N°20 | Questioning Technology in a Time of Global Upheaval

Thematic dossier coordinated by Roberta Morelli AND Jean Souviron  
Deadline for sending papers: 2 October 2023

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05/06/2023

# Call for papers

The place and role of technology in the organisation of industrialised societies raise controversies that have continuously questioned the impact of human activities over the last two centuries. The criticism of industrialisation–underpinned by the thinking of William Morris[[1]](#footnote-1) (1834–1896) and Lewis Mumford[[2]](#footnote-2) (1895–1990), among others–emerged with the advent of the “age of machinery”[[3]](#footnote-3) and led to a reconsideration of the history of technology at the crossroads of human societies and cultures. Nowadays, in a context marked by the acceleration of global disruption, this criticism challenges the very notions of progress[[4]](#footnote-4) and innovation,[[5]](#footnote-5) and questions the relationships between our societies and their technical objects through the “imperative of responsibility”[[6]](#footnote-6) and the notion of ethics.[[7]](#footnote-7) Controversies have arisen between advocates of technological solutionism,[[8]](#footnote-8) for whom technical progress can provide effective responses to the challenges facing modern societies, and the technocritics,[[9]](#footnote-9) who have various ways of arguing against the sacralisation of technology and the resulting alienation of individuals. While this opposition needs to be qualified in light of the plurality of policies that question the role of science and technology in society, it nevertheless reflects the issues and controversies that run through contemporary discourses and practices, and which this thematic dossier aims to explore.

Ecological upheavals, increasing social vulnerability and the promises of the digital revolution, all raise questions about how infrastructural choices[[10]](#footnote-10) and architectural, urban and territorial practices impact the environment and our societies. The growing scarcity of material and energy resources and the urgent need to retrofit and renovate existing buildings are transforming the very notion of technology in these fields. As a result, new issues have arisen concerning, on the one hand, the environmental, health and social impact of building systems; and, on the other hand, the division of labour between the design and construction phases. Examples include controversies raised by construction models addressing energy performance based on thermal insulation and the mechanical ventilation of buildings;[[11]](#footnote-11) the limits of industrialisation and “low carbon” labelling of timber construction; the challenges of waste management in response to the call for a “circular economy”; and the impact of urban planning models based on smart grids and mass electrification.

Almost thirty years after *Les Cahiers: Journal for the Study of Architecture, Urbanism and Landscape* published its last issues devoted to the material dimension of living space,[[12]](#footnote-12) the coordinators of this dossier wish to revive scientific debates on technology. The latter is understood here in a broad sense to include material and energy resources; tools, knowledge and know-how; production and design processes; as well as construction work and the maintenance of structures. The objective of this thematic dossier is to contribute to a critical analysis of the changes in the material conditions of our built environment. In particular, it aims to explore the interdependent relationships between the political, conceptual and constructive dimensions that characterise contemporary professional practices. It also aims to understand the resulting changes and controversies by analysing social practices, their economic circumstances and their environmental impacts.

The field of the history of construction and technology has long been aware of the value of legacies,[[13]](#footnote-13) and has more recently opened up new research perspectives by embracing social studies.[[14]](#footnote-14) However, contributions on the current state of technology are less common, despite contemporary professional practices being potential sources for rich critical analyses. For example, some authors have highlighted the fragmentation of stakeholders and their responsibilities in the act of building, pointing to the loss of technological unity achieved in old architecture; which spared nature, built cities and erected houses according to the same principles.[[15]](#footnote-15) While technology has always ordered human capacities regarding their ability to build solid structures,[[16]](#footnote-16) the injunctions formulated in so-called “ecological” discourses and policies exacerbate the fragmentation of contemporary regulatory, economic and operational logics. As a result, a series of controversies and paradoxes have arisen: with the growing heterogeneity of technical entities, comes an increasing standardisation of products and construction methods; with the diversification of stakeholders involved in building design, comes a loss of know-how; with the increase in the level of industrialisation, comes a gradual rise in construction prices; and with the acceleration of digitalisation, comes an inequality in the socio-economic conditions of production and maintenance of the built environment. All these controversies and paradoxes raise questions about the specific ways in which those involved in architectural, urban and territorial production think about and implement their technological choices. They also call for an analysis of the impact of these choices on the spatial and socio-economic context in which they are made.

With contributions across a range of disciplines, this thematic dossier puts forward the hypothesis that technology today represents a space of differentiation and a place for negotiating plural and conflicting interests, with a direct impact on material production, the organisation of work and labour, and the definition of space. Why and how is technology defined in contemporary architectural, urban and territorial production? What political and social projects does technology embody? What are the issues and controversies involved? To further explore this hypothesis and to help answer these questions, this call for papers aims to build an open debate on an international scale, to shed light on current controversies and to question the place and role of technology in a time of global upheaval. Papers may focus on one or more of the following topics.

## 1. Technologies and processes in the production of construction materials

The act of building usually begins in the quarries, mines or forests scattered across the territory. Countless machines are used to extract material resources, which are then transported and transformed through a series of industrial or artisanal processes.[[17]](#footnote-17) Building materials gradually take shape according to precise specifications defined to fulfil the performance requirements of architectural, urban and territorial production. Throughout these stages, a multitude of stakeholders are involved, all of them embodying a thought about technology that materialises in the products that are then sold on the construction market. We are looking for contributions that explore the evolution of the place and role of technology in the production of construction materials, examining industrial processes, questioning the productivist imaginary and the promises of technological solutions in the face of contemporary ecological upheavals. We also welcome critical contributions that explore the renewed interest of architects and designers in the manufacturing stage of construction materials.

## 2. The construction site or the challenge of materialising a thought about technology

In a context characterised by an increase in technological regulations, and the intensification of competition dynamics and productivity imperatives in the construction sector, the conditions under which construction works are carried out are marked by several phenomena. These include: the division of labour, with massive use of subcontracting; the increasing dissociation of the tasks performed by project managers, who delegate the execution and coordination of technical studies to multidisciplinary consulting, engineering and management firms; and the standardisation of construction methods, which leads to a loss of know-how. Faced with these trends, which vary according to the complexity of the design, the project manager has gradually delegated a number of tasks, thereby limiting the scope of their technical thinking, along with the challenge of its materialisation. The expected contributions should develop a critical analysis of the causes and effects of these phenomena.

## 3. The role of technology in adaptation, maintenance and repair practices

Once construction is complete, those involved in the design process withdraw to make way for those who will be responsible for maintaining, repairing and adapting the building or urban space. These are, of course, the inhabitants who make these places their own, taking care of and often repurposing the technical systems that have been installed to fulfil a series of functions (heating, air conditioning, ventilation, shading, electrification, etc.). These also include craftspeople, industry representatives and do-it-yourselfers, who occasionally work on construction elements and networks of pipes and ducts to keep buildings running smoothly, to improve their performance and to comply with changing standards and regulations.[[18]](#footnote-18) The life of a building, an urban space and an infrastructure is thus intertwined with that of the technical objects that compose them, and with that of the people who use them and draw on their know-how to maintain them. The papers expected here should focus on the failures and limitations of technical systems, their maintenance, repair and appropriation.[[19]](#footnote-19) They may be based on field studies and analyse the perceptions, knowledge and practices that shape the relationship between the users of a space and its technical objects.[[20]](#footnote-20)

## 4. Technologies and practices for waste management

The construction sector is also a dismantling industry. Either during demolition or renovation work, many stakeholders seek to get rid of materials that have become cumbersome. Machines and workers then handle these materials to move, sort, clean, recycle, crush, incinerate, store and bury them. Each of these stages requires specific skills, tools and forms of organisation. More broadly, the trajectories of construction waste reveal a relationship with technical objects that is rooted in a culture and economy situated in a specific time and place.[[21]](#footnote-21) The papers expected here should be based on case studies of waste management processes and their socio-ecological impacts. Contributions should also develop a critical analysis of the issues and controversies surrounding the implementation of a “circular economy.”

The coordinators of this thematic dossier also invite authors who wish to propose texts approaching these four topics transversally to submit them. For example, these articles could deal with the life cycle of a building,[[22]](#footnote-22) the trajectory of a material or product,[[23]](#footnote-23) or the history of a territory and its infrastructure.[[24]](#footnote-24)

# Procedure for the Transmission of Draft Articles

Proposals for **completes articles** should be sent by e-mail **before 2 October 2023** to the *Craup*’ editorial office: [craup.secretariat@gmail.com](mailto:craup.secretariat@gmail.com)  
For more information, contact Aude Clavel on 06 10 55 11 36 or by email

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| **The articles must not exceed 40,000 characters (spaces included), notes and bibliography are not included in the character count.**  **Languages accepted: French, English.**  **Articles must be accompanied by:**  **- A biography (for each of the authors) between 5 to 10 lines (first and last names of the author (s), professional status/titles, institutional affiliations, research themes, latest publications, e-mail address).  - Abstracts in French and English.  - 5 keywords in French and 5 in English.** |

# Instructions to Authors

**1 / General rules**

**Italics:** Italicize words in foreign languages in relation to the language used. For example: *op. cit*., *ibid.*, *cf*., *a priori*, *a posteriori*, etc.

**No use of bold** (with the exception of section titles) **nor capitals** (with the exception of proper names, institutions, book titles in English, etc.).

**American conventions regarding punctuation are to be employed: double quotation marks, period before quotation marks, footnote at the very end of a sentence. For example: “This is how American people, as they say, ‘do it.’”**

**Authors may opt for British English or American spelling but the convention employed must be used in a consistent way. For example: formalised and formalized are both acceptable, as are color and colour.**

**Footnotes** are to be used to cite sources instead of in-text citations.

**Numbers:** Up to ten, please spell out the number (for example, nine visitors), beyond ten, use numbers (for example: 100,000 inhabitants).

**Dates:** Centuries should be in numbers: 19th century. Form the plural of decades without an apostrophe. For example: the 1960s.

For persons who are deceased, add birth and death date in parenthesis. For example: Michel Foucault (1926-1984).

**2 / Body of the text**

The text must be entered in the Microsoft Word software, using Times New Roman, size 12, line spacing 1.5, without any special formatting, except titles, headings, captions and paragraph breaks.

**3 / Quotations**

Quotations of less than 3 lines will be inserted into the text and placed between quotation marks.

Quotes of more than 3 lines will be indented to the left and right, size 10 (not 12), and without quotation marks.

**4 / Bibliographic References**

**Bibliographic references and references in footnotes are to be formatted according to the same model, although references in footnotes will include a page number.**

**Bibliographical references will also be grouped in alphabetical order (according to author names) and will appear at the end of the article in a section titled “Bibliography.”**

Please use the following models:

**For a book:** First name Last name, *Title*, City of publishing, Publishing house, year of publication, p. xx.

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**For a journal article:** First Name Last Name, “Article Title,” *Journal Title*, Vol./N °, Date of Publication, p. xx.

**For electronic reference:** the following text will be inserted at the end of the reference, with the corresponding link: [online] [url], accessed on 01/01/21.

**5 / Illustrations, charts and tables**

**Images accompanying the text should be scanned in high resolution (300 dpi minimum) in JPEG, PNG or TIFF formats. Text files should be distinct from graphic files.**

**Horizontal images (in landscape mode) are preferred as they are more consistent with page layout constraints. If vertical images are unavoidable, please consider pairing the image with another vertical image.**

**Tables** are considered to be figures and must follow the same instructions in terms of file name, figure name, image format (jpg or tif), image size and legibility.

**The author must verify that the images or figures of which he is not the author are free of rights.**

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**Illustrations, charts and tables must be captioned in the following manner:**

The title of the illustrations should be preceded by the letters “Figure [no.]” or “Table [no.]” and will appear above the illustration.

The image caption and credits (source, copyright, etc.) will appear under the illustration on two separate lines.

# Editorial Line

Placed in the fields of architectural, urban and landscape research, *Les Cahiers: Journal for the Study of Architecture, Urbanism and Landscape* initially developed from the 1970s in research labs of the French schools of architecture, before becoming the *Cahiers de la recherche architecturale et urbaine*in 1999. The journal initiates in 2018 a new formula online, *Les Cahiers: Journal for the Study of Architecture, Urbanism and Landscape*,targeted towards the research communities concerned by intentional transformations of space, whatever the scales. The journal aims at meeting current interests and issues in these fields, seeking to renew them and to open new directions of research. Three main research issues are more directly questioned. One specifically concerns theoretical aspects, in order to develop exchanges and discussions between theories of design, planning, architecture and landscape. Another issue refers to the materiality of the city, the technical know-how involved in spatial transformation, but also the material dimension of of transfer and mobilization phenomena, often analyzed in other journals from a-spatial angles. Lastly, the third issue questions the project and its design, which holds a special place in the sciences and the practice of space (performative roles of projects, theories of practice). These three poles call for interdisciplinary works, dedicated to trace in-depth explanations of the transformations of the built environment at the Anthropocene Era. The expected scientific production refers to common criteria of peer reviewing processes. It could pay a particular attention to the issues of pictures and visual production in a field where images can serve as discourse.

*Les Cahiers: Journal for the Study of Architecture, Urbanism and Landscape*online issue two or three time a year a thematic folder dedicated to a specific and problematized theme, and which consists of around ten articles in French and English. A call for papers is broadcasted for each thematic heading. Proposals may be in French or English. The evaluation is peer-rewiewed.

The online magazine has also 2 headings to accommodate miscellaneous articles, and outside thematic folders. Proposals may be in French or English. The texts are evaluated and peer-rewiewed.

## Perspectives on Contemporary Research

Academic articles that present current and unpublished research, unpublished articles and essays on subjects related to the emergence of new themes and accounts of scholarly methodologies and practices development, reports of doctoral and post-doctoral theses, book reviews.

## Research Materials

The republication of texts, the translation of articles previously unpublished in French, documents such as logbooks, diaries and personal journals that shed light on the activities of researchers in their contemporary contexts, interviews with scholars and practitioners involved in ongoing research.

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1. William Morris, “The Arts and Crafts of To-day”, in William Morris, *The Collected Works of William Morris*, Cambridge University Press, 2021, vol. 22, p. 356–374. First delivered in Edinburgh before the National Association for the Advancement of Art in 1889. [↑](#footnote-ref-1)
2. Lewis Mumford, *Technics and Civilization*, The University of Chicago Press, 2010 (original edition: 1934). [↑](#footnote-ref-2)
3. Thomas Carlyle, “Signs of the Times”, in *The Works of Thomas Carlyle*, Cambridge University Press, 2010, vol. 27, p. 56–82 (original edition: 1829). [↑](#footnote-ref-3)
4. Jean-Baptiste Fressoz, *L’Apocalypse joyeuse. Une histoire du risque technologique*, Seuil, 2012. [↑](#footnote-ref-4)
5. David Edgerton, *The Schock of the Old. Technology and Global History since 1900*, Profile Books, 2006. [↑](#footnote-ref-5)
6. Hans Jonas, “Technologie et responsabilité. Pour une nouvelle éthique”, *Esprit*, sept. 1974, p. 163-184. This article was later expanded in *The Imperative of Responsibility: In Search of Ethics for the Technological Age*, University of Chicago Press, 1984 (original edition: *Das Prinzip Verantwortung. Versuch einer Ethik für die technologische Zivilisationpremière*, 1979). [↑](#footnote-ref-6)
7. See: Gilbert Simondon, *On the Mode of Existence of Technical Objects*, University of Minnesota Press, 2016 (original edition: *Du mode d’existence des objets techniques*, 1958). [↑](#footnote-ref-7)
8. Evgeny Morozov, *To Save Everything, Click Here: The Folly of Technological Solutionism*, New York,Public Affairs, 2013. [↑](#footnote-ref-8)
9. François Jarrige, *Technocritiques. Du refus des machines à la contestation des technosciences*, Paris, La Découverte, 2016; “A genealogy of technocritics”, *in* Karim Benyekhlef (ed.), *AI and Law: a Critical Overview*, Thémis, 2021, p. 17-45. [↑](#footnote-ref-9)
10. Fanny Lopez, Cécile Diguet, *Sous le feu numérique : spatialités et énergies des data centers*, Genève, MétisPresses, 2023. [↑](#footnote-ref-10)
11. The concept of a “construction model for energy and environmental performance” (“*modèle constructif de la performance énergétique et environnementale*”) was developed by Christophe Beslay and Romain Gournet in the study “La filière du Bâtiment face au Grenelle de l’environnement”, conducted in 2011 on behalf of GDF-Suez. See also: Christophe Beslay, Romain Gournet et Marie-Christine Zélem, “Le bâtiment économe : utopie technicienne et résistance des usages”, *in* Jérôme Boissonade (dir.), *La Ville durable controversée*, Paris, Pétra, 2015, p. 335-363. [↑](#footnote-ref-11)
12. See in particular the thematic dossier “Culture constructive,” in *The* *Cahiers de la recherche architecturale*, no 29, 1992, and the dossier devoted to the “Imaginaires techniques,” published in the 40th issue of *The Cahiers de la recherche architecturale et urbaine* in 1997. [↑](#footnote-ref-12)
13. Jean-Louis Cohen, “Architecture et culture technique au XXe siècle : bilan international”, report commissioned by the Ministry of Public Works, Housing, Transport and the Sea, 1990. [↑](#footnote-ref-13)
14. Valérie Nègre and Guy Lambert, “L’Histoire des techniques, une perspective pour la recherche architecturale ?,” *Les Cahiers de la recherche architecturale et urbaine*, no 26-27, 2012. [↑](#footnote-ref-14)
15. Pierre Caye, “L’Architecture et la question de la technique. Infrastructure, projet, chantier”, *Les Cahiers de la recherche architecturale et urbaine*, thematic dossier “Culture constructive”, 1992. [↑](#footnote-ref-15)
16. *Ibid.*  [↑](#footnote-ref-16)
17. Katie Lloyd Thomas, Tilo Amhoff and Nick Beech (eds.), *Industries of Architecture*, “Critiques: Critical Studies in Architectural Humanities”, vol. 11, Routledge, 2016. [↑](#footnote-ref-17)
18. Hilary Sample, “Maintenance Architecture”, *PRAXIS: Journal of Writing + Building*, 2004, no 6, p. 106–113 ; *Maintenance architecture*, MIT Press, 2016. [↑](#footnote-ref-18)
19. Jérôme Denis and David Pontille, *Le Soin des choses : politiques de la maintenance*, La Découverte (Terrains philosophiques), 2022; “Why Do Maintenance and Repair Matter?” in Anders Blok, Ignacio Farías and Celia Roberts (eds.), *The Routledge Companion to Actor-Network Theory*, Routledge, 2020, p. 283–293. [↑](#footnote-ref-19)
20. Elizabeth Shove, “Users, Technologies and Expectations of Comfort, Cleanliness and Convenience”, *Innovation: The European Journal of Social Science Research*, 16, no 2, 2003, p. 193–206. [↑](#footnote-ref-20)
21. Susan Strasser, *Waste and Want*, Picador Paper, 2000; Hélène Timpoko Kienon-Kabore and Atta Bradié Jacob Kobenan, “La culture de la réparation chez les “ferrailleurs” des casses de la ville d’Abidjan : une vraie circulation des savoir-faire techniques en matière de réparation automobile en Côte d’Ivoire”, in Gianenrico Bernasconi, Guillaume Carnino, Liliane Hilaire-Pérez and Olivier Raveux (eds.), *Les Réparations dans l’histoire. Cultures techniques et savoir-faire dans la longue durée*, Presses des Mines, 2022, p. 87–96. [↑](#footnote-ref-21)
22. Kiel Moe, *Unless: The Seagram Building Construction Ecology*, New York, Actar Publishers, 2020. [↑](#footnote-ref-22)
23. Jane Hutton, *Reciprocal Landscapes: Stories of Material Movements*, London and New York, Routledge, 2019. [↑](#footnote-ref-23)
24. Jérôme Denis et Daniel Florentin, “'Faire tenir'” et entretenir les infrastructures », *Flux*, 129130, no 3, décembre 2022, p. 1‑9. [↑](#footnote-ref-24)