella of the "Anthropocene" two decades ago (Crutzen 2002). It is at the same time a proposition for naming a new geological epoch and a new state of the earth system in which industrial activities have massively modified planetary metabolism (Steffen et al. 2011, Rocktröm et al. 2015).

In this anthropogenic condition, more or less new, and credible, "techno-scientific promises" (Benoit-Joli 2010) arise, including industrial ecology, circular economy, carbon neutrality, waste abolition, recycling and upcycling, or material flux optimization by digitalization. However, while the Anthropocene points out the huge materiality of our societies, these various promises often omit a crucial point in the anthropogenic metabolism: the materials themselves. Yet materials can be considered as major historical actors and operators of the Anthropocene: just as some of them (plastics, concrete, alloys, rare earths, ...) are key drivers of its advent, new materials with alternative processes of production could also play an important role in a potential post-anthropocene bifurcation. Hence the necessity to rethink materials and materialities in the Anthropocene. Moreover, if material extraction linked to net zero global energy transition might greatly impair biodiversity (e.g. Sonter et al. 2020), it becomes urgent to rethink the dead-ends of industrial materialities even in its climate-compatible versions, in particular their connections to the living. To these ends, the conference will notably consider the materials of the Anthropocene from a "metabolic" perspective (Fischer-Kowalski and Hüttler 2008), i.e. one that looks at the cycles of transformation of matter within the planetary ensemble, and also includes the social, political and economic representations shaping them.



Materials in the Anthropocene: A Joint Science and Humanities Conference

Monday 1st of July

8:30 / Welcoming Coffee

9:00 - 11:15 / Morning Session

- Pierre de Jouvancourt & Sacha Loeve - *The Anthropocene, Materials, and the Metabolic Rift Challenge: Introductory remarks*
- Nelo Magalhães - *Thinking the Missing Mass of the Anthropocene*
- Franck-Dominique Vivien - *Bioeconomy in the Age of the Anthropocene*
- Bernadette Bensaude-Vincent - *Forging an Alternative Concept of Materials to Face the Anthropocene*

11:15 - 11:30 / Break

11:30 - 12:30 / Roundtable - How Did We Get There? The Role of Materials in the Advent of the Anthropocene

12:30 - 13:45 / Lunchtime

14:00 - 16:15 / Afternoon Session

- Mario Giampietro - *Stopping the Metabolic Rift: How to Imagine or Define Yet Unknown Social Practices?*
- Chiara Scarpitti - *Speculative Practices for Design and Fashion Material Imaginaries in the Anthropocene*
- Elena Albergati - *Exploring Sustainable Materials Design for the Anthropocene: Insights from the Made/Trans Research Group*
- Elise Rigot, Christophe Vieu, Laurent Malaquin - *Trajectories: From a Nano Imaginary of Matter to novel perspectives for research with Design*

16:15 - 16:30 / Break

16:30 - 17:30 / Roundtable - How to rethink or redesign the material imaginaries of the "transition"?

19:00 / Dinner

Tuesday 2nd of July

8:30 / Welcoming Coffee

9:00 - 11:15 / Morning Session

- Jean-Baptiste Fressoz - *The Anthropocene is an Accumolocene*
- Mikaela Eder - *A reflection on Biogenic Material Use*
- Olivier Hamant - *The benefits of Imperfection: Lessons from Biology to live in a Turbulent World*
- Laurent Heux - *Biomimicry Put to the Probation of Reality: A Few Examples of Practical Trials*

10:45 - 11:00 / Break

11:00 - 12 30 / Roundtable - *Can materials reset current eco-socio metabolisms?*

12:30 - 13:45 / Lunchtime

15:00 - 16:00 / Exhibition Visit at Institut d'Art Contemporain de Villeurbanne:
Pratiques cosmomorphes : (re)générer le vivant, 11 rue Docteur Dolard 69100
Villeurbanne

Contacts

Pierre.de-jouvancourt@univ-lyon3.fr

Sacha.loeve@univ-lyon3.fr

Conference address:

Bâtiment Buisson, Salle D8-001
Ecole Normale Supérieure de Lyon
15 Parvis René Descartes
69342 Lyon

