Journal *Flux*

Special issue

Technical Utopias

Call for contributions

Guest editors: Fanny Lopez, Anaël Marrec, Olivier Coutard

Since Thomas More's (1516) remote island, utopia has taken a variety of paths (Riot Sarcey 2001). From political fiction to travel writing, from ideal architecture to social experimentation, however, they have constantly fed the quest for an alternative society, if possible better, even if they were blamed as having degenerated from the hope of emancipation and revolutions into an inaccessible ideal providing the basis for totalitarianism. It is worth remembering that most writings within the utopian tradition have never claimed to picture a perfect society, but to think about what a good society could be – a "utopian" utopia which involves a process of becoming, decentring, but also conflicts (Abensour 2000), a movement towards something that must be radically different, or does not happen at all (Carabédian 2022).

While technical dystopia and, in the last two decades at least, imaginaries of collapse have largely dominated futures in the field of science fiction, we assume that questioning the functions of utopia and its projections in the field of Science and Technology Studies (STS) offer an exciting prospect for (re)opening the imaginaries of techniques and technology. In this special issue, we therefore propose to question the place and shape that techniques have taken in utopian narratives and experiments in a plurality of historical and contemporary contexts.

The role of techniques in social structures and their capacity to accomplish a political project have been widely discussed since the beginnings of industrialization. These questions have been the subject of historical analyses which, in our opinion, deserve to be multiplied and deepened. Social and cultural history has shown the ambivalent relationship that critics of capitalism have built up with technology. From the theorists of utopian socialism and anarchist movements of the 19th century to the "soft technologists" and the anti-nuclear movements in the 1970s, the characterization of techniques has constantly moved, whether simply unthought, or viewed as a vector of oppression and destruction of nature, or as a means of social and environmental emancipation (Jarrige 2014; Ardillo 2015; Mathis 2016; Beaumont, 2005). Complementarily, the links between imaginaries, politics and technology have been analysed in the history of engineers and their relationships to philosophy and science (Picon 1997, 2002).

As Large Technological Systems and in particular electrical infrastructures developed, networks have taken on increasing importance in technical and utopian imaginaries (Lopez, 2019). The term "network" refers to an operator connecting complex processes, a set of links supporting flows. While communist theorists considered that electricity grids had the power of fostering an emancipation from city-countryside domination patterns, it became a technocratic and authoritarian repellent in the eyes of the activists involved in the 1970s' social mobilizations. Networks then changed again with the neuro-cybernetic imaginaries of artificial intelligence at the turn of the 20th and 21st centuries. Since the beginning of the 2000s, the acceleration of climate change, the institutionalization and rise of environmental issues in civil society and the "Anthropocene event" (Bonneuil and Fressoz 2013), have marked humanities and STS with the return of the "Gaia hypothesis" (Lovelock 1999), and more broadly with a new emphasis about non-human entities. A crisis in the "modern infrastructural ideal" (Dupuy 1987, 2011; Coutard 2010) has increasingly faced technical networks with imperatives of transition and infrastructural bifurcation (Florentin 2018; Lopez 2014, 2019). In this context, issues of sustainability, degrowth, dematerialization, urban metabolism and circular economy (Barles 2017), but also maintenance and repair (Denis and Pontille 2022) have been placed at the heart of contemporary debates, in sometimes prospective approaches.

Fiction has thus become a tool for so-called "concrete" or "achievable" utopias, which have multiplied. In the process, what is possible has merged with what is probable, then becoming adaptable and assimilable. The distance that initially structured utopian narratives seems to have disappeared, weighed down by the dystopian ravages of the end of capitalism. This bridge between fiction and reality also appears in the extensive use of foresight approaches to think about urban futures. Exit utopia, hello foresight, this "future as an antidote against the decline that haunts quiet metropolises: a future without utopia or project" (Rouillard 2009).

Indeed, there are few projections that offer grounds for thinking about utopian redirections. Technical imaginaries are caught between the neoliberal cultural hegemony emblematized by Large Technical Systems ("augmented" by digital monitoring technologies, as in smart city or smart-grid projects), the *transhumanist* imaginaries of long-termists (Monnin and Torres 2021), including Elon Musk as one of their most famous representatives, and the *collapseist* imaginary, which rests on a phobic or very ambiguous discourse on techniques. Indeed, it calls for degrowth, resilience and recycling in an often idealized nature, and generally ignores inherited infrastructures often seen as ruins in a collapsed technological landscape.

At the same time, established narratives in the history of technology have been renewed with the concerns raised by environmental humanities, but also post- or decolonial studies and gender studies. *How to hold together changes in the machine's components (i.e., its material basis), its regulation (in terms of use and governance) and the related imaginaries (for example, the narratives and social projects of new commons)?* By reopening a field of speculation around sociotechnical imaginaries, this issue of *Flux* aims to engage in critical reflection and deepen debates on techniques and utopia. To do this, we suggest the following, non-exclusive, three themes.

1) Little-known technical utopias

The first theme consists in tracing in the field of STS the genealogy of technical and infrastructural imaginaries based on social utopias. It involves retracing histories of empirical or theoretical projects of technical utopias, as well as developing a social analysis on them, by looking for example at groups that were little studied from this point of view such as

labour movements from the 1970s-1980s, or women. In the case where such utopias were put into practice, we invite to examine the way in which they reconfigured social groups but also environments, and how, in return, utopian projects found themselves transformed, annihilated, or exemplified. Complementing the abundant history of technical projects that did not materialize (Lopez 2014; Marrec 2018), is, we suggest, the source of an alternative history of techniques, and makes it possible to foreground variegated counterfactual potentialities as well as "repelling" examples (see also the contributions to the articles published in *Flux* 131 (2023) special issue on "Off-grid technologies in the history of urban services (18th-20th centuries): a reappraisal").

2) Nature/culture relationship in the history of technology

At the turn of the 17th and 18th centuries, the project of transforming nature transcended everything so that the Reason prevented by Nature could come into being (Picon 1997). Technology became a tool of domination of a nature that had to be tamed in order for human societies to emancipate from it. What about more interspecific utopias, i.e., projects seeking to overcome the deficit in relationships between human societies and other living species in the modern ideal? Our assumption is that giving back a place to technical narratives that do not separate societies from their environments participate in making them more credible and desirable, but also to open up the underlying imaginaries. What would be the *cosmotechnical* utopias (Hui 2021) that support technological pluralism and infrastructural diversity according to places, needs and cultures?

Furthermore, the possibility of going beyond human limits has become a major issue in today's debates concerning technology. It inspires utopian and dystopian doctrines, like the "singularity" popularized by the futurologist Raymond Kurzweill or the "cyborg" introduced by Donna Haraway. Such doctrines become clearer when situated in a longer-term history of trans-human utopias. What role do they play in contemporary technical and infrastructural imaginaries and projects?

3) A utopian perspective on the heritage, dismantling and transformation of technical modernity and its imaginaries

Digital technologies have emerged as a new avatar in the field of technological innovation applied to infrastructure, a new layer often used for the maintenance and repair of our old LTSs. Infrastructures constitute unavoidable legacies in social organizations, imaginaries and environments, "negative commons" (Monnin 2021) as much as potential resources for bifurcations. This path dependence has been strong since the beginning of industrialization, as have the attempts at diversion. Thus, early 19th century criticism of machines faced, from the 1940s, projects to "tame" them into supporting socialist utopias (Jarrige 2014). How can we make room for new utopias, notably those aiming to change and divert large devices? Are (in)flections towards other futures possible?

In submissions for this special issue, *Flux* encourages the mobilization of various disciplines and bodies of work (literary, film, artistic, historical production, etc.) in the contributions proposed.

Information for authors

➢ *Deadline for abstracts: April 30, 2024*

Contributors should send an abstract of no more than 4,000 characters, along with the authors' names and institutional affiliations, to:

coutard@enpc.fr

fanny.lopez@paris-malaquais.archi.fr

Anael.Marrec@univ-nantes.fr

➢ *Deadline for full articles (first version): September 30, 2024*

Based on the summaries pre-validated by the editorial board (within two weeks of reception), authors will have until September 30, 2024 to send the full version of their article. Submitted articles should comply with the journal's standards (see link below), esp.: a maximum of 50,000 signs (including spaces), a 1,000-1,500 signs summary in French and English, as well as a short biographical note (approximately 600 characters for each author).

➢ *More information about Flux and recommendations for authors:*

https://www.cairn-int.info/journal-flux.htm?contenu=list-of-issues

https://www.cairn-int.info/journal-flux.htm?contenu=about

The publication of this issue of *Flux* is scheduled for September 2025.

Bibliographie

Miguel Abensour, *Utopiques IV. L'histoire de l'utopie et le destin de sa critique*, Paris, Sens & Tonka, 2016.

José Ardillo, *Les Illusions renouvelables,* Paris, L'Échappée, 2015, p. 91-132.

Matthew Beaumont, *Utopia Ltd,* Leiden, Boston, Brill, 2005.

Ernst Bloch, *Le Principe Espérance*, Gallimard, Paris, 1976.

Emmanuel Bonnet, Diego Landivar, Alexandre Monnin, *Héritage et fermeture, une écologie du démantèlement*, Paris, Divergences, 2021

Alice Carabédian, *Utopie radicale : par-delà l'imaginaire des ruines et des cabanes,* Paris, Seuil, 2022.

Olivier Coutard, Jonathan Rutherford, « Vers l'essor de villes post-réseaux : infrastructures, changement sociotechnique et transition urbaine en Europe » dans PPUR. Forest, J. et Hamdouch, A. (eds.) *Quand l'innovation fait la ville durable*, 2015, p. 97-118.

Olivier Coutard, « Services urbains : la fin des grands réseaux ? » dans Olivier Coutard et Jean-Pierre Lévy (dir.), *Écologies urbaines*, Paris, Anthropos-Economica, 2010, p. 102-129.

Yuk Hui, *La question de la technique en Chine : Essai de cosmotechnique,* Paris, Divergences, 2021.

François Jarrige, *Technocritiques. Du refus des machines à la contestation des technosciences,* Paris, La Découverte, 2014.

Fanny Lopez, *Le rêve d'une déconnexion, de la maison autonome à la cité auto-énergétique,* Paris, La Villette, 2014.

Fanny Lopez, *L'ordre électrique, infrastructures énergétiques et territoires,* Genève, Mètis Presses, 2019.

Fanny Lopez, *A bout de flux*, Paris, Divergences, 2022.

Anaël Marrec, *Histoire des énergies renouvelables en France, 1880-1990*, Thèse soutenue à l'Université de Nantes, 2018.

Charles-François Mathis, « Renverser le roi Charbon. Imaginer la transition énergétique en Grande-Bretagne, 1865-1914 », in Yves Bouvier, Léonard Laborie, *L'Europe en transitions. Énergie, mobilités, communications, XVIIIe-XXIe siècles,* Paris, Nouveau Monde Éditions, 2016.

Alexandre Monnin, « Les 'communs négatifs'. Entre déchets et ruines », *Études*, 2021/9 (Septembre), p. 59-68

Antoine Picon « Infrastructure et imaginaires. Une lecture alternative du changement technique », in Konstantinos Chatzis, Gilles Jeannot, Valérie November, Pascal Ughetto (dir.) *Les métamorphoses des infrastructures, entre béton et numérique*, Peter Lang, 2017, pp. 51-66.

Antoine Picon, *La Ville des Réseaux : Un Imaginaire Politique, Paris*, Editions Manucius, 2014.

Antoine Picon, *Les Saint-simoniens Raison, imaginaire et utopie*, Paris, Belin, 2002.

Antoine Picon (dir.), *L'Art de l'ingénieur. Constructeur, entrepreneur, inventeur*, Paris, Centre Georges Pompidou, Éditions du Moniteur, 1997.

Rosalind Williams, *Notes on the Underground, An Essay on Technology, Society, and the Imagination*, Cambridge, MIT Press, 1990.

Rosalind Williams, « Cultural Origins and Environmental Implications of Large Technological Systems », *Science in Contest*, 1993, p. 377-403.

Maurice-François Rouge, « L'organisation de l'espace et les réseaux », in *Éventail de l'histoire vivante. Hommage à Lucien Febvre*, Paris : Armand Colin, 1953, 2 vol., republié dans *Flux*, numéro 5, juin 1989, p. 87.

Dominique Rouillard, *Superarchitecture, le futur de l'architecture 1950-1970,* Paris, La Villette 2004.

Dominique Rouillard, « Le Futur au travail » dans *Imaginaires d'infrastructures*, Dominique Rouillard (Ed.), Paris, L'Harmattan, p. 67.