International symposium

TECHNOCRITIQUE(S)
REFLECTION UPON 3.3 MILLION YEARS OF HUMAN TECHNICAL EXTERNALIZATION

organised by
the cluster of excellence Pasts in the present and the MSH Mondes from 25th to 27th March 2025 (Nanterre and Paris)

Wherever digital solutions and artificial intelligence (AI) have spread, whatever the creative domain or human activity, the impression of having a total, even universal, all-terrain technology has never been so strong. We cannot ignore that the digital revolution, while apparently offering simplicity and ease-of-use is accompanied by a rather remarkable *invisibilization* of technology's infrastructure, leaving its users ignorant to the processes and material elements that encompass even the simplest tools. *Homo comfort,*[1] as the Italian anthropologist Stefano Boni calls it, lives in a hypertechnological world, in which he is ignorant of most of its systems. How can one understand the *least-effort infrastructure* in which we live when recontextualized within nearly 3.3 million years of *technological externalization*[2]? Were 3.3 million years of experimentation necessary to arrive at this point, or rather, did we need to collectively forget our entire history in order to accept our current situation? Has exteriorization always been synonymous with emancipation, optimization (of effort), and inversely, with reduction (of ability)? Why does it seem that certain technologies have rendered us more intelligent, sociable, and human while others have allowed us to reach new heights of inhumanity, laziness, and isolation? It would be reductionist to see in this phenomenon of accelerated delegation, in which we are participating, the consequence of the recent explosion of computational performance coupled with the willingness for economic, political, social, and cultural reorganization. Didn't the first stone tools spread in the same fashion as other

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[1] Stefano Boni, *Homo confort: le prix à payer d'une vie sans efforts ni contraintes* (Paris: *L'échappée,* 2022).
[2] André Leroi-Gourhan, *Gesture and Speech*, trans. A.B. Berger (Cambridge, MA: MIT Press, 1993).

technologies, displacing our physical and mental capacities while at the same time changing the infrastructure of our efforts? Perhaps with the same uncontrollable and universalizing ambition, they caused a comparable joy for their users also and provoked, who knows, the same technological ignorance and varied forms of addiction. Can we imagine a different history of the externalization of our capacities, one that takes into account the *longue durée* and ceases to employ linear paths from simple to the complex or oscillating trends of progress and degeneration, therefore being more reflective of the multitude of human experiments in externalization over time in order to self-organize, to decide freely, or inversely, to suffer the imposition of elements that were ultimately better to partake in, to delegate, or to collectivize (Graeber and Wengrow, 2021)?[3] These are some of the problems that this conference will tackle. To cover the immense spectrum of the questions posed by technical displacement, from (pre)history to the present day (and let us not forget the novel forms the future may hold), the conference will take the shape of multiple collective workshops, open to all disciplines of the humanities and social sciences, in all periods, as well as engineers, artists, and designers. Here we hope to conduct a review of 3.3 million years of technical delegation in all areas of human activity and ask a single question: "How do we reinvent *technocriticism*?"

How do we evaluate each new phenomenon of exteriorization, particularly in the domain of memory? How do we evaluate what has been gained and lost, which capacities have been called to action or laid to rest, which parts of the body and brain that have been stimulated or inversely gone dormant – i.e., the evolution of what Simondon called the "part of man"[4]? Have we always sought to maximize simplicity and minimize effort and have we arrived at the dreaded stage of evolution that Leroi-Gourhan called *l'humanité anondonte*, which translates literally to "human duck mussel" or more generally "humanity as bivalves" : a mostly remote humanity, perpetually supine , using what remains of its anterior limbs to push the few buttons required to maintain the system?[2] In a similar vein, Paul Virilio (*Inertie polaire*, Galilée, 1988), while exploring the history of inflatable balloons, television, and the extraordinary technologies of the 20th century allowing for armchair travel, even off of the planet, underlines that inertia has become "the primary horizon of human activity. The incapacity to propel ourselves to act – which was the sign of a handicap and infirmity – has become the symbol of progress and mastery our environment?"[5] Faced with this supposed risk of being *augmented mollusks*, sometimes technocriticism takes the simplest path. While not wholly unfounded, it often becomes an echo chamber for our collective fears. We willingly extrapolate observed tendencies in order to denounce the wrongdoings of hyper-technologization. While discussions concerning the mitigation of a "digital everything" in schools or "digital detox" cleanses abound, and, moreover, we rarely take into account that interfacing (or inter-erasing?) carries a considerable ecological cost[6], it remains

[3] The same approach conducted by David Graeber and David Wengrow on the forms of social organization and the notion of liberty/freedom (*The Dawn of Everything. A New History of Humanity* (London: Allen Lane, 2021) would certainly welcome for the history of technology.

[4] Gilbert Simondon, "Les limites du progrès humain," *Revue de Métaphysique et de Morale* 64, no. 4 (1958):412-427.

[5] Our translation. To read more on the role that « reposité » (restitude ?) could have played in evolution, see the original theory by Albert Piette in *Anthropologie existentiale*, Petra, 2009 and « Reposité », in Philippe Zawieja éd., *Dictionnaire de la fatigue,* Genève : Librairie Droz, 2016, 723-726.

[6] On the denunciation of "zombie technologies," see the work of the physicist José Halloy and the interview done

remarkable that we continue mix the most cutting-edge data with the invocation of our most distant past: technocriticism doesn't seem to be possible without the theory of evolution, the essentialization of techniques, the invention of a new branch of the genus *Homo* (see Boni, 2022), or even a simple contextualization over the *longue durée*, indicating that things weren't always as they are now (see, for example, Mumford on the first megamachines, created with humans, during antiquity). How then can we conduct *good* technocriticism without succumbing to mythological or even theological pitfalls?

Since Samuel Butler's famous prophecies and his dialogue with Charles Darwin about the day where humans will be to machines as dogs are humans, we are stuck in a war between species (*Erewhon*, 1872)[7]. The fact that the West seems to have a complicated relationship with its technical productions is not the only problem, however, as Simondon deplored quite a long time ago. The history of technology is too often reduced, even today, to a line, a single historical trajectory of progress or failure, a linear chronicle of the displacement of our capacities (see, for example, Harari's 2015 bestseller, *Sapiens*). It is an old leitmotif. One André Leroi-Gourhan's oldest ideas focused exactly on demonstrating the antiquity of this pattern: technological exteriorization was perhaps consubstantial to the development of the species 3.3 million years ago. This idea is summarized by Bernard Stiegler in the following manner:

> *By shifting time scales, Leroi-Gourhan ultimately proposes that the apparition of techniques is not only the apparition of a "third kingdom", but also a "third memory": alongside the somatic and germinal memories that characterize sexual beings, we see the development of a memory that can be transmitted between generations and can, in a way, 'spontaneously' conserve technical organs. [...] The term of 'exteriorization' is in fact not completely satisfactory as it supposes that what is 'exteriorized' was once internal. Man is only man when he extends beyond himself, via his prostheses. Before such an exteriorization, man doesn't really exist. In this sense, while we often say that man invented technology, it is perhaps more exact, or at least equally legitimate, to say that it is technology, a new stage in the history of life, that invented man. This 'exteriorization' is the pursuit of life by other means than life.*[5]

While the term exteriorization underlines our continued difficulty to see through anything but an anthropocentric lens (the use of the term man with a capital M has never ceased to play tricks on paleoanthropologists, being used to designate a species, a generic entity, a unique individual, and a collectivity all at once), the terms technology or technique are perhaps no less misleading, too often conflated with the term object, even 80 years after Mauss' essay on the *techniques of the body* (*techniques du corps,* 1934). Should we be satisfied in this context of

by J. Wacquez and E. Grimaud, "Le grand vertige," *Terrain* (Special issue: Futurofolies) 79 (2003): 214-227

[7] Samuel Butler, *Erewon; or Over the Range* (London: Trübner, 1872). Cf. See Thierry Hoquet, *Samuel Butler. Darwin parmi les machines et autres textes néo-zélandais* (Hermann Glassin, 2014.

[5] Our translation from Bernard Stiegler "Leroi-Gourhan: *l'inorganique organisé.*" *Les cahiers de médiologie* 1998/2 (n° 6): 187-194.

predictions about the future made by Leroi-Gourhan, some of which resonate particularly well today? In 1000 years, he prophesied, once all his cognitive functions have been externalized, including the flux of his interior images, humanity will be unable to go any further, man will be nothing but a "living fossil, surpassed by an artificial double that will ultimately discard his biological host". Leroi-Gourhan concludes that humans are not the subjects of the history of humanity, but rather "culture" is the subject, and humans are only its biological host.

As the terms exteriorization, delegation, extension, and displacement[6] are often used as synonyms, it is essential in this context to reevaluate what is occurring in all domains where assistance (human, non-human, or mixed) can be seen, integrated, or imagined. These *least-effort infrastructures* can be paradoxically expensive in terms of energy or manpower. We need conduct an archeology, a (pre)history, or even a deep history of them. Who does what in these infrastructures? Who or what is liberated, or, abandoned? Who is the host, and who is the parasite? Under which conditions do the autonomous become the assisted, the master the slave, the savant the ignorant, the experimenter the experimented, the interior the exterior, etc.? When does least effort hide considerable energy costs? Such reversals are multiple throughout the history of technology, but are they inevitable, or do they provoke particular types of safeguards? The problem largely exceeds prehistory, the entire history of heritage, memory storage, creative processes, etc. In terms of memory, for example, who wins and who loses with the transition to digital archives? How do we evaluate that which interiorizes and that which externalizes, what we gain or we lose in terms of capacities, and in which ways, when, for example, piloting a drone into combat, conducting robot-assisted surgery, or in the oldest processes that historians of writing (from tablet to printing press in throughout the history of typing)[7] or of techniques of navigation[8] scrupulously analyze, or of even earlier traces identified by archaeologists, allowing for the identification of key moments through the history of externalization through deep time, such as hafted tools or rock art ? How do we evaluate the externalization of memory, which elements have been displaced and which circuits have been imitated, extracted, or automated in, for example, the creative arts, who are among the first spheres concerned by the development of AI, deep learning, and generative AI? How do we judge the restriction – or augmentation – of what Simondon called the "part of the man", and evaluate what will collectively awaken, those unknown parts of ourselves that begin to work and resonate in a man-machine relationship[9]? When these parts become operator and consumer, how do we judge the effects of *empowerment* and

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[6] Before Leroi-Gourhan, Helmuth Plessner considered the ability to project oneself outside of oneself (excentricity) as one of the characteristics of the human race; see *Levels of Organic Life and the Human: An Introduction to Philosophical Anthropology*, trans. Millay Hyatt (NY: Fordham University Press, 2019 [1928]). Ernst Kapp saw an "organ projection" in all technology; see *Elements of a Philosophy of Technology: On the Evolutionary History of Culture*, trans. Lauren K. Wolfe (Minneapolis: University of Minnesota Press, 2018 [1877]).

[7] For a retrospective history of typography, from the digital revolution to the printing press, see Nicolas Taffin, *Typothérapie: fragments d'une amitié typographique* (Caen: C§F Editions, 2023).

[8] Working in distributed cognition and drawing from the navigational technology, Edwin Hutchins famously deepened Leroi-Gourhan's intuition on exteriorization, in his *Cognition in the wild* (Cambridge: MIT Press, 1995), including the idea that the technologies develop a rather autonomous agency from a certain degree of complexity.

[9] "We can say that there is human progress only if, in passing from a self-limited cycle to the following cycle, man augments the part of himself that is engaged in the system that he forms with the objective concretization," he said. Gilbert Simondon, *Les limites du progrès humain* (1959), *Sur la technique. (1953-1983)* (Paris: PUF, 2014,), pp. 269-278.

disempowerment? These are the problems we wish to tackle, using concrete examples, case studies, and fieldwork involving *conflicts of abilities,* competing or forgotten *least-effort infrastructures*, or when exteriorization becomes not only a technical but a political problem. The largest possible breadth of comparisons is necessary, as we hope to initiate a true interdisciplinary dialogue between actors from archeology, prehistory, digital studies and information sciences, anthropology, and the history of technology, memory, and heritage.

Proposed workshops (this provisional architecture will be revisited based on the proposals received)

- *Workshop 1*: Critique of technocriticism
  - A session treating efforts to critique models inherited from technological evolution (postcolonial critiques of linearity, plural ontologies, etc.), but also solutions to surpass and reground the critique of technocriticism and to transcend its often simplistic impasses.
- *Workshop 2*: Art and artificial intelligence
  - A session that will explore the very definition of art through prehistoric and modern case studies as well as treating examples of classical externalization, delegation, and/or digital cooperation.
- *Workshop 3:* Digital detox
  - Are digital and analog interchangeable? A session with the objective of critically examining externalization in a large number of domains: what do we gain and what do we lose when passing from the hand to digital solutions?
- *Workshop 4*: Totalitarian technology
  - Using recent and (pre)historic case studies of effort infrastructures – human, nonhuman, or hybrid –, this session will explore the notion of technological choices. Are all technologies addictive and do they generate dependencies? Are they totalitarian or totalizing?
- *Workshop 5*: Technoflops
  - (Pre)history has documented different degrees of technical "success", but what about the failures? How can one define them and what do they tell us? What do we do with all of the choices never made and non-choices that remain to be made? How do we measure least-effort economies? Is technical "efficiency" an illusory or, above all, an ineffective concept?
- *Workshop 6*: Mnemonics
  - The evolution of technology requires us to mourn, so to speak, certain human abilities. We will try to respond to this question through the exploration of case studies on the externalization of memory: from tablets to IA without forgetting ancient technologies whose existence many ignore. What do we gain from simply viewing them as supports instead of veritable infrastructures that differentially allocate the least (memorial) effort? Should we mourn human memory, and if so, which ecosystems of memory should we cultivate today?
- *Workshop 7*: The beginning of the end…and vice versa
  - From a (pre)historic perspective, the end of certain technological lineages see the

birth of new lineages; but is this Simondian schema still applicable? Have we reached the end of our human abilities? How can an end mark a beginning and how do we identify that which is starting to emerge? We will explore this question using different case studies on the dawn and twilight of technical abilities.

- *Workshop 8*: The human bivalve and beyond
  - Leroi-Gourhan imagined a future where humanity would have reached the "mollusk" stage, the ultimate stage of externalization where humans, depending upon what we could call "bivalve technologies", would only need to interface with them by pushing a button. This session has the objective of exploring this idea by posing the question directly: do all technologies have the ultimate goal of completely reducing human effort to nil and transforming us into bivalves?

The workshops will focus on the exploration of concrete case studies and will reflect the plurality of voices necessary to move beyond the grand narratives with which we are currently familiar. We propose a global objective for the conference to be the publication of a sort of collective manifesto (*a manifesto of the augmented mollusks*, in order to return to Leroi-Gourhan's wonderful imagery?), which will respond to this century's challenges: can a different relationship with technology truly be envisioned and where shall we concentrate our efforts? If technocriticism seeks to liberate individuals from being passive, substituted, or replaced, what place do we give, in this context, to the cult of least effort or the quest for maximal effort? Should we already envision a post-AI future and an extrication from the all-digital world? How much would such an infrastructural U-turn cost? What are the options for the future of our delegations, and within these what will be the "part of man"? And how will the (pre)history of technology surpass this stage of grand inventories in order to propose evolutionary counter-histories and propose alternative scenarios to those we thought we knew, and therefore become politically intelligent?

In addition to this collective manifesto, we wish to publish the contributions to the different workshops, but we also wish to explore alternative solutions that will allow us to relay the diversity of our speakers' approaches and proposals elicited by this call.

We are open to all proposals that will make this conference not only a site of intellectual exchange but also space for collective play and experimentation using other modes of sharing (performances, installations, experiments, etc.)

Symposium proposed by Emmanuel Grimaud and Lars Anderson.

Organizing committee
Lars Anderson, associate professor at University Paris Nanterre, member of TEMPS
Ghislaine Glasson Deschaumes, director, MSH Mondes ; head of Project, cluster of excellence Pasts in the Present
Emmanuel Grimaud, senior fellow researcher at CNRS, member of the LESC, scientific coordinator, cluster of excellence Les passés dans le présent
Julien Schuh, associate professor at University Paris Nanterre, member of CSLF, deputy director, MSH Mondes

Scientific committee

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Guillaume Carnino, associate professor, University de Technology of Compiègne

Ludovic Coupaye, associate professor et director of the Centre for the Anthropology of Technics and Technodiversity, University College, London

Servanne Monjour, associate professor, Sorbonne University, member of Cellf

Agnès Giard, writer and anthropologist

Thierry Hoquet, university professor, University Paris Nanterre, membre de l'IREPH

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Peter Stirling, scientific projects support officer, The French National Library (BnF)

John Tresch, Mellon Chair and professor at The Warburg Institute, School of Advanced Studies, University of London

Gwenola Wagon, associate professor HDR, Université Paris 8

Fabienne Wateau, senior fellow researcher at CNRS, member of the LESC

Nathan Schlanger, professor, École nationale des chartes

Proposal format:

- For individual contributions: one-page argument in French or English; with short bio- and bibliography summary, contact details for the follow-up;
- For workshops (contributions to suggested workshops or new proposal: two-page note of intent (argument, method, equipment requirements, potential participants) in French or English, with short bio- and bibliography summary, contact details for the follow-up.
- Proposals in the form of demonstrations, experiments or performances: two-page memorandum of intent (argument, method, equipment requirements, potential participants) in French or English, with short bio- and bibliography summary, contact details for the follow-up.

All proposals should be sent before **October 15, 2024** (before noon Paris time) at the following address*:* technocritique.s@passes-present.eu

More information is available upon requirement at the same address.