Loop

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EDITORIAL

A loop is a material process, a fold that is made of something, like a rope, or by something, like a river, or an airplane. While its recursive movement could be understood as circular, the loop only approximates the circle's abstract form: there is always something that overflows in the embodied process of looping, a twisted residue whose traces are preserved in some of its informal declensions, such as looped (drunk) or loopy (crazy). In fact, the loop's overflow is also the secret of its generative quality: every loop is a repetitive process that is productive of a quantum of difference, a surplus that keeps feeding back into a spiralling and never fully predictable becoming.[1]

Perhaps life is nothing but the question of how to extract novelty, change, and value from the relentless iterations that shape existence. No doubt this is a question that concerns capitalism, whose reliance on the capacity to feed back the surplus of its own operations into an ever-expanding circulation has been widely dissected.[2] The feedback loop is constitutive of the logic of control at the core of cybernetics, as a mechanism aimed at reducing the gap between expected and actual results by continuously re-integrating the noise within the system. One can say, in fact, that the dominant worldviews in the contemporary landscape of governance, law and control, especially with the rise of algorithmic governmentality, are centred on the question of how to feed contingency back into a productive, predictable, and preferable loop.[3]

As Tiqqun write, with typical emphasis, 'Cybernetics is the project of recreating the world within an infinite feedback loop involving these two moments: representation separating, communication connecting, the first bringing death, the second mimicking life'.[4] It is a paradigmatic shift, one that Yuk Hui traces back to Immanuel Kant's epistemological break with the mechanistic worldview: namely, the advent of a thought of *recursivity*, 'characterised by the looping movement of returning to itself in order to determine itself, while every movement is open to contingency, which in turn determines its singularity'.[5]

In the smart city imaginary, for instance, this is translated into a dream vision of a city where everything works smoothly via an endless, automated feedback loop between urbanites and technology. Both the neoliberal paradigm of adaptation and the aesthetic promise of comfort can be said to depend on this automation. The entrapping design of digital apps, as explored by Giorgi and Gerosa in this issue, shows all too well how cybernetic feedback loops play an increasingly important role.[6]

The loop does not only feed this promise of adaptation and resilience, however. A concept like 'back loop', for instance, points to a movement that does not feed back onto the system but opens to other lines of development, experimentation, and valorisation.[7] The overflow, excess, or surplus that is constantly produced by the material process of looping into which abstract circulation concretely unfolds is both an opportunity and a danger for all sorts of formal and informal, institutional and non-institutional, human and nonhuman actors. It follows that designing normative and technological

1 See also Alex Wafer and Andrea Pavoni (Eds) 2019. *Overflow*, *lo Squaderno* 52
2 Sandro Mezzadra and Brett Neilson. 2019. *The Politics of Operations: Excavating Contemporary Capitalism*. Duke University Press.
3 Luigi Pellizzoni. 2023. *Cavalcare l'ingovernabile. Natura, neoliberalismo e nuovi materialismi*. Orthotes.

4 Tiqqun, 2020. *The Cybernetic Hypothesis*. MIT Press.
5 Yuk Hui, 2019. *Recursivity and contingency*. Rowman & Littlefield.
6 Barbara Stiegler. 2019. *Il faut s' adapter. Sur un nouvel impératif politique*. Gallimard.
7 Stephanie Wakefield, 2020. *Anthropocene back loop: Experimentation in unsafe operating space*. Open Humanities Press.

infrastructures able to leverage this excess into commoning endeavours becomes one of the key challenges of the contemporary era, one that is differently tackled by the contributions of Tripodi and Bordeleau that conclude this issue.

At the same time, the loop can also be read beyond this drama of production and resistance, control and escape. As expressions such as 'going around in circles' or 'running in circles' indicate, looping can also belong to an inoperose dimension of idleness, laziness, unproductivity: just going around, or loitering, the criminalisation of which, especially in the USA, indirectly points to an accursed share that is hardly compatible with the normative requirements of social order. In many instances across history, the loop's apparently pointless repetition has been generative of subversive practices that have clashed with the repressive requirements of social control. One may think about the trance-inducing loop of Sufi Dervishes, persecuted over the course of centuries in the Muslim world; the use of loops in electronic music, which has always been particularly controversial in the context of rave parties and their repression, at its most explicit in the notorious UK Criminal Justice and Public Order Act 1994, where the law defined raves as gathering of people with loud music including 'sounds wholly or predominantly characterised by the emission of a succession of repetitive beats'; or the 'donuts' performed by cars at illegal *takeovers* or *sideshows,* whose spiralling traces are captured in the evocative pictures provided by this issue's guest artist, **Stephen Loewinsohn.**

An appropriate entry point is provided by **Amedeo Policante**, who revisits Norbert Wiener's foundational cybernetic reflections around the notion of control and the principle of feedback loop. From this historical premise, Policante sets out to explore the surfacing of the cybernetic notion of life that has become so relevant in the life sciences – namely the understanding of the living body as interfacing with the environment via a continuous feedback loop mechanism – all the way to contemporary cybergenetics and its expanded experimentation with synthetic biology and metabolic engineering, reflecting on what new conceptions of molecular life and speculative futures of biopolitical control this convergence is enacting.

Cybernetic loops are increasingly imagined as an abstract diagram of control, which enables the government and direction of life processes at multiples scales from the molecular to the planetary.

Questions of cybernetic and control are also at the core of **Mattia Galeotti**'s text, which revolves around a crucial question: 'How are we commanded, and how does creativity arise once algorithmic and classification systems become pervasive in the world in which we live?' From the history of computation to contemporary algorithmic governmentality, Galeotti highlights the peculiar way in which algorithmic systems pre-structure the reality on which they supposedly 'act', via a recursive feedback loop between classification and signification, measure and value. Machines, in this way, present us with a circular truth from which all the practices and gestures that inform the operation of computation are expelled, prompting the necessity of a critique that, besides important matters of bias and discrimination, proceeds to dissect in depth their ontological presuppositions.

The next text, by **Giulia Giorgi** and **Alessandro Gerosa**, zooms in on the feedback loop technology that feeds contemporary social media platforms – Tik-Tok and Instagram in particular – by articulating devices, algorithms and brain neurotransmitters into a self-fulfilling, toxic, and literally vicious circle. What they term 'the loop of loops' is the way in which the self-repeating cycle of each video is embedded in the wider cycle of inter-platforms feedback loops, generating the impression of endless novelty that in fact betrays the deception of a flood of information 'designed to trap users like a whirlpool, dragging them in circles, yet leading them nowhere'. As a result, the users are caught in the strange loop of doom scrolling, an Escherian staircase that they keep climbing and descending at the same time, while being psycho-physically depleted in the process. Yet, the authors show, this self-fulfilling spiral may also contain the seeds of its own disruption.

With the next text, while moving away from matters of cybernetics and algorithmic technology, we remain firmly placed within the problematic field through which they have unfolded. **Luca Bertocci** reflects on the problem of generating *novelty* from the apparent closure of

the *project*. The latter, Bertocci observes, following Heidegger and Cacciari, seemingly rests on a conundrum: it does open a potential to become, but at the same time it pre-structures a field of play where such a becoming should supposedly unfold, pre-emptively neutralising its differential force. Reflecting on his own doctoral experience, Bertocci finds in the feminist practice of *figuration* some possible answers to the damning question of how can a difference that makes a difference be produced in the context of a PhD project, whose requirements appear to be crafted exactly to suffocate that very originality that academic institutions explicitly demand.

Perhaps the key question at stake here is not so much whether one 'creates' something new but how one becomes and transforms as a result of this very attempt. Perhaps, then, creation is exactly a question of seeking to become *with* contingency, as in the destructive plasticity described by Catherine Malabou, where becoming occurs even in the absence of a subject, where recursivity functions not despite, not beyond, but rather through destruction, before a contingency that cannot be absorbed, that cannot be rendered *valuable*, and rather can only be *accompanied* via radical transformation.[8] Think about the eerily creation by dissipation conjured by William Basinski's *The Disintegration Loops* [2002]. It is not surprising, then, that the theme of transformation is surreptitiously present in most of the texts, often implicitly concealed beneath the question of how to subtract oneself from a regime of command and its pre-structuring of the field.

This quest resonates with the notion of *diavolution*, that Andrea Mubi Brighenti proposed as an alternative to the dialectical promise that always informs — and post-facto assesses — the revolution. In this term, the Latin prefix *re-* is replaced with the Greek prefix *dià-*, meaning 'through', while the Latin root volvo, -ĕre ['to turn'] is left in place. 'Diavolution does not stand in opposition to revolution: it addresses a moment of desire which is present in many revolutions', turning the dialectical cycle of the revolution into a spiral that keeps coming back to and through its problem and contradictions without

seeking to solve them, but rather offering a way to inhabit them 'by transforming — one might also say, transvaluating — them'.[9]

In a similar vein, there emerges the relevance of the concept of destitution explored by thinkers like Benjamin, Heidegger, Schurman, and Agamben. Destitution concerns the possibility of naming that which falls outside of the circular relationship between constituent power and constituted power, a relationship that defines modern sovereignty and its conception of revolution. **Michele Garau**'s text takes up this thread. In the context of the ongoing erosion of values, signifiers, and classical forms of political action, Garau understands riots as forms of destituent action, repeated 'gestures of withdrawal that undermine the founding myth of political constitution.' These immanent tactics hold the potential to locally dismantle the closed circularity of politics — with its requirements of clear categories, identities, demands, and consequences. The loop, here, appears as a generative repetition that eschews the strange loop of dialectics and its abstract rationality, by reasserting the affective immediacy of a protest that is evaluated in the immanence of its differential becoming.

From an ethnographic perspective, through a series of interviews and participant observations in the context of the Black Lives Matter protests in the USA, also **Arturo Castillon** explores contemporary riots by asking the question of what 'animates one person to participate in a rebellion', regardless of the risks endured and the little rewards promised. Willing to avoid easy causal and rational explanations, Castillon resorts to dive into the affective and embodied experience of the riot, and the way in which its immediacy feeds back upon itself, generating new experiences, feelings, and becomings, a process through which ethical values are both incarnated and transvaluated in unforeseeable ways.

Mario Marasco brings us back to vicious recursivity, by looking at the looping effects that shape social imaginaries into self-fulfilling circles of categorisation, stigmatisation, and

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8 Catherine Malabou, 2012. *Ontology of the accident: an essay on destructive plasticity*. Polity Books.

9 Andrea Mubi Brighenti, 2008. Revolution and diavolution: What is the difference?. *Critical Sociology* 34 (6), 787-802, 797.

marginalisation. Looking at Bastogi, a stigmatized neighbourhood in Rome, Marasco shows the marginalising effect of labelling practices and the way in which these are endured, digested, reproduced, but also at times reappropriated, by the inhabitants, as they oscillate in the doomed alternative between illegal squatting, that provides them with precarious shelter, and the eternal promise of a legalised housing that keeps moving away from them as they float in the Kafkaesque limbo of the waiting lists.

The next contribution continues to explore the relation between loop and the imaginary, focusing on the 'neoliberal socio-climatic imaginary of circularity, one in which the promise and possibility of the circular economy is circumscribed by the ability of corporations to turn a profit on their climate commitments'. By looking at Kalundborg Symbiosis in Denmark, **Matthew Archer** shows the problematic greenwashing that contemporary sustainability discourse enacts. Archer reflects on the way in which the political potentialities of circularity are appropriated and enfolded into a Hofstadterian strange loop that systematically re-ingests and neutralises any *difference that can make a difference*. Ultimately, Archer gestures towards the task to unpack the radical imaginaries that have been in this way foreclosed, to let them unfold fully.

How to prevent the loop from degenerating into a circular closure? How to leverage the differential force of its spiralling repetition? This is, first and foremost, a question of design, one that is tackled by the two closing contributions. **Lorenzo Tripodi** explores it in the context of participatory planning, where the challenge is that of mobilising the strength of the collective while avoiding its reappropriation and defusion into a 'bad loop, reintroducing bureaucracy and consolidated institutional power patterns'. The strategy devised by Tripodi is presented in the context of *Tesserae*, the organisation he co-founded with Laura Colini in 2011, combining academic background, policy expertise, and artist and activist urban insight. At the core of this effort is the challenge of designing effective transformative processes, a strategy that unfolds via concentric loops meant to facilitate the negotiation between scales, institutions, skills, jargons, and practices, with the purpose of channelling them into co-creation processes.

The question of how commoning can be unleashed via design also inspires the text that brilliantly closes the issue. Bringing together circular economy, blockchain technology and art, **Erik Bordeleau** invites us to envisage the swirl as 'a compelling entry point for understanding the dynamics of both participatory design and economic systems'. This speculative and aesthetic effort to envisage a looping process that is able to spiral away from the circular trap of the strange loop, while leveraging the emergent, collective intensity generated by the contributory elements at play, is grounded on *The Sphere*, a project for a regenerative commons for the live arts that Bordeleau is part of. Complementary to Archer's text, his proposal offers a compelling example of how a radical imaginary can be both evoked and materialised through a socio-technical design strategy that promises to conjure novel notions of value, desire, reward, trust, and participation.

Bordeleau's ally in his speculative and practical effort is the late ecological and organological thought of Bernard Stiegler, and especially his attempt to unpack the differential potential of locality within 'a perspective in which the economy itself works as a *general therapy for the biosphere*, reversing the destructive course of the Anthropocene by favoring the always localized slowing down of entropic processes'. Surely, this is a complex and always ambiguous process, one that seeks to mobilise the loop speculatively and practically in order to unleash the differential intensity of a locality, while providing an infrastructure that is able to prevent its degeneration into yet another circular paralysis. This is the challenge the loop keeps foregrounding: that of keeping open and alive its transvaluating potential, without being hypnotised by its circular promises.

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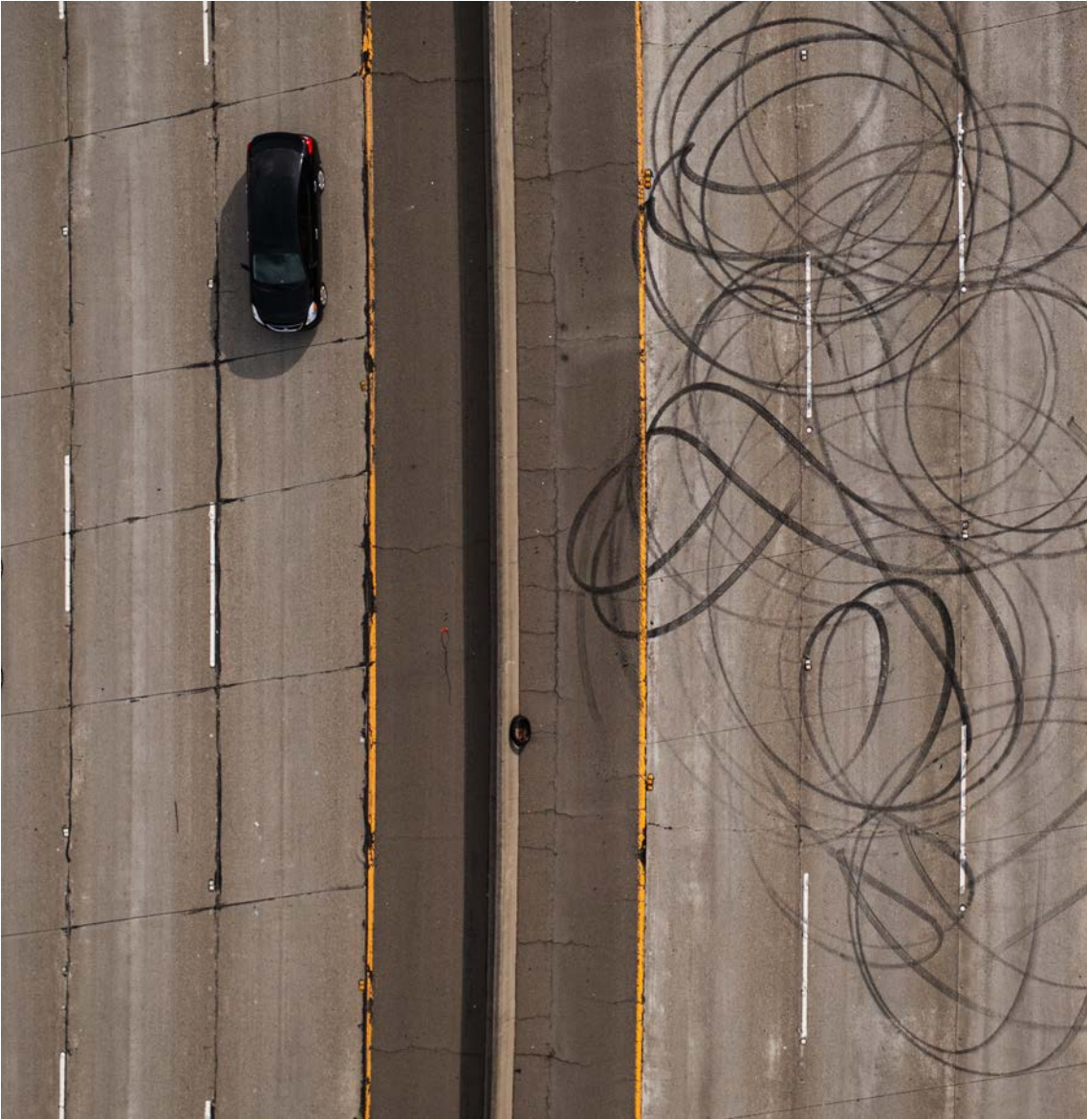
Cybergenetics
Life in the Control Loop

Amedeo Policante

1. In the 1940s, Norbert Wiener presented *cybernetics* as a "word invented to define a new field of science" (1948: 14). The new discipline would strive to understand – in order to manipulate – the functioning of "control and communication in machines and living organisms". Since then, cybernetics has become a pervasive and ubiquitous apparatus, its presence permeating every aspect of our scattered, everyday lives. Its omnipresence makes it an intangible social background, a historical given whose genealogy is at once universally known and yet ever nebulous, hazy, and perplexing.

The word itself – cybernetics – is a faux-antique neologism introduced by Wiener "from the Greek *χυβερνήτης* or *steers-man*". The figure of the steersman, Wiener explains, incarnates a timeless paradigm of command and control. Sitting on a ship continuously seized by countless, unpredictable waves of probabilistic events – from sudden wind gushes to submarine currents, ripples, surfs and breakers – the steersman is confronted by an equation with countless variables, too uncertain to measure, too complex to even understand. Yet, the steersman unceasingly operates so that the ship continuously adjusts its course towards its ultimate destination. The steersman is "one of the earliest and best-developed forms of feedback mechanisms" (1948b: 18-19).

The method of control incarnated in the sun-burnt flesh of the steersman was formally conceptualized by Wiener as "control by informative feedback" (1948b: 154); and then further schematized into a simple and generalizable topological apparatus: *the feedback loop*. According to Otto Mayr, the whole field of cybernetics rests "upon this single idea, that of the feedback loop" (1970: 1). Similarly, Heinz von Foerster (1990) indicated the study of circular feedback mechanisms as the proper object of cybernetic science. This remains true to this day. The *Manifesto of Cybernetic Ventures* (2016) – a corporate network working in the field of management cybernetics – suggests that "the basic underlying framework" guiding many firms in the sector resembles the Ouroboros: a snake eating its own tail, looping back on itself. If Foucault's panopticon sketches the topology of 'disciplinary power', Wiener's feedback loop delineates the abstract diagram of 'control'. Should one name the operating principle that sustain the entire cybernetic system, it would be this: any process (electronic, metabolic, linguistic, digital etc.) – from the molecular to the planetary scale – can be trapped in infinite loop spaces designed to establish control, adjust deviations, and avoid runaway flights. Control is not a singular event, but rather a continuous network process that operates on the basis of persistent and continuous feedback cycles between controller and controlled.

2. Cybernetics as a disciplinary field mirrors its object of study. It is a science that progresses through the constant interaction of two main branches, each looping back into the other. The first deals with engineering artificial systems that "can be mapped using loops (or more complicated looping structures) in the network defining the flow of information" (Scrivener 1990). Anti-aircraft systems,

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automatic navigation systems, unmanned drones, guided nuclear missiles, and so-called smart bombs are just a handful of the cybernetic machines, whose design relies on feedback loops in order to constantly counter-act the unpredictable movement of runaway objects wishing to escape (Heins 2018). Despite their technical differences, these weapon systems – whose destructive power is being unleashed over Gaza as I write these lines – can be traced back to the founding cybernetic machine: the anti-aircraft predictor originally designed by Wiener in 1942 as part of its contribution to the National Defense Research Committee (Galison 1994). The AA predictor was designed to model an enemy pilot's irregular flight, anticipate its future position, and launch a missile to down the plane. Wiener envisioned a system that would eventually eliminate the human element from the entire deadly operation by directly linking in a constant feedback loop the anti-aircraft gun with the radar detection system. Inputs from radar inform the predictor, which works out where the plane is likely to go next. The gun fires. The plane escapes. The radar detects the movement, which informs the predictor, which adjusts the gun, which fires the next shell. Shot after shot, the predictor gather data over the patterns followed by the plane, improving its forecasting capacities. Does it sound familiar? The AA-predictor provided the paradigmatic techno-topology of control: a self-correcting weapon system based on feedback loops and a constant gathering of data from targeted subjects. It became, at least for Wiener and the scores of cyberneticians following his steps, the model for engineering machines aimed at imposing control over chaos, disorder and the vagaries of life itself. "The scientist," Wiener programmatically writes in *The human use of human beings: cybernetics and society,* "is always working to discover the order and organization of the universe, and is thus playing a game against the arch enemy, disorganization" (1950: 34).

The second branch of cybernetics deals with the study of autonomous, self-organizing biological systems that integrate feedback processes to adapt to changing environmental conditions. Early cybernetic machines, such as the AA-predictor, not only enabled new ways of killing and controlling enemy lives, but also projected new ways of thinking about human and non-human bodies as biological systems. From a cybernetic perspective, as Wiener already pointed out in his early writings, the living body is no longer conceived as a "clockwork mechanism", nor as a "glorified heat engine", but rather as a "cybernetic system" interacting with its environment through continuous feedback loops. "The machine, like the living organism," he points out, is simply "a device which locally and temporarily seems to resist the general tendency for the increase of entropy" (1948b: 51). This flat ontology erasing all distinctions between life and non-life, organism and machine, while rooted in the very real life-denying activities of the battlefield, has rapidly spread across the sciences. Adopting this cybernetic perspective, a growing number of biologists have elevated the feedback loop as nothing less than a "universal symbol of how life works at all of its scales and levels" (Davies 2014). "The organism," write the authors of *Systems Biology: Functional Strategies of Living Organism* (marketed as an introductory textbook to the latest trends in biology) – "is a self-contained unit represented by automatic regulatory loops which ensure homeostasis" (Konieczny *et al*. 2023: 159-160). Similarly, according to Hana El-Samad writing in *Cell Systems*: "We, and all organisms, are an evolutionary masterpiece of multiscale feedback control. Feedback loops enable our cells to grow and then stop at the right size, to divide and self-repair, and to respond with agility to their changing environment" (2021: 177).

3. This cybernetic notion of life, which today plays a fundamental role across the life sciences, emerged in silence at first, slowly penetrating the underground mines of scientific thought, to then spring out with great noise in the 1960s, when studies on "genetic control" developed by François Jacob, André Lwoff and Jacques Monod ascended as one of the central paradigms of molecular biology (Nobel Prize Committee 1965). This research investigated how living cells can rapidly adapt to subtle environmental shifts by expressing or repressing (turning on and off) different bits of their

genome. In their study of "Genetic Regulatory Mechanisms in the Synthesis of Proteins," (1961) Jacob and Monod showed that living cells regulate their metabolism sensing and reacting to the biochemical composition of the surrounding environment. For instance, *E. coli* synthesizes B-galactosidase, an enzyme that breaks down lactose into digestible components, only when exposed to environments that are rich in lactose. Once all the lactose is digested, however, the production of the enzyme is suspended. The key to this adaptive strategy, Jacob and Monod showed, is a complex genetic control system in which: a) the gene associated with B-galactosidase is repressed by a repressor-protein that binds tightly to the gene and prevents the DNA sequence from being unzipped and transcribed; and b) this repressor-protein is in turn inactivated by the presence of lactose in the environment, enabling the production of B-galactosidase, which then breaks lactose. A negative feedback loop constantly adjusts enzymatic production according to available sugar levels.

Influenced by cybernetic models, Jacob and Monod generalized this experimental finding well beyond the peculiar, microscopic lives of *E. coli* hypothesizing that control loops are essential to life and would be discovered in the cells of all living beings. Their theory of genetic control integrated Watson and Crick's conceptualization of the 'genetic code' – advanced only a few years before – suggesting "that the genome contains not only a series of blue-prints, but a co-ordinated program of protein synthesis and the means to control its execution" (1961: 354). In the chapter "Microscopic Cybernetics" of his *Chance and Necessity*, Jacques Monod went on to explain that the theory of genetic control indicates that "within each cell a cybernetic network hardly less (if not still more) complex guarantees the functional coherence of the intracellular chemical machinery" (1971: 45-46). With a nod to Wiener's pioneering studies on antiaircraft weapon systems, Monod envisioned these "microscopic cybernetic systems" – which constantly operate "governing and controlling the chemical activity" within living cells – as "comparable to those employed in electronic automation circuitry, where the very slight energy consumed by a relay can trigger a large-scale operation, such as, for example, the firing of a ballistic missile" (1971: 68). In a perplexing turn, cybernetics – a science born to automatize the production of aerial death – was now found to be the key to understand life itself.

Reviewing François Jacob's *The Logic of Life* (1970), Foucault suggested that molecular biology represents "the foundation, under our own eyes, of a theory as important and revolutionary of what may have been, in their own epoque, those of Newton or Maxwell" (1970: 967). He stressed the rapid crystallization of a new concept of life that transmuted "living organisms" into "beings determined by a program residing in the cellular nucleus"; "bacteria" into "chemical factories"; the "cell" into "a system of physico-chemical reactions", and the human body into "a reproducing machine that reproduces its mechanism of reproduction". Molecular biology already projected onto the entire biosphere the cybernetic landscapes of digital control that were only starting to emerge – between ARPANET and the webs of fiberglass span by NORAD. What is coming into being, suggests Foucault, is "a biology without life" in which "everything happens as if, in the presence of any stimulation, there was consultation of the program, sending of indications via messengers, translation of instructions, implementation of the orders given". In this informatic life, warns Foucault, "there is no reader, there is no meaning, but rather a program and a production" (1970: 972).

4. Since the 1940s, cybernetics projected new ways of thinking about living processes at multiple scales: from the cell to the biosphere, passing through individual bodies and local ecosystems. Since the 1970s, the science of genetic control seeks to demonstrate that living cells adapt to their environment by regulating gene expression in response to specific signals. Today, synthetic biologists strive to operationalize this cybernetic understanding of cellular life to "program cells to perform tasks or create chemicals and materials that match the complexity seen in nature" (Brophy and Voigt 2014: 508; Borg and Policante 2022: 91-116). "Systems, communications and control theory notions," programmatically states the Control Theory and Systems Biology Lab of the Zurich Federal Institute

of Technology, "are used for synthetically regulating cellular processes at the gene level. We refer to the resulting field of research at the interface between cybernetics and genetics with the portmanteau *cybergenetics*" (ETH 2024).

The emphasis is gradually shifting from "using control theory methods to understand endogenous regulation" towards "engineering cybergenetic circuits that control living cells" (ETH 2024b). The research collective in charge of the EU-funded project *Control Engineering of Biological Systems for Reliable Synthetic Biology Applications* (COSY-BIO) has moved beyond a mechanist theory of biology to a program of mechanization of biology. "The interior of a cell", they point out, "is a 'noisy place where the behaviour of a molecule is influenced by the many processes going on around it'" (COSY-BIO 2020). They contrast this noisefulness of life to the docility of technological devices such as "airplanes and self-driving cars", which "are equipped with 'controllers' that make sure they track the correct route at the correct speed, in spite of external disturbances such as wind, rain, traffic, etc." Rather than claiming that living cells are *like* machines, they start from the opposite assumption in order to promote the need to re-construct cellular structures in order to *make* them machine-like: "The basic idea driving the COSY-BIO project is to translate Control Engineering principles to living cells to engineer molecular circuits" (COSY-BIO 2021).

The promises of cybergenetics are legion. "The ability to robustly steer cellular behavior," write Khammash and colleagues, "will be transformative, enabling myriad applications in biotechnology, chemical industry, health and biomedicine, food and the environment" (2022: 631-632). In an unexpected historical loop, however, one of the first cybergenetics cyborgs to emerge from this line of research is a cellular equivalent of Wiener's foundational anti-aircraft servo-mechanism. In "Engineering microbes to sense and eradicate *Pseudomonas aeruginosa*", a team from Nanyang Technological University in Singapore describe the design of a "novel genetic circuit" intended to steer engineered colonies of *E. coli* bacteria into waging an invisible molecular warfare against targeted microbes. The genetic circuits they describe induce *E. coli* "to (i) detect AHLs produced by *P. aeruginosa*; (ii) produce pyocin S5 upon the detection; and (iii) lyse the *E. coli* cells by E7 lysis protein so that the produced pyocin S5 is released from the cells, leading to the killing of *P. aeruginosa*" (2011: 2). The engineered bacteria are caught in a control loop, with their metabolism redesigned to generate toxins when triggered by specific molecules released by *P. aeruginosa*, and then burst open to release them in the environment, killing themselves and the target. When the triggering molecules of *P. aeruginosa* decline below a predetermined level, the genetic circuit switches off, suspending the production of toxins in the remaining engineered bacteria and thus preserving them for the next *P. aeruginosa* making its way into the environment. The study promises to automate molecular warfare, outsourcing the sensing and killing of undesired bacteria to genetically-designed, cybernetically-controlled bacteria, and providing "the foundational basis for a novel synthetic biology-driven antimicrobial strategy that could be extended to include other pathogens such as *Vibrio cholera* and *Helicobacter pylori*" (2011: 7).

One may well define cybernetics, following Tiqqun, "a gigantic 'abstract machine' made up of binary machines" (2020: 24); yet, this risks obscuring the multiple scales at which the cybernetic project operates. Control systems are not only built *around* subjects — in the form, for instance, of global infrastructures such as the 'fibre loop around the world' (FLAG) that constitute the infrastructural backbone of digital societies and their never-ending cycles of extractive circulation. The genetic control systems that are increasingly central to experimentation across cybergenetics, synthetic biology and metabolic engineering strive to steer living processes from *within*, operating at the scale of the 'microscopic cybernetics' first described by Jacques Monod. The cybergenetic cyborg is not the collage of biological and silicon components imagined by 1960s post-modernists; it is rather a fully-wet organism, which embodies genetic circuits and biological feedback control systems that program, steer

and direct its life course. Cybernetic control is rapidly becoming molecular, its endless loops suddenly lively and embodied in living cells.

References

Borg, E. & Policante, A. (2022) *Mutant Ecologies: Manufacturing Life in the Age of Genomic Capital*. Pluto Press.

Brophy, J. & Voigt, C. (2014). "Principles of genetic circuit design". *Nature methods*, *11*(5), 508-520.

COSY-BIO (2020) "Cybergenetics brings noisy cells under control. EU Commission". Available at: https://projects.research-and-innovation.ec.europa.eu/en/projects/success-stories/all/cybergenetics-brings-noisy-cells-under-control

COSY-BIO (2021) "Control Engineering of Biological Systems for Reliable Synthetic Biology Applications. Periodic Reporting for period 2". European Commission. Available at: https://cordis.europa.eu/project/id/766840/reporting

Cybernetic Ventures (2016) "A Dance with the Ouroboros: The Cybernetic Ventures Manifesto", *Medium*, February 28. Available at: https://medium.com/@cybernetic.ventures/the-cybernetic-ventures-manifesto-214d2e6980b2

Davies, J. (2014) "A closed loop The DNA helix gave 20th-century biology its symbol. But the more we learn, the more life circles back to an older image". *Aeon*, September 26. Available at: https://aeon.co/essays/the-feedback-loop-is-a-better-symbol-of-life-than-the-helix

El-Samad, H. (2021). "Biological feedback control — Respect the loops". *Cell Systems*, *12*(6), 477-487.

ETH Zurich (2024) Cybergenetics: The new field of control systems for living cells. ETH Zurich. Available at: https://bsse.ethz.ch/ctsb/research/cybergenetics.html

ETH Zurich (2024b) "Control Theory and Systems Biology Laboratory". ETH Zurich. Available at: https://bsse.ethz.ch/ctsb

Foucault, M. (1970) "Croître et multiplier", *Le Monde*, 6 November , pp.15-16. Now available also in: Foucault, M. (2001). *Dits and Écrits I*. Gallimard, pp. 967–972.

Galison, P. (1994). "The ontology of the enemy: Norbert Wiener and the cybernetic vision". *Critical inquiry*, *21*(1), 228-266.

Heins, J. (2018) "Letting Go of the Loop: Coming to Grips with Autonomous Decision-Making in Military Operations", *Technical Report to the Joint Military Operations Department [AD1087320]*. Defense Technical Information Centre. Available at: https://apps.dtic.mil/sti/citations/AD1087320

Jacob, F. [1970] (2022) *The Logic of Life: A History of Heredity*. Princeton University Press.

Jacob, F. & Monod, J. (1961) "Genetic regulatory mechanisms in the synthesis of proteins". *Journal of molecular biology*, *3*(3), 318-356.

Khammash, M., Di Bernardo, M., Di Bernardo, D. (2022) "Cybergenetics: Theory and Methods for Genetic Control Systems". *Proceedings of the IEEE*, 110(5): 631-658.

Konieczny, L., Roterman-Konieczna, I., & Spólnik, P. (2023). *Systems Biology: Functional Strategies of Living Organisms*. Cham: Springer International Publishing.

Mayr, O. (1970) *The Origins of Feedback Control*, MIT Press.

Monod, J. (1971) *Chance and Necessity. An Essay on the Natural Philosophy of Modern Biology.* New York: Alfred Knopf.

Nobel Prize Committee (1965) "The Nobel Prize in Physiology or Medicine 1965: Award Ceremony Speech". Available at: https://www.nobelprize.org/prizes/medicine/1965/ceremony-speech/

Saeidi, N., Wong, C., Lo, T. *et al.* (2011) "Engineering microbes to sense and eradicate Pseudomonas aeruginosa, a human pathogen." *Molecular systems biology* 7.1: 521.

Scrivener, A. (1990) "A Curriculum for Cybernetics and Systems Theory". American Society for Cybernetics. Available at: https://asc-cybernetics.org/foundations/tutorials.htm

Tiqqun (2020) *The Cybernetic Hypothesis.* New York: Semiotext(e)

Von Foerster, H. [1990] (2003). "Ethics and second-order cybernetics". In Von Foerster, H. (ed.) *Understanding understanding: Essays on cybernetics and cognition*, Springer, pp. 287-304.

Wiener, N. (1948) "Cybernetics", *Scientific American* 179, p. 14-18.

Wiener, N. [1948b] (2019) *Cybernetics ; or, Control and communication in the animal and the machine.* MIT Press.

Wiener, N. [1950] (1989) *The Human Use of Human Beings: Cybernetics and Society*, London: Free Associations Books.
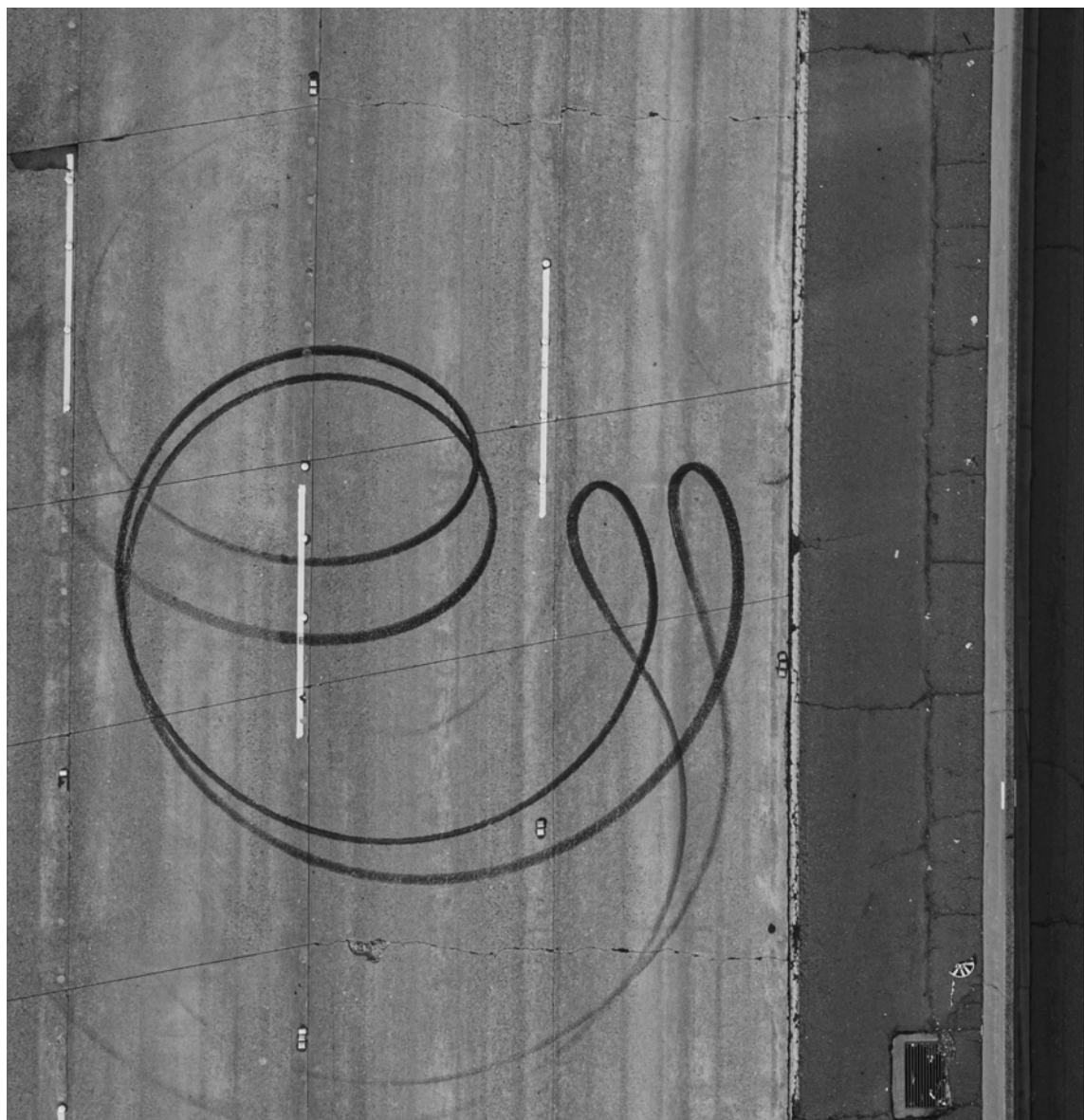
Note su circuiti algoritmici e produzione di informazione

Mattia Galeotti

La questione dei sistemi algoritmici e della "Intelligenza Artificiale" ha oggi un carattere trasversale a molte discipline e molti dibattiti, sia politici che prettamente epistemologici. *Fino a che punto questi strumenti sono in grado di riprodurre o addirittura superare le capacità umane, sia dal punto di vista performativo che dal punto di vista creativo*? Questa domanda riassume l'aspetto più pressante del dibattito, per come viene usualmente formulato.

In questo testo proverò a sostenere, invece, che alcuni elementi – in particolare il comando e la creatività come caratteristiche intrinseche dei gesti di conoscenza – si trovano in qualche modo invisibilizzati dalla costruzione tecnica che si dispiega tramite i sistemi algoritmici, e quindi mi impegnerò a rispondere a (o perlomeno a formulare meglio) un'altra domanda: *In che modo veniamo comandati e in che modo si dà la creatività, se i sistemi algoritmici e di classificazione hanno un carattere pervasivo nel mondo in cui viviamo*?

Il mio tentativo di risposta partirà da una riflessione – anche di carattere storico – sul rapporto tra teoria, strumenti operativi e conoscenza scientifica, cercando di mostrare che i dispositivi macchinici non si limitano mai a descrivere o registrare un "dato" esterno. È la grammatica della macchina che porta con sé l'indicazione a presentare il proprio prodotto, i risultati delle operazioni di calcolo, come *dati* che pre-esistevano alla loro "raccolta". I meccanismi computazionali si dispiegano quindi come la semplice successione di operazioni necessarie, la verità che ci presentano ha un carattere circolare, un *loop* da cui sono stati espulsi i gesti che strutturano le operazioni di calcolo.

Breve storia del paradigma del calcolo

Uno degli elementi salienti del sapere scientifico odierno è un'abbondanza di tecniche di misura e registrazione di informazioni, che accompagna un'esplosione di complessità, senza che a sostenere questa molteplicità di fenomeni esista un paradigma teorico unitario. Che si tratti di scienze biologiche o fisiche, di studi del comportamento delle folle o di analisi fisiologiche, assistiamo alla compresenza di modelli operativi non convergenti dentro un vero e proprio paradigma conoscitivo. La mancanza di un quadro ontologico unitario viene recuperata attraverso la costruzione di un sistema operazionale, una grammatica, che possiamo sintetizzare come "trattazione dell'informazione". Con questo ci riferiamo alla definizione di variabili categoriali deputate a descrivere le situazioni, e sulle quali è possibile far intervenire una serie di operazioni semplici di somma, dislocazione, ricombinazione, ecc. L'esigenza pragmatica di poter usufruire di questa grammatica informazionale accomuna i ceti tecnici e quelli governamentali.

Possiamo interpretare molte azioni di governo e amministrazione dello spazio, del tempo e dei corpi, come una "depurazione" delle situazioni da quegli elementi intraducibili, che rifiutano di rendersi

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visibili in un sistema informazionale o che resistono in altro modo alla loro riduzione.

> Diciamo che un problema da risolvere, un compito da eseguire, è stato algoritmizzato, quando si sia stabilita la lista di operazioni elementari, quella degli oggetti sui quali si effettuano tali operazioni elementari, e quando si sia determinato precisamente in quale ordine e su quali oggetti debbano effettuarsi le operazioni. La formalizzazione integrale di un compito, di un calcolo, necessita l'esplicitazione di tutti i suoi aspetti . . . una volta formalizzate, le azioni più familiari perdono la loro apparenza abituale. La percezione globale scompare a vantaggio di un estremo rigore nella esplicitazione e nella descrizione; il ritaglio della realtà non vi avviene attorno a poli di significato, ma secondo una logica puramente operazionale. In informatica teorica, i termini "macchina" o "automa" designano non tanto il dispositivo fisico che effettua la trasformazione di un messaggio di entrata in messaggio di uscita, quanto la struttura logica di tale dispositivo. La stessa "macchina" può quindi incarnarsi altrettanto bene in una calcolatrice a ruote dentate, in un microprocessore o in una lista di istruzione che uno schiavo perfettamente obbediente esegua alla lettera. Di fatto, una "macchina" è un algoritmo, un programma.[1]

Nel corso del ventesimo secolo il paradigma del calcolo è diventato egemone all'interno di quasi tutte le discipline scientifiche, e la metafora degli oggetti di studio come "macchine che trattano informazione" si è generalizzata: dalla cellula al sistema nervoso, dai sistemi sociali complessi fino anche ad alcuni sistemi fisici; la distinzione tra presupposto ontologico e metafora è andata spesso sfumandosi, senza risolversi mai in modo univoco, e nozioni come quella di "codice genetico" dimostrano che la metafora del *software* ha assunto una valenza significante molto profonda.

Lo sviluppo tecnologico delle macchine informatiche ha amplificato questa egemonia metodologica ed è circolarmente stato favorito dal paradigma algoritmico: i sistemi di calcolo formale permettono infatti di risolvere, tramite la trattazione dell'informazione, una vasta gamma di problemi pragmatici, dall'organizzazione delle catene di montaggio o di distribuzione logistica delle merci, alla risoluzione di problemi aritmetici. Ma la principale ragione di efficacia del paradigma del calcolo è da ricercarsi a un livello più profondo, nella coincidenza che viene a instaurarsi tra verità, finalità e operatività: la *spiegazione* dell'evoluzione delle specie, dei comportamenti di popolazione, dello sviluppo medico delle malattie, ecc., non va ricercata in una ragione esterna ma in una finalità ormai incorporata nell'immanenza (e nella coerenza immanente) del sistema di descrizione e calcolo.

La svolta dei linguaggi scientifici che apre alla concezione delle macchine informatiche avviene nella prima parte del '900, nella "crisi" dei fondamenti delle matematiche, quando Hilbert si inserisce nel dibattito di stampo logicista proponendo una nuova definizione non-ontologica di "esistenza matematica": esiste tutto ciò di cui si può dimostrare l'esistenza[2] all'interno di un sistema logico-formale coerente (cioè non-contraddittorio). La verità non discende più da finalità trascendenti (per esempio da un'idea di equilibrio biologico) o da intuizioni legate all'esperienza (come quella dell'adesione tra spazio geometrico e spazio dell'esperienza fisica), ma dalla semplice non contraddittorietà delle deduzioni, che vengono identificate a calcoli logico-formali.

Al livello fondativo la proposta di Hilbert sarà un insuccesso[3], ma nonostante quest'idea di verità non "fondi" i linguaggi matematici, non fornisca cioè un'ontologia omnicomprensiva delle matematiche e dei linguaggi scientifici, fornisce però un nuovo rapporto pragmatico e matematizzabile con le operazioni tecniche e il loro *senso* immediato: se di un sistema è possibile descrivere i termini e le operazioni (una lista finita di dati, categorie, ricombinazioni, somme . . .), la possibilità operativa

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1 P. Levy, *Il paradigma del calcolo. Dalla raccolta Da una scienza all'altra* (a cura di I. Stengers), 1988.
2 Indipendentemente dalla capacità di "costruire" un esempio dell'oggetto in questione, cioè anche una dimostrazione per assurdo è sufficiente a fornire dimostrazione di esistenza.
3 Nel 1930 Gödel dimostra due risultati che spezzano le congetture di Hilbert. Il primo è l'impossibilità di dimostrare la coerenza di una teoria con i simboli e le regole della teoria stessa. Il secondo risultato è l'esistenza di un asserto che può essere sia vero che falso se si ha come unico punto di partenza gli assiomi della teoria. La costruzione di uno statuto di verità o falsità dell'asserto dipende quindi dall'aggiunta di un assioma ulteriore, dato per esempio dalla situazione contingente che si sta approfondendo, o da una scelta arbitraria.

di portare a termine un calcolo formale, garantisce *l'esistenza* dell'informazione trattata dal sistema stesso. Tutto ciò che non si presenta come prodotto di un gesto di registrazione e calcolo, quindi come dato, ha una forma di esistenza più debole. Il *processo* stesso che ha permesso di svolgere il calcolo, scompare dietro alla formulazione dei dati risultanti.

Se la peculiarità nell'emersione galileiana delle scienze è stata la possibilità di una rappresentazione dove i fatti sembrano parlare da soli, nella quale cioè il *come* è sufficiente a spiegare un fenomeno senza bisogno di *perché* trascendenti, allora il paradigma del calcolo prolunga questa forma di intelligibilità e la frammenta in moltissime operazioni semplici.

La costruzione dell'informazione come atto di forza

La potenza della nozione di informazione sta in un doppio livello: è il veicolo di un'intenzione di classificazione e ordinamento, ma allo stesso tempo può permettere di dimenticare questa intenzione e presentare le sue operazioni come derivanti da una necessità. I "fatti" diventano "dati" e in questa distanza etimologica sta una invisibilizzazione sostanziale che le concrete macchine informatiche si occupano di inverare di continuo. La macchina sociale può essere quindi organizzata su più livelli, distribuendo differenziali di potere al ceto tecnico e politico tramite la possibilità (o meno) di accedere a alcune specifiche definizioni categoriali.[4] I dati, quindi, sono sempre costruiti, ma una volta costruiti possono presentarsi come già esistenti e dimenticare la loro costruzione.

Il fatto che la realtà scientifica datificata sia tecnicamente costruita non è da intendere come una semplice "approssimazione" tramite strumenti che possono essere più o meno precisi. È invece corretto affermare che significazione e misura non possono essere distinte del tutto, ma che al contrario sono reciprocamente organizzate in modo profondo. Il paradigma algoritmico spezza l'intimità tra i due concetti, e ce li restituisce separati in maniera che rinviino specularmente l'uno all'altro.

Prendiamo come caso esemplare i problemi di misoginia o razzismo dei vari sistemi di selezione algoritmica utilizzati su larga scala. Una critica superficiale si limita a cercare i *bias* che hanno nutrito la macchina di informazioni discriminatorie, e le possibili tecniche per ri-equilibrare i sistemi di apprendimento. Così facendo ci si ferma alla possibilità che un dato "giusto" o "reale" esista, sganciando il risultato dell'algoritmo (l'*output*, e il suo significato specifico) dal significato delle informazioni che erano state registrate in partenza (gli *input*). Conta solo la misura degli input, e il fatto che questa sia registrata in modo corretto.

Torniamo invece al fatto che gli strumenti algoritmici utilizzati su larga scala, sono sviluppati e prodotti quasi sempre con obiettivi di selezione: che sia per un posto di lavoro, per la scelta di parole tradotte o delle cifre con cui rilasciare dei prigionieri su cauzione[5]. Risulta allora più chiaro che l'intento *discriminatorio*, nel suo significato letterale, è intrinseco alla macchina stessa, che deve ordinare i suoi input in modo da scegliere un risultato in qualche senso preferibile. Il segreto nascosto in bella vista degli strumenti algoritmici sta nel potere di fissare la gerarchia delle preferenze: la macchina non sta registrando una gerarchia naturale, ma la sta producendo, e quindi non c'è una corrispondenza circolare che si chiude con l'enunciazione dell'*output* reale, ma piuttosto il processo algoritmico

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4 Facciamo dei semplici esempi della strutturazione su più livelli di cui stiamo parlando: la scelta dei criteri che distribuiscono finanziamenti sul piano europeo è oggi in larghissima parte indipendente dalle burocrazie nazionali, quindi queste ultime subiscono i criteri come "dato", mentre le burocrazie europee costruiscono quel dato; la nozione di "esperto" di un settore fornisce sul piano giuridico ma anche sempre più spesso nel dibattito pubblico, la legittimità o meno di criticare dei "dati"; le varie metodologie mediche sono oggetto di studio per i medici e strumenti dati per il paziente; la mancanza di potere del "cittadino" è inscritta nella sua facoltà di accedere alle cose solo in quanto dati.
5 Il caso forse più conosciuto è quello di uno strumento denominato COMPAS, per Correctional Offender Management Profiling for Alternative Sanctions, utilizzato in alcune corti giudiziarie degli Stati Uniti con l'obiettivo di determinare il rischio che individui condannati per un crimine compiano delle recidive in futuro.

rinvia a tutti i processi di significazione, di conoscenza, di classificazione, che lo fanno funzionare. Processi sempre vincolati gli uni agli altri, per cui la produzione di dati non evolve in modo arbitrario, ma allo stesso tempo processi che incorporano delle intenzioni, dei rapporti di forza più profondi. Per continuare nell'esempio, se l'idea di informazione (datificazione del reale) ci suggerisce che le variabili *genere* o *razza* dovrebbero essere indipendenti dalla variabile di appetibilità di un CV, il fatto di costruire concretamente una gerarchia di individui sulla base di dati statistici necessita per definizione di elementi di gerarchizzazione già presenti nell'ambito sociale che si sta statisticizzando.

Un'obiezione che si potrebbe portare a questo punto è che una volta individuata una correlazione problematica (misoginia o razzismo, per esempio) tra *output* e *input*, è possibile far agire l'algoritmo non solo con l'obiettivo di selezione che aveva originariamente, ma anche con l'obiettivo di annullare questa correlazione. Così facendo si sta in effetti iniettando un'altra intenzione nel circuito stesso del calcolo, ma ancora una volta il *loop* non si chiude, perché il nuovo risultato non è *dato* più del precedente, bensì costruito con intenzioni diverse: come si sono affermate al livello di classificazione queste nuove intenzioni? Con che negoziazione o scontro? Imponendo o sciogliendo quali vincoli? Queste domande evidenziano l'apertura sempre incompiuta dei circuiti di significazione.

Ogni critica del paradigma del calcolo-informazione che tenti di ristabilire un livello di informazione fondamentale, un mondo reale che andrebbe solo registrato correttamente, manca il punto centrale: il successo delle operazioni classificatorie/statisticizzanti trae ragione dalla continua incompletezza dei paradigmi ontologici, e risolve questa incompletezza imprimendo sulla realtà degli elementi significanti. La peculiarità della grammatica informativa è poi quella di riuscire a nascondere questo atto di forza, restituendoci un mondo esterno che scorre inerte e che i sensori devono solo occuparsi di raccogliere.

The loop of loops
The Recursive Dynamics of Videos on Social Media

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Introduction

After the global, outstanding success of the Chinese-owned TikTok in 2020, most social media platforms have adopted the short video format as their preferred way of engaging users and generating content, such as Instagram Reels, YouTube Shorts and Facebook Watch. These videos are typically proposed to the user in dedicated sections of the platform, in the form of an endless flow of videos, categorised and distributed according to algorithmically calculated user preferences. The emergence of short videos marks a significant novelty compared to previously phases in social media led by image or textual content. Indeed, the new peculiar functioning of Tik Tok, based on memetic forms of imitation and replication rapidly adopted by other platforms, has been compared to the 'end of the social networks' as we knew them from the beginning of their story (*The Economist*, 2024).

This brief piece critically discusses the algorithmically prompted recursive mechanism that underpins the ways in which social media platforms distribute visual content, and specifically short videos, to users. We conceptualise this dynamics as a 'loop of loops', where the first order of loops is constituted by the self-repeating cycle of each video, embedded in the non-stop flux of (apparently) new content that is continuously proposed to the user in a platform, and the second order of loops is represented by the connection among the various platform-specific feedback loops created among social media platforms through processes of content iteration, translation or reappropriation (Beer, 2019; Loosen *et al.*, 2016). We illustrate this mechanism with vignettes taken from two platforms, TikTok and IG (reels), highlighting some of its issues. Challenging the mainstream metaphor of the 'stream', employed by predominant technological imaginaries ever since the launch and diffusion of Web 2.0, we argue that the 'loop of loops' looks more like a clogged pool, where the movement, only apparent, takes the form of an eternal return of the same contents, actors and themes. As such, the 'loop of loops', despite constituting the infrastructural mechanism governing current social media functioning, is already displaying failures, discontent and practices of resistance, cracking open possible ways out from it.

The loop of loops as the digital logic of 'too-late Capitalism'

Recognising that social networks are but one of the purest forms of expression of platform capitalism, the loop of loops must be contextualised in what Kornbluh (2024) has recently defined the 'style of Too-Late Capitalism': immediacy. Marx famously insisted that capital is not a 'thing', but a process of circulation, which is necessarily limitless (Marx, 1939/1993). For Kornbluh, in the era of 'too-late capitalism' this process becomes sclerotic, due to the overarching principle of immediacy, defined as a "deluge without staunch" and "a stylized flood of intense immanence in cultural aesthetics that eerily

conforms to contemporary conditions of oil swells and aquatic surges" (Kornbluhh 2024, p. 24). At a systemic level, the loop of loops requires to keep the (over)flow of videos and content infinitely constant in order to properly work. At the practical level, this translates into shaping both creators' and consumers' actions towards the accomplishment of this imperative. Legitimate creators are pushed to publish countless copy-cat videos designed after the latest successful template or trend (more on this below). The same logic also fosters a digital underworld of myriads of accounts, publishing film and tv series short clips (flipped or speeded up to bypass legal issues), pirated content from famous creators, or AI-generated videos. These accounts are, from a formal platform's viewpoint, infiltrators, exploiting the system and damaging the realisation of a quality digital environment with an authentic vibe. However, once the loop of loops' is contextualised in the style of too-late capitalism, they emerge as functional to the system: the loop of loops could not maintain its perpetual overflow without them. Symmetrically, this contextualisation reveals how the compulsive, quick-paced, potentially infinite doom scrolling (Rixen *et al.*, 2023), taking a heavy toll on users' wellbeing, is not a degeneration but a necessary and functional feature of the loop of loops in the consumption sphere.

TikTok is able to perfectly incarnate the logic outlined above, thanks to an aggressive and hyper-sensitive algorithm, which reduces humans to a mere series of feedbacks. As known, from the very first login the user is presented with an infinite sequence of self-repeating videos, that will be more and more refined by the algorithm, tailoring them to the users' preferences. While the exact functioning of the algorithmic elaborations remains largely unknown, each action undertaken by users (from skipping/lingering on the video to engaging with it through comments/likes) contributes to shaping their loop of loops. We can say that, for TikTok, the loop of loops represents a fundamental part of the platform infrastructure, as it is the main mechanism through which content is presented to the user. In other cases, like IG reels, the looping mechanism is actualised in a specific section of the platform, which has become equally central for it.

The same logic permeates the practices of content creation in the loop of loops on TikTok (Zulli and Zulli, 2020) and Instagram (Caliandro and Anselmi, 2021). Creators (and users in general) in the loop of loops are forced to follow a specific memetic logic and grammar, made by specific compositional and visual rules. They creatively interact and remix existing videos, through ad-hoc affordances, like the stitch or the duet[1]. The possibility to reuse sounds, stickers, and filters goes in the same direction, favouring the emergence of new, platform specific, *imitation publics* (Zulli and Zulli, 2020) aimed at acquiring more visibility. The content proposed within the looping dynamics of the algorithmic elaboration is, in fact, only apparently new: the recommender system ultimately settles down on a reduced selection of themes that, according to its calculation, may interest the user. It is the contradiction of a mechanism that, in theory, pours onto the user a seemingly infinite string of contents, but that practically circles back to the same (algorithmically calculated) topics, the same authors and, ultimately, the same videos. A fundamental implication of this new logic and grammar is that, in the loop of loops, both creators and the objects of their creation become ephemeral and fundamentally irrelevant: the (value of) circulation is everything, and the (value of) content becomes nothing.

In this section, we have progressively displayed how the loop of loops becomes the logistic model governing content circulation on social media in the sclerotic phase of late modern capitalism. The focus on loops, in the plural, highlights how – despite each social network designs itself as a digital enclosure in which the user is to be trapped through a range of peculiar features – the ever-increasing overflow of content circulation happens interconnectedly *between* different platforms. The loop of loops is constantly expanding, bending new platforms to its logic: initially a TikTok feature, it has then

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1 A *stitch* is a function allowing the incorporation of a snippet of another user's video into your own. A *duet* enables the user to create a video with another one side-by-side on the screen.

been adopted by Instagram and Facebook as 'Reels', by Youtube as 'Shorts', by Netflix as 'Fast Laughs' (now discontinued) to become even recently tested by LinkedIn, a platform that, by design, could have been deemed immune to such processes. The contents transpire from platform to platform, being re-proposed through endless dialectic cycles of memetic imitation and replication based on the specific affordances of the platform. Contextualised in the historical developments of social networks, the loop of the loops can be interpreted as the latest instance in the broader tendency of social networks to rapidly converge towards the imitation and incorporation of the latest promising feature from competitors, in the hope of enlarging or at least retaining its audience. Thus, its 'irresistible' expansion is not necessarily proof of its efficiency or inevitability, and, at a closer inspection, reveals multiple jammings and leakages.

Jammings in the mechanisms: malfunctions and subversive practises in the loop of loops

The era marked by the emergence of Web 2.0 was welcomed with an optimistic feeling, associated with the evocative image of being in a 'flow' or a 'stream' of information. The new landscape defined by networked media implies, as argued by boyd, that users are immersed in the 'stream' of content but also that they have a certain agency and control over its course, by "adding to it, consuming it, redirecting it" (boyd, 2010). The image of the loop of loops challenges the metaphor of the stream, revealing that the user is neither floating over a flux of information, nor able to fully control its direction. The information overload, typical of intrusive media infrastructures, answers the insatiable need for large quantities of user data to satisfy the capitalistic economic interests of tech companies (Mollen and Dhaenens, 2018; Zuboff, 2019). The COVID-19 pandemic, during which the entirety of our social and working life was transferred online, has only worsened an already far-from-ideal situation: bombarded by content that demands our constant attention, an increasing number of users started suffering from cognitive fatigue and feeling the urge to opt out from digital media through practices of 'digital disconnection' and 'digital detox' (Moe and Madsen, 2021).

In the loop of loops, this overload of information is designed to entrap users like a whirlpool, dragging them into circles that lead them nowhere. The system is designed for the users to have little or no agency to interrupt, even partially, the looping mechanism: on Instagram, the user cannot pause the reproduction of the videos but only mute the audio; on TikTok, this functionality was introduced only recently, followed by the possibility to speed up or even jump to a specific moment of the video. At the same time, as anticipated in the previous section, the systemic properties of the loop of loops favour the progressive jamming of the system due to the proliferation of semi-legal spam videos, in the nth instance of 'enshittification' (Doctorow, 2023) of digital services. If immediacy as style is the necessary contextualisation to understand the loop of loops, the inherent cannibalistic property of capitalism (Fraser, 2022) is a more appropriate logic to understand its jamming. The loop of loops exacts a heavy toll in terms of negative externalities: both the energy required to keep the circulation ongoing, and the psychological strain it imposes on creators and consumers. Yet, it inherently holds the seeds of its own disruption, like digital limescale.

The consequences of this cannibalistic process are evident in many observable micro-instances of subversion enacted by users in their everyday engagement with the loop of loops, which produce leakages in the mechanism. Here we focus on two relevant cases: *ReesaTeesa* and *Accorciabro*. In February 2024, user *ReesaTeesa*, a woman from the US, published a series of videos entitled 'Who TF did I marry?', sharing personal details of her 6-month marriage to a man, who turned out to be a pathological liar. The series is composed of circa 50 TikToks, each lasting around 10 minutes (the maximum time allowed by TikTok), for a total of more than eight hours. The series was an outstanding success, with each 'episode' (practically a mini-podcast form) totalling millions of views. While

it is impossible to know if behind these 'longform TikToks' there was a deliberate attempt to subvert the platform's logic or not, this example is emblematic of a wider number of creative 'practices from below' challenging immediacy, rapid-fire sequence of videos and attempting to return to longer formats. The second example goes in the opposite direction. The Italian creator *Accorciabro* publishes a format of videos, which summarise in a few seconds the videos of other creators. Apparently, *Accorciabro* does the exact opposite of *ReesaTeesa*: it further speeds up the process of video consumption. However, *Accorciabro*'s success ultimately depends on breaking the doom scrolling loop trapping the user, while contemporarily mocking the vacuity of the contents, giving an ideal – if simplistic – exit route from the whirlpool.

Taken together, these two cases demonstrate how the loop of loops not only contains in itself the source of its jamming; its enshittification grows discontent among end users and influencers alike, which in turn fosters the success of subverting practices from below. These practices, to recall De Certeau's (1988) vocabulary, resemble tactics more than strategies: they produce ephemeral forms of resistance against the flow. They do not possess the power to escape from the affordances of the platform, but they play with them in unintended ways, to stray away from imposed paths. At the same time, these emerging sets of tactics should not be idealised. In the vast majority of cases, they do not seem to prefigure – at least for now – the development of widespread political activism or consciousness about these topics, remaining confined to the level of spontaneous subversive uses. Secondarily, the ephemeral nature of these practices makes them unstable over time: for example, after gaining a massive following audience on TikTok due to the aforementioned use of 'longform TikToks', *ReesaTeesa* has move back to platform's standards, frequently publishing short videos.

In conclusion, in this article we have introduced the concept of loop of loops to define the mechanism regulating video and image based social media platforms. Future research on the topic could further explore this phenomenon to offer a systematic illustration of the various aspects of loops, including platform-specific variants and subversive practices. Despite the conciseness of our piece, we believe that this concept provides a useful heuristic capable of illuminating how these patterns of content production/consumption impact our everyday online interactions, producing specific social formations and affecting our (digitally mediated) perception of the world.

References

Beer, D. (2019). The social power of algorithms. In The Social Power of Algorithms (pp. 1-13). Routledge.

Boyd, D. (2010). Streams of content, limited attention: The flow of information through social media. Educause Review, 45(5), 26.

Caliandro, A., & Anselmi, G. (2021). Affordances-based brand relations: An inquire on memetic brands on Instagram. Social Media+ Society, 7(2), 20563051211021367.

de Certeau, M. (1988). The Practice of Everyday Life. University of California Press.

Doctorow, C. (2023, febbraio 27). Tiktok's enshittification. Pluralistic. https://pluralistic.net/2023/01/21/potemkin-ai/

The Economist. (2024). The end of the social network. The Economist. https://www.economist.com/leaders/2024/02/01/the-end-of-the-social-network

Fraser, N. (2022). Cannibal Capitalism: How our System is Devouring Democracy, Care, and the Planet – and What We Can Do About It. Verso.

Kornbluh, A. (2024). Immediacy: Or, The Style of Too Late Capitalism. Verso Books.

Loosen, W., Bastos, M. T., Puschmann, C., Hasebrink, U., Hölig, S., Merten, L., Schmidt, J.-H., Kinder-Kurlanda, K. E., & Weller, K. (2016). Caught in a feedback loop? Algorithmic personalization and digital traces. AoIR Selected Papers of Internet Research.

Mollen, A., & Dhaenens, F. (2018). Audiences' coping practices with intrusive interfaces: Researching audiences in algorithmic, datafied, platform societies. The future of audiences: A foresight analysis of interfaces and engagement, 43-60.

Marx, K. (1939/1993). Grundrisse. Penguin Books.

Moe, H., & Madsen, O. J. (2021). Understanding digital disconnection beyond media studies. Convergence, 27(6), 1584-1598.

Rixen, J. O., Meinhardt, L.-M., Glöckler, M., Ziegenbein, M.-L., Schlothauer, A., Colley, M., Rukzio, E., & Gugenheimer, J. (2023). The Loop and Reasons to Break It: Investigating Infinite Scrolling Behaviour in Social Media Applications and Reasons to Stop. Proceedings of the ACM on Human-Computer Interaction, 7(MHCI), 228:1-228:22.

Zuboff, S. (2019), The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. New York: Public Affairs.

Zulli, D., & Zulli, D. J. (2022). Extending the Internet meme: Conceptualizing technological mimesis and imitation publics on the TikTok platform. New media & society, 24(8), 1872-1890.
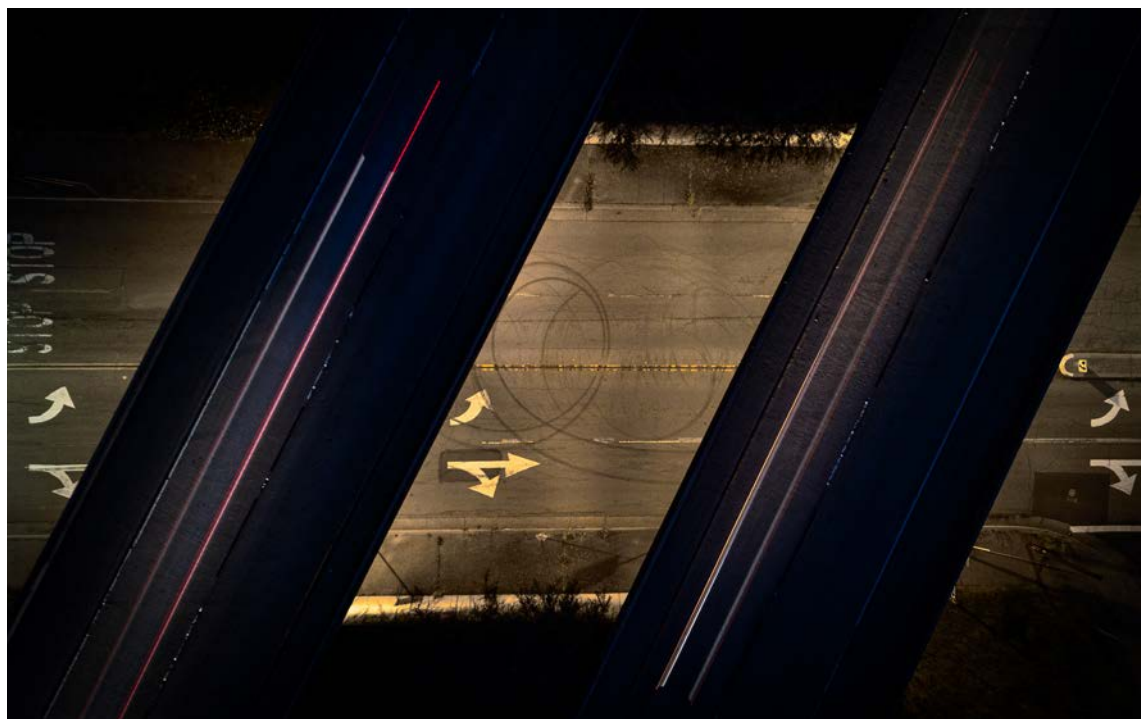
"La tua domanda è troppo grande"
Come lasciare l'elefante nella stanza e non entrare in loop durante il dottorato

Luca Bertocci

 Si può immaginare un *progetto di ricerca* senza ricadere nel *loop* che sembra essenzialmente caratterizzarlo? In primo luogo, mi riferisco ad alcune riflessioni di Heidegger (1966) e Cacciari (1981) per mostrare le aporie insite nel "progettare". Successivamente, suggerisco un possibile orientamento metodologico per non esserne schiave e schiavi. Nello specifico, propongo possa essere la "figurazione" sviluppata da alcune autrici femministe (Neimanis, 2017; Dawney (2022). Mostro infine come, nello specifico del mio dottorato, ho organizzato di conseguenza il progetto di ricerca.

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1. Progetto

Per Cacciari, il concetto di progetto si compone di tre aree semantiche (1981, p. 90). La prima ne indica il gesto volto "alla produzione del progettato, che nel progetto si prefigura e anticipa"; la seconda ne "enfatizza lo *strappo* dal presupposto", l'essere lanciato via dà una data condizione iniziale. In entrambi i casi è implicata dunque una decisione. Infine, attraverso la terza area, il progetto è considerato ontologicamente come "costitutivo dell'Esserci in quanto *gettato*" (*ibid*.). Ovvero, si riferirebbe anche a un dato di irrimediabile separatezza e allontanamento sul quale, invece, non è esercitabile alcuna scelta. Si potrebbe dire che quest'ultimo senso del concetto avvolge gli altri due. Cacciari nomina la *tragedia* (tale poiché irrisolvibile, non ricomponibile), dove la decisione progettante viene presa — che si tratti di un dottorato, di una vacanza o di una rivoluzione. Progettare sarebbe allora l'azione principale attraverso cui attraversiamo una condizione esistenziale della quale non abbiamo il pieno controllo, che si espone "*verso* la presenza a partire da un oscuro, un ignoto" (p. 89). È su questa base problematica che, continua Cacciari, il progetto concepito in senso moderno borghese riproduce una aporia radicale (p.100). Esso mentirebbe, in realtà, a se stesso. Potremmo semplificare così: pur di non fare i conti con la terza area semantica, le prime due si rincorrerebbero contraddicendosi costantemente. Si configura allora una sorta di *loop*. Mentre, infatti, la dimensione *strappo* del concetto spinge ad aprirsi verso il divenire, verso il movimento, la prima vuole invece lo *stato*, la completa "anticipabilità" del futuro.

Paradossalmente, sostiene il filosofo, "progettare" significa allo stesso tempo voler arrestare il divenire e sempre ripostularlo per, appunto, lanciarsi di nuovo via da una condizione data, ma senza che — circolarmente — l'aprirsi al divenire sprigioni tutta la sua potenza. Non a caso, è nell'Isola di Utopia che tale aporia trova rappresentazione. Lì dove la Tecnica ha prodotto felicità (puro Stato) decidendosi dal divenire (p. 109). In siffatto *loop* urbanisticamente utopico si aggirerebbe dunque il progetto moderno borghese. A partire da un presupposto convocato di volta in volta arbitrariamente, esso descriverebbe una linea che in circonferenza torna sempre su se stessa. "Sembra quasi descrivere un cerchio" — scrive Cacciari — "che si rinserra — un'*isola* — un'utopia che ormai neppure da lontano promette eu-topia" (p. 117). Facendo ciò, sogna di far coincidere il punto di partenza e il giro percorso,

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di ridurre tale frattempo a una linea, come se quest'ultima potesse essere perfetta evoluzione del primo (p. 92). Ovvero, di "costringere a *evolutio* o *explicatio* il divenire" (*ibid*.) anche attraverso mezzi tecnico-probabilistici.

Cacciari non si occupa del "progetto di ricerca" in particolare. Lo fa però Heidegger, autore a cui il filosofo italiano si ispira direttamente. Il tedesco affronta la questione in *L'Epoca dell'Immagine del Mondo* (1966). È qui che egli lega essenzialmente la ricerca al progettare. Più nello specifico, alla verifica di ciò che è già noto. "Essa [la ricerca] ha luogo – scrive infatti Heidegger – quando in un dominio dell'ente, la natura ad esempio, viene progettato un determinato piano di fenomeni naturali" (1966, p. 74). Così, aggiunge, l'investigazione si assicura il suo settore oggettivo. Infatti, la prima andrebbe considerata piuttosto chiarificazione che scoperta ed esplorazione. Ricerca è, egli scrive, verifica di un fatto già noto, del progetto appunto che si vuole installare. Il procedimento "dà fondamento a qualcosa di non-conosciuto mediante qualcosa di conosciuto e, contemporaneamente, verifica questo conosciuto attraverso quel non-conosciuto" (pp. 76-77). Perciò deve potersi sviluppare – deve cioè esserci un movimento nel settore oggettivo che osserva. Al contempo, di quel movimento si deve già conoscere la legge che, in realtà, lo arresta. È la medesima aporia descritta da Cacciari. Nella ricerca come progetto, il divenire sarebbe dunque necessario affinché la legge affermata possa negarlo. Quest'ultima anticipa infatti l'esperimento, non lo segue. Non c'è, per il momento, alcuna apertura possibile al *nuovo*.

Da una parte, il "pensiero del progetto" conserva un segno di radicale arbitrio, volendo progettare un certo piano di fenomeni. Dall'altro però quel pensiero deve essere già comparabile, *immedesimabile* prima della verifica. Ci troviamo allora di fronte a un'autofagia. L'arbitrio creativo si sottoporrebbe al costante cilizio di, insieme, convocarsi e negarsi. Scrive Heidegger: "*hypotheses non fingo*; le ipotesi non sono escogitazioni arbitrarie . . . Quanto più esattamente è stato progettato il piano fondamentale della natura e tanto più esatta diviene anche la possibilità dell'esperimento" (pp. 78-79). Un tale operativismo fa sì che, da una parte, il ricercatore assuma la figura del tecnico (p. 80). Dall'altra, che ricercare nella cornice del progetto moderno implichi conoscere il mondo in generale e in particolare come e *attraverso* un'immagine che viene posta di fronte (p. 83), tra l'osservatore e l'osservato. La ricerca avverrebbe – tautologicamente – al di qua di tale operazione di *inquadramento*. Commentando queste riflessioni, Farinelli utilizza – differentemente da Cacciari – la figura del rettangolo (1989, p. 8) invece del cerchio. Il significato è lo stesso: un fondo tragico (terza area semantica) e perciò aporetico è celato mediante una volontà di stato. Al posto dell'isola Utopia, si incontra ora, per il geografo italiano, la mappa a descrivere un simile loop, una simile circolatoria ripetizione del medesimo.

2. Dottorato

All'inizio del mio dottorato ero alle prese con la strutturazione del progetto. Dovevo programmarlo, ovvero strutturare rigorosamente l'indagine. Esso andava "definito" – *to frame*, esattamente ciò che si dice di un quadro. Pensiamo a quanto ripetiamo questo verbo, a quanto segna il processo del nostro progettare. *Framework* teorico, *framework* metodologico. È una finestra quadra da cui dobbiamo partire per partecipare a un concorso. È proprio in un "rettangolo intemporale" (Farinelli, 1989, p. 8) che dobbiamo, ancora, collocare il progetto di ricerca. Nel mio caso, per farlo avevo a disposizione un template standardizzato suddiviso in sezioni. Queste comprendevano: indicazione della domanda, dibattito in cui era posta, metodologia per rispondere, risultati attesi, contributo alla ricerca e tabella delle attività previste per i successivi anni. Dovevo cioè poter presentare il progetto come un oggetto, come qualcosa che poteva esser *già posto compiutamente di fronte* alla commissione. La dimensione tempo, come divenire e sviluppo imprevedibile, era esclusa, sedata. Un buon programma era tale se riduceva tale "frattempo" a *evolutio*. L'itinerario della ricerca doveva perciò apparire come già fatto, già percorso e – a dire il vero – *ripercorribile*. Doveva essere stato anticipato. In effetti, non doveva

esserci alcun progetto, alcun procedimento. O meglio, ciò doveva darsi come copia, come ripetizione di un itinerario previsto. Il mio dottorato doveva essere verifica del suo proprio progetto. Quest'ultimo, viceversa, era tale solo se conteneva il primo come certezza (di poterlo – anticipandolo – rappresentare). A queste condizioni, la domanda di ricerca mi appariva, proverbialmente, una domanda retorica e il progetto, letteralmente fine a se stesso. Sarebbe dovuto durare tre anni, e in ciò avrebbe pure dovuto esser *nuovo* ripetendo quella finalità interna: il copiarsi. Intanto, infatti, che mi si chiedeva "novità", devo già essere in grado di postularla prima ancora di iniziare. Una *literature review* avrebbe dovuto – nei suoi propri vuoti – prescriverla. Mi trovavo perciò perfettamente alle prese con il circuito aporetico descritto dai due filosofi. Del resto, l'università neoliberale ha da tempo imparato a giovarsi della tragedia ontologica su cui, celandola, quel loop operativo si regge. In questa situazione, ho ritenuto opportuno pormi preliminarmente una domanda, per così dire, meta-metodologica. Ovvero: come non essere – alla piccola scala del dottorato – completamente schiavo dell'essenza stessa del "progettare", tragica e perciò irrisolvibile? In altri termini: come non accontentarmi di ripetere ciò che la letteratura già prescrive partecipando unicamente alla giostra neoliberale?

Ai miei occhi, e alla luce delle riflessioni di Heidegger e Cacciari, non si trattava di progettare uscendo dal progetto ed esponendomi – nella pratica della ricerca – al puro irrompere del caso, di ciò che avrei visto e scoperto. Ciò mi appariva come una rimozione surrettizia della natura tragica del divenire in quanto tale. Ovvero una postulazione implicita che quest'ultimo di per sé fosse altro da un "solido nulla" (Leopardi, 2014, p. 1152). Piuttosto, si trattava di ripensare la relazione tra le prime due aree semantiche (lo stato e lo strappo) del progetto per – insieme – essere consapevole dell'aporia, muovere una critica alla struttura neoliberale del progettare ed espormi ad una alternativa. Quest'ultima non avrebbe dovuto né celare la tragedia, né preferirla al loop tecnico-operativo. In altre parole: mi sembrava opportuno andare nella direzione di una diversa relazione tra arbitrio creativo e divenire che non fosse né l'abbandono del primo, né l'abbandono al secondo. In cui il poter essere altrimenti delle cose non risiedesse – *negativamente* – nel loro essere libere dalla presa del progetto ma, al contrario, nel cambio di volontà di quest'ultima. Per muovere in tal senso, mi sono dunque ispirato alle riflessioni attorno alla *figurazione* di alcune femministe.

3. Figurazione

Come scrivono Lury, Viney e Wark (2022, p. 6), il metodo figurativo "può comportare il dare forma a qualcosa o, in alternativa, comprendere la forma che qualcosa ha già"[1]. Pertanto, una forte enfasi ricade sull'attività, sulla scelta di progettare e operare nella direzione di un siffatto poter effettivamente essere. Per le autrici, la figurazione è quindi una strategia metafisica del pensiero critico. Cioè: intreccia l'astratto e il materiale verso direzioni emancipatorie in maniera diagnostica e prognostica (Ibid, p. 10). Per Dawney (2022), infatti, le figure "creano significato", creano mondi e sono esposte e coinvolte nella trasformazione delle strutture sociali e politiche. Per lei, come studiose critiche, "possiamo lavorare con le figure per produrre cambiamenti, per mettere in discussione e amplificare altri modi di essere e di vivere" (p. 23). Tali figure, continua, (p. 33), hanno un potere vitale e creativo e una "presa", una capacità di "catturare" che segna la loro volontà di "scolpire mondi" e che ci conduce verso nuove "architetture politiche". Sono in grado di raccogliere un potenziale, indicare dove potrebbe andare e contemporaneamente iniziare questo percorso. In breve: si collocano nel campo del poter-essere. Esse dovrebbero infatti inventare, prefigurare, attivare i futuri e "portarli nel presente" (Lury, in Lury *et al*., 2018, p. 12). Neimanis (2017) si muove all'interno dello stesso tipo di processo di figurazione. Sostiene che esso "renda possibile un cambiamento radicale e consenta il nostro stesso divenire-altro" (Ibid., p. 5). Per lei, le figure non sono "virtualità della materia", ma concetti incarnati. La loro materialità è importante: "mai fantasia concettuale o metafora – scrive (*ibid*.) – questi 'interventi' immaginativi

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1 Tutte le traduzioni dall'inglese che seguono (compresa la presente) sono mie.

(Braidotti 2011, p. 14) descrivono ciò che già siamo, ma amplificato". Pertanto, argomenta l'autrice (p. 17), "sono cruciali per essere responsabili, *anche se rimaniamo con i problemi*".

La prospettiva di queste autrici mi è dunque apparsa pertinente a strutturare il progetto di ricerca e affrontare il loop che mi attendeva. Da una parte, la figurazione non sembra rimuovere la tragedia. Al contrario, *ci rimane*. Ciononostante, è una forma di responsabilità rispetto a quest'ultima piuttosto che una sua apologia. Al contempo, infatti, introduce la possibilità di una differente volontà di progetto, capace di cogliere come, in quel fondo aporetico, si possa vivere meglio e che si avvii – convocando una figura – in tale direzione. In questo senso, il processo di figurazione sembrava offrire un diverso rapporto tra le prime due sfere semantiche del progettare. La figura così immaginata non esprime-rebbe, per l'appunto, una volontà di stato, ma una direzione da agire per *orientare* la potenza del divenire. Posto in questo modo, ovvero posizionato sul terreno del poter-essere, il progetto di ricerca mi appariva dunque poter sviluppare un'interruzione nel loop operativo della ripetizione.

Si è resa però necessaria un'inversione di procedimento nella pratica del dottorato. Piuttosto che for-mulare un'ipotesi attorno a un oggetto di studio selezionato, ho invece ritenuto utile porre come og-getto *proprio un'ipotesi incarnata,* un oggetto ipotetico. O meglio, è apparsa la necessità di conservare il divenire senza ridurlo alla durata effettiva della ricerca, né esaurire il poter-essere del primo nella somma di accidenti occasionali della seconda. Con la formula "Alluvione Planetaria" [Planetary Flood] mi sono dunque riferito ai movimenti storici collegati e aperti che volevo affrontare: l'urbanizzazione del pianeta e l'innalzamento del livello del mare. Alla base ho collocato perciò un iper-oggetto (Mor-ton, 2018) altamente esposto al divenire: parzialmente reale, parzialmente astratto ed imprevedibile nello spaziotempo. Così, sfuggendo l'*inquadramento*, la ricerca non poteva svilupparsi nella direzione della verifica. Piuttosto, era obbligata a lavorare *dentro* una domanda, non *con* una domanda. A non poterle rispondere, vista la sua vastità. Perciò ho potuto effettivamente evocare, pian piano, una figura (che ho chiamato Arcipelago) di cui quel divenire fosse potente e al contempo non ne bloccasse in immagine la spinta. Al contrario, mi sono trovato durante il dottorato a dover sviluppare proprio un progetto per quel movimento, un orientamento da sempre riconfrontare con la pratica sociale.

Concludendo, in questo modo mi è sembrato di poter fare del "possibile" l'oggetto di ricerca e sfuggire al *looping*, alla ripetizione delle premesse. Così, proprio grazie ad un nuovo equilibrio tra le prime due aree semantiche del progetto, anche i piccoli progetti dottorali potrebbero partecipare ad un rinnovato approccio alla tripla interiorità che abitiamo nell'attualità neoliberale: il progettare come, insieme, tragedia, lavoro e speranza. La figurazione suggerita dalle autrici femministe considerate, infatti, *progetta un progetto*, è esclamativa verso la società. Dice: *progettiamolo*! Non oggettiva e non si chiude in immagine, ma annuncia una potenza collocandosi pienamente ed operativamente nella tragedia del poter-essere. Offre una *visione* che implica un confronto costante con la prassi sociale. Del resto, è quando "l'ombra invisibile" di tali giganteschi si fa strada e si lotta tra visioni del mondo che – sostiene Heidegger (pp. 98-99) – "il mondo moderno è al suo momento decisivo".

Bibliografia

Cacciari, M., *Progetto*, in: *Laboratorio Politico, Critica del Progetto*, Einaudi, Torino, pp. 88-119.
Dawney, L., *The Work of figures*. In: Lury, C., Viney, W., Wark, S., *Figure. Concept and Method*, Palgrave Macmillan, London, 2022, pp. 21-39.
Farinelli, F. (1989), Certezza del rappresentare, *Urbanistica*, no. 97, pp. 7-16.
Heidegger, M., *L'epoca dell'Immagine del Mondo*, in: Heidegger, M., *Sentieri Interrotti*, La Nuova Italia, Firenze, 1966.
Leopardi, G., *Zibaldone*, Feltrinelli, Milano, 2014.
Lury, C., Viney, W., Wark, S., *Figure. Concept and Method*, Palgrave Macmillan, London, 2022.
Morton, T., Iperoggetti, Nero Editions, Roma, 2018.
Neimanis, A., *Bodies of water. Posthuman Feminist Phenomenology*, Bloomsbury Publishing, London, 2017.
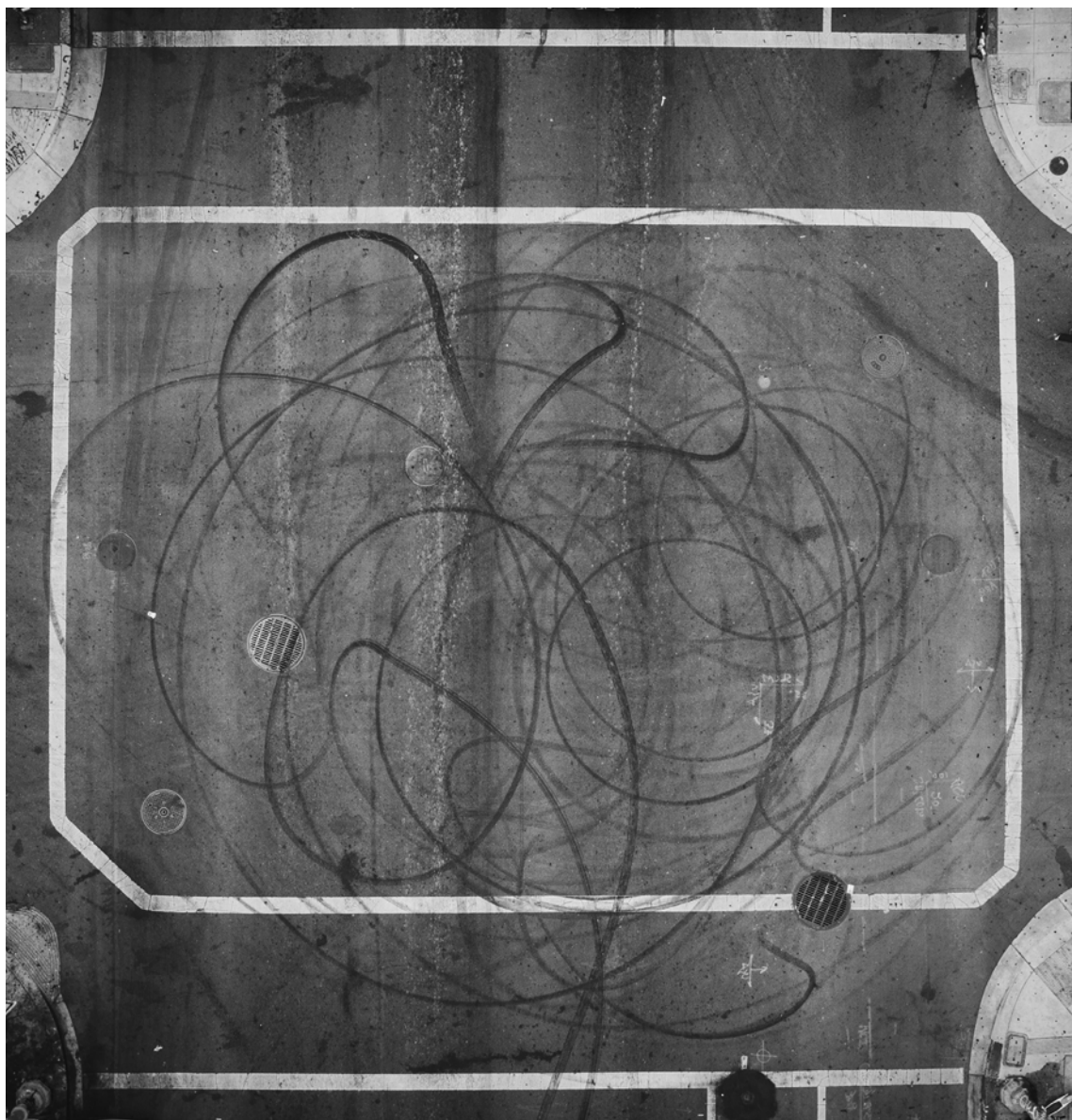
Rivolte contemporanee
come agire destituente

Michele Garau

In che modo il fenomeno delle rivolte urbane che hanno punteggiato la scena pubblica negli ultimi decenni può essere una lente privilegiata per capire le forme contemporanee del conflitto e della diserzione? Dall'esplosione delle banlieues nel 2005 a quella del 2023, dai *piqueteros* argentini ai *gilets jaunes*, ci sono alcuni tratti ricorsivi che ritornano circolarmente o come disegnando una traiettoria a spirale. Questi tratti e questa traiettoria permettono di individuare un nodo centrale, l'indicatore di un'*impasse* che fa di queste rivolte uno straordinario segnalatore della crisi dei precedenti registri del conflitto e dell'emancipazione politica. In altre parole, le rivolte esprimono, indicano e talvolta alludono a un superamento della circolarità senza uscita in cui l'eredità del movimento operaio si trova presa, segnando le coordinate a cui dovrebbe rispondere una politica di emancipazione post-classista. Le sommosse continueranno a esplodere e girare intorno fino a che questi nodi non saranno sciolti.

Tale aspetto rende il fenomeno delle rivolte – fuori dal vecchio paradigma rivoluzionario ma non per questo dentro quello riformista – un problema dotato di enorme ricaduta sul piano del pensiero e della teoria politica. Non a caso esiste tutto uno spettro di concetti e di categorie che sono stati – nel corso del tempo – convocati per qualificare politicamente le rivolte come *indicatori di una soglia della dimensione politica e della sovranità*, di un momento costitutivo ma anche potenzialmente critico del funzionamento del potere nella modernità capitalistica oppure, più profondamente, nella civiltà occidentale. Alcuni esempi di questa ricezione del problema delle rivolte, nell'ambito della teoria e del pensiero politico, diversi tra loro per matrice analitica e per posizionamento dello sguardo, sono: le scene del disaccordo, le *circulation struggles*, i non-movimenti. Tutte categorie che rappresentano un seminale contributo interpretativo e anche un'unilateralità rispetto alla ricchezza esperienziale e alla sfaccettata singolarità delle sommosse.

Tutti questi concetti oscillano tra *un'impronta descrittiva o diagnostica* ed *una torsione di possibile politicizzazione positiva delle rivolte stesse come repertorio di mobilitazione*, con accenti e intensità diverse. Addirittura, in alcuni casi, queste categorie si presentano come possibile risorsa strategica dei movimenti di lotta, o di bilancio delle loro pratiche, delle loro fasi e dei loro stalli: pensiamo al lavoro di Clover (2016), che è stato solo di recente tradotto in Italia. Si tratta di una duplicità di livello e valenza che riguarda molte di queste definizioni, *le quali tentano di concettualizzare contemporaneamente la sfera politica e il gesto della rivolta*. Questa duplicità riguarda certamente e in particolar modo il concetto di *destituzione*, che nella sua declinazione politica è stato fin da subito associato alla dinamica della rivolta. Qual è la peculiarità di questo concetto? Si tratta di concetto ontologico di matrice benjaminiana e heideggeriana che ritorna non soltanto in alcune teorizzazioni della filosofia politica più recente, ma in seno all'elaborazione degli stessi cicli di insubordinazione politica a partire dallo scritto seminale del *Colectivo Situaciones* (2003) – in tutto uno spettro di versioni che vanno

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dalla rappresentazione piuttosto disincantata di uno stato di fatto (Tronti 2008), alla progettualità organizzativa (Comitato Invisibile 2019), passando per le evocazioni un po' estetizzanti (Amato 2010). Nel pensiero di Benjamin il concetto di destituzione indica l'interruzione, l'apertura di un circolo maledetto tra la violenza costituente e quella costituita, l'eccezione extralegale della fondazione del comando e la continuità infinita dell'amministrazione del mondo per come è ordinato.

Nella lettura heideggeriana di Reiner Schürmann (2019), altra fonte decisiva di questo concetto, il cerchio ripetitivo è quello della continua riproposizione di principi metafisici che definiscono le soglie di accesso a ciò che può essere visto, compreso e pensato in una determinata epoca: "economie epocali" è la definizione precisa. In tal senso ad ogni operatore di unificazione e unità inglobante intorno a cui si organizzano i principi di comprensione egemoni in un dato periodo, Natura, Dio, Soggetto, segue sempre la destituzione del principio, svuotato e privato di fondamento:

> Le filosofie prime forniscono al potere le sue strutture formali. Più precisamente, la «metafisica» designa allora questo dispositivo nel quale l'azione richiede un principio al quale si possano riportare parole, cose e atti. L'azione appare priva di principio nell'epoca della svolta, allorché la presenza come identità ultima si muta nel venire alla presenza come differenza irriducibile (Schürmann 2019, 25).

Che c'entra questa circolarità ontologica dei due autori citati con la comprensione teorica delle rivolte? Il riprodursi della normalità dell'agire politico, anche di emancipazione, poggia su una struttura di legittimazione basata sul Soggetto — attore unitario e riconoscibile dell'agire intenzionale — e il progetto, discorso esplicito e leggibile che dispiega questo intervento:

> Poi dietro c'è forse una questione più di fondo, che è la crisi del soggetto moderno, che fa tutt'uno con l'esaurirsi del progetto moderno, progetto fondato appunto sul soggetto. Siamo stati a lungo dentro questa dialettica progetto-soggetto . . . Quest'idea di soggettività — e anche l'idea di soggetto — ha avuto varie evoluzioni. C'è stata una grande riflessione filosofica, finché poi con il marxismo, con il movimento operaio, questa soggettività è diventata una soggettività sociale, politica. E credo che l'arco del moderno, dal soggetto singolo, dal soggetto-individuo, al soggetto sociale, concluda la storia del soggetto. Questa forma di presenza nella storia è entrata in crisi. La mia impressione è che si apra adesso un'altra storia, che però non è ancora chiaro quali sviluppi possa avere (Tronti 2008, 23).

La rivolta decostruisce questa grammatica legittimante nella misura in cui la violenza che attua è completamente situazionale, legata a un soggetto che si coagula soltanto nell'intervallo dell'azione (senza una sostanzialità ontologica preesistente) e che non perdura come potere al di là dell'evento e del divenire stesso del *riot*, incapace quindi di consolidarsi nella temporalità continua del diritto e del comando (Zartaloudis 2019). Il mio punto di osservazione è uno: come il concetto di destituzione, che non è una ricetta, ma la spia di un universo d'indagine, può servire a definire positivamente e rendere conto delle rivolte in quanto sintomo della crisi delle forme di azione politica classica che hanno caratterizzato il movimento operaio — e quindi anche della loro residualità e della pretesa di rivitalizzare queste forme. Il problema generale è quindi quello della crisi del programma socialista in tutte le sue variabili ed espressioni, della crisi dell'idea stessa di transizione, la quale faceva il paio con l'idea di imporre e generalizzare la condizione di un soggetto sociale specifico e parziale (la classe proletaria) sull'intero corpo sociale come totalità. Questa egemonia, che avrebbe estinto le classi attraverso l'affermazione dell'ultima tra le classi, si differenziava internamente per i metodi di tale egemonia: Stato, consiglio, assemblea, partito.

Il problema generale, a cui il concetto di destituzione tenta di rispondere, è come le rivolte si inseriscono nella crisi di quel modello di trasformazione che vedeva la rottura rivoluzionaria a partire dall'accumulo delle rivolte (insieme ad altre pratiche), a partire dalla loro sequenza (Clover 2016), come sedimentazione graduale del potere del soggetto capace, ricomponendo le sue diverse frazioni (forza lavoro integrata, dequalificata, disoccupati), di tradurre l'esplosione di rabbia in progetto di lungo corso. Il susseguirsi delle rivolte porta alla rivoluzione, a un salto, o viene canalizzato in un qualche programma di trasformazione. Quel passaggio dal particolare al generale, dall'evento alla durata

– che nella cornice del movimento operaio era garantito dal quadro del progetto e della transizione (il vecchio concetto di *transcrescenza*) rimane vuoto. In quel quadro le rivolte, come altre pratiche di conflitto immediato, erano l'elemento negativo a cui faceva fronte una positività che era incarnata dal programma. Non a caso gran parte della letteratura sul tema delle rivolte si concentra soprattutto su questo carattere puramente negativo, di sospensione e di rottura: fanno eccezione Thompson (1969), Porchnev (1974), i corsi di Foucault al *Collège de France* dei primi anni '70 (Foucault 2016; 2019), più di recente un autore come Frédéric Rambeau (2020), insiste – non a caso - soprattutto su questo carattere puramente negativo, di sospensione e di rottura. Questo è ciò che ricorda Alain Bertho (2020) nel secondo capitolo della sua genealogia mondiale delle rivolte, *Time over? Le temps des soulèvements*, dove insiste proprio su questa generale incapacità di rendere conto delle caratteristiche positive che le rivolte presentano. In questo contesto dire che le rivolte diventano un agire destituente non significa che si cristallizzano nell'aspetto di pura negatività, ma che articolano diversamente il rapporto tra rottura e durata, tra evento e positività. Il concetto di destituzione tocca, per cogliere la positività delle rivolte, pochi punti che mi limito quasi ad elencare e che mi pare motivano questa positività politica delle rivolte come agire destituente.

1. La *rottura della circolarità tra potere costituito e costituente*. Questo punto, che notoriamente deriva da Benjamin, dalla *Critica della violenza* – lo posso riassumere concretamente con il caso dei gilets gialli, che pur non assumendo alcun tratto rivoluzionario hanno sabotato ogni tentativo di rappresentanza politica coltivato a destra come soprattutto a sinistra, levando il terreno sotto i piedi alle spinte di verticalizzazione costituente. Questo riflette, per dirla semplicemente, quello che Foucault diceva nel 1971 in un intervento in Giappone intitolato *La filosofia analitica della politica* (Foucault 2020), parlando dei nuovi movimenti di lotta come fenomeni che segnano la fine di una morfologia della rivoluzione che fonda la modernità politica Occidentale a partire dal 1789 – *definendo la trasformazione come azione di un soggetto unico (classe, nazione, popolo) su un potere unico*:

Forse stiamo vivendo la conclusione di un periodo storico che, a partire dal 1789-1793, almeno in Occidente, è stato dominato dal monopolio della rivoluzione, con tutte le sue implicazioni dispotiche; senza, tuttavia, che la scomparsa del monopolio della rivoluzione significhi una rivalutazione del riformismo. Le lotte di cui ho parlato, infatti, non si caratterizzano affatto come riformiste, poiché il riformismo si propone di fondare un sistema di potere attraverso un certo numero di cambiamenti, mentre tutte queste lotte tendono alla destabilizzazione dei meccanismi di potere, a una destabilizzazione apparentemente senza fine.

La cosa importante è che Foucault dice: queste lotte mettono in crisi il modello rivoluzionario ma non per questo cadono nel riformismo. Piuttosto che mirare a un mutamento globale, subitaneo o progressivo, delle strutture del comando, impediscono indefinitamente e localmente che il gioco della dominazione sia giocato. L'idea di mutamento e la strategia che permetta di ampliare questi punti locali di blocco nell'esercizio del comando, vanno ancora pensate.

2. *Disattivazione della struttura presupponente*. Come Agamben (2019) ha sottolineato in un intervento a un seminario francese del 2010, poi diventato il capitolo conclusivo di *L'uso dei corpi*, nella dinamica delle rivolte si mostra la falsità del mito fondativo del potere. Si mostra, cioè, che l'ingovernabile, l'assenza di governo, l'anarchia se vogliamo, è diversa nella realtà da come il potere la rappresenta per giustificarsi. L'anarchia del potere è l'ombra che esso proietta all'indietro. Ora: rotatorie occupate, *Zad*, foreste riabitate nel corso di movimenti di protesta come nel caso di Atlanta o di Grünheide, mandano in frantumi questa immagine. In modo ostensibile, visibile. Esplosioni di insubordinazione o resistenze spazializzate diramano gesti di sottrazione che intaccano il mito fondativo della costituzione politica.

3. *La rivolta frenante e richiamo alla comunità impossibile.* Le rivolte sono una *febbre di rigetto*

(Cesarano 1974) — si configurano spesso, quando superano il momento puntuale di irruzione nello spazio pubblico, in *rivolte frenanti*. Un termine più o meno descritto già da Ellul (2008; 2011) negli anni '60, ma che di recente è stato sviluppato in un contributo di Frédéric Rambeau sui gilets gialli, riprendendo proprio gli scritti di Porchnev e poi di Foucault sulle rivolte contadine del '600. Cosa vuol dire? Quando prendono corpo e consistenza, i movimenti di rivolta si definiscono in contrapposizione a un'immagine di progresso percepita come inevitabile: sono contro la storia. Secondo Ellul questo era un rapporto al tempo comune alla figura della rivoluzione. Solo con il 1789 la Rivoluzione si intreccia alla temporalità indefinita e continua del progresso, prima tanto rivolte che rivoluzioni erano pensate come battute d'arresto contro la storia e il corso delle cose del mondo. La linea si sostituisce alla circolarità, e alla sua rottura, solo una volta che la rivoluzione viene incorporata dalla temporalità del moderno e dello sviluppo. Quello che il presente consegna è la necessità di bagnare nuovamente il concetto di "rivoluzione" nella temporalità restitutiva delle rivolte. Ciò significa anche risalire ai bivi incompiuti che la civilizzazione capitalistica ha scartato, non come miti dell'origine ma come virtualità, possibilità ignorate e lasciate indietro. Inevitabilmente le rivolte odierne contengono quindi un richiamo a *comunità passate*, a risorse di immaginario che ricostruiscono il richiamo al tessuto comunitario contro il senso storico. A contatto però con la soggettività neoliberale completamente sussunta dal capitale e dal consumo, queste risorse sono esaurite. In uno stadio che Jacques Camatte ha definito già negli anni '60 come dominazione reale, «antropomorfosi del capitale» (Camatte 1977), comunità materiale, l'unica comunità esistente è quella delle merci, quindi le forme di associazione, di alternativa, di comunità sono proiettate interamente *sull'esperienza e sulla localizzazione.*

Se, come ha scritto Citton parlando dei gilets gialli, i non-movimenti contemporanei *non possono che essere destituenti perché* hanno "una consistenza affettiva più che argomentativa" (Citton 2019, 137) **—** la loro comparsa nello spazio pubblico, la loro durata e la loro continuità, si dà sul piano di una politica esperienziale che emerge nello spazio, nella spazializzazione, negli esperimenti spaziali. Essa disegna come prospettiva la ramificazione di esperienze e forme localizzate capaci di mantenersi nel tempo e di coordinarsi. Questo è il piano della positività e continuità strategica delle rivolte laddove non si chiudono nella puntualità dell'evento.

4. *Le rivolte sono politiche nel senso che sono «antipolitiche» — non impolitiche — impediscono al cerchio del politico di chiudersi*. Questa idea di ramificazione sotterranea di comunità, località, spazi, infrastrutture, mezzi di comunicazione alternativi mediante cui i movimenti di rivolta prendono corpo, che entra solo a intermittenza nello spazio pubblico dominante — quando non ne crea uno alternativo, oppositionale — rifiuta la rappresentazione politica, disattiva la pubblicità e la struttura della politica. Non per questo tale agire è impolitico: è agire politico nel senso che manifesta un'antipolitica, tocca il meccanismo operante del potere politico, non lo tiene a distanza o lo ignora ma cerca invece di scalfirlo. Nel senso che, se le rivolte si danno una dimensione di apertura strategica nel tempo lo fanno in un tessuto di esperienze che ri-occupano delle funzioni che *il potere governamentale* ha sequestrato — funzioni materiali, economiche, alimentari, simboliche. Da questo punto è piuttosto significativo che un autore marxista come Joshua Clover indichi come elemento dirimente che la rivolta, negli anni 2000, *fa il paio con la comune*: la rivolta e il blocco della circolazione si danno come parte di un unico repertorio insieme all'insediamento di spazi e piazze occupate. Si tratta del corrispettivo di quanto il Comitato Invisibile ha definito la grammatica elementare dei conflitti contemporanei. Per sopravvivere queste esperienze devono prendere carico dei *nuclei di verità delle istituzioni* — nel senso di Landauer, che il potere ha una sua legittimità storica data dall'atrofia — nelle comunità umane - delle funzioni che occupa. Nel 1910, in un articolo fino a pochi mesi fa inedito sul *Del Sotzialsist* intitolato *Fiacchi statisti, debolissimo popolo,* svolge proprio questa idea seminale del suo pensiero. Le istituzioni sono un rapporto sociale — non possono essere distrutte ma devono esse rese inoperanti: un'istituzione ha motivo di esistere finché la funzione che ricopre non è svolta al

di fuori di essa. In questo senso la destituzione indica un possibile risvolto strategico delle rivolte nel ritorno a un piano cospirativo che i movimenti di lotta hanno perso lungo la storia del movimento operaio, in particolare con l'affermarsi del marxismo in quanto ideologia egemone, irrevocabilmente sostenitrice di una presenza di primo piano nello spazio pubblico: l'approfondimento di esperienze localizzate, spazializzate e non rappresentative di forme materiali di esistenza collettiva che si separano dalla società. Non, invece, l'accumulo di forze sul piano della rappresentazione politica.

Bibliografia:

G. Agamben, *L'uso dei corpi*, Venezia, Neri pozza, 2019.

P. Amato, *La rivolta*, Napoli, Cronopio, 2010.

A. Bertho, *Time over? Le temps des soulèvements*, Vulaines sur Seine, Éditions du Croquant, 2020.

J. Camatte, *Il capitale totale. Il «capitolo VI» inedito de «il Capitale» e la critica dell'economia politica*, Bari, Dedalo, 1976.

G. Cesarano, *Manuale di sopravvivenza*, Bari, Dedalo, 1974.

Y. Citton, Abécédaire de quelques idées reçues sur les «gilets jaunes», in *Analyse Opinion Critique*, cahier #1 : *Gilets jaunes : Hypothèses sur un mouvement*, Paris, La découverte, 2019, pp. 137-148 : p.137.

J. Clover, *Riot, Strike, Riot. A New Era of Uprisings*, London, Verso, 2016.

Colectivo Situaciones, *Piqueteros. La rivolta argentina contro il neoliberismo*, Roma, Derive approdi, 2003.

Comitato Invisibile, *L'insurrezione che viene – Ai nostri amici – Adesso*, Roma, Nero editions, 2019.

M. Foucault, *La società punitiva. Corso al Collège de france (1972-73)*, Milano, Feltrinelli, 2016.

Id., *Teorie e istituzioni penali. Corso al Collège de France (1971-1972)*, Milano, Feltrinelli, 2019.

Id., La filosofia analitica della politica, in *Estetica dell'esistenza, etica, politica. Archivio Foucault 3. Interventi, colloqui, interviste. 1978-1985*, Milano, Feltrinelli, 2020, cit., pp. 98-113.

B. Porchnev, *Lotte contadine e urbane nel Grand siècle*, Milano, Jaca book, 1974.

F. Rambeau, Gilets jaunes et nus pieds, [in rete], https://lundi.am/Gilets-Jaunes-et-Nus-Pieds-Frederic-Rambeau.

R. Schürmann, *Dai principi all'anarchia: Essere e agire in Heidegger*, Venezia, Neri Pozza, 2019.

M. Tronti, Sul potere destituente, intervista con Adriano Vinale in *La Rosa di Nessuno* n. 3, *Potere destituente: le rivolte metropolitane*, Parigi-Udine, Mimesis, 2008, pp. 23-32.

E. P. Thompson, *La formazione della classe operaia in Inghilterra*, Milano, Il Saggiatore, 1969.

T. Zartaloudis, Violenza senza diritto? Sulla violenza pura come potere destituente, in D. Heller Roazen, K. Attel, A: Badiou et al., *Giorgio Agamben. Ontologia e politica*, Macerata, Quodlibet, 2019, pp. 382-383.
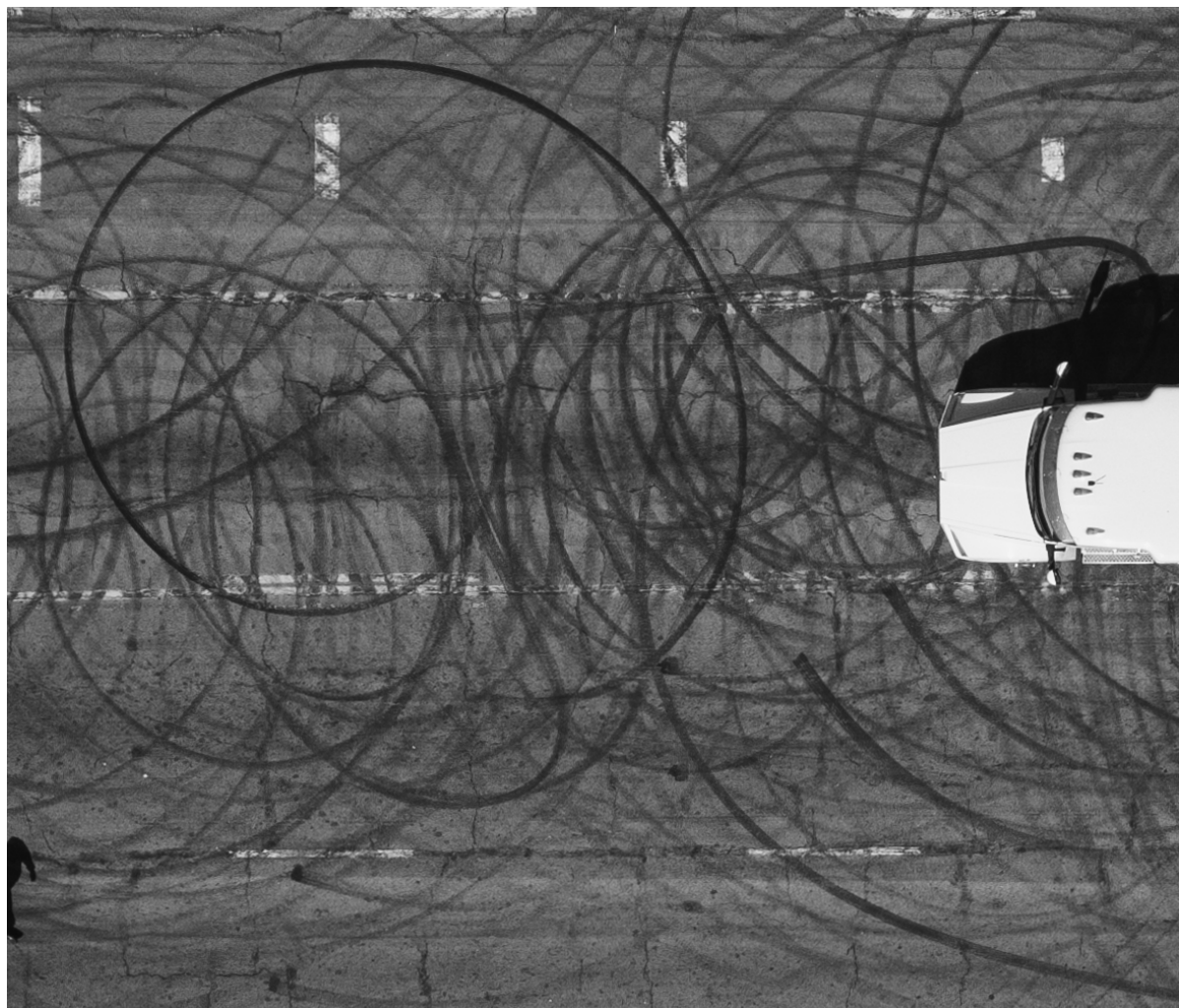
Stephen Loewinsohn's photographs provide a vivid portrait of urban life on America's West Coast, through its visual traces. The Oakland-based photographer has documented, using drones, numerous sideshows in the San Francisco Bay Area. Sideshows are stunt driving events that involve a raucous and festive crowd of people gathering around one or more cars that stop the traffic by performing circular drifts, the rear wheels burning on the asphalt as the car moves, drawing donut shapes in the process. Sideshow culture emerged in Oakland in the 1980s, at the intersection between hip hop block parties and American car culture – a history that resonates in the many sideshow references populating the local hip hop scene (e.g. Richie Rich, Mac Dre, E-40, etc.). Today, it is a widespread practice throughout the United States and Mexico. Sometimes tolerated, sometimes harshly repressed, in some cases legalised in
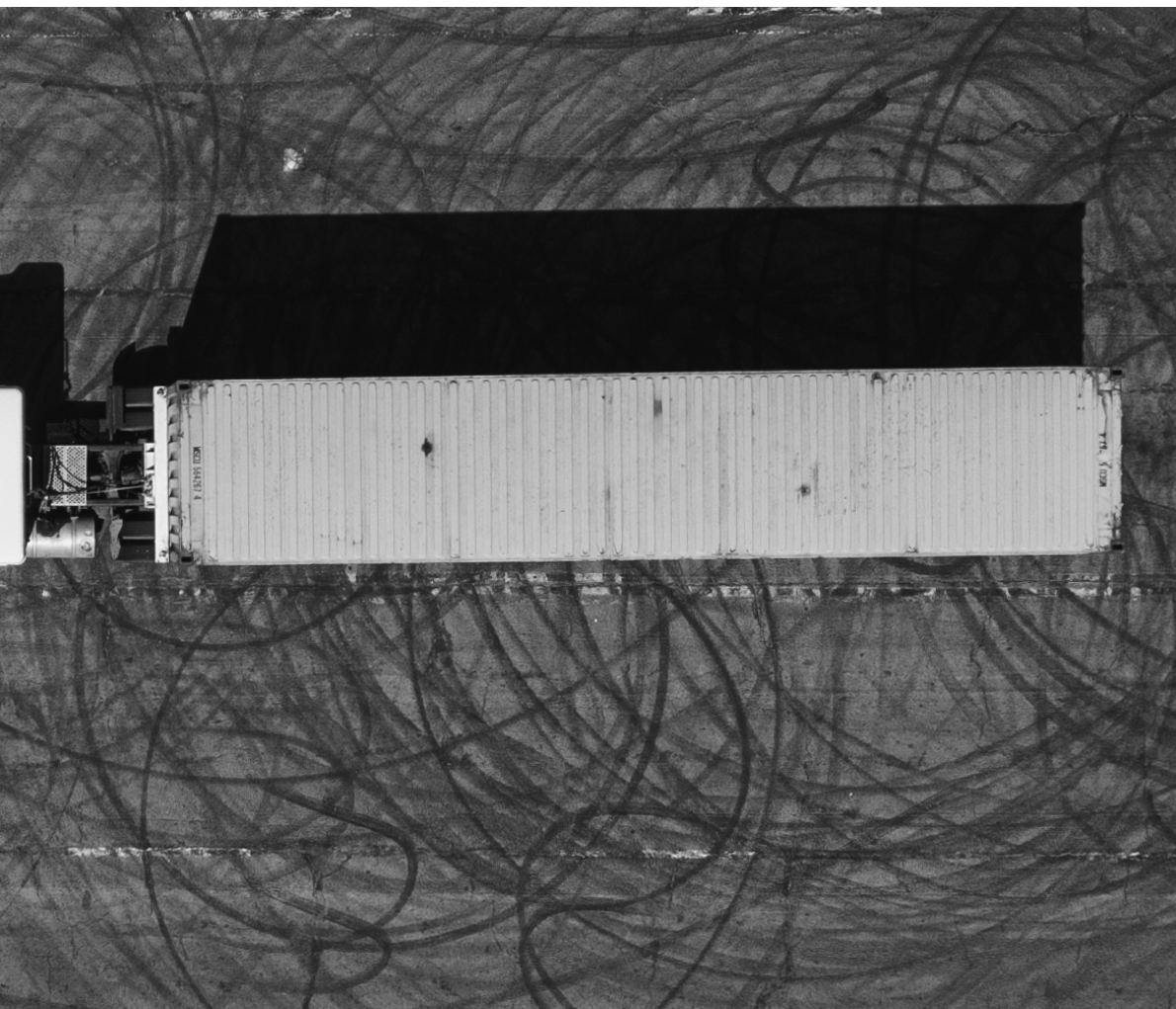
dedicated areas, in most cases stigmatised and criminalised, sideshows disrupt normal urban flow, interrupting its flow and expectations by spinning a collective surplus effect that does not seem to feed back into any reasonable logic, thriving on a cloud of smoke, adrenaline and noise that residents often find unbearable, and bystanders love. Sideshows show sideways uses of urban space and infrastructure that escape the predicaments of logistics and circulation, obliquely pointing to unproductive, radically alternative modes of living and practicing the urban that remain to be deciphered, in the enigmatic marks left behind on the asphalt.

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Why We Riot
Ethical Loops in the George Floyd Uprising

Arturo Castillon

I will not make myself the man of any past. I do not want to exalt the past at the expense of my present and of my future.

It is not because the Indo-Chinese has discovered a culture of his own that he is in revolt. It is because "quite simply" it was, in more than one way, becoming impossible to breathe.
—Frantz Fanon[1]

History is the subject of a structure whose site is not homogenous, empty time, but time filled by the presence of the now.
—Walter Benjamin[2]

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It is a brisk spring afternoon in Brooklyn Center, a suburban city adjacent to Minneapolis, and a protest in front of a police station has just ended in a cloud of tear gas. I feel adrenaline rush through my body as I consider whether to stay or go. The day before, a young black man named Daunte Wright had been shot and killed by a white police officer. This happened the third week into the criminal trial of Derek Chauvin, the officer who brutally murdered George Floyd in Minneapolis on May 25, 2020 – almost a year before Wright was fatally shot in Brooklyn Center on April 11, 2021.

Having decided to stay in Brooklyn Center, I observed many incidents of direct conflict with police, as well as looting, arson, and other kinds of property destruction. At the time, these militant protest tactics had become commonplace during demonstrations in and near Minneapolis – which is only a fifteen-minute drive from Brooklyn Center. I had also seen them before in several of the rebellions that occurred throughout the country the previous year.

While in Brooklyn Center I got in touch with Julia, a friend of a friend who I'd previously met in Minneapolis. I had been traveling the country on and off since the summer of 2020, trying to interview as many people as I could about their experiences in the uprising. When I asked Julia if she might be interested in doing an interview, she immediately said yes, as if she had been waiting for someone to ask her. We ended up meeting a few days later in a dive bar in Minneapolis. Like many of the people I've interviewed about the George Floyd uprising, Julia expressed feelings of pride, even joy, while recalling the events of that past summer: "Thinking about that summer makes me feel good. We did

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1 Frantz Fanon, *Black Skin, White Masks*, (New York: Grove Press, 1967) pg.225-226.
2 Walter Benjamin, *Illuminations* (New York: Shocken Books, 1968) pg. 261.

something good."

Julia (who is black and indigenous) is one of over forty people I've interviewed who directly participated in the riots surrounding the death of George Floyd. In response to this brutal incident, hundreds of thousands of people across the United States took to the streets to demand justice for Floyd in an unprecedented number of non-violent demonstrations.[3] At the same time, thousands of people also launched violent rebellions in over a hundred American cities.[4] Most notably, police stations came under siege in Minneapolis and the Third Precinct (home to the officers who arrested Floyd) was overtaken and set on fire. Why were some people willing to risk arrest, injury, or worse, to participate in these turbulent events?

People clearly wanted justice for Floyd – the arrest and prosecution of Derek Chauvin and of the three other officers involved in Floyd's death. But the strength and purpose of this conviction alone doesn't necessarily lead someone to fight in an uprising. The handful of people I interviewed who did not fight on the front-lines did not lack personal conviction on this front. Instead, for varying reasons, these individuals felt that they were more useful in auxiliary, or support roles, often performing important duties such as legal support, mutual aid, and counter-surveillance.

Nor was the trajectory from oppression to resistance at all straightforward for those who did choose to fight. Although the uprising was largely framed through the discourse and symbolism of the Black Lives Matter movement, rebellions failed to materialize in many of America's majority black cities, including Detroit, Baltimore, and Memphis. This suggests that race alone was not a determinant for why people rioted in 2020. The same can be said about other social factors such as ideology, gender, and class. Instead, those I interviewed represented a diverse-cross section of social and political backgrounds: unemployed, working poor, middle-class; liberal, anarchist, abolitionist, libertarian; mostly black and white, but also indigenous, Latino, and Asian. So, if it isn't necessarily a matter of some identifiable background factor or characteristic, then how are we to understand the decision to riot?

Such a question poses a kind of puzzle for which we might not have all the pieces. Rather than assembling a list of characteristics that fit together into a neat image, it might be more useful to bracket the experience of the riot itself, in order to explore its unique function. In this way, we can analyze the qualities of the act which make it attractive to those who engage in it.[5] Otherwise, any attempt to analyze people's motives and reasoning based on fundamental characteristics – whether cultural, ideological, political, psychological, economic, or social-ecological – runs into a big problem, which is that a shared course of action does not necessarily follow from such factors. On the contrary, the

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3 The initial rebellion in Minneapolis sparked an unprecedented mobilization of non-violent demonstrations throughout the country, including in small rural towns which had never experienced protests before. The Armed Conflict Location & Event Data Project (ACLED) documented 11,000 protests in nearly 3,000 different cities and towns in 2020, estimating that 94 percent of these demonstrations were "peaceful." This means that hundreds of these demonstrations were marked by violence of some sort. See ACLED, "A Year of Racial Justice Protests: Key Trends in Demonstrations Supporting the BLM Movement," The Armed Conflict Location & Event Data Project (May 2021); Erika M. Kitzmiller and Elizabeth Burton, "The Threat of Visibility and State-Sanctioned Violence for Rural Black Lives Matter Youth Activists," *Journal of Research in Rural Education*, 2021, 37(7).

4 A wide variety of conflicts, skirmishes, and incidents took place throughout the summer and fall 2020, but not all of them escalated into prolonged battles with police, injured officers, arson, or looting. Although there is a lack of research on this front, I have identified at least 118 full-blown rebellions that happened in the US in 2020, including in cities that are not well known, such as Fort Wayne IN, Des Moines IA, Grand Rapids MI, Walnut Creek CA, Fayetteville NC, Sioux Falls SD, Bellevue WA, Dover DE, Lynchburg VA, and many more.

5 My approach to social analysis is heavily influenced by Alfred Schutz's classic work, *The Phenomenology of the Social World* (Chicago: Northwestern University Press, 1967). Combining methodological ideas from Edmund Husserl and Max Weber, Alfred Schutz shows that it is possible to develop an analysis of how individuals and groups experience the social world, including their motivations.

process by which action generalizes into a collective experience varies from individual to individual as it spreads throughout a crowd.

When recounting the siege of the Third Precinct in Minneapolis, Julia described a process of conflict not only between police and protesters, but among protesters themselves, which expressed itself as a conflict between those trying to force the police out of the precinct and those who my respondents often referred to as "peace police." For Julia, this tension was evident in arguments over the very meaning of popular slogans like "No Justice, No Peace":

> I saw how the space was contended for between the militants and the peace police. And the peace police were trying to defend the building and pleading with people, please, please, please. And I'm like, look, "No justice, no peace" needs to mean something. Like, we can't just do these chants. So yeah, I started to see people smash the windows of the precinct, smash up a cop car. And people were standing on top of the cop car. In my view, if that isn't what you wanted to see happen, then you needed to leave. (Julia, April 7, 2021)

The siege of the Third Precinct was not merely a battle over words, nor was it merely a tactical conflict. It was a battle over the very spirit and subjectivity of the rebellion itself, which often cut across lines of race as well as other cultural and political markers. The importance of subjectivity in this regard was further confirmed by Corey, a friend of Julia's who she invited to come to the interview. Corey (who is white) also participated in the siege of the Third Precinct. After describing how the determination of frontline rioters to breach the precinct resulted in violent police repression, Corey recounted how an indigenous elder's drumming helped encourage the crowd to continue the battle with the police:

> I remember specifically there was this indigenous elder who brought out a traditional drum and then just hit it with consistent precision, you know, like with a tempo. DUNG, DUNG, DUNG, DUNG, DUNG. And then people got it. It was like magic. People started fucking fighting. And the police threw concussion grenades into the crowd. I remember specifically when the concussion grenades got launched into the crowd, and people ran away. There's that instant panic, right? There's the panic from the light, the sound. And also just seeing people running in panic, it's contagious. But this drum, this DUNG, it's consistent tempo, after people ran for about three seconds they soon stopped what they were doing and turned around and then faced the police again. It was very interesting. (Corey, April 7, 2021)

How are we to understand people's motives during these decisive moments? Through what process did the decision to riot generalize and reach a critical mass that was able to overtake the Third Precinct? Based on ethnographic fieldwork spanning four years, including in-depth interviews with riot participants, my research suggests some preliminary answers. Emphasizing the role of direct experience, I argue that a key appeal of these moments was the opportunity to engage in subjectively meaningful forms of collective action. This was especially important in the late spring of 2020, as the COVID-19 pandemic ravaged the human population and transformed how we experience everyday life. In a context of widespread uncertainty and social paralysis, the George Floyd uprising gave people an opportunity to engage in group actions which they understood as embodying principles of bravery, virtue, and dignity — in short, an ethics of revolt. This created an internal experience of group action that cut across social and political barriers and which individuals understood as valuable in itself.

Because those I interviewed believed that their participation in riots expressed the embodiment of ethical values in concrete physical form, they were more likely to appreciate their involvement as an end in itself, generating a kind of loop. A loop is not merely repetitive, but generative, in that it can open up a space for experimentation and improvisation outside the bounds of established social processes. The Call for Paper of this issue of *lo Squaderno* described the concept of the loop in the following manner:

> A loop is a material process, a fold that is made of something, like a rope, or by something, like a river,

or an airplane. While its recursive movement could be understood as a circular, the loop does only approximate the circle's abstract form: there is always something that overflows in the embodied process of looping."

Rather than functioning as a closed circuit oriented around long-term social-political objectives, the immediacy of the riot feeds back upon itself, generating new experiences of human difference and ethical becoming.[6] These experiences overflow the bounds of prevailing discourses and frameworks, which tend to either romanticize or demonize the riot. Far from being a marginal aspect, I argue that this generative loop — and its ability to circulate within a crowd — was a crucial determinant for why riots and rebellions happened in some American cities in 2020 and not others, even when those cities had similar background factors.

I believe this finding has important implications for how to understand our present era of riots and uprisings. While ethics is not the master key to causal explanations of contemporary social struggles, this framework can illuminate the question of how to understand these complex historical events in multiple ways. First, it allows us to interpret such events not only as the product of objective background factors but also as the result of dynamic subjective processes. Second, it highlights the relationship between ideas and practices in the development of mass movements.

Regarding the first aspect, many sociologists have highlighted how participation in social struggle is facilitated by background factors such as an absence of personal obligations, immersion in radical political milieus, and the expectation of collective political rewards.[7] These practical social factors likely impacted how many people became involved in the riots of the George Floyd uprising. However, the relevance of these background factors varied substantially from individual to individual among those I interviewed.

Concerning the second aspect, many studies analyze how people's attachment to certain ideologies, cultures, and personal ideals shapes their involvement in uprisings, revolutions, and other forms of collective action.[8] Nevertheless, much of this literature also questions the existence of an automatic relationship between ideas and practices, suggesting that other processes play a role in the development of the desire to participate in a riot. The appearance of such a desire is rarely ever the result of a predictable process determined from the outset by a closed set of ideas and practices. It is instead determined by a contingent process that is shaped by unpredictable factors such as life events, interpersonal connections, and other experiences which mediate preexisting beliefs and actions. Moreover, evidence from this study suggests that the physical experience of rioting itself can be a key motivator. In other words, the experience of a riot can serve as its own incentive.

Focusing on direct physical experience allows us to explore broader processes which shape history. Instead of approaching the George Floyd uprising as a simple outcome of various background factors, foregrounding physical experience lets us think about this event as an active process shaped by the power and agency of individual actors taking part in collective practices. By directly involving

6 For an elaboration of this point, see Furio Jesi, *Spartakus: The Symbology of Revolt* (London: Seagull Books, 2014) pg. 46. Distinguishing revolt from revolution, Furio Jesi argues that revolt "suddenly institutes a time in which everything that is done has a value in itself, independently of its consequences and of its relations with the transitory or perennial complex that constitutes history."

7 See Doug McAdam et al. *Dynamics of Contention* (Cambridge: Cambridge University Press, 2001); James M. Jasper, "Emotions and Social Movements: Twenty Years of Theory and Research," *Annual Review of Sociology*, vol. 37, 2011; Doug McAdam, *Political Process and the Development of Black Insurgency, 1930-1970* (Chicago: The University of Chicago Press, 1982).

8 See William H. Sewell, Jr. "Ideologies and social revolutions: Reflections on the French case," in *Theda Skocpol's Social Revolutions in the Modern World* (Cambridge: Press Syndicate of the University of Cambridge, 1994) pgs. 169-209; Jeff Goodwin & James M. Jasper, *Rethinking Social Movements: Structure, Meaning, and Emotions* (Oxford: Rowman & Littlefield, 2004) pgs. 27-28, 97-109; Doug McAdam, *Freedom Summer* (New York: Oxford University Press, 1988) pgs. 19-24, 228, 232.

themselves in riots and rebellions, individuals in this study came to think of themselves as ethical beings taking charge of their destiny, rather than passive victims of processes happening beyond their control. This is what made the physical act of rioting valuable in of itself: it created an opening for a truly ethical experience of the world.
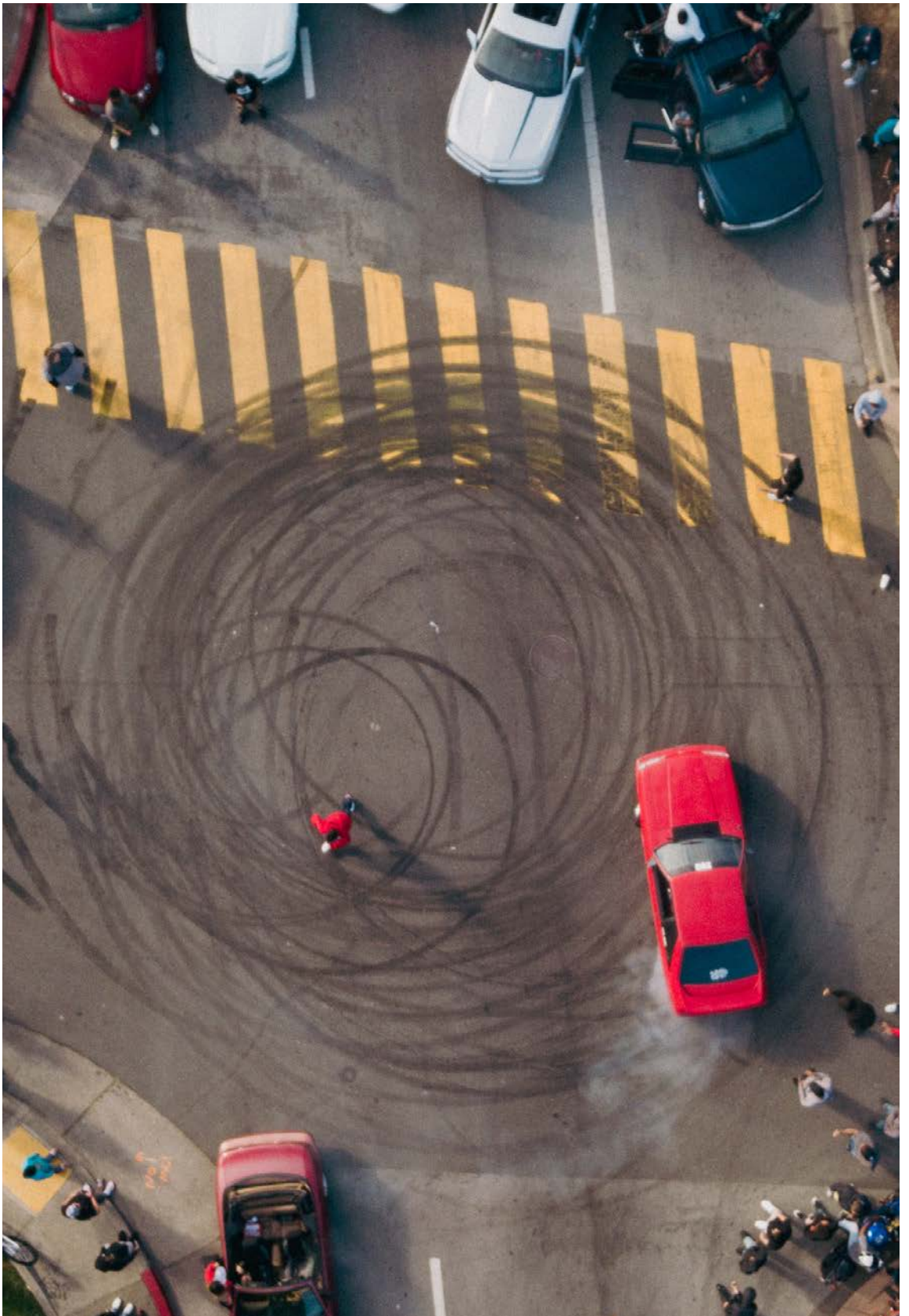
Looping strategies

Moral slippages between the certain and the uncertain in a Roman temporary housing area

Mario Marasco

1. Space

Bastogi is a complex of six four-storey buildings with mini-apartments (25 to 45 square metres) located in the 13th Municipality of Rome[1]. It has been built in the late 1970s and early 1980s by a collateral company of the Bastogi S.p.a. to house university students and travellers in transit. Between 1985 and 1986, the housing rights committee 'Lista di lotta' occupied the area because the builder – having financed the work with public funds – wanted to convert it into private housing. These first occupants were waiting for public housing in a nearby area. Having obtained their dwellings, these people left Bastogi. In 1989, the City of Rome decided to purchase the complex, turning it into emergency housing. The complex has been renamed Centre for Temporary Housing Assistance (in Italian: CAAT) in 2005. Throughout the 1990s, Bastogi housed individuals who were officially located by the Main Municipality while awaiting permanent public housing (ERP). The lack of new public dwellings and the blocked waiting lists for public flats encouraged some people to squat. For this reason, in the 2000s, evictions and police operations took place. At the same time, the media portrayed Bastogi as a centre of high crime and drug dealing. This media description played into the hands of the Main Municipality, which had two objectives. The first one was to evict the squatters, while the second aim was to vacate some dwellings by negotiating with those who had been authorised to live there. Therefore, many of the authorised residents had to accept being relocated to houses that were as far as 70 kilometres from Bastogi, with the consequence of disrupting many lives in the process.

Over time, unequal housing conditions developed, with some families of five or more people occupying just 45 square metres, or even 25 square metres. Those who refused to move out of the city were stuck on the social housing waiting lists. As migration flows have continued over the last two decades, the number of people experiencing severe housing deprivation has steadily risen. The rental prices in the city have escalated to a prohibitive level, impacting even families that previously did not face any housing affordability challenges. From a temporary housing centre, Bastogi has become a permanent reality. Having outlined the evolution of Bastogi, let us concentrate on the connection between welfare policies, practices, and forms of individual and collective agency.

2. Looping effect

Philosopher Ian Hacking has insisted extensively on the notion of the looping effect (1995). In simple terms, categories such as 'squatter', 'homeless', 'people in housing emergency', 'temporary accommodation' are not just ideas. They play a role in shaping individuals' perceptions of themselves. Ways

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1 Rome is administratively divided into 15 sub-cities known as 'municipalities'. In this text, the terms 'Main Municipality' or 'city administration' will be used to refer to the higher administrative level.

of classifying human beings interact with the human beings who are classified (1999: 31). These are 'interactive classifications' that affect the labelled individuals, shaping their choices and experiences. As a result, this produces a further change in knowledge and ways of categorising (34). And the cycle can repeat itself again.

Before Hacking, the *looping effect* was addressed in social studies by Goffman (1961, 14-43) and shortly after by Bergstrand (1979). The former discussed it in his famous work on asylums, also with regards to other "total institutions" such as prisons, barracks, extermination camps, and nursing homes for the elderly. The latter explored *looping* by studying how certain health policies can lead to a shortage of primary care physicians in US rural areas. Drawing on the insights offered by these two scholars, I want to show how, in my research field, *looping* is a process capable of perpetuating the ideology of victim-blaming in exclusionary housing policies in order to obscure the real causes of a structural social problem (cf. Bergstrand 1979, 66).

Bastogi can be likened to a heterotopia of marginality. Unlike utopia, heterotopia is a real place and at the same time is "outside all places" (Foucault 1994, 13). In so-called primitive societies, what Foucault refers to as "heterotopias of crisis" were forbidden places, reserved to individuals experiencing a transitory crisis, such as adolescents or women in childbirth (15). According to Foucault, in contemporary societies, there is instead a proliferation of "heterotopias of deviation": spaces where individuals considered deviant from the norm are placed, such as psychiatric clinics and prisons. The mere existence of these places is already "a contestation of all other spaces" (25): they are "counter-spaces", whose existence denounces the segregating logics that created them. Bastogi is similar to a nursing home for the elderly, a place at the limit between the heterotopia of crisis and that of deviation (Foucault 1998a, 312): one enters here because of a crisis (e.g. housing) and remains, getting older, until social and natural death.

The heterotopia of deviation partially coincides with the total institution described by Goffman (1961, 4). Goffman defines the nursing home for the elderly as a place for "persons felt to be both incapable and harmless". Similarly, people in housing crisis are directed to Bastogi and some of them have been there for 30 years. In Rome, housing policies have historically provided temporary shelter without addressing the multiple aspects of emergency living, resulting in precarious solutions. Instead of guaranteeing universal housing rights, this approach has perpetuated chronic emergency for a significant portion of the urban population, formalised in policies that have mainly benefited middle and working class people (Caciotti 2020, 18).

Consequently, this type of temporary housing assistance policy labels those living in Bastogi as unable to independently build a dignified life. In this phase of the looping effect, social and charitable support initiatives proliferate, and the media discourse focuses on a specific type of poverty (cf. Bauman 1982, 183), linked to either personal and cultural qualities (with racist overtones for immigrants) or individual deficiencies (poor health, limited education, etc.). As a consequence, people in Bastogi, becoming aware of being tagged with a denigratory label, subjectivise the stigma into a form of resistant agency.

3. Kamil

Some individuals, especially the youth, respond with violent performances or by publicly proclaiming that they belong to a lawless and thuggish neighbourhood. This is exemplified by Kamil[2], a young Egyptian immigrant to Italy, who grew up in Bastogi and developed an inherent sense of failure due to the poverty, ignorance and weakness commonly attributed to the local inhabitants. Despite the efforts of his hardworking father, Kamil has lost confidence in the promise (both parental and societal)

2 Several semi-structured interviews were collected in May 2018. The names of all informants are fictitious.

that education will lead to a better life. When searching for a job, the few young people who successfully complete their studies must hide the fact that they live in a temporary housing centre. There are study assistance programmes, but the educators, hired by a charitable organisation, are constantly replaced. While this happens because they are poorly paid and for other contingent reasons, Kamil feels mocked. It seems to him he is being treated as 'irredeemable'. Consequently, instead of pursuing a potentially futile job he gets involved in small-scale drug dealing. Careful not to overstep, fearing a lengthy prison term, with his friends he establishes a reputation in the urban area, embracing a gangster *habitus*. When a group of Moroccans lavish excessive compliments on some local girls, Kamil and his friends decide to assault them. A renowned Roman newspaper reports the attack as the result of a settling of scores between two criminal gangs. It also declares that a 'young mafia' is emerging in Bastogi. Along some television programmes, a wave of moral panic around Bastogi begins to grow (cf. Cohen 1972). Definitions change: from 'incapable and harmless', CAAT residents now become 'dangerous squatters' and 'criminals or potential criminals'. Never mind that there are people in Bastogi who have been waiting for a house for thirty years. The newspapers choose to focus on those who have occupied a vacant flat.

What is overlooked by this narrative are the structural conditions, the political and administrative incapacity, and the bureaucratic slowness, which together contribute to the present situation: oversubscribed waiting lists, a decade-long shortage of new public housing projects, the total deregulation of the rental housing market, and other forms of speculation, such as securitisation. The 'problem of squatting' has taken the place of the 'housing crisis' in the public narrative. Kamil scoffs at newspapers and TV. Indeed, he pins a medal on his chest: "Better to be considered a harmful criminal than a scumbag", he states one day. By rejecting the first label (incapable/harmless), Kamil has embraced a new one, that of a young gangster. This novel imaginary surrounding Bastogi's inhabitants ('criminals and dangerous people') at least seems to ascribe him the power to inflict harm (Bauman 1999, 139). What for some people is morally deplorable, for Kamil is a "practice of freedom" (Foucault 1998b).

4. Developments and conclusions

As a result of the events described above, the already limited social support initiatives are further reduced. It becomes more difficult for charitable organisations to recruit volunteers. In the public narrative, the social workers are afraid to enter this 'kilometre of Evil' (*chilometro del Male*, as another newspaper calls it), while the low salary and precarious economical condition of said workers is glossed over. After a while, other inhabitants react differently to these denigrating labels. Through small initiatives – such as creating green and shared spaces, volunteering to fix up the after-school premises – they challenge Bastogi's image as a place of crime and evil. The CAAT also becomes attractive for some entertainment businesses. Two movies are shot. These, however, focus little or not at all on the active and regenerative dimension of some initiatives. Movies, but also some video-blogs, conveniently find a *topos* in once again depicting the unjustly criminalised Bastogi inhabitant as a poor, unfortunate and harmless citizen. The cyclical nature of these knowledge generation processes is continuous. It affects the choices of individuals living in this space of permanent temporariness.

A final ethnographic example is that of Elena[3], a 37-year-old single mother. The woman has been living in Bastogi for fifteen years as an authorised assignee of temporary accommodation and waiting for a public housing. She finally finds a permanent job in the hotel industry after ten years of precariousness, even though the pay is just over 1,000 euros per month. As a new 'housing voucher' policy has been launched[4], Elena hopes to take advantage of it and be able to leave Bastogi with her two children. The support ranges from 600 to 800 euros per month. This possibility required Elena to enter

3 The latest collected interviews date back to January 2024.
4 It is called "bonus casa" (Rome Municipal Resolution No. 150 of 2014).

the private rental market, as the voucher is paid directly to the homeowner. However, the voucher has a duration of only four years. Once this subsidy ends, her limited salary – the expected increase of which never comes – means that she would not be able to pay the expenses, and therefore would have to leave the flat under threat of eviction. Elena adopts a strategy that for many others might be morally questionable: becoming a squatter in Bastogi. Through the advice of her former neighbours, she easily finds a place. However, while in the past she was 'waiting for public housing', she is now a 'squatter'. Her situation has become more precarious. A 2015 a national law[5] denies squatters the right to apply for residency, prohibiting access to basic social services such as the family doctor, making it impossible for them to pay utility bills[6]. Due to this law, Elena cannot even vote. She and her children cannot apply for electricity and gas supplies. For gas, it is enough to buy a dangerous LPG cylinder every two months; electricity, on the other hand, is taken from the lifts (hence electricity supplied by the Main Municipality, which owns the building). When the category of 'squatter' prevails (in the loop) over that of 'person in housing crisis', TV news crews never fail to start their video with a shot of those makeshift electrical connections, as a symbol of parasitic dishonesty.

Let us go conclude by coming back to Goffman's "total institutions" (1961). In a mental hospital, Goffman writes, interactions between staff and inmates are highly structured but not necessarily in a linear way. In this context, "looping" is defined as the phenomenon according to which the staff can provoke a response from an inmate and then use that response to justify the original provocation, therefore perpetuating a cycle of similar interactions. The inmate then realizes that any reaction which outside the total institution would be normal (a sneer, a scream, a laugh), is "collapsed back into this situation itself" (Goffman 1961, 42). Between one labelling loop and another, it seems only one choice remains for many people in Bastogi, namely distancing themselves from the political, legal or rhetorical labels with which they are captured, adopting a "distant" attitude of defence (as for the inmate in Goffman's example). Distance can be understood both rhetorically and legally. On the one hand, it involves distancing oneself from the imposed label, while on the other hand, it can also mean moving away from the legal category of "person on the waiting list for public housing" to identify as a squatter. Distance – social, moral, and political – is the constant that afflicts the 'defective' citizens from Bastogi, inevitably separating them from the institutions and the rest of the city.

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5 Decree-Law No. 47 of 2014, converted with amendments by Law No. 80 of 23 May 2014.
6 Since the implementation of this law, a strict division into three 'housing statuses' has emerged in Bastogi. Comparing the latest municipal census (2019) of local inhabitants with my fieldwork data, it is estimated that 50% of the population are officially recognized as beneficiaries of temporary accommodation. Another 20% are squatters with authorised residence and the remaining 30% are 'simply' squatters.

References

Bauman, Z. 1982. *Memories of Class*. London: Routledge & Kegan Paul.

Bauman, Z. 1999. *Dentro la globalizzazione: le conseguenze sulle persone*. Roma-Bari: Laterza.

Bergstrand, C.R. 1979. "Victim Blaming and the 'Looping' Effect of Social Policy: The Cause of Physician Maldistribution and Underserved Rural Communities." *Social Problems* 27 (1): 62-68.

Bourdieu, P. 2002 [1978]. "La giovinezza è soltanto una parola". *Economia & Lavoro* 36 (2): 9-15.

Caciotti, C. 2020. "When squatting becomes 'stable precarity'. The case of Santa Croce/Spin Time Labs, Rome". *Visual Ethnography* 9 (2): 13-31.

Cohen, S. 1972. *Folk Devils and Moral Panics: the Creation of the Mods and Rockers*. Oxford: MacGibbon and Kee Ltd.

Foucault, M. 1994 [1966]. *Utopie. Eterotopie, Conferenze radiofoniche (France Culture, 7-21 dicembre 1966)*. Napoli: Cronopio.

Foucault, M. 1998a [1984]. "Eterotopie". In *Archivio Foucault*, vol. 3: 307-316. Milano: Feltrinelli.

Foucault, M. 1998b. "L'etica della cura di sé come pratica della libertà". In *Archivio Foucault. Interventi, colloqui, interviste*. Vol. 3. 1978-1985. Estetica dell'esistenza, etica, politica, a cura di A. Pandolfi, 273-294. Milano: Feltrinelli.

Goffman, E. 1961. *Asylums*. New York: Doubleday.

Hacking, I. 1995. "The looping effects of human kinds." In D. Sperber, D. Premack, & A. J. Premack (eds.), *Causal cognition: A multidisciplinary debate*, 351-394. Oxford: Clarendon Press.

Hacking, I. 1999. *The Social Construction of What?* Cambridge: Harvard University Press.

Strange loops
and circular economies

Matthew Archer

Kalundborg is a sleepy industrial town on the west coast of Sjælland, about 100 kilometers from Copenhagen. Since the 1970s, the town has been synonymous with efforts to enhance the purportedly symbiotic nature of industrial operations through the active and collaborative integration of different firms' waste and production streams. What eventually came to be known as Kalundborg Symbiosis now presents itself as a prime example of the circular economy: "The world's leading industrial symbiosis is located in Kalundborg and creates profits through a circular approach to production. Benefiting locally and inspiring the rest of the world" (see: www.symbiosis.dk/en/). Such an account is amplified by numerous actors across the public and private sectors, including circular economy and industrial ecology scholars, Danish and European government institutions, and multinational companies and industry groups.

A more cynical analyst might describe Kalundborg Symbiosis as a quasi-collusive association of profit-maximizing corporations selling a bit of their waste to each other in the exceedingly geographically constricted area of a village industrial park, and one might note that many of these companies are petrochemical companies. The latter description raises an important question, namely: How is it that Kalundborg Symbiosis has become emblematic not just of the circular economy, but of the possibility of green capitalism more generally, and why does its emblematicity matter? This essay offers a tentative answer to this question by situating Kalundborg within a neoliberal socio-climatic imaginary of circularity, one in which the promise and possibility of the circular economy is circumscribed by the ability of corporations to turn a profit on their climate commitments. Reflecting on the radical potential of circularity as a way of reorganizing the economy *vis-à-vis* the way it is typically deployed as a suite of piddling, business-friendly "technical adjustments" in service of a "status quo utopia" (cf. Günel 2019), I suggest that the appropriation of circularity can be understood as a Hofstadterian strange loop, an understanding that hopefully sheds light on other cases of corporate appropriation, as well.

Defining circularity

One of the most popular definitions of the circular economy comes from the Ellen MacArthur Foundation (EMF), which defines it as:

> a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources (Ellen MacArthur Foundation, n.d.).

Like Kalundborg Symbiosis's description of itself as "[creating] profits through a circular approach to

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production," the EMF's definition of the circular economy sees economic growth and circularity as two sides of the same coin. In fact, it goes even further than that: the EMF claims that "the circular economy tackles climate change and other global challenges . . . by decoupling economic activity from the consumption of finite resources," positing green growth – a dangerous pipe dream of the professional managerial class that is neither empirically supported nor sufficiently quick even if it were (Hickel and Kallis 2020) – as the driver of circularity.

In this light, projects like Kalunborg Symbiosis can be seen as emblematic of a broader socio-climatic imaginary of the circular economy, one in which the collaborative ingenuity of profitable businesses is seen as a necessary condition of global sustainability – an imaginary in which economic growth is seen not as a drive of socioecological collapse, but as the means through which such crises and their effects can be mitigated. Manjana Milkoreit (2017) defines a socio-climatic imaginary as collectively held visions of social and environmental futures that include both desirable and undesirable visions of what is or might be in store, paying careful attention to the assumptions about causal relationships that underlie such visions. Central to the socio-climatic imaginary of circularity that emerges in an analysis of popular definitions and prototypical projects is the idea that there is a positive correlation between economic growth and socio-ecological wellbeing.

Reading the glowing assessments of Kalundborg, one gets the sense that profitability, circularity, and sustainability are more or less co-constitutive. The World Wildlife Fund takes the success of Kalundborg Symbiosis as proof that "[a] region that enables [industrial symbiosis] can increase economic activity without equivalent growth in waste disposal into its environment, or increased demand for resources like energy and water" (Thomas 2012). An essay on the non-profit online magazine *Ensia*, hosted by the University of Minnesota's Institute on the Environment, asked whether Kalundborg had "found the formula for environmentally-friendly industry," claiming that the town's industrial complex "offers insights into what environmentally friendly industry could look like" (Hewitt 2014). Valentine (2016), writing in the *Journal of Cleaner Production*, approaches Kalundborg as an exemplar of "progressive innovation" and "sustainable collaboration" that demands further study in order to better replicate its success outside Denmark. The French utilities conglomerate Engie (n.d.) sees Kalundborg as a reflection of natural dynamics: "Organizations seeking to integrate sustainability into their operations – and do so profitably – should take a cue from Mother Nature," noting that, through industrial symbiosis, "[w]hat was once industrial waste has become revenue." According to the Danish Ministry of Foreign Affairs, "As the world's first large scale model for circular production, Kalundborg is proving that production and sustainability can go hand in hand." Notably, the Ministry published its assessment of Kalundborg on a website intended to attract foreign investment to Denmark – investindk.com – claiming on its homepage that the country is "#1 in Europe for ease of doing business" (according to the World Bank).

These evaluations of Kalundborg Symbiosis come from very different kinds of organizations – from universities and research institutes, from a government ministry, from an NGO, and from an energy company. And yet, they all advance a similar kind of socio-climatic imaginary of circularity, one in which sustainability and profitability are concomitantly enhanced through collaborative industrial practices. Within this imaginary, the radical promise of a world without waste gets reduced to a euphemism for collusion; the lofty aspirations of global social, environmental and economic sustainability sink to business-as-usual.

Economic loopiness

Such a discombobulating descent from the utopianism of circularity to the banality of marginally profitable redirections of corporate waste flows recalls Douglas Hofstadter's notion of the strange loop, which he defines as:

an abstract loop in which, in the series of stages that constitute the cycling-around, there is shift from one level of abstraction (or structure) to another, which feels like an upwards movement in a hierarchy, and yet somehow the successive "upward" shifts turn out to give rise to a closed cycle. That is, despite one's sense of departing ever further from one's origin, one winds up, to one's shock, exactly where one had started out. In short, a strange loop is a paradoxical level-crossing feedback loop (Hofstadter 2007, 101-102).

Taking his cue from Blühdorn's (2011) post-ecological approach, Fausto di Quarto (2021, 15) describes one facet of this paradoxical level crossing quite clearly: "by acknowledging that systemic and structural transformation is needed in order to obtain sustainability, [western democracies] simulate concern about ecological issues 'neutralizing' and reframing the sustainable theme as a technical or economic issue, avoiding any political confrontation (and conflict) around it." Di Quarto's analysis resonates with the dominant approach to circularity as exemplified in projects like Kalundborg Symbiosis, where interrelated (eco)systemic crises like biodiversity loss and climate change get reduced to problems that can be solved by fiddling with business models and inter-firm dynamics, which do not merely ignore systemic causes, but actively obscure them.

This speaks to a defining characteristic of strange loops, which, according to Hofstadter, is that they involve an "upside-down causality." Reflecting on the fact that the human brain evolved in such a way as to ignore the physical explanations of reality in favor of more abstract explanations centering on high level patterns (things like social categories), he observes that "we are built to perceive 'big stuff' rather than 'small stuff', even though the domain of the tiny seems to be where the actual motors driving reality reside" (Hofstadter 2007, 173). A similar kind of upside-down causality is at work in the strange loop that characterizes the dominant socio-climatic imaginary of the circular economy. Despite almost all of the evidence pointing to the contrary — that is, despite the convincing argument that for-profit corporations are inherently and inexorably ecocidal (Krenak 2019; Whyte 2020) — proponents of the MacArthurian circular economy insist that market-driven, industry-led circularity initiatives are the solution to social and environmental problems ranging from modern slavery and food poverty to biodiversity loss and climate change. Within this imaginary, the causality is backward in a different way: rather than blaming big problems on the dynamics of big systems — i.e., rather than attributing socioecological crises to the extractivist imperialism of capitalist development — the responsibility for climate change and its mitigation falls on consumers, managers, and investors; rather than seeing profit-seeking corporations and capitalist markets as drivers of the climate crisis, sustainability professionals advocating for more circularity insist that they are the solution.

Breaking the circle

Although circularity is "[a]t heart . . . a radical concept," it is in practice "a child of the less than radical neo-classic economic theory and ecological modernization paradigm" (Corvellec et al. 2020, 98). Navigating such a disparity between practice and possibility can indeed feel like being stuck on the prototypical strange loop, M.C. Escher's famous never-ending staircase, tumbling down the paradoxical impossibility of solving socioecological crises with business-friendly tweaks to the economy.

Corporations depend on this strange loop; they do not care whether one ascends or descends, whether one's proposals are aspirational or modest, as long as one ends up in the same place one started, which is precisely the kind of move a strange loop facilitates. The strange loop of circularity — the paradoxical concomitance of both radical potentials and reactionary practices — is key to maintaining the status quo through an appropriative process of envelopment. It allows for critique, but only insofar as critique remains intimately linked to and constrained by the narrow set of eco-modernist "technical adjustments" that allow companies and capitalist governments to maintain the sustainability industry's economically and ecologically extractive status quo. This is a status quo in which economic growth and corporate profits are seen as doubly causally related to sustainability — green, "decoupled" growth as a driver of circularity and circularity as a driver of enhanced profitability.

Engaging with the strange loopiness of neoliberal imaginaries helps us look past the circumscriptive circularity of contemporary sustainability to see how potentially radical ideas become entrained within and neutered by the business-as-usual narratives and practices of the circular economy. How can we break (out of) this strange loop? How can we escape the Escherian StairMaster of contemporary sustainability, which, in all its "hegemonic variety," has proven totally ineffective at addressing even the most basic problem of circularity, which is linear waste flows (Corvellec *et al.* 2020, 98)? There are at least two options. One option is to abandon the notion of circularity altogether, leaving it to the corporations to deploy as yet another greenwashing tactic, much like the notion of "corporate social responsibility." Another option is to resist corporate efforts to frame their superficial technical adjustments as contributing to a new economic order, to put a kink into the strange circuitry of circularity discourse that allows such adjustments to be framed as a departure or novelty in the first place.

Given the radical potential of circularity, abandoning it to the greenwashers seems like the wrong choice. This leaves us instead with the task of cleaving the promise of the circular economy away from its business-friendly appropriations, which will involve a critical examination of contemporary "exemplars" of the circular economy. We could begin this examination by pointing out that the Kalundborg Symbiosis project, by placing petrochemical companies at the center of its circularity infrastructure, has not only failed to impede one of the most consequential industrial waste streams – carbon dioxide – but, in positioning itself as the purported model for a "sustainable future," is exacerbating it. Through this kind of grounded critique, the relationship between the circular economy's numerous facets becomes clearer: the technical and the economic become inseparable from the social, the political, and the ecological. Attending to the strange loopiness of the circular economy – materially, but also, and maybe especially, discursively – forces us to pay attention to the contexts in which circular economy schemes are developed and implemented. It pushes us to ask which imaginaries inform the circular economy's ambitions, its execution, and its limits, but it also pushes us to ask which imaginaries are foreclosed by the closed circuits of the circular economy.

References

Blühdorn, Ingolfur. "The politics of unsustainability: COP15, post-ecologism, and the ecological paradox." *Organization & environment* 24, no. 1 (2011): 34-53.

Corvellec, Hervé, Steffen Böhm, Alison Stowell, and Francisco Valenzuela. "Introduction to the special issue on the contested realities of the circular economy." *Culture and Organization* 26, no. 2 (2020): 97-102.

Di Quarto, Fausto. "The Anthropocene and the urbanization of nature: towards sustainability?" *Io Squaderno*, no. 60 (2021): 15-19.

Ellen MacArthur Foundation. "What is a circular economy." (n.d.) https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview

Engie. "Kalundborg's Eco-Industrial Park Transformed Waste into Savings." Engie Impact (n.d.). https://www.engieimpact.com/insights/eco-industrial-park-case-study-kalundborg

Günel, Gökçe. *Spaceship in the desert: Energy, climate change, and urban design in Abu Dhabi.* Duke University Press, 2019.

Hewitt, William F. "Has this Danish community found the formula for environmentally friendly industry?" *Ensia* (2014). https://ensia.com/articles/zero-waste-denmark/

Hickel, Jason, and Giorgos Kallis. "Is green growth possible?" *New political economy* 25, no. 4 (2020): 469-486.

Hofstadter, Douglas R. *I am a strange loop*. Basic books, 2007.

Krenak, Ailton. *Ideas to Postpone the End of the World*. House of Anansi, 2020.

Milkoreit, Manjana. "Imaginary politics: Climate change and making the future." *Elem Sci Anth* 5 (2017): 62.

Thomas, Aaron. "Kalundborg Industrial Symbiosis." WWF, March 1, 2012. https://wwf.panda.org/wwf_news/?204431%2FKalundborg-industrial-symbiosis

Valentine, Scott Victor. "Kalundborg Symbiosis: Fostering progressive innovation in environmental networks." *Journal of Cleaner Production* 118 (2016): 65-77.

Whyte, David. *Ecocide: Kill the Corporation before It Kills Us*. Manchester University Press, 2020.
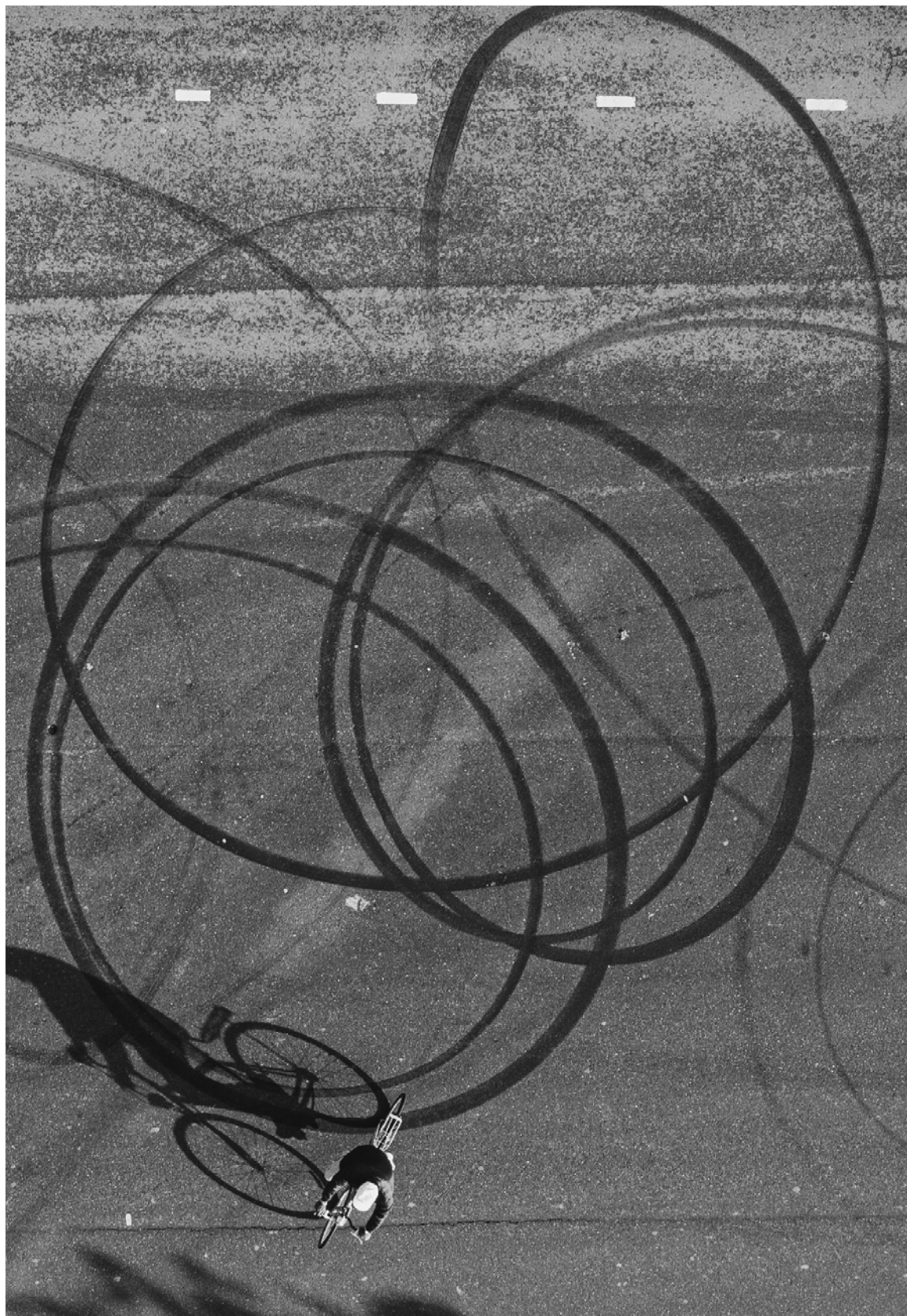
Loops of Change

Lorenzo Tripodi

To respond to *lo Squaderno*'s invitation to write about the concept of loop, I chose to look at it from the perspective of participatory planning. A core ambition of Tesserae, the organisation I co-founded in 2011, is the systematisation and integration of a large collection of tools and methods deriving from diverse approaches into a comprehensive toolkit for participatory practice. This led to the elaboration of the wide-purpose conceptual framework for analysing and designing transformative processes named "Framework for Change" (F4C).

This model visualises the fields of application, key variables and activities concurring to produce a desired change through a process of cocreation. The elements of the process can be seen as an array of discrete components, analysed independently, which are often assigned as specific responsibilities to different stakeholders in the process; nevertheless, what makes the quality and capacity to achieve positive impacts is the relation among the parts, their correct consequentiality, complementarity and integration. In this article I want to argue that the loop shape is an essential pattern to arrange the elements of the process in an effective and functional relation, and provides, both for organisation and communication purposes, a great source of inspiration to enhance positive change throughout complex multistakeholder interaction.

A loop is a repetition, yet one that generates difference. Time, and the general system in which the loop is set, as a matter fact advance while the loop cycle comes back to its initial relative position. Think of a turntable, with the needle placed on the record coming back to the same point 33 times per minute. Even if we force the needle on a single loop, going over the same groove again and again, the effect will be different with each cycle. At first we'll notice the general architecture of the sound, then we'll start to appreciate the emerging passages, then we'll start to notice the faintest details, until we notice the rustling of the groove, and the soundscape outside the system. We will eventually become saturated and bored, and our minds will most likely remove the obsessive sound, leaving us annoyed and shutting off the system. In any instance, the repetition of a single sequence causes a shift in one's understanding and perception of reality, as well as a drive to change it.

In tackling community planning, we assume that a similar principle is at work. It is not much the grand linear investment of a set of hetero-directed actions that creates a real impact and produces an envisioned change, rather, the recursive application of short cycles that allow the evaluation of the progress, the feedback on the process and its improvement. In other words, the reflexive capacity to evaluate and readdress the process, aligning continuously the effort of the different actors in the play, is what counts more. When creating F4C, we analysed the essential components of a process intended to bring about a change. We then arranged these components into a topological framework, which enables us to view their interconnections as potential loops that can be executed

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RECONNAISSANCE COMMUNICATION
LANGUAGE
MAINTENANCE PEOPLE ASSESSMENT
TIME PRACTICES PROCEDURES
PLACES **CHANGE** COOPERATION
IMPLEMENTATION OBJECTIVES
EXPECTATIONS
DESIGN VISIONING

simultaneously, similar to a polyrhythmic composition. Put simply, what matters most is the ability to reflect on and adjust the process, ensuring that all participants in the activity are consistently working together. At the centre of the scheme is the concept of change. Here the word change is understood with a significantly different acceptation respect to that of transformation. While transformation is an inevitable, ontological condition that inescapably affects physical reality, change implies the determination to produce positive transformations envisioned and agreed with and within the affected communities. According to the principles of the Theory of Change, we start focusing on the envisioned change (outputs) to look backwards at the preconditions to be created in order to that change to happen.[1]

Accordingly, the signifier "change" is positioned at the centre of the scheme, which can be read in two directions: from the centre, where the envisioned change lies, we can move backwards and in multiple directions through the main fields in which its effects are expected — social, spatial, economic or strategic — through the main variables that the process need to control — language, procedures, expectations and time — finally getting to the different activities required to steer the transformative process, which we have summarised in eight main categories of action. Or, conversely, the chart can be traversed in the opposite direction, from a specific action, moment or entry point of the implementation of a project, moving towards the general goal of producing the desired transformation. Starting from the initial question formulated as "What change do we want / expect?", the goal of the chart is to facilitate the development of a comprehensive and logical set of questions related to the process we are involved in. This will enable us to adopt a reflective approach and continuously learn, review, and adapt as we progress through a number of cycles, what we could define as cognitive loops.

The three main analytical categories of the scheme are arranged in a concentric manner around the core keyword, each one tracing a different loop. The first, called "fields," pertains to the primary phenomenological shift brought about by the process. Places relate to the spatial dimension, people to the social dimension, practices to the realm of production or the economies, objectives to the strategic or normative aspect. The premise is that every transformative process begins with a definite

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1 Taplin, D. and Clark, H. 2012. *Theory of Change Basics: A Primer on Theory of Change*. ActKnowledge: New York.

purpose: it may be focused on spatial development or on improving the welfare of a community, on promoting economic growth locally rather than modifying the planning instruments of a territory. Any transformative process engages to a certain extent with all of these dimensions, but the original perspective triggering the initiative plays a crucial role in shaping the form and organisation of the process. For instance, architectural disciplinary perspectives may strongly influence the way in which we tackle an urban regeneration initiative, but we need to inquiry into how the envisaged solutions affect the local community, its economy and the planning and policy framework applied to that context; the same can be said from each original entry point we consider. The first loop of Frame4Change enhances a reflection on how the initial disciplinary perspective from which a project is designed influences its impacts in other related fields, namely its integration.

The second loop presents four key variables that determine the conditions to which the process needs to be adapted in order to achieve positive effects. The first factor is language, which encompasses aspects such as the natural languages used in the partnership (e.g., translating transnational projects and EU policies into local contexts, including minorities and migrant groups as beneficiaries or stakeholders), as well as the collision of different disciplinary languages and technical jargons within a large multidisciplinary partnership. Likewise, it involves translating policy and legal language from programmes, agreements, and contracts into easily comprehensible formulations for the public. Indeed, a crucial part of managing complex integrated projects is about translation, ensuring that the goal, agreements, and implementations of the initiative are easily understood and apparent to both partners and beneficiaries in a clear and open manner. Once a common language is set, we can move to assess or set the expectations. A comprehensive understanding of the expectations held by all the stakeholders involved in the process is vital, especially when dealing with ambitious participatory procedures that require the involvement and support of citizens in a collaborative endeavour. Properly managing expectations and being prepared to reassess project objectives and procedures when the participants' expectations change is crucial, and should be considered throughout the entire process. The third essential variable is procedures, referring to the variety of methods by which "things are done". This includes how responsibilities and tasks are distributed among the partners and how the partnership is established. Procedures play a crucial role in the framework by providing evidence to assess, analyse and report the engagement process. They are documented in official documents, contracts, and formal and informal agreements that are established and implemented throughout the effort. Finally, the fourth essential variable of the transformative process is time. The succession, interplay and dependencies of different activities and contributions determines critically the quality of the results, and the correct timing of singular actions make them result in larger impacts that their sum. Time is of course the dimension that defines the processual nature of the project and is necessary to represent and evaluate its capacity to produce future impacts and its sustainability and permanence. We can see that establishing a timeline for a project is in itself the closing of a planning cycle and the opening a new one. It's a loop of loops, controlling how different cycles of activity are synchronised.

The third loop in the F4C scheme encompasses eight different types of activities required to advance the process. It starts ideally from reconnaissance, indicating the natural and direct process of understanding a socio-spatial situation through sensory experiences such as observation, spatial exploration, listening and reading. Communication involves the creation of guidelines, channels and codifications for sharing information about the project and its findings with partners, beneficiaries, and larger audiences. Assessment means the various actions that involve organising, systematising, evaluating and representing knowledge that has been created. This includes arranging data in formats that can be shared and made use of, such as databases, maps, surveys, baselines, evaluations, etc. Cooperation is about defining tasks, roles and procedures for the collaborative implementation of

the project, including all management activities. Visioning refers to the activities aimed at imagining solutions, formulating hypothesis and outlining future scenarios. Design includes all the operations linked with developing ideas and plans into specific solutions necessary to generate the results of the project. Implementation regards the concrete execution of such ideas, plans and solutions into actual deliveries. Maintenance means the ongoing and long-term preservation of the project's outcomes, both during and after its completion.

The circular shape suggests a perfect cycle that starts with the initial reconnaissance and concludes with the maintenance of project outcomes. However, the causality of the phases in a transformative process is a lofty abstraction that does not align with reality. Activities occur simultaneously and irregularly intersecting and blending together. Anyone of them can serve as the entry point in the process. Conversely, any of these action types can be analysed as a loop in itself, a trajectory that comes back to an initial point just be repeated and repeated again in order to advance the general process. In the same way that a music score is made up of a number of repetitive elements, each of which contains more loops and oscillatory frequencies that must be fine-tuned in order to produce an overall harmonic effect, collaborative process management is a matter of sensitivity in fine tuning the multiplicity of overlapping cyclical contributions required for its advancement. The ability to go back and evaluate the outcomes of a single action, as well as its resonance with other elements of the process, develop reflexive practice, and act to improve synchronisation and synergy is critical.

In this sense, in order to orchestrate complex participatory processes that truly achieve harmonic co-creation, a special sensitivity is required, that of a new species of urban practitioners, as in the figure labelled *rhythmanalist* by the late Henri Lefebvre[2]. In his book the French philosopher, renown for *Right to the City* and *The Production of Space*, shifts the attention to the necessity of understanding cities as complex polyrhythmic entities, "more sensitive to times than to spaces". He calls for the creation of a new discipline, Rhythmanalysis, devoted to "separating as little as possible, the scientific from the poetic".[3] Ultimately, it is a matter of developing a sensibility capable of understanding, orchestrating and harmonising complex processes in which skills, languages but also different inter-relationships require to be aligned in a plural logic.

It should be noted, however, that the hard reality of urban practice tells a quite different narrative. While single disarticulated interventions – disconnected loops in themselves – are commonly used to achieve contractual outcomes, the ability to integrate these efforts in a synergic and harmonic drive is often missing. This can be the result of unpreparedness of administrations and civic servants to escape the silos effect of different public agencies, the lack of a true participatory culture in local societies, the self-referentiality of practitioners bound to their professional skills, or many other, often combined sets of reasons. Participatory planning and practice is as a matter of fact enunciated with great emphasis in almost all spatial and social initiatives; participative processes, multi-stakeholder governance and co-creation have become standard requirement of EU and national programs; but the outcomes of the processes are often disappointing the communities who were promised a new ownership and control on the planned intervention. A bad loop, reintroducing bureaucracy and consolidated institutional power patterns, is routinely dominating the field, exploiting the 'inclusion & innovation' refrain as an effective social-washing device, and the most pressing question is probably how to break that vicious ring.

2 Lefebvre H. (1992) *Éléments de rythmanalyse*. Paris: Éditions Syllepse.
3 The quotes are form the English translation by Stuart Elden. See Lefebvre H. (2004) *Rhythmanalysis. Space, Time and Everyday Life*. London, New York: Continuum, p.87
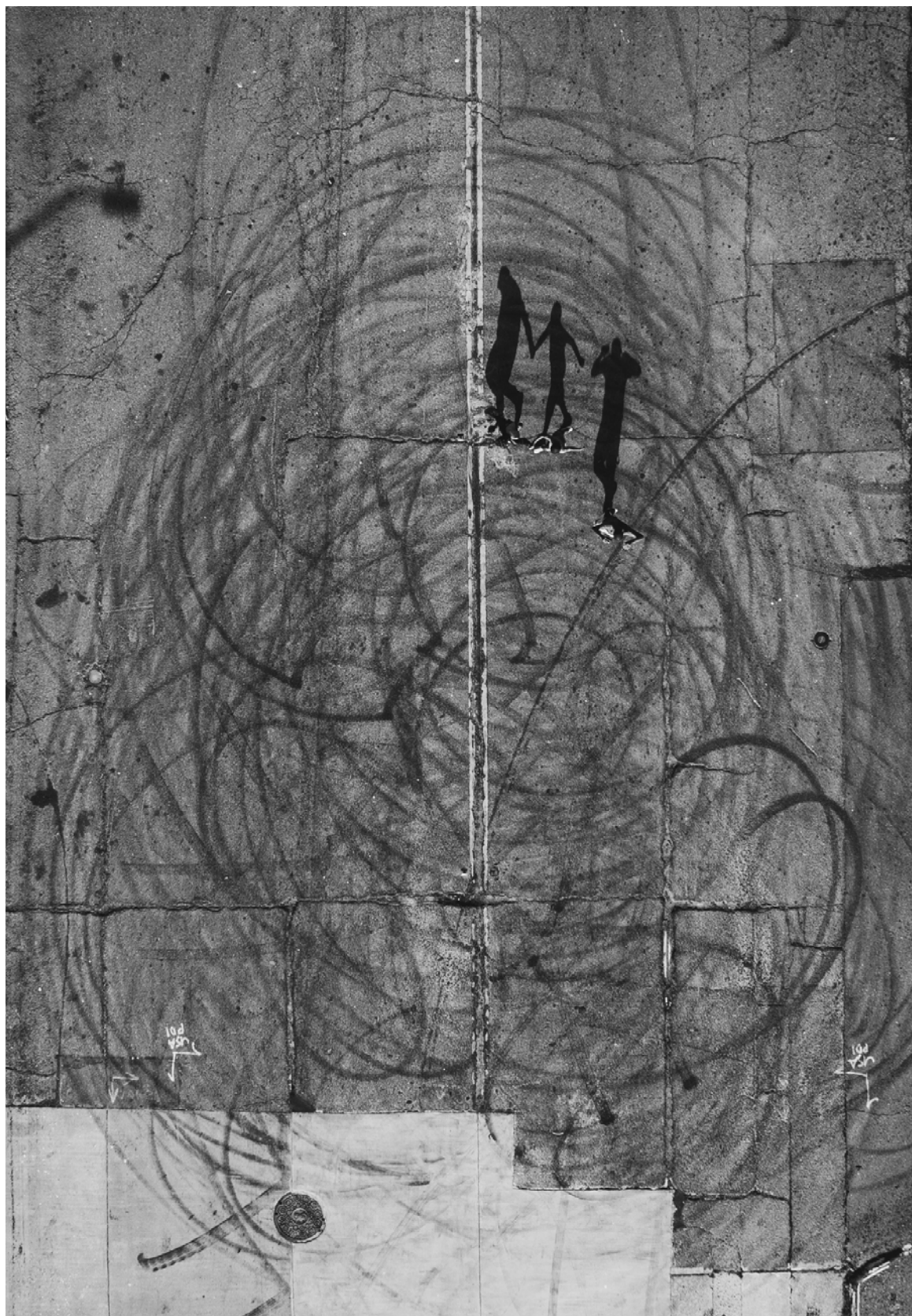
The Visual Logic of the Swirl
Or, How the Shape of an Economy is Recursive

Erik Bordeleau

The organization had been born in reaction to a nightmare of time coming apart and – to use his exact words – spiraling out of control. To the Board, spirals were particularly repugnant symbols of imperfection and volatility. Unlike closed loops, spirals always have loose ends. This allows them to spread, making them contagious and unpredictable.

Lemurian Time War (1997-2003)
Cybernetic Culture Research Unit (CCRU)

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The research from which stems this short essay has been largely spiraling out of control. It's been more than 5 years since I started gathering material around modes of financial emplotment, contributive economies frameworks and the individuation of digital localities, something that I have been, more generally, discussing in terms of cosmo-financial proposal and, more recently, *soulful asset formation*.[1] This theoretical exploration has been part of a greater adventure in exploring and, especially, *designing* alternative ecologies of funding and other decentralized autonomous organizations (or DAOs). This speculative design work has led to the creation of *The Sphere* (www.thesphere. as), a regenerative commons for the live arts. *The Sphere* has taken shape by developing different commoning rituals and protocols that resist the usual flattening of values against the horizon of the merely economically viable, playfully adopting front-end approaches to navigate the positive unconscious – the financial back-end – of social life.

The verb *commoning* refers to the joint action of negotiating, regulating, and conducting ways of collaborating together with the expectation of mutual care, aid and benefit. This definition is inspired by the work of Elinor Ostrom, a famous American political economist who has been immensely influential for the design of DAOs and commons 3.0 because of her research around the collective governance of common pool resources. The general idea here is that in order to nurture regenerative commons rather than for-profit entities, we need to engage further with how monetary systems and business models actually work. We need to design otherwise types of feedback loops and modes of capture that escape the tight grip of reductive economic abstractions and the anti-social storing of

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1 See "The Derivative Community: On Soulful Asset Formation", in Joke Brouwer and Sjoerd van Tuinen, *Technological Accidents, Accidental Technology*, V2 Publishing, Rotterdam, 2023.

value. In other words: *we need to make our economies weird again*.

One of the key challenges of *The Sphere* has been to create the conditions for convivial participatory design, bridging the gap between artists and technologists. What we want to foster, what we want to grow and cultivate, are new senses and infrastructures for the commons; new ways of sharing and distributing the resources at our disposal to the benefit of all. In that sense, commoning is always an exercise in both governance AND conviviality. Or in the parlance of Trinidad and Tobago calypso singer David Rudder: *how we vote is not how we party!*

When I think of *The Sphere*'s convivial cryptoeconomic adventure and the choreography of value that we have set in motion, I'm reminded of a favourite activity from my childhood summers: the making of an atomic whirlpool with friends and family in the above-ground pool of our suburban backyard. The protocol is simple: everyone starts moving in the same direction, slowly at first, and then faster and faster as the current starts growing stronger, sweeping away our increasingly floating bodies into an irresistible summer-style liquid procession. (<u>Fig. 1. You can't Be Alone in a Liquidity Pool!</u>)

I like this primitive image of a collective swirl because it exemplifies, in somewhat 'irresistible' terms, how we constituted ourselves as a soulful attractor for future liquidity to flow into *the Sphere*. Or as we like to say: *you can't be alone in a liquidity pool!* But what happens when the circus world meets the affordances of web 3.0 to create new funding capacities? Or in other words: how did *The Sphere* loop itself into a recursive and precursive techno-social worlding vector, aka a *digital soul*?

Incidentally, when we try to visually represent some of *the Sphere*'s choreographies of value, the diagrams tend to take the shape of generative vortex, or, as we like to call them, *synthetic swirls* (<u>Fig. 2. The Accounting Otherwise Diagram</u>; <u>Fig. 3. More Circus Art!</u>; <u>Fig. 4. The Sphere Ecosystem Diagram</u>).

In the context of this article, what I would now like to do is take this visual logic of the swirl a little further, and, keeping up with its economic incidences, spiral off on a tangent that will eventually lead me into the idiotextual surrounds of Bernard Stiegler's late work (and hopefully back).

In *Dark Ecology* (2016), Timothy Morton explains that the word "weird" comes from the Old Norse *urth*, meaning twisted, in a loop. He argues for a new kind of ecological awareness — something he calls an *ecognosis* — that challenges linear causality and opens up the aesthetic dimension, orienting us toward a "dark" and resonant place where myriad things loop themselves into existence:

> Ecological awareness is weird: it has a twisted, looping form . . . Ecological awareness is a loop because human interference has a loop form, because ecological and biological systems are loops. And ultimately this is because to exist at all is to assume the form of a loop.[2]

Morton's ecological rendition of the looping form is paradigmatic of object-oriented-ontologies' way of describing the withdrawal of objects away from cognition. This mode of philosophical drama-tization, however contested it might be, proves to be useful when it comes to foregrounding the *operational closure* of systems and things. By highlighting paradoxes of self-referentiality, especially in what he calls hyperobjects, i.e. entities so massively distributed in time and space that they challenge the very idea of what a thing is in the first place (think of global warming, or plutonium radioactiv-ity), Morton's conception of ecognosis overlaps in different ways with Douglas Hofstadter's "strange loops"[3], or what Gregory Bateson called recursive or ecological epistemology.

From the weirding perspective of ecognosis, the economy appears as the place where different types

2 Timothy Morton, *Dark Ecology: For a Logic of Future Coexistence*, Columbia University Press, New York, 2016, p.6.
3 "What I mean by 'strange loop' is — here goes a first stab, anyway — not a physical circuit but an abstract loop in which, in the series of stages that constitute the cycling-around, there is a shift from one level of abstraction (or structure) to another, which feels like an upwards movement in a hierarchy, and yet somehow the successive "upward" shifts turn out to give rise to a closed cycle." Douglas Hofstadter, *I Am a Strange Loop*, Basic Books, New York, 2007, p.101-102.

of organizations and business models loop themselves into existence. Business models weirdly capture value. They presuppose something like a planned *return on investment* – something that loops back unto itself for an in-come, for a profit (in French, the word for income is *revenu*, literally something that returned). Often, these self-enclosing operations are, as Deleuze and Guattari right-fully pointed out in *Anti-Oedipus* (1972), intrinsically unavowable.[4] They happen in the shadows. They take part in the formation of the positive unconscious structuring social life under algorithmic or cyber-capitalism.[5]

Since the late 2010s, the advent of distributed ledger technologies (or blockchain) has triggered an age of experiment in online collective formation, a sort of cooperative renaissance of the web for the exploration of new ways to facilitate transindividual trust formation in digital ecosystems. What are the different techno-social components defining these new organizational forms that combine the immutability of a shared past with the programmability of a freely commonized future? In a world moving toward accrued social fragmentation, the way we create new techno-social modes of coordination has indeed become crucial. As Yves Citton pointed out in his seminal *Toward an Ecology of Attention*, the challenge is to terraform new transformative passages between the micro scale of collective presence and the macro scale of media aggregations.[6]

But the quest for scalability, Anna Tsing reminds us, tends to banish meaningful diversity, that is, diversity that might make a difference.[7] And so engaging with the enabling constraints of cryptoeco-nomics is tricky and potentially problematic. At best, cryptoeconomics could act as a neganthropic *pharmakon* (as Bernard Stiegler put it): a perspective in which the economy itself works as a *general therapy for the biosphere*, reversing the destructive course of the Anthropocene by favoring the always localized slowing down of entropic processes.[8] At worse, the proliferation of cryptoeconomics' modes of organization might actually signify the destruction – i.e. the economic reduction – of countless other types of worlding practices, more subtle, more improbable, less calculable too.

What is therefore at play when Stiegler, somehow counter-intuitively, describes the economy as a potential therapy for the Biosphere? This question certainly deserves a longer development. We know that in the last years of his life, Stiegler had been working on (at least) two major projects that addressed the economical question. At the macro-scale level, Stiegler initiated the *Internation* collec-tive, an international group of researchers, academics, artists and citizens that includes personalities such as Hans-Ulrich Obrist (Curator, Serpentine Gallery), Geert Lovink (Researcher at University of Amsterdam and founder of the Moneylab and the Institute for Network Cultures) or Giuseppe Longo (world famous biologist working on (neg)entropy). The project's memorandum gives a sense of its far-reaching ambition:

> We propose the constitution of an international program closely articulating theoretical research and territorial experimentation for enabling the invention of truly sustainable economic, industrial and social models. These researches and experimentations should be cross-linked within the framework of what

4 "It is with the thing, capitalism, that the unavowable begins: there is not a single economic or financial operation that, assuming it is translated in terms of a code, would not lay bare its own unavowable nature, that is, its intrinsic perversion or essential cynicism (the age of bad conscience is also the age of pure cynicism)." Gilles Deleuze and Felix Guattari, *Capitalism and Schizophrenia I: Anti-Oedipus*, Trans. by Robert Hurley, Mark Seem and Helen R. Lane, University of Minnesota Press, Minneapolis, 1983 [1972], p.247.
5 Yuk Hui highlights how "the mathematical development of recursivity and its realization in the universal Turing machine during the 1930s witnessed the emergence of what we call an algorithm." Yuk Hui, *Recursivity and Contingency*, Rowan & Littlefield, London, 2018, p.100.
6 Yves Citton, *The Ecology of Attention*, Trans. by Barnaby Norman, Polity Press, Malden and Cambridge, 2017.
7 Anna Tsing, *The Mushroom at the End of the World*, Princeton University Press, Princeton, 2015.
8 Bernard Stiegler, "Le nouveau conflit des facultés et des fonctions dans l'Anthropocène", in *La technique et le temps*, Fayard, Paris, 2018, p.850 (my translation).

we call . . . An internation is an agreement between different localities working together in order to invent and to *experiment with a new macro-economic model more likely to address the urgent challenges of the Anthropocene.*"[9] (my emphasis)

At the meso-scale of the city, Stiegler was also involved in the creation of learning contributive territories (*territoires apprenants contributifs*), and more specifically a contributive economy experiment extending over a 10-year period (starting in 2016) located in Seine St-Denis, a relatively under-privileged neighborhood in the suburb of Paris. Both projects are described and discussed in detail in *Bifurquer* (Les liens qui libèrent, 2020), a comprehensive volume that, among many other things, discusses the question of *scales of locality*, engaging in a bold and refreshing fashion with the invention of new modes of accounting as an essential component of a social remodeling directly inspired by Joseph Beuys' idea of social sculpture.

At the core of Stiegler's conception of the economy as *pharmakon* for the Anthropocene, i.e. the economy as an organological force in the service of an ecology, we thus find the notion of processual, transformative, or differential (scales of) localities. In *The Anthropocene and Neganthropology* for instance, and in many other places in his later work, Stiegler insists that:

> Marx and Nietzsche must be read together in the service of a new critique of political economy, *in a world where economics has become a key factor, in a way that is localized and yet occurs on a scale that is colossal and indeed cosmic*. They must be read, therefore, in the service of an *ecology*. . . [10] (my emphasis)

For Stiegler, an economy is the name of the metabolization process through which localities engage with one another and exchange 'alterities'. In this sense, localities are therefore and precisely *not* identities. They are, rather, to be conceived of as multi-scalar foyers of individuation, potentials of differentiation animated, ultimately, by their own incalculable and uncomputable qualitative momentum.

This metaphysical understanding of processual localities stands, arguably, at the very core of Stiegler's latest ecological and organological thinking. And it ultimately takes – this should probably not come as a surprise at this point – the infinitesimal shape of a spiral.

In the preface to the re-edition of *La technique et le temps 1, 2 et 3*, Stiegler writes: "The seventh and last tome of the *Technique and Time* series, Inch'Allah, will be entitled: *Le défaut qu'il faut: Idiome, idios, idiotie*"[11] (the title literally translates as "The necessary defect"). He goes on saying that this last opus introduces the most speculative concept of the whole series, *the idiotextual spiral* – which, he writes, can only be apprehended through the following diagram: (Fig. 5. Idiotextual Spirals, Stiegler style)
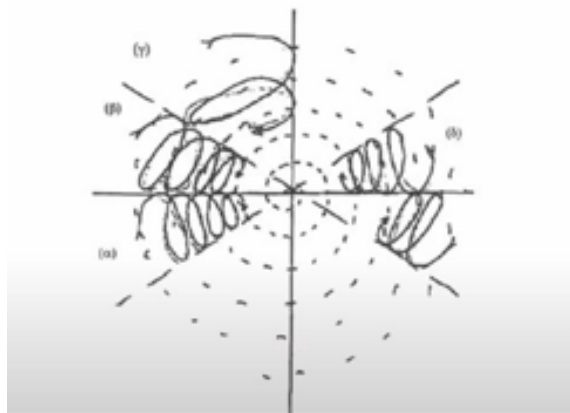
9 https://internation.world/memorandum.html
10 Bernard Stiegler, "The Anthropocene and Neganthropology", *The Neganthropocene*, OHP, 2018, p.38.
11 Bernard Stiegler, « Préface à la réédition de La technique et le temps 1,2 et 3 », in *La technique et le temps*, Fayard, Paris, 2018, p.8.

This same diagram also appears in the English version of "Escaping the Anthropocene", published in 2018 in the collection of essays entitled *The Neganthropocene*. There, Stiegler writes:

> What I call an idiotext is an open locality taken up within another, greater locality, or within what I describe as *nested spirals* as they co-produce a process of collective individuation . . . They are the motives and figures through which knowledge is woven as the circuits of transindividuation.[12] (my emphasis)

What kind of recursivity is involved in the spiraling of Stieglerian idiotexts? And what kind of processual localities are they calling into being?

This is not the first time that Stiegler mobilizes the image of the swirling spiral. Already in 2011, and probably before, in an article entitled *Distrust and the Pharmacology of Transformational Technologies*, Stiegler describes knowledge individuation processes as "local whirlpools within a cosmic river", a key image to understand what he means by processual localities:

> Science and technoscience are . . . forming (and materialising) within natural becoming by spacing and temporalising themselves *like local whirlpools within a cosmic river*: like so many cultural, that is, techno-logical, niches, which transform the regimes of metastability of these already constituted and metastabi-lised whirlpools that we call natural phenomena, by creating new processual localities.[13] (my emphasis)

As we can already intuit through the use of the term process, Alfred N. Whitehead here becomes a key reference, facilitating an organological understanding of organization that cuts across the nature-culture divide:

> With the concept of process, Whitehead moves beyond seeing natural and cultural phenomena in op-positional terms . . . Cosmology is no longer a matter of the order of the spheres, but a *processual dynamic of nested spirals that materializes regimes of speeds*.[14] (my emphasis)

Closing the Loop

Two tasks at the beginning of life: to always narrow your circle more and more, and to frequently make sure that you are not hiding somewhere outside your circle. Kafka

This initial foray into Stieglerian idiotextual territories will require a proper follow-up. Stiegler's attraction for the power of the swirl is indiscernible from his political call for generating open rather than closed (that is, automated) systems of knowledge production; and, more generally, his under-standing of desire as a power to defer and, especially, to *infinitize* – a practice that doesn't necessarily equates with more freedom, as the CCRU's quote in exergue preemptively suggests.

For now, and in guise of conclusion, I'd like to try to hold on tighter onto the economic component of the swirl, by foregrounding its properly circular and restrictive, that is, self-verifying, logic. The spiral is both a generative marker of processual locality (a form of territorializing ritornello, if you will) and the mathematical and topological form of expenditure favored by nature when it comes to thermody-namic release. Think of Bénard cells: the vortical dissipative structures that form in a fluid layer when it is heated from below and cooled from above. The fluid motion within these hexagonal cells often takes the shape of rotating spirals, providing a vivid example of self-organized, cyclical patterns in nature, one that has been widely discussed in Prigogine and Stengers' classic book, *Order out of Chaos* (Verso, 2018, originally published in French in 1984).[15] And in an expanded, properly organological vein, one could also include the wonderful Fibonnacci swirls released by some particularly inspired humpback whales as they were feeding in Antarctica earlier this year.[16] (Fig. 6. Fibonacci Whales)

12 Bernard Stiegler, "Escaping the Anthropocene", in *The Neganthropocene*, OHP, 2018, p.55.

13 Bernard Stiegler, "Distrust and the Pharmacology of Transformational Technologies", in T.B. Zülsdorf et al. (Eds.), *Quantum Engagements*, AKA Verlag Heidelberg, 2011, p.34.

14 Bernard Stiegler, "The Anthropocene and Neganthropology", p.41.

15 I would like to thank Skye Bougsty-Marshall for this timely reference.

16 See the full video here: https://www.cbsnews.com/news/watch-humpback-whales-stunning-fibonacci-spiral-to-capture-prey/.

The visual logic of spirals and swirls offers a compelling entry point for understanding the dynamics of both participatory design and economic systems. These shapes illustrate not just movement and flow, but also the cyclical nature of returns on investment, emphasizing how resources loop back to enrich and transform the initial inputs. Oftentimes, this looping back takes the shape of an accounting structure. Or in other words: the operational closure of an (always already circular) economy coincides with the capacity to account for its own surpluses and proceedings.

And yet, one thing is for sure: the looping back of accountability is never an end in itself. As we strive to keep ourselves accountable, something always exceeds. Anarchic shares proliferate away from the grid. You can only get a hold on them as long as you pass them on. As Frank Knight, an influential American economist known for his distinction between incertitude and risk, insightfully observed already back in the 1930s:

> Life is not fundamentally a striving for ends, for satisfactions, but rather for bases for further striving; desire is more fundamental to conduct than is achievement, or perhaps better, the true achievement is the refinement and elevation of the plane of desire, the cultivation of taste.[17]

Knight's emphasis on the elevation of desire highlights the libidinal and transformative nature of lived synthetic swirling. Economies are never simply self-preserving; and even the most circular and neganthropic endeavour can't help but generate entropic movement outward, capturing and being captured by its own accrued, accursed and derivative momentum-share.

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17 Frank H. Knight, "Ethics and Economic Interpretation" (1922), in *Selected Essays by Frank H. Knight: "What is Truth" in Economics?*, University of Chicago Press, Chicago, 2000, p.42-43.
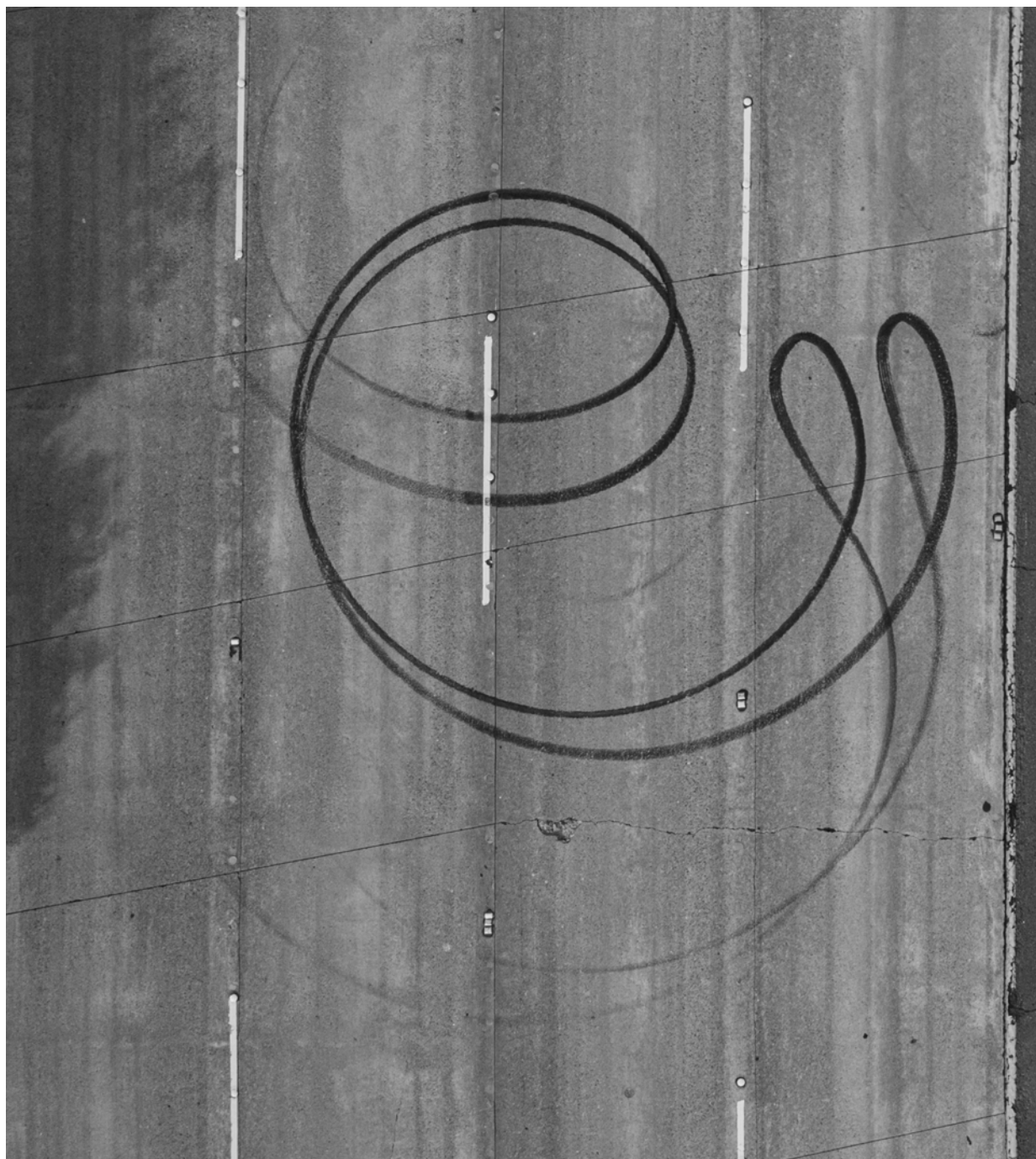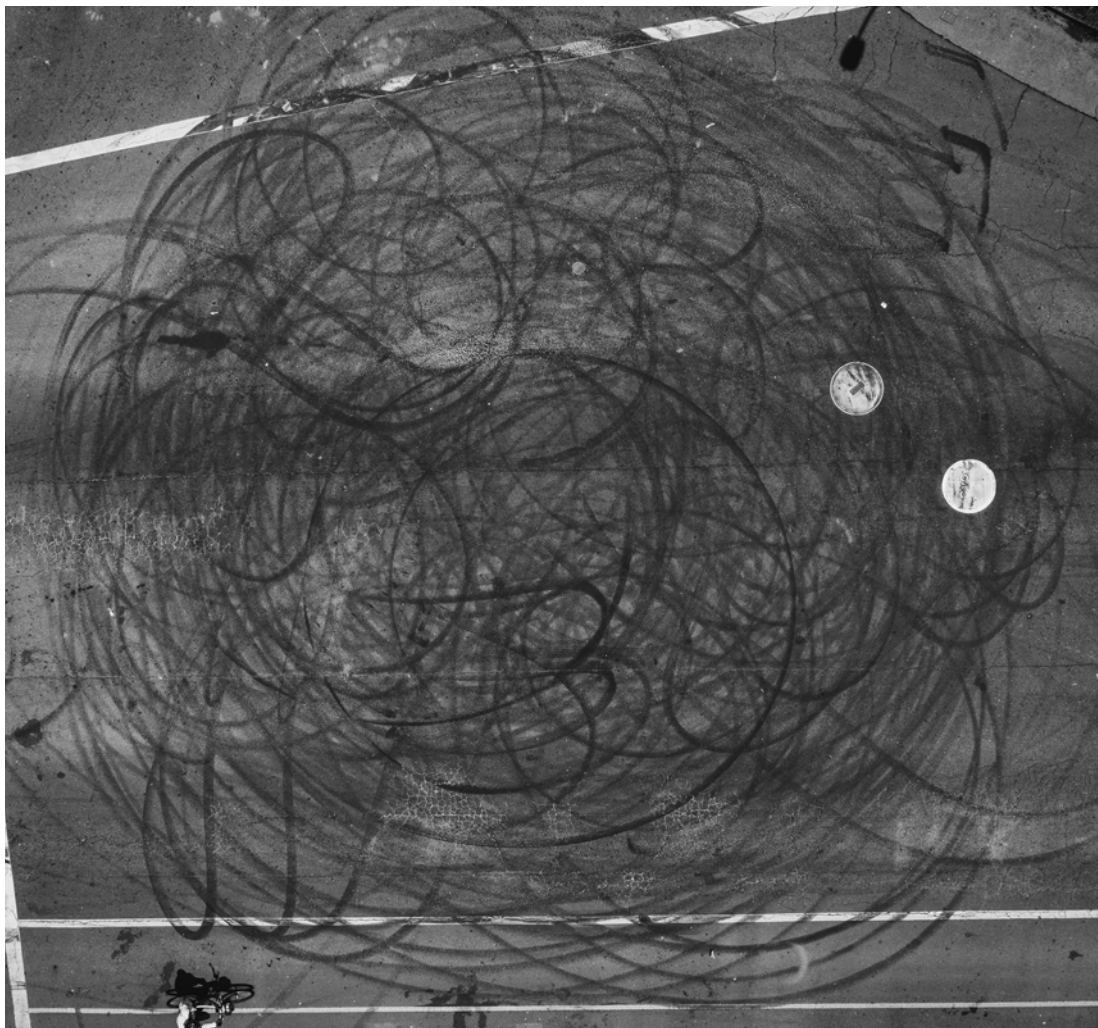
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