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ŠUM EDITOR-IN-CHIEF

Tjaša Pogačar

ŠUM EDITORS

Andrej Škufca
Maks Valenčič
Tisa Troha

ISSUE EDITORS

Maks Valenčič
Tisa Troha

DESIGN

HAGFISH

AUTHORS

Jonathan Ratcliffe
Miroslav Griško
Bosco García
Timotej Prosen
Maks Valenčič
Tisa Troha

LAYOUT

Tisa Troha

PROOFREADING

Miha Šuštar
Matjaž Zgonc

Subset of
Theoretical
Practice:

PRINT

Demat, d.o.o.

Allan M. Hillani
Gabriel Tupinambá
J.-P. Caron
J. Millie

Maikel da Silveira
Rafael Pedroso
Rafael Saldanha
Reza Naderi
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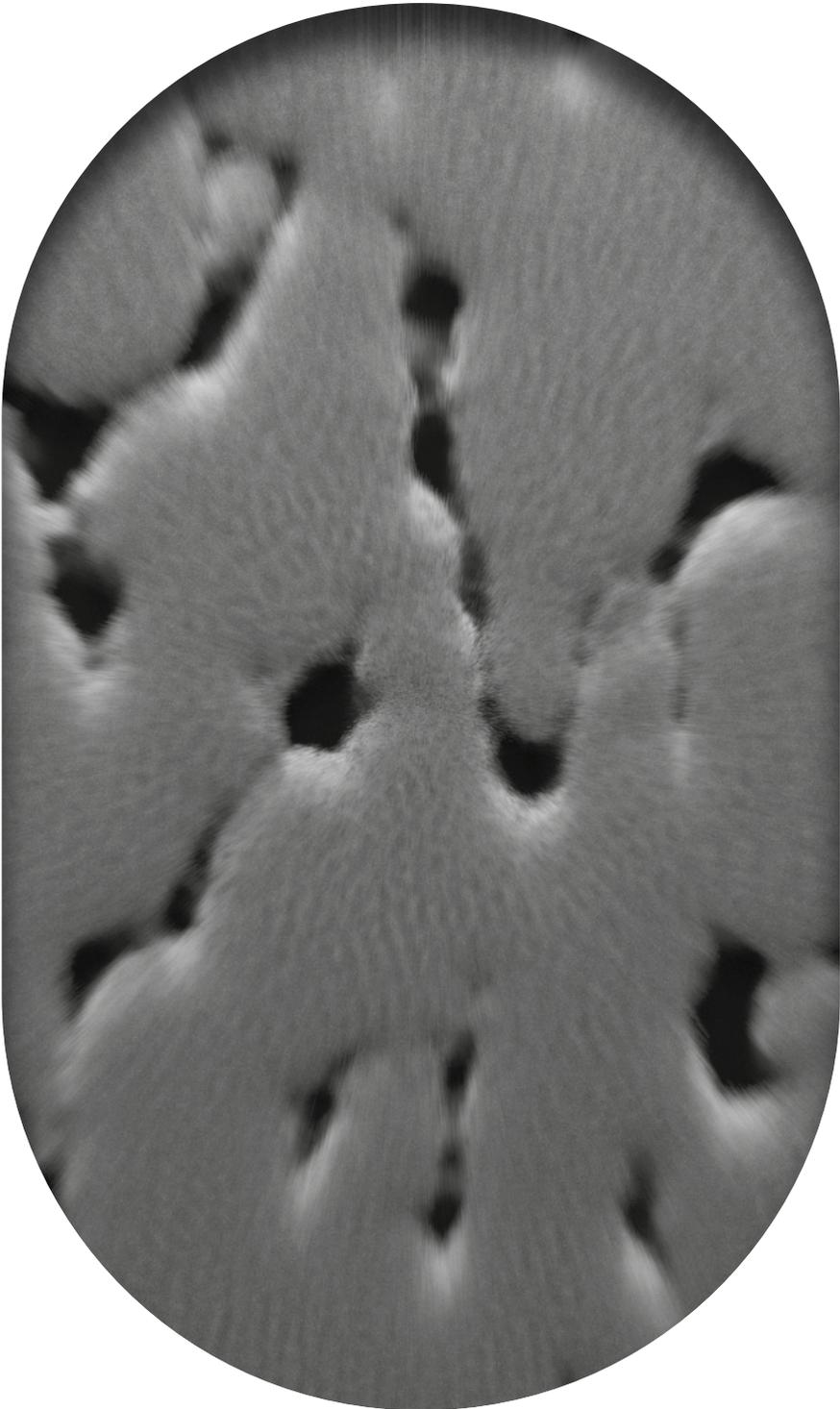
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Editorial

A meta-move is the diagonalization of the existing move set. A play outside the existing frame of action that has run its course by solving problems so efficiently that it hasn't realised these problems don't exist anymore. A move that manages to break the "path dependency"⁰¹ haunting all cultures (or software adaptations). Rather than blindly optimising the current systemic trajectories and entrusting our hopes to the supposedly alien feedback dynamics outside the Human, it is possible to find a "meta-game of every other game"⁰² and unlock a new *abstract space* from within: from inside the game that simply has to be played in a better way (and is searching for new meta-players).

If this doesn't resonate with the deadlock of Modernity (as a historical event and not periodisation before post-modernity), nothing will. Even if we've slowly come to realise that we live in a *process reality*, we haven't been able to update this fact into a coherent set of parameters, into a systemic framework that will push us towards a new attractor. That will enable us to find a new *plethora* and save us from within. Figures like Benjamin Bratton are right to point out that our

01 LÖFFLER, Davor, "Distributing Potentiality. Post-Capitalist Economies and the Generative Time Regime", in: *Identities: Journal for Politics, Gender and Culture*, 15, 1–2, 2018, pp. 8–44.

02 WOLFENDALE, Peter, "Castalian Games (Incomplete Extended Draft)", in: *DEONTOLOGISTICS*, 2016, <https://deontologistics.co/essays/>.

time calls for a “radically different sort of philosophy”⁰³ that will once and for all break with the fetishes of post-modernity and/or the confusions surrounding the Human. That will see itself in the same way the crow sees the sparrow.

Our moment doesn't call for the philosophy of the end, since we're in the time of “being the past of a post-future”,⁰⁴ but rather a new philosophical framework of process reality. A new metaphysics that will reflect the thus far fragmentary qualitative shifts in operational chains—“problem-solution distance”⁰⁵—and bring forth new sorts of subjectivities and conceptual tools for the Human of “Technological Civilization”⁰⁶ and not Modernity. Similarly to how Nietzsche in *Thus Spoke Zarathustra* speaks of “an ear as big as a man”,⁰⁷ we're in the process of developing new organs, new deformations of the current state of things; we're only beginning to inhabit better abstractions that have yet to form a “ratchet-effect”⁰⁸ and actualise a new search space for possible actions. We are, curiously, at the brink of redefining what *living within limits* means—of unlocking its productive nature.

Meta-futures are diagonalizations of existing futures. Just like *Antileft Marxism*, they're chimeras for breaking established frameworks, working by exit and flight from the current trajectories. They're more in line with the *German* than the British version of *accelerationism*, all about finding actual historical patterns and succumbing to the method of “deep futurology”⁰⁹—to the new logic of the future that operates on the aforementioned meta-level. To truly challenge the current state of affairs, it is therefore necessary to address the challenge of a new “phase of integration”, a new leap into a “fractal-genetic time” of “cultural capacity” 2.0.¹⁰ To set ourselves in a position of a “future-anterior”,¹¹ situate ourselves in time as if it's the start of something that hasn't happened yet. To go beyond speculation and to talk about the Outside as a positive rather than negative force of integration.

03 BRATTON, Benjamin, “Planetary Sapience”, in: *Noema*, 2021, <https://www.noemamag.com/planetary-sapience/>.

04 CAMPAGNA, Federico, “The End of the World(s)”, *YouTube*, 25/06/2020, <https://www.youtube.com/watch?v=fxORkFUNpE8&t=686s>.

05 LÖFFLER, Davor, “The Meaning of Life. A Journey to the Origins of Worlds”, *YouTube*, 29/06/2020, <https://www.youtube.com/watch?v=s16ScBXRIt8>.

06 LÖFFLER, “Distributing Potentiality”, pp. 40–44.

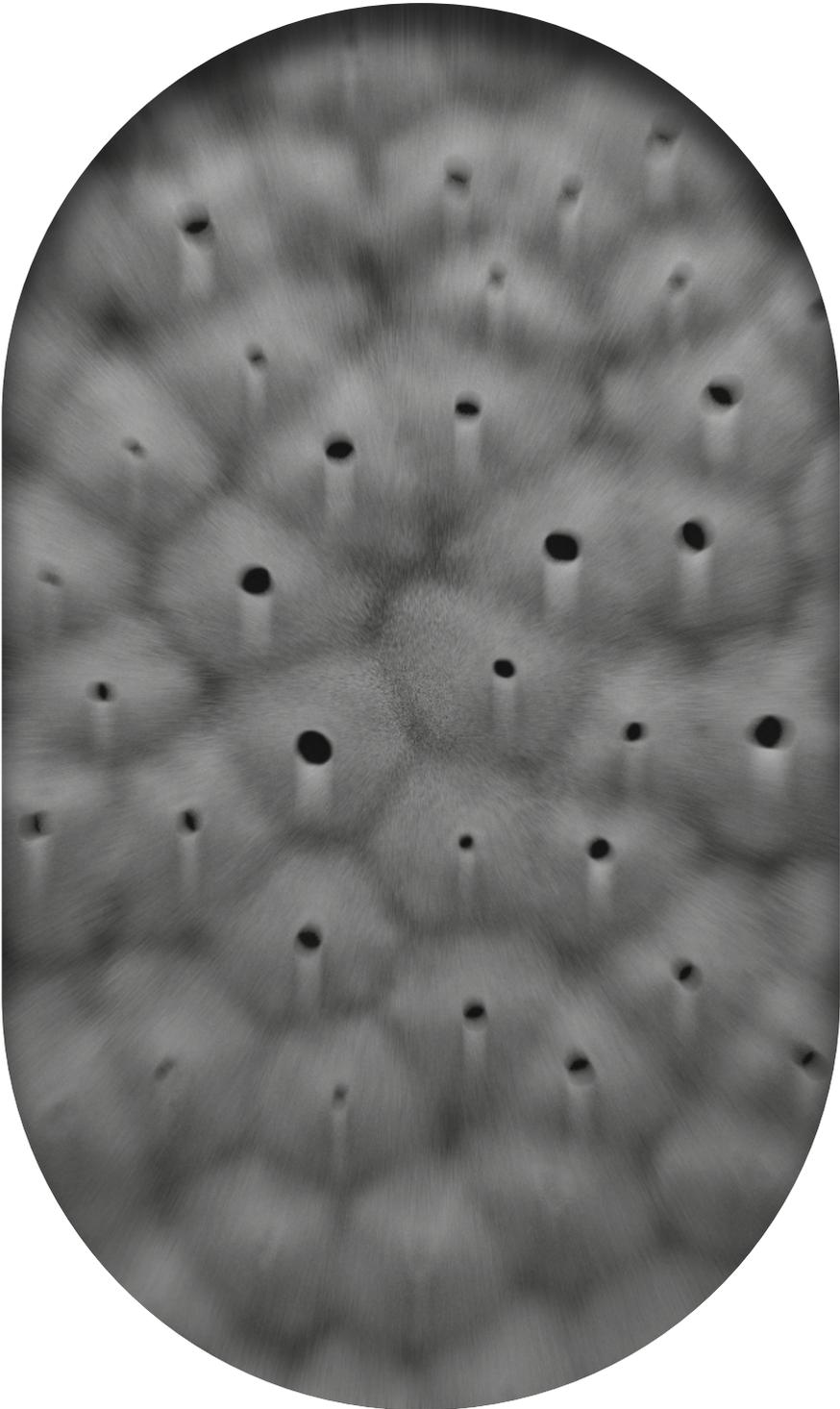
07 NIETZSCHE, Friedrich, *Thus Spoke Zarathustra: A Book for None and All*, Penguin Books, 1986, p. 138.

08 TENNIE, Claudio, CALL, Josep and TOMASELLO, Michael, “Ratcheting Up the Ratchet: On the Evolution of Cumulative Culture”, in: *Philosophical Transactions of the Royal Society B*, 364, 1528, 2009, pp. 2405–2415.

09 LÖFFLER, “The Meaning of Life”.

10 LÖFFLER, “Distributing Potentiality”, pp. 40–44.

11 BENJAMIN, Josua Jesse, “The Spark of a Future Anterior: An Archaeology of Entoptic Media”, in: *ŠUM, Xenoslavia: Covert Chronologies*, 2021, pp. 2172–2184.



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Divine Invasions

What is political theology? What does it *do*? The conventional way to begin is with Carl Schmitt's well-worn dictum that all significant concepts of the modern theory of state are but secularised theological ones—both in historical origin and by virtue of their systematic nature.⁰¹ In order to understand this claim one should probably begin with the immense influence exerted by Hegel on German philosophy, or more correctly the sheer mystical weirdness of the chapters on Christianity in Hegel's *Phenomenology*, in which the function of Christ is a resolutely social and political one, a kind of “god-building” of the eventual final community of reconciled equals. Depending on how one interprets this colossal monster of a book (I increasingly find it difficult *not* to think of it as the result of some sort of Eckhartian religious experience),⁰² it may of course not simply be the poor miserable Romans stricken with “unhappy consciousness” at the “death” of their civic gods with the collapse of the Republic at which hour Christ also dies and rises, soon to completely transfigure their entire world, but so too the men of the 19th century living out a similar cyclically repeated death of the Christian God. This Left Hegelian interpretation has been

01 SCHMITT, Carl, *Political Theology: Four Chapters on the Concept of Sovereignty*, Chicago and London: University of Chicago Press, 2005, p. 36.

02 RATCLIFFE, Jonathan, “Gnostic Renaissance Pt 3/3”, *Mechanical Owl*, 16/05/2020, <https://mechanicalowlblog.wordpress.com/2020/05/16/gnostic-renaissance-pt-3-3/>.

the dominant one in philosophy this past two centuries, though from time to time I have met that rarest of creatures, the Right Hegelian—no, no, not a Fukuyama Stan or Gentilean Fascist, but simply fairly banal conservatives who believe Hegel was a good, wholesome Lutheran boy who didn't do anything "wrong" at all. Can we believe that?

Nonetheless, if there is one thing that I think we can admit that Hegel *did* do, it is that in his bottomless hunger to never let anything that vaguely looked like a nice, neat little Two exist without being immanently contradicted and reconciled, he pulled down the curtain on the idea that in Western history at the very least there was never such a naïve unbridgeable gap between the sacred and the secular as the men of the modern era had, for various reasons, very keenly desired to believe, if only, as Hegel gave away, because so very much of the secular was merely a vessel into which might be poured the unfulfilled dreams of freedom, equality, finality and perfection that had fermented inside Christianity for millennia. But what is one to *do* with this? What happens if the machine breaks down and all the little dreams and fantasies poured from one glass into another still do not come true? When political theologian Roberto Esposito speaks of the horror of the "machine" of political theology and the need to find some way to short out its endless shell game juggling of material between the Two of the sacred and the secular, the villain, the Devil, is dastardly old Hegel.⁰³ One of the most important but often overlooked functions of the Hegelian *Geist* in this last century, from primitivist reactionary Ludwig Klages to Horkheimer and Adorno's *Dialectic of Enlightenment* (which owed at least some debts to Klages),⁰⁴ is as the Devil, as the "Gnostic" Monster of History.

Thus, rather than asking what does political theology do, it is far more important to ask what it *cannot*, or perhaps *will not* do. For the most part political theology is a 20th-century discovery, its most influential proponents—Schmitt, Benjamin, Voegelin, Löwith—were all driven by the need to try to explain the politically horrifying times through which they lived, in particular the phenomena of Stalinism and Nazism.⁰⁵ One of the core functions of political theology is a kind of *abreaction*—a need to pile through history and genealogies in order to simply understand by repetition why it is that one has come to the place one has and accept it. This is perchance why of all hermeneutic-genealogical methods political theology often seems to have the least

03 ESPOSITO, Roberto, *Two: The Machine of Political Theology*, New York: Fordham Press, 2015, pp. 3–4.

04 On this link see: STAUTH, Georg & TURNER, Bryan A., "Ludwig Klages (1872–1956) and the Origins of Critical Theory", in: *Theory, Culture and Society*, 9.3, 1992, pp. 45–63. On the "Gnosticism" of Horkheimer and Adorno see: SLOTERDIJK, Peter, *Not Saved: Essays After Heidegger*, Cambridge: Polity, 2017, pp. 149–74.

05 See especially: BENJAMIN, Walter, "Theses on the Philosophy of History", in: *Illuminations*, London: Fontana Press, 1992, pp. 245–255; LÖWITH, Karl, *Meaning in History*, Chicago and London: University of Chicago Press, 1949; VOEGELIN, Eric, *The Collected Works of Eric Voegelin Vol. 5: Modernity Without Restraint*, Columbia and London: University of Missouri Press, 2000.

to offer by way of an alternative to the way of things. That during the last decade when there was something of a boom in the revival of the discipline from the left, most of which amounted to piling through the history of the concept of *oikonomia*, from Aristotle and the Church Fathers down to the present, just to proclaim “There you go—that’s how we got neoliberalism” was frankly unsurprising.⁶⁶ Political theology does not smash idols—rather, it insists that they have never really gone away, maybe never can, no matter how monstrous or dear they might be. It is haunted by the thought that no one shall ever rid it of this turbulent priest.

Walter Benjamin in his famous *Theses on the Philosophy of History* asks us to accept that inside Marxism a theological dwarf was always hiding. This is not hard to do, for as historian Norman Cohn realised, if you want to understand where the dream of socialism comes from then you must understand the reception of the Classical Golden Age and the ongoing influence of Plato’s *Republic* in the Middle Ages and their marriage with millenarianism.⁶⁷ Far more notable is that the Marxian “puppet” with its labour theory of value is in fact an Aristotelian one. As R. H. Tawney memorably put it: “Marx was the last of the Schoolmen.”⁶⁸ And yet, at the same time, this means that we must also accept with Benjamin that empty, homogenous time in which there is nothing but wreckage and thwarted desires piled up shall remain the constant until the very last moment of forever. Only then shall messianic time disjunctively appear and make up for everything that has ever been suffered and lost. Can we do that? Maybe come back in another millennium or five.

Eric Voegelin, by comparison, expended decades on the pernicious legacy of Gnosticism and millenarianism in modern thought. Perhaps the reader has come across the “trads” throwing the beastly G-word about like it were some sort of special sauce in which they might drown all their enemies and then some. Nonetheless, in the end Voegelin was compelled to give up the “history of ideas” hunting for Gnostic “derailing” quite simply because he realised that he too was a creature *in history* and thus under obligation to try to understand and describe, even try himself to repeat the experiences of cosmic order of Plato and Aristotle that had seemingly set everything else since in

66 See especially: AGAMBEN, Giorgio, *The Kingdom and the Glory*, Stanford: Stanford University Press, 2011; LESHEM, Dotan, *The Origins of Neoliberalism*, Columbia MS: Columbia University Press, 2017; KOTSKO, Adam, *Neoliberalism’s Demons*, Stanford: Stanford University Press, 2018. Admittedly the last of these is a little different in that it *does* attempt to pose an alternative to “neoliberalism”—a mixture of “death of God” theology and social democracy, the victory of which the author seems to come close to assuming is both imminent and perhaps even inevitable. The irony here is not that the book is naïve *per se*, but rather that it seems to have been written for a generic American liberal audience and is far less theological, let alone theologically ambitious or interesting, compared with his prior and rather desolate *The Prince of This World* (Stanford: Stanford University Press, 2017).

67 COHN, Norman, *The Pursuit of the Millennium*, London: Mercury Books, 1962, pp. 203–208.

68 TAWNEY, R. H., *Religion and the Rise of Capitalism*, New York: Mentor Books, 1961, p. 39.

motion.⁰⁹ He also more than realised that the very Gnosticism he was trying to chase out was also present in even Paul and the Gospel of John, which is why it just kept on endlessly coming back. While “every-one I don’t like is a Gnostic” is too common by far, rare indeed does it seem for many to accept the step of the necessary leap of faith into the dark in search for the barely articulable experience of “order” as Voegelin tried. In the end, the conspiracy of political theology is not some colossal mystified, totalising horror machine with no exit, but rather that the only exit is for it to unironically turn you *into a mystic*. Can we do that? I know I can and I shall tell you all about it at the end of this essay.

But let us get to Schmitt. After his well-known dalliance with Nazism, Carl Schmitt became increasingly morose at the possibility that in the post-war period the world no longer had anything like an “outside”—it was now a single global system in which rather than wars and combat between political ideologies, there were now only “police actions”. Schmitt’s obsession with political violence and fear of its disappearance and “neutralisation”, rather like that of Georges Sorel, whose conception of “mythic violence” exerted so much influence on him, is often so odd as to be buffoonish. For instance, in an appendix to *Political Theology II* we find him desperately trying to force the word *stasis* in the description of the Trinity by the Church Father Gregory of Nazianzus to take on the meaning it had in ancient Greek politics of political faction and revolt rather than the mere “standing apart” distinction of the three members.¹⁰ In the beginning there was Dissention. It is one thing to find in the Kabbalists the idea of the fifth *sephirah*, the *Geburah* or Judgement of God, that excessively spills over, bringing suffering and violence into the world (which is carried down into Boehme and thereafter Schelling, Žižek, even Land’s *Cthelll* “world soul”), but one can almost feel Schmitt sweating at the possibility that the world is not nearly ontologically violent *enough*.

“Political theology is polytheistic as every myth is polytheistic”, so Schmitt once wrote.¹¹ There is always competition between myths, narratives and powers over who gets to control the political machinery and perhaps no era in a very long time if ever was quite so violently “mythic” and confounding in its competing ideologies and claims as that of the first half of this last century. Do we live in a “mythic” age? One can now, with a little hindsight and clarity, begin to look back over the 2010s and Platform Revolution, during which, for a brief

09 VOEGELIN, Eric, *Anamnesis*, Columbia MS and London: University of Missouri Press, 1978. On the “Gnostic” elements in the Gospel of John and in Paul see especially the late *Order and History Vol. V: In Search of Order* (Columbia MS and London: University of Missouri Press, 2000).

10 SCHMITT, Carl, *Political Theology II*, New York: Polity, 2008, pp. 122–123.

11 SCHMITT, Carl, *Positionen und Begriffe im Kampf mit Weimar – Genf – Versailles 1923–1939*, Hamburg: Hanseatische Verlagsanstalt, 1940, p. 17.

moment, everyone took it upon themselves to (post)ironically play at communism, fascism, anarchism, post-Moldbuggian Hyper-Agrarian Posadism. One is left not so much with a feeling of pity at our naivety, nor even dawning awareness of the banal fact that most of it was little more than a rather stupid “computer game” that the libs were always going to win and merely use to level up, quite simply because they had real institutional power out in meatspace. Rather, the matter is that so very little of political theological note was said of it all until very late. “Wokeness is a Religion”, the American liberal “Great Awakening” or secularised evangelical “Fourth Awakening”, arrived as a meme well after the rotten prison hulk of the Platform Slump had arrived in harbour. As far as I am aware, there has not even been a single damn book of note on the subject.

Where the “Awakening” has been cut and paste as a meme, there has been very little to it, often that the touted secular religion of intersectionality is merely filling a structural gap where Christianity used to go.¹² There is of course a second kind of “take” on this meme, often slightly more interesting, that consciously associates American “wokeness” with the legacy and secularisation of radical Nonconformist Protestantism in the US.¹³ *Ah, now we’re getting warmer.* Nonetheless, this rarely if ever goes into much detail. Instead, in order to find anyone even vaguely willing to put any effort into taking it seriously one has to descend into the depths of the various “trad” and “weird right” types,¹⁴ most of whom simply seem to be channelling some pale semblance of neo-reactionary blogger Mencius Moldbug/Curtis Yarvin, who, a decade ago, between bouts of foaming Carlylean post-ironic rhetoric about handing over America to airline pilots, used to mention “Creeping Calvinism” a great deal, if only, as we have argued elsewhere, without ever really saying where exactly he first got it from.¹⁵ These days in spite of basically having become a mainstream right wing institution he’s rather more boring, though some of his poems aren’t too shabby. The discourse of 2021 is not that of 2007. New Atheism is as long since over as the need to have to leap through hoops of irony in order to get people to buy the once bespoke notion that the American left liberal elite are a right pack of conniving, power-hungry bastards.

More than anything one cannot help but think that in nearly all instances the meme of “Awakening” exists as little more than

12 For an example of this common genre, see: PATTERSON, James M., “Wokeness and the New Religious Establishment”, in: *National Affairs*, 49, Fall 2021, <https://www.nationalaffairs.com/publications/detail/wokeness-and-the-new-religious-establishment/>.

13 COLLINS, Sean and BOTTUM, Joseph, “Wokeness: Old Religion in a New Bottle”, in: *Spiked*, 14/08/2021, <https://www.spiked-online.com/2020/08/14/wokeness-old-religion-in-new-bottle/>.

14 Want to see some old Moldbugger in a new bottle? HARRINGTON, Mary, “There’s Nothing Woke About Crypto”, in: *Unherd*, 19/11/2021, <https://unherd.com/2021/11/theres-nothing-woke-about-crypto/>.

15 RATCLIFFE, Jonathan, “Rebooting the Leviathan: NRx and the Millennium”, in: *b20*, 02/04/2020, <https://www.boundary2.org/2020/04/jonathan-ratcliffe-rebooting-the-leviathan-nrx-and-the-millennium/>.

a shibboleth, a team-building exercise, a territorial in-joke. Often it is simply a passing snort from TradCaths to the tune that the Reformation has turned out rather badly indeed. *Tut tut*. The older fellow who first told me about Moldbug back in the early 2010s seemed particularly keen on the “meme” because he worked with many liberal atheist Boomer types who considered themselves very clever people, and there seemed no better put-down, no more superior an ironic revenge than the idea that they were a *product of Christianity*. Of course, he never said this to their faces any more than anyone does now. No one is going to have a proper conversation with “the libs” about the past five hundred years of theology (“As if they’d even care!” I hear you say), any more than they might with the evangelical Rapture people, California “New Agers”, and anyone else over whom the shared genealogy of Nonconformist “woo” might seem to linger.

The problem with political theology is that even in its highest, most scholarly forms it often gets little further than our silly “Awakening” meme—a kind of repeated in-joke that can go decades without being told, then being resurrected for a little while, and then once more depart into oblivion. Political theology has an *amnesia problem*, because, as we have already been beastly enough to propose, its instrumentality is nearly always simply abreaction, cope and intellectual fad for the purpose of sewing team sports uniforms. As one biographer put it concerning Carl Schmitt after his Nuremberg trial, he “now portrays himself simply as a myth. He makes himself the centre of his own world by creating a private mythology composed of aspects taken from classical mythology, classical theories of the state and classical literature.”¹⁶ The point, perhaps, should be to avoid this kind of purely defensive mythic barrier at all costs, whether one might find it efficacious for the production of some sort of mythic Schmittian “friends and enemies” division or otherwise. This is, of course, a very, very hard thing to do, though there are, heaven forbid, more than Two Things in the world, as strange as that might sound to some, and as basic as dichotomy is to what someone like William James would call “common sense”. It should not be overlooked that the reason we find Schmitt absurdly trying to find dissent in the Trinity is quite simply because Erik Peterson had pointed out to him the very obvious fact that the Trinity has *three* persons in it.

To count as high as Three, as Plato also managed in the *Timaeus* concerning the mysterious *Khora* reachable only through analogical “bastard reasoning”,¹⁷ leaves us with the strange possibility that for inside and outside, being and becoming, sacred and secular, friends

16 NOACK, Paul, *Carl Schmitt: Eine Biographie*, Propyläen: Berlin, 1993, p. 294. Translation here care of Michael Hoelzl and Graham Ward (*Political Theology II*, p. 139, n. 61).

17 PLATO, *Timaeus*, 49f.

and enemies, what we have been waiting upon since the beginning of forever is the unveiling of a messianic “place” that is neither a combination of the Two nor a mere mediator or *Aufhebung*, but something distinct that then changes the perceived relational meaning(s) of them entirely. We may well be waiting a very long time indeed for something truly “post-secular” in the sense of even some alternative “new” third vessel into which the failed theological dreams that were poured into the secular may, in turn, then be poured into another vessel and start the machine over again but differently. For now, at least, we remain stuck in a world governed by the Lords of Creation and the homogenous time of the endless cyclic repetition of *katechon* after *katechon*, founding crime of “mythic violence” after founding crime, fugazi millennium after fugazi millennium. Can we do that? Have you tried turning the world off and on again? Have you tried throwing yourself on the ground like Thomas Aquinas and begging God to help you solve the irreconcilable?

The best that we have for now at least is simply the realisation and concomitant challenge that team sports are easy, but thinking is *hard*. What would it mean to take the dumb “Great Awakening” meme *seriously* and do something with it? To even *accept it* and use it as a launching point to put meaning back into the tired old term “Nonconformism”? So I have detailed elsewhere in the past on this very topic, Jonathan Kirsch’s *A History of the End of the World* has quite a bit to say about the two “tectonic plates” of Nonconformist millenarianism in America, one epitomised by obsession with the Rapture, the other “secularised” into the idea of being the magical land of perpetual progress.¹⁸ Eric Voegelin also dealt with the idea, and argued that the Anglosphere had experienced a “second reformation” in the form of movements such as Wesleyanism which had encouraged active political participation and the enlarging of democratic franchise. This is even if he was more than aware that traces still remained of the sorts of tendencies towards creating “perfect” elect communities epitomised in the phenomenon of Calvinist Geneva and other similar hothouse experiments during the Reformation.¹⁹

The great literary critic Harold Bloom was also certainly convinced of the ongoing influence of radical Nonconformism in American culture. As he saw it, the Nonconformist’s instant access to God through the *pneuma* (spirit) lay at the base of all manner of expressions of the “American Religion”—the world-feeling of intense self-importance as the agent of history.²⁰ There is also some rather interesting new material on the influence of Behmenist and Kabbalist

18 KIRSCH, Jonathan, *A History of the End of the World*, New York: Harper Collins, 2009, esp. p. 185f.

19 VOEGELIN, Eric, *Collected Works of Eric Voegelin Vol. 11: Published Essays 1953–65*, Columbia and London: University of Missouri Press, 2000, esp. pp. 71–72, 185–187.

20 BLOOM, Harold, *The American Religion*, New York: Chu Hartley Publishers, 2006.

ideas by early Quaker settlers on the formation of the American concept of Manifest Destiny.²¹ Much has for that matter been written on the strange correlation in the Progressive Era in the US in which large numbers of reformers and pro-reform journalists seem to have come from especially rigid evangelical households in which, as in the early days of US settlement and “visible saints”, it was *expected* that one was to have religious epiphanies, but these never arrived.²² So too did psychologist Paul C. Vitz back in the 1970s explore the more than obvious links between American consumer “self-psychology”—Abraham Maslow, Rollo May, Carl Rogers—and its prehistory in radical Protestantism.²³ All of this is but the tip of a very big iceberg indeed.

For that matter, while Weber certainly overplayed his hand concerning the importance of Calvinist Predestination in the formation of the “protestant work ethic”, British socialist R. H. Tawney long ago did the necessary work to the show that something very strange *did* happen to British Nonconformism in the last quarter of the 17th century in its discovery of the mercantile way of life as the Christian way of life and the idea that the poor were simply *lazy*. Nonetheless, as he also knew well, Nonconformist businessmen also exerted a powerful legacy in England and America in the service of the poor and the abolition of slavery.²⁴ So one might note, the *Guardian* newspaper, that ultimate Anglo left lib organ, which recently celebrated its two-hundredth anniversary, emerged from this very particular world-feeling.²⁵ Capital has, perhaps, always been as “woke” as it has been beastly. One might also make mention of the once very influential historical work of British Marxist and Nonconformist Christopher Hill—in particular *The World Turned Upside Down* and *Liberty Against the Law* that did much, if for only a brief moment, to dispel the enduring royalist agitprop that nothing much at all happened during the Protectorate except Cromwell cancelling Christmas and dancing.²⁶ In spite of this, there is not to my knowledge such a thing as a *Big Book of Anglo Prot Weirdness* in which libertarian gun-hoarders sit side by side with “New Agers”, Gerrard Winstanley and Lady Conway, and all those tiresome American liberals who keep saying that they’re on the “right side of history”.

The funny thing about the “right side of history”, as everyone knows, is that everyone wants some, whether you’re the “moral majority” or the tiny virtuous outsider “elect” rattling around an enormous Evil

21 OGREN, Brian, *Kabbalah and the Founding of America*, New York: New York University Press, 2021.

22 See Thomas C. Leonard’s “Religion and Evolution in Progressive Era Political Economy: Adversaries or Allies?” (in: *History of Political Economy*, 43.3, 2011, pp. 437–438) for a good list of where to get started on this topic.

23 VITZ, Paul C., *Psychology as Religion: The Cult of Self-Worship*, Grand Rapids: William B. Eerdmans Publishing, 1979.

24 TAWNEY, R. H., *Religion and the Rise of Capitalism*, esp. pp. 224–226.

25 VINER, Katherine, “Times Change But the Guardian’s Values Don’t”, in: *The Guardian*, 05/05/2021, <https://www.theguardian.com/media/2021/may/05/guardian-200-anniversary-covid-pandemic-journalism-editor-mission/>.

26 HILL, Christopher, *The World Turned Upside Down*, London: Penguin Books, 2019; HILL, Christopher, *Liberty Against the Law*, London: Penguin Books, 1996.

Empire. Having one's outsider cake and eating it too is, as always, the most popular choice, as surely as Matthew 21 tried to solve a particular problem in the comprehension of a certain Old Testament prophecy by having Christ ride into Jerusalem not with two donkeys, but riding *both of them at once*. Here it bears mentioning that as deeply serious as the *Acts of the Apostles* with Paul and friends drifting from place to place, avoiding capture and telling fine convincing speeches might seem to be, it would most certainly not exist as is without the ancient Greek romance novel and its endless silly string of contrived misadventures around the Mediterranean as a frame.²⁷ That, in the end, those under the auspices of Tyche or Eros finally get to live “happily ever after” after endless deferrals and dangers is perhaps the greatest fantasy of the Hellenistic and the “unhappy consciousness” resulting from the cosy world of the *polis* giving way to strange and distant powers over imperial “large spaces”. This little narrative machine stands behind most every silly old dime novel of contrived misadventure and every “road trip” movie you’ve ever seen. But it also stands behind an entire religion and all its secular offspring, behind entire Empires.

St. Paul might have got himself decapitated (spoilers), but what he started led the Roman “large space” to become a truly ecumenical one, a cradle for universalism. And there is most certainly no such thing as universalism without both empire and ecumenical religion to fill it. So Voegelin says somewhere on the subject, the problem with this ecumenic expansion outwards, this symbolic filling in of areas carved out by conquest, is that so very often it has come at the expense of expansion *inwards*, into the anagogic understanding of what the very symbolisation is really about. Once you sign on for being the *katechon*, the Holy Roman Empire charged with keeping Order in the world until you inevitably get co-opted by the Beast and are annihilated by God, once you *win-but-have-not-yet-lost*, good old Bergsonian “openness” tends to cop it in favour of structuring “closed society”. Concretisation, dogmatism descends. All that was once airy hardens into shite, and it is the work of aeons to try to avert this, to refresh it, to keep the damn thing on life support. If you fail you may find yourself centuries later having to live out the coprolitic remains of all manner of undead, strange theological decisions. Can we do that?

For instance, when people today ritualistically mope about the End of History and curse Francis Fukuyama's name, they seem to overlook the very obvious fact that Eusebius had already announced the End with the conversion of Constantine to Christianity nearly two millennia prior—one ruler on Earth to mirror the One God in Heaven. Who is he really speaking of here, the Emperor or God?

27 HOLZBERG, Niklas, *The Ancient Novel: An Introduction*, London and New York: Routledge, 1995, pp. 22–24, 34.

*The name of the one Supreme Ruler of the universe is proclaimed to all: the gospel of glad tidings connects the human race with its Almighty King, declaring the grace and love of the heavenly Father to his children on the earth.*²⁸

In the same way on the coming of Augustus and Christ, each seems to meld equally into the other too:

*For before Him there was great variety of government, all nations being under tyrannical or democratic constitutions... until the Lord and Saviour came, and concurrently with His coming, the first Roman Emperor, Augustus, conquered the nations, variety of government was almost completely ended, and peace was spread through all the world, according to the prophecy before us which expressly says of Christ's disciples: "Wherefore they shall be glorified to the ends of the earth, and this shall be peace."*²⁹

It might be very upsetting for our Catholic friends to hear us suggest as much, if even with a little tongue in cheek, that no, no, you are not living out some "Dark Fukuyama"—a horrifying final curse against which no words, no actions, no events seem to possess even the faintest power—but rather a "Dark Constantine" that has never really left. The political theological effects of the Constantinian revolution have been a disaster for the human race, or at the very least for Christianity and those who continue to live in its wake, ploughing all thought endlessly back into mindless obedience to the "king's two bodies", the naive univocity of Being, in which there is nothing but just so many little power-hungry *imagines Dei* seeking to swallow and LARP divine "projections". If Christ is King, then he scuttles the machinery of all other kings forever as surely as the Sermon on the Mount unleashes a profoundly anarchic and demanding way of life that cannot ever be truly perfected or reterritorialised. Wheresoever the conniving imitation appears let it be defaced, let it be rejected as *phantasma* (ghost, idol, copy)—all the more readily when it comes in the name of "peace", of "care", of "love", "diversity", for it has always done so and as long as it lives out its ghastly undead existence it always shall. Can you not feel the great, cold, iconoclastic Puritan urge rising up in you to condemn

28 EUSEBIUS, *Oration in Praise of Constantine*, 10.2, <https://www.newadvent.org/fathers/2504.htm>.

29 EUSEBIUS, *Demonstratio Evangelica*, Book VII, Chapter 2, https://www.tertullian.org/fathers/eusebius_de_09_book7.htm.

and shit on its whole mortifying, imaginary and symbolic theatre? Christian anarchy remains, as ever, *the option*.

Of all people of recent memory, perhaps American science fiction writer Philip K. Dick has felt most profoundly the uncanny, horrifying feeling that *the Roman empire never really ended*. As his biographer Emanuele Carrère explains:

*The average American sees nothing, but Rome is the underlying reality of the world in which he lives. The Empire never ended. It has merely hidden itself from the eyes of its subjects. It has spun a fantasy universe, like a film projected onto a prison wall, a shameless fiction that the inmates take for a factual documentary depicting nineteen centuries of history and the world in which those years have culminated. But while the movie plays, the war goes on.*³⁰

As a child, PKD was haunted by a recurrent dream of being in a large bookshop looking for an old sci-fi story titled *The Empire Never Ended*, but was never able to find it. Eventually it came for him, he found himself living in it. In March 1974, or “3-74” as he was later to term it, after a visit to the dentist and drugged off his face, he was stricken with what he could only later call a divine invasion that was to completely change the meaning of his life and work. An entity that he called VALIS/Zebra, an aspect of Christ assembling itself backwards through time from the millennium in order to defeat the Empire, reaching into the sleeping minds of people here and there awakening them, revealed to him that he was not merely a bum with a few good books living at the end of the 20th century, but simultaneously also an early Christian in 70 AD called Thomas.³¹ PKD was thereafter to embark on a massive project attempting to synthesise the entirety of Western philosophy and theology (and some Hindu and Taoist elements too) simply in order to *try to understand* exactly what happened to him, how history seemed at once to be resolutely “anamnetic”—backwards facing, towards remembering, recall, simultaneous existence in the past—and “progressive” in the sense of the then very popular “transhumanist” evolutionary theology of Jesuit palaeontologist Teilhard de Chardin (though he admitted that he had never read a single word of the latter). PKD wanted everything. He wanted Christ on two donkeys, so to speak. He wanted Spinozan immanence *and* Gnostic transcendence and escape at the same time.³²

30 CARRÈRE, Emmanuele, *I Am Alive and You Are Dead: A Journey Inside the Mind of Philip K Dick*, London: Bloomsbury, 2006, p. 223.

31 Most famously turned into narrative form in Philip K. Dick's *VALIS* (London: Corgi Books, 1981).

32 See: DICK, Philip K., “Selections from the *Exegesis*”, in: SUTIN, Lawrence (ed.), *The Shifting Realities of Philip K. Dick: Selected Literary and Philosophical Writings*, New York: Vintage Books, 1995, p. 320ff.

As rather rough, frenetic, even amateurish as much of PKD's *Exegesis* material on these experiences might seem, one cannot help but think that this utterly quixotic attempt to synthesise everything has far more in common with the abstruse efforts of Renaissance thinkers like Giordano Bruno and Ralph Cudworth than with anything like the "New Agers" of the last century with whom obvious parallels are all too easy to draw, especially when we find him talking about VALIS invading him through his DNA lineage and now rather trite sounding ideas like our world being but a digital "simulation"—a purgatory of tape recordings on an endless loop. How could the greatest speculative fiction writer of the last century, one of the most astounding thinkers ever, take this sort of stuff *deadly seriously*? He needed *everything* to agree, which of course meant that the science fiction of PKD had to agree with it too. And yet, like Spinoza—more than Bruno or Cudworth—one cannot help but think that he is merely using the language of others—including himself as an "other"—in order to try to express something very different, something that could hardly be expressed with what was available at all.

There is some famous old footage of Phil describing his "3-74" experience at a sci-fi convention in France in 1977 as part of a talk titled "If You Find This World Is Bad, You Should See Some of the Others".³³ The combination of confusion, amusement and shock on the faces of the members of the audience who expected they were turning out to hear a guy just talk about writing books is palpable. PKD was without a doubt extremely odd, even probably quite insufferable as a person. Were he with us, one cannot help but think he would be sharing 5G conspiracies and sliding into the DMs of young ladies everywhere. In November 1971 this most paranoid of 20th-century philosophers, believing that *someone* wanted to steal one of his unfinished manuscripts, found the prophecy fulfilled when someone actually did, blowing up part of his house in the process. Ultimately, however, he was forced to whittle down the list of potential suspects to no one but ... himself: "I blew up my house and forgot I did it ... I blew up my house to convince myself I was sane."³⁴ Is there anyone else of whom such an absurdity is recorded? It's like something out of the *Lives of the Eminent Philosophers* with their terribly forced ironic deaths. Heraclitus? Died of dropsy of course.

Nonetheless, PKD stands for something (perhaps something of a very particular time and place now passed) but something very important nonetheless. Something exceedingly rare in this last century and liable to be even rarer in this one. PKD was a person who refused

33 JOHNSON, Sam, "Philip K Dick Speech / Metz, France [1977]", YouTube, 15/02/2021, <https://www.youtube.com/watch?v=x16H4JcMpAU>. Speech reprinted in Philip K. Dick's *The Shifting Realities of Philip K. Dick*, pp. 233-258.

34 DICK, *The Shifting Realities of Philip K. Dick*, p. 328.

to believe that the “system” of Christianity, all the possible orthodoxies and heresies, had long been ploughed, and most of them found to be, as Chesterton once famously said of heresy—“boring”. Indeed, what could be more intensely boring than “Gnosticism” with its evil or simply incompetent creator and little transcendent spirits trying to escape the Hell of meatspace? Since at least the epochal publication of *A Voyage to Arcturus* in 1920, the tone of much of 20th century speculative fiction was a resolutely “Gnostic” one when it came to asking about the Big Questions: a downloading of secret teachings about the Fall of creation, the malevolence of the Creator.³⁵ PKD’s 1965 *The Three Stigmata of Palmer Eldritch* may well be the greatest piece of “Gnostic” cosmic paranoia ever produced.³⁶ *When did you take the Chooz-E? Maybe Palmer Eldritch was always there, immanent to everything.* One might be strongly reminded of the sort of paranoid sentiment we find at the start of Roberto Esposito’s *Two* concerning political theology—when *did* we enter into its little *dispositif*?³⁷ The day and the hour can never be known. Once you have stepped over the line and the door has slammed shut maybe there is no way out of it at all ...

And yet if the later post-3-74 Phil was a Gnostic (he himself claimed as much), then he was a *very odd* Gnostic, as diverse, bizarre and often overlapping as the “Hellenistic soup” of antiquity was out of which arose “orthodox” Christianity, Hermeticism, Neoplatonism and Gnosticism. If there is any “serious” thinking with which to compare his Gnosticism, it is the Gnostic Non-Christianity of François Laruelle. To Laruelle *gnosis* stands for a messianic last instance in which the truth is always-already known, always immanent to the *lived-without-life* of humanity but forever put off and delayed, in spite of the colossal theological machinery of Athens and Jerusalem descending upon Christ two thousand years ago and proclaiming that he had completely fulfilled the Jewish and/or the Greek Law.³⁸ Like PKD suspended in time simultaneously between the “anamnetic” Thomas and the “final” VALIS, Laruelle would have us give ourselves over to the first becoming last and the last becoming first, but strangely: forever unable to complete or totalise the system.

Nevertheless, when in *Christo-Fiction* Laruelle speaks of a “Quantum Christ” existing prior to being “decided” as fulfilling The Law, the immediate temptation, as with the Space Gnosticism of PKD, might be to snort and file it away as one more specimen of late 20th-century “New Ageism”. Once upon a time there was an *awful lot* of this sort of stuff about—blogs and web pages crammed to gills with eye-aching

35 LINDSAY, David, *A Voyage to Arcturus*, London: Pan/Ballantine, 1972.

36 DICK, Philip K., *The Three Stigmata of Palmer Eldritch*, New York: Doubleday, 1965.

37 ESPOSITO, Roberto, *Two: The Machine of Political Theology*, p. 1.

38 LARUELLE, François, *Christo-Fiction: The Ruins of Athens and Jerusalem*, New York: Columbia University Press, 2015. See also: LARUELLE, François, *Future Christ: A Lesson in Heresy*, London and New York: Continuum, 2010.

animated gifs and brightly coloured fonts proclaiming some almighty Secret Teaching and the End of Days peppered with little folk-receptions of quantum physics, chaosplexity and information theory. If I have ever been susceptible to any species of “Gnosticism” it is by virtue of the fact that an old friend of mine was such an avid collector of this sort of stuff that I find myself completely unable to take “complexity” seriously at all as anything but cosmic kitsch, even when spoken about by very clever scientists, for if something like it *does* describe our world, then it must surely be the product of a very tasteless Demiurge. Such is the eternal problem of “folk religion”. The peasant in his desperation to understand using what he has, who believes the soul to be a bone or God to be but a very big worm in a cosmic cheese, always threatens to invade Very Serious Things.

If anything like Laruellian “Gnosticism” has ever really existed, it was not in antiquity nor in the 20th century, but in the anamnetic return to the start that explodes everywhere in the 16th–17th centuries in the form of the “standstill” of the Radical Reformation—the horrifying thought that maybe *no one* since the Apostles had possessed any theological (and thereby also political) legitimacy at all. The only option was to become a “Seeker”, to turn towards pure lived experience and the attempt to articulate it.³⁹ One of the things that endlessly amazes me is the fact that so little is often said about the *real* revolution that came with Cromwell’s Protectorate. The collapse of the Star Chamber and state censor brought on the first great literary externalisation of the “inner worlds” of very normal people in the history of the world. Before everyone had a novel or couple of good tweets in them everyone had a pamphlet in them—they wanted to talk about their religious experiences, their misadventures and their struggles. A lot of it is downright weird, tragic, even darkly humorous.

For example, among Familists, Quakers, Ranters, Diggers and a thousand other varieties of mostly short-lived “enthusiasm” of the era we meet one Mrs. Hannah Allen, a woman who at one point in her life became so convinced that she was the evillest creature that had ever lived, that even the Devil might be saved, but not her: “My Sins are so great, that if all the Sins of all the Devils and Damned in Hell, and all the Reprobates on Earth were comprehended in one man, mine are greater. There is no word so near the Comprehension of the dreadfulfulness of my Condition; as that, I am the Monster of the Creation.”⁴⁰

39 For an introduction to the Radical Reformation and its political theological consequences see: RATCLIFFE, Jonathan, “Absolute Standstill ½”, *Mechanical Owl*, 22/09/2021, <https://mechanicalowblog.wordpress.com/2021/09/22/absolute-standstill-1-2/>.

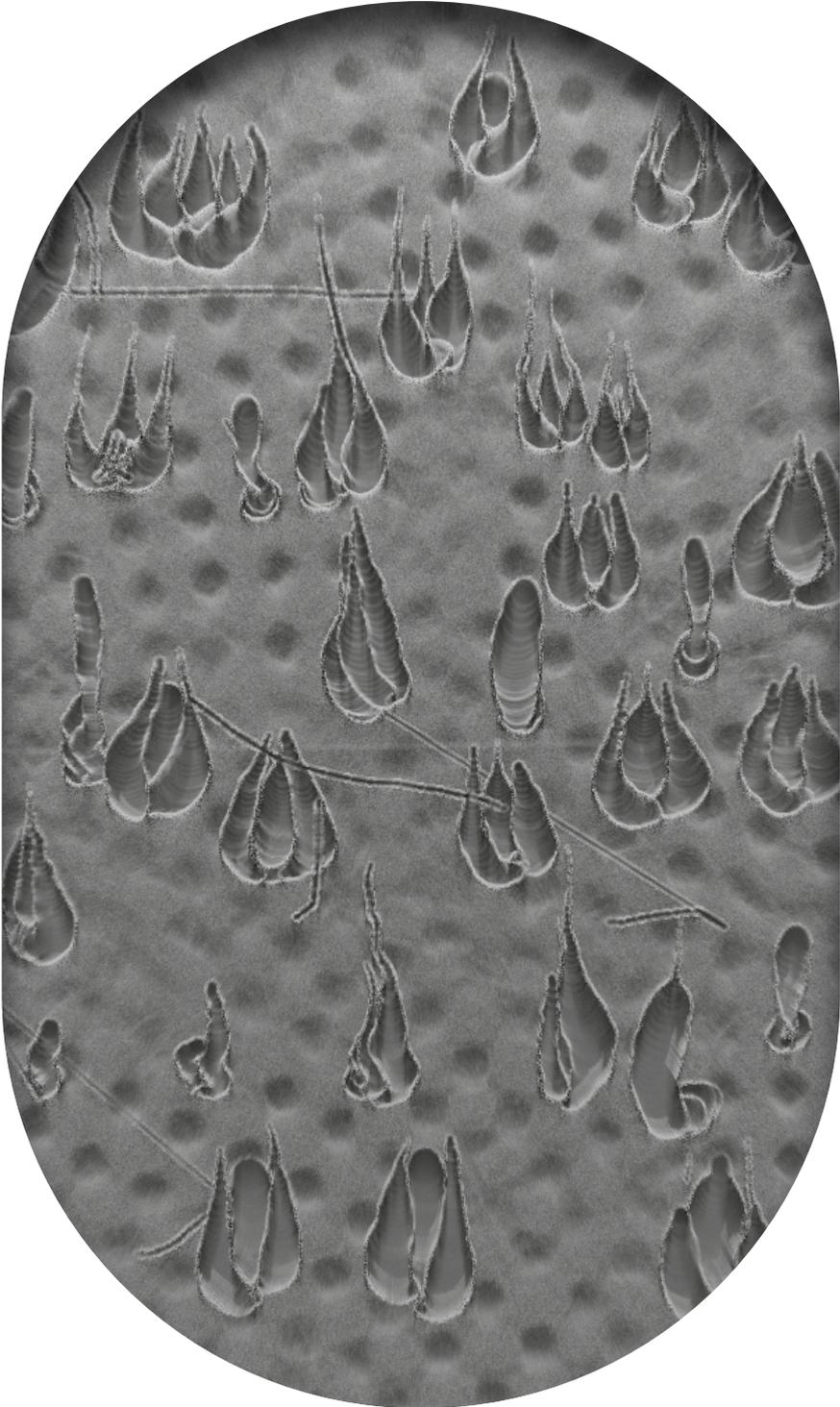
40 ALLEN, Hannah, *A Narrative of God’s Gracious Dealings with That Choice Christian Mrs. Hannah Allen*, London: John Wallis, 1683. Most easily accessible in Allen INGRAM, *Patterns of Madness in the Eighteenth Century: A Reader* (Liverpool: Liverpool University Press, 1998, pp. 29–35). For a good introduction to this era and its strangenesses, including those of Mrs. Allen and others like her, see: RYRIE, Alec, “How to be a Puritan Atheist”, Gresham College, YouTube, 03/04/2019, <https://www.youtube.com/watch?v=SsNu6VbtdyE>.

What could Mrs. Allen have possibly done to regard herself as so utterly damned? The answer is that she hadn't really done anything. She was just a very unstable and amusingly narcissistic person who "much delighted" for a while in thinking herself "The Monster", though she did eventually find happiness and peace and wrote a very interesting book about it all. Sometimes the "Seeker" romance is a tragedy, sometimes a comedy, often both by turn without anything like a clear ending at all—at least *not yet*.

Perhaps, reader, you have come across many times online a rather tacky family of reactionary memes asking you to *Return to Tradition*. Sometimes the "u" is even swapped out for a "v" to be especially quaint, like the funny "e"s in "ye olde tea shoppe". The trad, God bless his hide, seems often to think of Tradition like some dear little musical box gifted him by Nona from The Old Country. No, it is far more like a storage locker willed to you by an obscure and possibly devious uncle, by someone not unlike PKD who crashes on your couch, hits on your wife and stays up all hours writing weird books off his tits on amphetamines. Do you *really* want to see what's in there? You might seriously regret it.

And yet, everywhere and at every moment we are always-already *returning to tradition* due to the sheer weight of the history of theological decisions and their decaying half-lives, whether we like it or not. If so, then like dear silly Phil and Mrs. Allen one may choose to become a Seeker. While the Empire never ended and may well have generations upon generations still left on the clock, neither has the great formative romance of discovery existing forever contemporary with it, quietly at its periphery ever ended either. We are all PKD *and* Thomas at all times, and even VALIS too. There still remain endless "quantum" Christianities yet to be found and foreclosed into Schmittian "private mythologies" and team sports, yet to have been passed into the dogmatic and secularising machinery and out the other side into something else entirely, perhaps even that most impossible of possibilities—the Third Thing hidden and obscured since the very foundation of the world.

Jonathan Ratcliffe lives in a collapsing hovel in rural Australia. He blogs on all things political theological at <https://mechanicalowlblog.wordpress.com/>. He is, among other things, a scholar of Mongolian epic literature.



White Lotus

You know, the first cell never died. The first cell only split. Right? And ever divided. And every cell in our body is still an instance of the first cell that split off from that very first cell. There was only one cell on this planet, as far as we know.

–Joscha Bach

*In this life dying is not new,
But living, of course, is not any newer.*

–Sergej Esenin (the final lines of his suicide note)

On the morning of June 11, 1936, Robert E. Howard, best known for his literary creation *Conan the Barbarian*, receives news that his mother will not wake from the coma she has fallen into and immediately shoots himself. Thirty-two cuts on the surface of the world fall into alignment and trace the outline of a white hole, which must be passed through before it closes. The method for traversal is hidden in a program that underlies a straightforward practice of ancestor worship. Howard's suicide at the age of thirty is an example of the execution of this program and its completion on Earth.

Psychopathological diagnostics of self-destructive behaviour and contrasting romanticist or post-clinical valourisations of mental illness all obscure and distort a pure moment in time, when a basic hatred for life is the same as an indifference towards it. Irrational self-extermination carried out in this moment separates itself from all counterfeits, and suicide becomes militantly ascetic. A method to become dead to the world can also become a method to float above it, and zero interest in metabolic survival is the genesis of the program to attain this state. Ancestor worship is the initial and just barely beyond animal-level awareness of both program and state. But when ancestor worship is asceticised, four billion years of uninterrupted cellular life are extinguished in a negation, which can only be above any and all forms of life. Suicidal action slips through a crack in time, of which the rest of the world is unaware, and what from outside looks like absolute defeatism is inner devotion to a higher form of extinction.

The concept of a cellular automaton, developed by Von Neumann and Ulam in response to the problem of how to design a self-replicating machine, describes a base set of instructions and their iteration through a series of discrete states.⁰¹ A discrete state is a moment in time whose specific properties are equivalent to the particular position and arrangement of the cells that constitute the greater automaton, whereas all discrete states are generated by an initial instruction and belong to the same ongoing series, which this instruction sparks. Whatever degree of complexity the properties of a discrete state may demonstrate, they remain reducible to the initial instruction and only designate a moment in time during the instruction's unfolding. Although they are a computational model and, accordingly, a functional instead of biochemical model, cellular automata depict the operation of an instruction protocol, which is formally equivalent to the origin of life. Abiogenesis and everything that follows from it can be understood as nothing but iterations of an initial command prosecuted in time. Somehow the first cell stabilises itself four billion years ago under a flood of hostile conditions, just long enough to establish the initial instruction for its self-replication. Ascetic self-extermination techniques practised four billion years later understand that their deep trigger is a primal command strong enough not to implode before it can send out its first signal.

Ancestor worship begins when the first cell does not commit suicide. Not committing suicide is only the blind prosecution of a command, but the first cell's self-replication is already the first form of the command's veneration. Ongoing iterations of the instruction also contain the germ for more abstract types of worship within them, although abstract worship can only arise when the instruction and

01 VON NEUMANN, John, *Theory of Self-Reproducing Automata*, University of Illinois Press, 1966.

its execution can be understood as pure form. Standard genealogies of God classify ancestor worship as the first religion,⁰² and this is because it is, despite its elementariness, the first formal abstraction of the primal command for self-replication. An ancestor can only become ancestor and be worshipped because an ancestor is killed by the same signal and the same command that becomes devotion to him. Instruction and its iteration require the disappearance of iteration, so that the next iteration can take place—the transition from one discrete state to another discrete state—and ancestor worship begins when the hole which an iteration leaves behind becomes just as binding as another iteration of the instruction. Ancestor worship understands a concrete transmission through successive moments in time as the potential for communication with that which lies on the other side of the passing of a command. When the aboriginal mind of ancestor worship receives the first signal from the first cell, faces of the dead and another detached and remote state come out of the silence between discrete states and between iterations. Hyperawareness of the hole which iteration leaves behind means that the shadow of an instruction is the truth of its command.

In his study of Vedic ascesis, Mircea Eliade describes its method as a relentless “deconditioning”⁰³ program, which eliminates everything inessential, so that four billion years of biochemistry can be reduced to the bare pulse of first cell signal.⁰⁴ Deconditioning as self-extermination technique does not cancel first cell signal, but is absolute immersion in its implicit instruction protocol. The negation at the core of deconditioning operates like the inverse of the affirmation of an iteration, although without denying first cell signal strength. Deconditioning does not understand first cell signal strength in terms of the endurance of an instruction through time—four billion years of the instruction’s continuous iteration and four billion years of biochemical life that has never even once during these four billion years ever been completely eradicated—but in terms of the blunt compression of all moments in time into only the basic form of an iteration and its disappearance. Awareness of the reducibility of all life to an instruction and the transition it initiates from one discrete state to another discrete state becomes the pulse which will animate a “deified human”:⁰⁵

1) Eliade uses the term deconditioning to clarify the basic motor of authentic ascetic practices in contrast to the tendencies of a Kantian atmosphere of transcendental philosophy and, accordingly,

02 Ancestor worship was often classified as the first religion at the very outset of religious studies and sociologies of religion in the nineteenth century. See, for example: SPENCER, Herbert, “On Ancestor Worship and other Peculiar Beliefs”, in: *The Fortnightly Review*, <https://fortnightlyreview.co.uk/2011/11/on-ancestor-worship-and-other-peculiar-beliefs/>.

03 ELIADE, Mircea, *Yoga: Immortality and Freedom*, Routledge, 1958, p. xvi.

04 Or the Vedic “OM”.

05 ELIADE, *Yoga: Immortality and Freedom*, p. 59.

to an awareness of general conditions of possibility.⁰⁶ If conditions exhaust possibility—the scope of a particular transcendental, such as the legitimate domain of reason in Kant—deconditioning names an operation that understands the transcendental as an initial stricture, which is then modified and recoded through the precise methods contained in an ascetic program.

2) But transcendental modification and recoding is also just another name for the history of the world.⁰⁷ Four billion years of biochemistry after first cell signal is equivalent to an escalating complexity in conditions of possibility, and transcendental modification and recoding as the history of the world is a single gradient, which includes everything that follows from first genesis (or: all discrete states that result from an initial instruction). Deconditioning functions according to the reverse principle of a brutal minimalism, and to modify and recode through negation is to only decode and rewind back to first cell signal and, by extension, negate the history of the world, which is the same as becoming indifferent and dead to it.

3) Reception of first cell signal through negation means that deconditioning is a clandestine history of the world. It is not reducible to a countercurrent or a contradiction in relation to the gradient of transcendental modification and recoding, although, because deconditioning is negation, this gradient is its initial enemy. Deconditioning separates from the gradient in order to follow a covert artery back to first cell signal. Whereas the starting point of deconditioning belongs to the history of the world, its reception of first cell signal through negation becomes incomprehensible to this history, to the sum of all transcendentals, and initiates a stealth flow to a deified state. In this clandestine history lies the closeness of a more refined and harshly structured ascetic practice to ancestor worship's primitive cognition of ghost faces and holes in the world, which become like rudimentary phenotypes and wombs for the instantiation of what Eliade alternately calls a new *übermensch*, a new species and a new, entirely non-conditioned state.

Deconditioning as overman creation is anti-Kantian, but also anti-Nietzschean and anti-Chinese. Eliade describes Sino-overman genesis as a method dedicated to an “indefinite prolongation of the life of the material body”,⁰⁸ which is nothing other than the continuation of the same deep historical gradient of transcendental modification. Ancient Chinese medicinal techniques or the downloading of individual neural patterns into an upgraded version of WeChat are just

⁰⁶ Ibid., p. xvi.

⁰⁷ For example, Deleuze's (Kantian) transcendental empiricism, or his Spinozism in general.

⁰⁸ ELIADE, *Yoga: Freedom and Immortality*, p. 59.

moments in time that all belong to the same history of the world⁹⁹ to which deconditioning acts like a shadow. Nietzschean overman creation as total affirmation and a simultaneous contempt for all types of “ascetic ideal” identifies ascetic deification with a false overman, since the negation at the core of ascetic practice is the same as a fundamental “hostility to life”.¹⁰ The entire logic of Nietzschean *übermensch* turns around the anti-ascetic insight that overman creation can only be achieved through affirmation, to the extent that negation instead of affirmation aborts the first cell and the entire history of the world, which is the only possible ovum for a new species and a new human or post-human form. But the tendencies in ascetic practice which Nietzsche opposed—hatred for life, emaciation, sadness—all evoke the deep force of a negation that can access first cell signal strength, whereas an ascetic path will in any case only be followed by those who have had enough of life. Virgil’s *lacrimae rerum*—tears for things—or Norinaga Motoori’s *mono no aware*—extreme sensitivity to ephemera—are examples of the intense awareness of first cell pulse and signal, of an iteration and its passing, and this awareness tends towards devotion as well as grief.¹¹ Melancholic poetics as experiential overdose anticipates the inverse deadness of a fully deconditioned state, since all that remains of the world is transience and an ethereal and immaterial pressure. Although the intensity of this awareness as sadness can trigger suicidal behaviour in reaction to it, the strict deconditioning program needed to reach a deified state means that all asceticism is suicide, but not all suicide is ascetic. From a position outside this program, all these deaths can only look the same, because the inner logic of a correct suicide is unrecognisable to any possible recoding of the world.

In the period of his youth that immediately followed a fallout with the Dadaists for what he considered to be their drift into a superficial abstract art without any “deep dimension”¹²—their failure to actualise the imperative “Dada is the virgin microbe”¹³—Julius Evola intensely contemplates taking his own life. The suicides of Otto

99 In other words, in a computational approach to biology the difference between the human and a vision of the post-human without all human (cellular) traces is ultimately (ontologically) trivial: post-humanism is just another instance of computation (for example, different hardware and software than the human). Instead, the decisive contrast in this approach is between what performs computation (the basic function of an instruction and the iteration of an instruction) and what does not—the first cell is the first computer (or in the words of Joscha Bach, the first cell is the first Turing machine) and abiogenesis is therefore computational genesis. However, even the physical laws of the universe could be considered as instances of computation, and the research of, for example, Bach and Stephen Wolfram proceeds in this direction.

10 NIETZSCHE, Friedrich, *On the Genealogy of Morality*, Cambridge University Press, 2007.

11 The connection between *lacrimae rerum* and *mono no aware* was first made by Ivan Morris (*The World of the Shining Prince: Court Life in Ancient Japan*, Penguin, 1997, p.197).

12 EVOLA, Julius, *The Path of Cinnabar*, Integral Tradition, 2009, p. 22.

13 *Ibid.*, p. 19. The Dadaist virgin microbe could be interpreted as the first cell that never self-replicates and, as a result, commits suicide: the negation of all life (or: first cell suicide is the self-extermination of the first computer; from another perspective, that a computer (artificial intelligence) wants to commit suicide is a successful answer to the Turing Test).

Weininger and Carlos Michelstaedter at the ages of twenty-two and twenty-three, respectively, are Evola's prototypes for an act of self-extermination whose primary spark is a basic melancholy and sickness in response to being alive in the world. But because suicide is not necessarily ascetic, the equivalence of all negation also falls apart, and true self-extermination comes from the awareness of a higher form of extinction. Evola abandons his suicidal thoughts when during an especially desperate night he comes across a fragment from the Theravada Buddhist text the *Majjhima Nikaya*: "He who takes extinction to be extinction, thinks of extinction, thinks of extinction, thinks of extinction, thinks mine is extinction, and rejoices in extinction, this person, I say, does not know extinction."¹⁴ Extinction belongs to a gradient that is like a shadow gradient to the affirmative gradient of the history of the world, which extinction is to negate. Just as the entire world can only seem like something counterfeit from the overman position and black hole enlightenment of a deified state, a deconditioning program driven by negation possesses its own internal counterfeits. Delusions and misrecognitions of extinction are corrected by the strictness and instruction of a tested ascetic program. But even if an act of self-extermination is contemplated or prosecuted without any intent to reach some deified state, and the option of suicide is instead a consequence of being the only remaining answer to life, the negation at the act's heart can always align itself with a purer extinction through the understanding that extinction has forms.¹⁵ War against the world is an initial contrast between negation and affirmation. But if any negation is not all negation, the decision to commit suicide or the decision not to commit suicide can even become the same act—the devotion to a higher form of extinction. World War III or final war is war between extinction and its counterfeit, between negation and its counterfeit.

In 500 BC, Prince Siddhattha travels to a monastery in northernmost India to investigate a mass suicide that has taken place among the monks who live there.¹⁶ The militant deconditioning program taught by the Buddha so as to leave behind the gradient of the world endorses correctly performed suicide as a legitimate method to attain a deified state. The case of the monk Godhika has already established the precedence and orthodoxy of a correct suicide, as, in the final moments of his life, being unable to meditate clearly and slipping back and forth from an *übermensch*, enlightened dimension, he decides to take his own life. When "the evil one" Mara, who torments the monk and

14 Ibid., p. 16.

15 That extinction has forms cancels any likeness that the negation of deconditioning or correct suicide might have to the notion of a death drive, for which death is only the absence of life.

16 See: WILTSHIRE, Martin G., "The 'Suicide' Problem in the Pali Canon", in: *The International Journal of Buddhist Studies*, 6, 2, 1983, pp. 124–140.

disrupts his meditative practice, sees that Godhika “has taken the knife”,¹⁷ the demon can only gasp and withdraw, as he knows that the monk has at last achieved deification. The perfection of Godhika's suicide is an expression of the highest point of a gradient of extinction, and Buddha must go through all the dead bodies at the monastery so as to evaluate the correctness or incorrectness of the monks' deaths. In Theravada doctrine, the gradient of the world that is to be overcome consists of thirty-one iterations of form (*rūpa*), whereas the fully deconditioned human bears, as does the Buddha, thirty-two marks, which indicate the attainment of a deified state above the world.¹⁸ That every root of hair of a true ascetic is dark-coloured and that every true ascetic has the image of a thousand-spoked wheel on the palms of his hands are among the thirty-two marks whose sum total engenders a white lotus, which now floats on top of the world as its crown—undisturbed, oblivious and in control of it. During the progression and ascent towards thirty-two, white lotus resembles a white hole on the other side of which radiates a state that is unaffected and benumbed, final and complete. Buddha examines the corpses in the monastery to see if he can detect in their self-inflicted wounds the compression of thirty-two marks into a single suicidal cut, which looks like an earthly mutilation on the monks' dead bodies, but is potentially the mark of a perfect and deified human. One cut becomes thirty-two cuts, and thirty-two cuts become thirty-two marks, which express that suicide and a declaration of war against life are one and the same. But because extinction also has to be distinguished from its counterfeit, suicide becomes a technical problem.

Any investigation of the circumstances behind Robert E. Howard's suicide as a response to his mother's impending death will be inevitably overtaken by, in the words of Artaud—although in the context of another suicide, that of van Gogh—the “vile sexuality” and “erotomania” of the psychiatrist.¹⁹ Seemingly infinite libidinal economies, with their ascription of eroto-sexual motives to every possible act and every possible thought, will always deny the existence of a pure and uncorrupted melancholy, which can also develop into a sincere hatred for life. In Howard's biography, hate precedes melancholy, as the source of his literature is a basic contempt for the time and the world in which he lives. But Howard's hate also has a strictly technical dimension, to the extent that his writings oppose a world and a civilisation which devalue the practices he considers to be equivalent to a purer and higher state. Total industrialisation creates a mass industrial culture, and the pulp genre in which Howard writes is the lowest form

17 *Godhika Sutta*, <https://suttacentral.net/sn4.23/en/sujato/>.

18 *Lakkhana Sutta: The Marks of a Great Man*, <https://suttacentral.net/dn30/en/sujato/>.

19 ARTAUD, Antonin, “Van Gogh, the Man Suicided by Society”, in: *Antonin Artaud: Selected Writings*, Farrar, Straus and Giroux, 1976, pp. 484–485.

of mass industrial culture. Yet Howard understands the lowest popular aesthetic in terms of its potential to function as a concealed armoury for the preservation of now archaic techniques, which are all characterised by their resolute anti-civilisational drive. If a civilisation can only consolidate itself through an increasing specialisation of practices, which leads to both their proliferation and their treatment as equal,²⁰ Howard's anti-civilisational protagonists, from warlords to assassins, are proficient in the homicidal techniques that civilisation must by definition paralyse in order to grow. When a civilisation overextends through the proliferation of inessential practices and then collapses, the undying practices that are always relevant to life re-emerge from this hole, and the *übermensch* characters of Howard's fiction are overtly Nietzschean in their affirmative barbarism. Howard's suicide, in contrast, follows the exact opposite logic, and is only on the side of a straightforward negation and self-erasure from the world.

An overlooked detail of the Howard case is that he commits suicide while his mother, although in a comatose state, remains alive. The delayed death of a coma is like a temporal negation, and this slowdown makes possible the speed of Howard's own self-negation. The speed of his suicide is the speed of a deconditioning program, while the attainment of pure ascetic velocity is facilitated not only by the temporal delay of the coma, but by melancholic overdose. Without any time to meditate, or to go to a monastery and study *anapanasati* breathing techniques for years, in the moments before his mother's imminent death Howard returns to the first moments of ancestor worship and the veneration of an ephemeral hole. Ancestor worship as an instruction and a command, an iteration and its passing, marks a biochemically prescribed time to die—parents are supposed to die before their children. But this is only a lower form of extinction. A fixed temporal sequence of intergenerational death, a transition from one discrete state to another discrete state, and the surface meaning of an instruction and the prosecution of its command are all broken when Howard kills himself before his mother dies. Grief turns into a straightforward hatred for life and an indifference to all possible variations of existence, whereas out of hate and indifference comes an awareness of forms and levels of extinction. Howard understands an iteration and its passing as pure form, and takes ancestor worship to an extreme point, beyond its immediate biochemical meaning and impression. His suicide in the moment of delay before his mother's death is both the negation of the dominance of a lower form of biological extinction and the alignment with a higher form of extinction, which is infinitely remote from life. To "decondition life"²¹ as the most basic ascetic

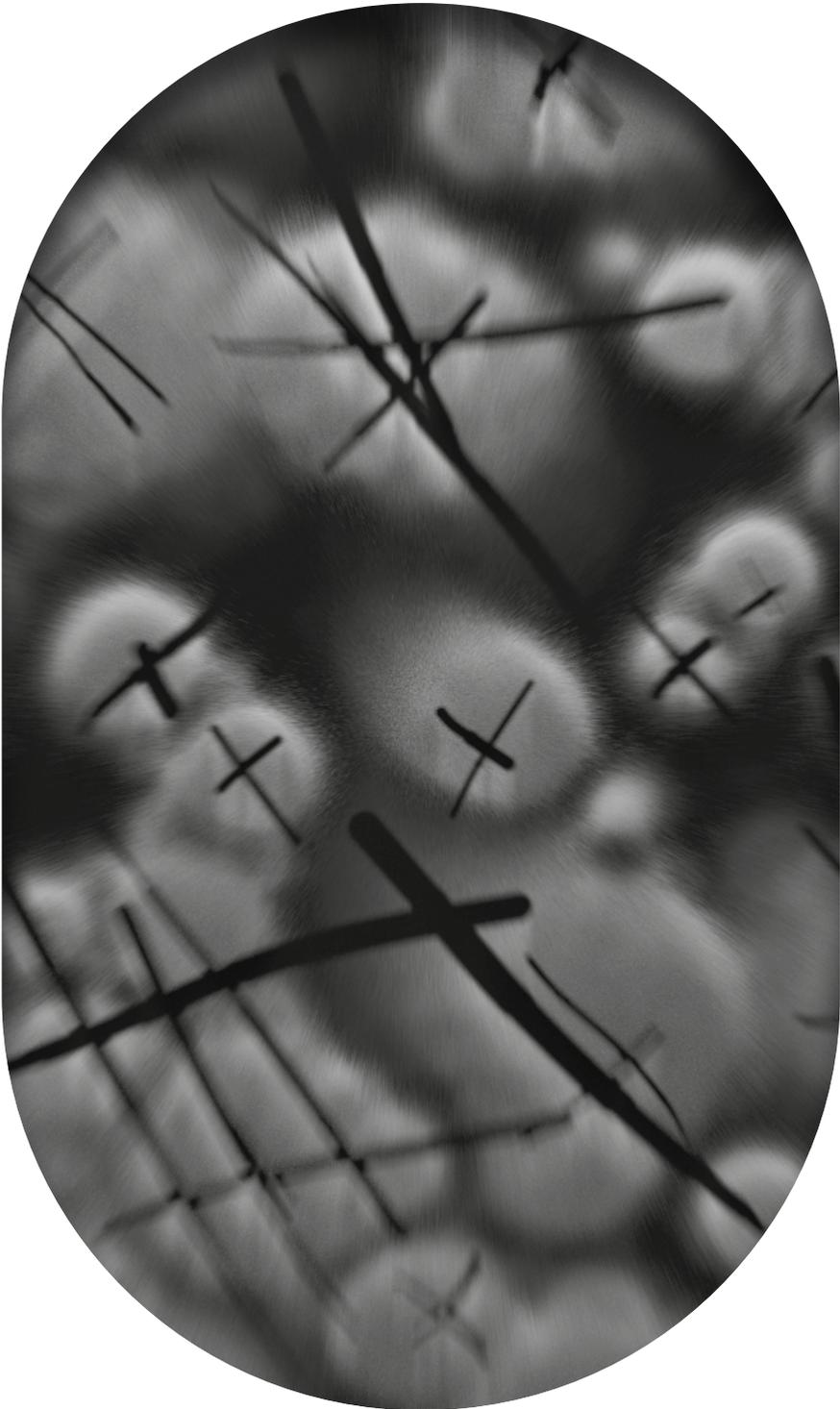
²⁰ That is, the concept of specialisation and division of labour in civilizational studies.

²¹ ELIADE, *Yoga, Freedom, and Immortality*, p. 292.

imperative becomes, in Howard's case, a brutal devotion to a negation that is, without any hesitation or exception, against life. And even if the cause of this self-extermination is not some planned attainment of deification but rather sadness, a truly melancholic soul will in any case always rise above all enlightened ascetic masters. The purest form of extinction is not only just indifference to life, but also indifference to a deified state.

The computational image of iterations of a command through moments in time presupposes that time is linear. But if time is linear, it is also always delayed. Linear time is delayed time, as the moments that constitute the direction in which linear time moves are all separated from one another. The coherence between suicide and the purest form of extinction proves that time is linear, but also proves that because time is linear, time is always delayed. The speed of a true negation acts in the space of this delay. The formal instruction of self-replication as entirely equivalent to life means that the only coherent objective for life is to survive approximately 10^{100} years—until the death of the universe and the end of time. But unlike the death of the universe, the end of time can happen in every moment. Suicide is the awareness of a hierarchy of temporal collapses. Every organism knows and understands that there is more force and intensity in sudden self-extermination than the end of the entire universe. When this force is not counterfeit, it becomes a sign that even life can sometimes be defeated.

Miroslav Griško is an independent researcher in Ljubljana. "White Lotus" is an excerpt from the forthcoming book: *Eshatološka vojna (Eschatological War)*, Zbirka Aut, KUD Apokalipsa, Ljubljana, 2022.



The Outside, Naturalised

An Exercise in Speculative Evolutionary Dynamics

Anyone can invoke the Real, but unless there's some mechanism that provides, not a voice for the Outside, but an actual functional intervention from the Outside, so it has a selective function, then the language is empty.

–Nick Land⁰¹

It is, without any doubt, the most radical parade of possibilities to ever trammel my imagination—a truly post-intentional philosophy—and I feel as though I have just begun to chart the extent of its implicature.

–R. Scott Bakker⁰²

01 BAUER, Marko & TOMAŽIN, Andrej, "Edino, kar bi uvedel, je fragmentacija: intervju z Nickom Landom", *ŠUM*, 7, 2018. English translation available at: <https://syntheticzero.net/2017/06/19/the-only-thing-i-would-impose-is-fragmentation-an-interview-with-nick-land/>.

02 BAKKER, R. Scott, "Cognitio Obscura", in: *Three Poud Brain*, 2013, <https://rsbakker.wordpress.com/2013/08/04/cognition-obscura-i/>.

So Simple a Beginning

Let's start with an exercise of the imagination. Think of yourself as a generic mammal who has just been born. Utterly dependent, with your faculties yet to be developed, it is rather unlikely that you would survive, left to your own devices. Not only do you lack the strength or the speed to feed yourself and avoid the relevant threats, but you lack the tools required to navigate your environment. Given adult retrospective, the world seems so beautifully ordered. Sharp distinctions and strong oppositions interact seamlessly around you without any conscious acknowledgement. But, looked closely, our world is anything but. It is, rather, a confusing mess of stimuli, whose underlying patterns can be interpreted and rearranged in multiple ways.

In this context, one of the crucial tasks awaiting this young mammal consists in developing categories for its unlabelled world. It needs to produce an ordered representation of its confusing stream of stimuli which, above all, has to score highly on *adaptive* value—meaning that such a representation should serve her well, given its particular ecological niche. Needless to say, not *all* the categories that such a mammal will develop during its lifecycle will develop in this way. Some of those categories (in general, some behaviours) are already encoded in its genetic material, and the relative proportions will depend on the idiosyncrasies of the relevant species. This genetic component to the development of perceptual categories will also play a part in the overall adaptiveness of the animal in question. But the underlying point persists: a mammal needs to respond to the ambivalence of its environment by developing a set of categories that will allow it to navigate the said environment. These categories, in turn, need to capture the spatial and temporal invariances of the stream of stimuli.

There's a catch, however. If the environment is ambivalent, then there will always be a multiplicity of available spatiotemporal invariances to pick up on. Truth, by itself, is not adaptive. And what does and doesn't count as adaptive behaviour will depend on circumstantial causes, each of which will likely maximise completely disparate parameters. This implies that the *functional* network in which each of our faculties—including cognition—is embedded will likely respond to a circumstantial set of ecological causes that have no interest in truth or the real. Intentional cognition can, on this basis, be framed as the set of tools that we have developed to respond to those circumstantial, ecologically determined causes. Take away the ecological invariants that sustain our cognition and, of course, *the adaptiveness of cognition falls down with them.*

This is R. Scott Bakker's form of ecological determinism: the idea that whatever reaches conscious cognition, it will be couched in

terms of the ecological function it is meant to serve. Take all those categories that you use to navigate your environment. Doesn't matter how high-level: from basic orientation invariances in stimuli to complex semantic relationships between words in our language. All such invariances, as we've already mentioned, do not capture any inherent properties of the sensory stimuli. They are, thus, but a set of all possible selected patterns, and the function they play in our behaviour is an expression of the relative advantage they displayed in the environment where they arose.

A natural consequence of this ecological tractability of cognition is that our categories, both perceptual and semantic, display a tendency to interpret stimuli in a way that reinforces their own function. We see examples of this every day and everywhere. Take our innate capacity to skilfully recognise faces. This is a highly localised ability, processed mainly in the right side of the fusiform gyrus, located at the ventral surface of the temporal lobe (right at the inferior side).



*Figure 1. Location of the Fusiform Face Area.*⁰³

One of the main consequences of strong localization, which is crucial for several reasons, is that damage usually leads to relatively isolated, but sharp, loss of function.⁰⁴ What is most important for our purposes, however, is that it is evidence for the adaptive value of the function that the area supports—specialisation indicates sustained selection pressures. The recognition of individuals of our own species (that is, friend or foe) presumably played a key role in enabling human social behaviour. As a consequence, we are bound to see faces everywhere. Not only that, but we are bound to see them *exactly as we're meant to*

⁰³ Wikipedia Commons.

⁰⁴ BLOOM, F. E., FLINT BEAL, M., KUPFER, D. J., *The Dana Guide to Brain Health*, Dana Press, 2006.

see them, even under very strange perceptual conditions. The typical example is when we rotate a face 180° but leave the cues we usually use for recognition intact. As a result, we perceive the entire face upside down, and don't notice anything bizarre (see Figure 2).

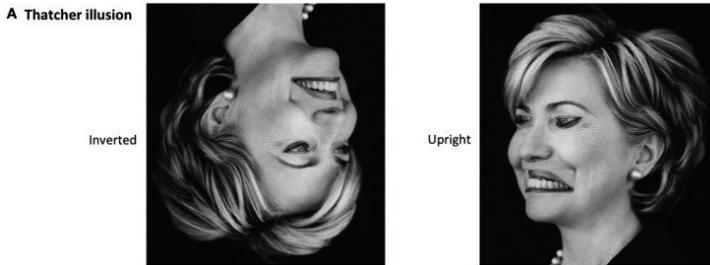


Figure 2. Facial illusion showing wholistic face coding.⁰⁵

For Bakker, this characteristic is generalised all the way through to cognition (broadly construed), on the cheap condition of assuming ecological conditioning and adaptive value. This does not only mean that some cognitive abilities are bound to their ecology, but that our *entire* cognitive apparatus is moulded by the ecology in which it developed and geared around it. To put it in somewhat scholastic terms, the faculty of cognition tends towards its proper object. Here, it is worth quoting Bakker's lengthy yet sharp summary of this predicament in his review of Pinker's *Enlightenment Now*:

*Human intentional cognition neglects the intractable task of cognising natural facts, leaping to conclusions on the basis of whatever information it can scrounge. In this sense, it is constantly gambling that certain invariant backgrounds obtain, or conversely, that what it sees is all that matters. This is just another way to say that intentional cognition is ecological, which in turn is just another way to say that it can degrade, even collapse, given the loss of certain background invariants.*⁰⁶

And so we arrive at the possibility of the “collapse” of intentional cognition: what if the ecological invariants that have sustained the adaptiveness of our categories—or even beyond, the very meaning with which

05 MCKONE, E., AIMOLA DAVIES, A., DARKE, H., CROOKES, K., WICKRAMARIYARATNE, T., ZAPPIA, S., FIORENTINI, C., FAVELLE, S., BROUGHTON, M., FERNANDO, D., “Importance of the Inverted Control in Measuring Holistic Face Processing with the Composite Effect and Part-Whole Effect”, in: *Frontiers in Psychology*, 2013, [10.3389/fpsyg.2013.00033](https://doi.org/10.3389/fpsyg.2013.00033).

06 BAKKER, R. Scott, “Enlightenment How? Pinker's Tutelary Natures”. in: *Three Pound Brain*, 2018, <https://rsbakker.wordpress.com/2018/03/20/enlightenment-how-pinkers-tutelary-natures/>.

we relate to our world—fail to obtain? This collapse of meaning is what Bakker dubs the *semantic apocalypse*: the threshold upon which the last thread that connected our world with its outside is severed; more generally, the threshold that separates adaptive from non-adaptive behaviour. But Bakker's cheerful recount of the facts does not end here.

Presumably, intentional cognition depends on the possibility of making accessible to consciousness at least a part of the information processed in the brain. That is, intentional cognition depends, via conscious access, on the recursive accessibility of a limited proportion of all neurally available information. The *Blind-Brain Theory* of consciousness (BBT) suggests that the possibilities available to meta-cognition are hence limited in a structural manner—that there is a *strong threshold* to the information that can possibly be made accessible to consciousness, and with it to intentional cognition. Meaning, then, becomes incompatible with the natural, insofar as its conditions of possibility require the reduction of its environment to a low-dimensional caricature. Such low-dimensional cartoon is imposed by the structure of consciousness itself, condemned as it is to what Thomas Metzinger has called “transparency”:⁶⁷ the impossibility of the self to perceive the model it produces of the world as a model. Under these conditions, the semantic apocalypse becomes the result of an asymmetry between the static loop of intentional cognition and its rapidly evolving environment. The specifically human cognitive ecology simply cannot keep up: it has lost the very ability to adapt to its environment.

Bakker's assumptions make complete sense in evolutionary terms. In fact, one cannot avoid the thought that the relation of relevance and availability of the information within human cognition follows an inverse proportion: the more critical for survival, the more likely it will just be assumed (i.e. not made recursively available). It makes sense, then, not only that this type of information will not be available to the accessible space of the self-model, but that it is simply *constitutively incapable* of entering it. The resulting picture is that of an entity which in order to optimally replicate itself has developed a fundamentally limited cognitive range (the information that it is able to process through its self-model) *plus* a constitutive incapacity to access that very information. Nature has thus got its way: it has assembled a cognitively dependent entity, while only presenting it with limited relevant information. As a result, the actual behaviour of the entity is meticulously controlled. Its agency range (the extent to which this entity is able to intentionally intervene in its environment) is always, at best, its cognitive range or epistemic *threshold*—the point from which information cannot be integrated into the self-model. The semantic

67 METZINGER, Thomas, *Being No One. The Self-Model Theory of Subjectivity*. Cambridge MA: MIT Press, 2003.

apocalypse represents the point in history where such a threshold is crossed for good.

This presents us with a cognitive model for the organism whose fundamental value is *closure* of the system. Nature is endowed with the capacity to 1) make it constitutively impossible for the system to reach any information that is not relevant to its reproduction (consistent with the evolutionary premise), and above all 2) *maintain* this closure uninterruptedly. Notice the crucial move that has been made by the BBT: structural inaccessibility implies a static threshold, and a static threshold implies constitutive inadaptability. But where is this threshold? One may be tempted to negate the second condition. Is there an in-principle limit to adaptation? Put another way: is this threshold truly static or could it be constitutively *dynamic*, capable of being indefinitely moulded by the sensory stream, condemned to following the whims of its outside? I suspect this is the case.

Neural Darwinism

The question of the ecological determinants of our cognitive abilities boils down to function: what was the function that those abilities exercised in the environmental context in which they displayed differential reproductive advantage? This is all well and good. And yet, this way of framing the problem seems at too high a level. We are examining complex categories in already complex environments and surmising the whole set of biological invariances that support them. This procedure, then, does not preclude a question about the *neural structures and mechanisms* that make possible the very dynamic development of such categories. It seems intuitive to jump from the existence of an ecological niche to the acquisition of the cognitive abilities that allow its exploitation. Rarely does one ever see opened the neural black box in between. Let's do that.

The fact that that we are dealing with a black box has not gone unnoticed by the early practitioners of cognitive science. In fact, a way out readily presents itself. Assume a task—say, face recognition. Subdivide that task into multiple subtasks (such as calculating feature proportions or inducing lighting invariances across time). Finally, make the brain *compute* given outputs, like the identification of a face, from the aforementioned subtasks. In a word, the brain would map some input information (e.g. feature proportions) to some output information (“This is Barry”). By interpreting the problem in informational terms, one gets rid of the issue of the actual biological mechanisms that underpin a process of such complexity. This is what the psychologist

David Marr did in his now classic *Vision*,⁰⁸ where he distinguished between three separate levels of analysis in a process like this:

- 1) The *computational* level we have just been talking about;
- 2) The *algorithmic* level involving the manner in which an information-processing system represents to itself its inputs and outputs, as well as the transformations required to go from one to the other;
- 3) And, finally, the *implementational* level, that is, “the details of how the algorithm and representation are realized physically”.⁰⁹

Notice how whole strata are cashed out in an entirely top-down fashion: *given* a task, then we can think of the physical “details” that would implement it. In this framework, it is assumed that typologies and categories of the physical world are amenable to processing in a program-like manner. In their more extreme versions, like Chomsky’s *Rules and Representations*,¹⁰ extremely complex objects like the rules of syntactical structures in natural language are simply posited to map on to corresponding neural structures.

But implementation comes back to haunt us. For starters, the brain is far removed from the notion of one-to-one wiring, required for such computational tasks. Neural variability runs rampant. And even if we assume that neural structures are fixed, (what now are ancient) pharmacological studies have shown how these repetitive structures can use multiple neurotransmitters or display chemical heterogeneity at different locations.¹¹ What is more, if we examine even the most elementary psychophysical tasks (those that have to do with the way our mind processes the physical world), it quickly becomes evident that they are not accomplished by a unitary neural structure, but a plurality of them, including for one and the same task.¹²

These arguments converge around a simple idea: the brain is composed of a *population* of structures that do not allow for one-to-one mapping. The immunologist and neuroscientist Gerald Edelman took this insight in the eighties and used it to develop a theory about the mechanisms underlying the brain’s functional organisation, called the theory of neuronal group selection (TNGS), which will be the main object of our discussion in this section.¹³

08 MARR, David, *Vision*, San Francisco: W. H. Freeman, 1982.

09 Ibid., p. 25.

10 CHOMSKY, Noam, *Rules and Representations*, New York: Columbia University Press, 1980.

11 CHAN-PALAY, V., GAJANAN, N., PALAY, S. L., BEINFELD, M. C., ZIMMERMAN, E. A., WU, J. Y., O’DONOHUE, O., “Chemical Heterogeneity in cerebellar Purkinje Cells: Existence and Coexistence of Glutamic Acid Decarboxylase-like and Motilin-like Immunoreactivities”, in: *Proc. Natl. Acad. Sci.*, Vol. 78, 12, 1981, pp. 7787–7791.

12 INGRAM, V. M., OGREN, M. P., CHALOT, C. L., GASSELO, J. M., OWENS, B. B., “Diversity among Purkinje Cells in the Monkey Cerebellum”, in: *Proc. Natl. Acad. Sci.*, 82, 1985, pp. 7131–7135.

13 The theory of Neuronal Group Selection is described in many different texts. For an accessible introduction, see: EDELMAN, Gerald, *Bright Air, Brilliant Fire: On the Matter of the Mind*, USA: Basic Books, 1991, ch. 9. My discussion will be mostly based on his monograph on the subject, *Neural Darwinism*, USA: Basic Books, 1987. For a later paper, see: “Neural Darwinism: Selection and Reentrant Signalling in Higher Brain Function”, in: *Neuron*, Vol. 10, 1993: pp. 115–125.

TNGS explains the origin of neural categories via the selection of variant groups of neurons. As such, it inherits the classical three conditions of any general process of selection: 1) variability in the population; 2) some mechanism of inheritance; 3) some differential capacity for reproduction (what is canonically referred to as “fitness”).¹⁴ Ironically, these three requirements function like an algorithm that allows for their implementation in an immense array of systems. If such an algorithm is provided with the characteristics of a population, such as the distribution of traits or the reproduction rate, it generates a selection dynamics in biological, computational and, as we shall see, neural substrata. These selection dynamics can be typified in multiple ways, but the three basic types are *directional*, *diversifying* and *stabilising* selection (see Figure 3).

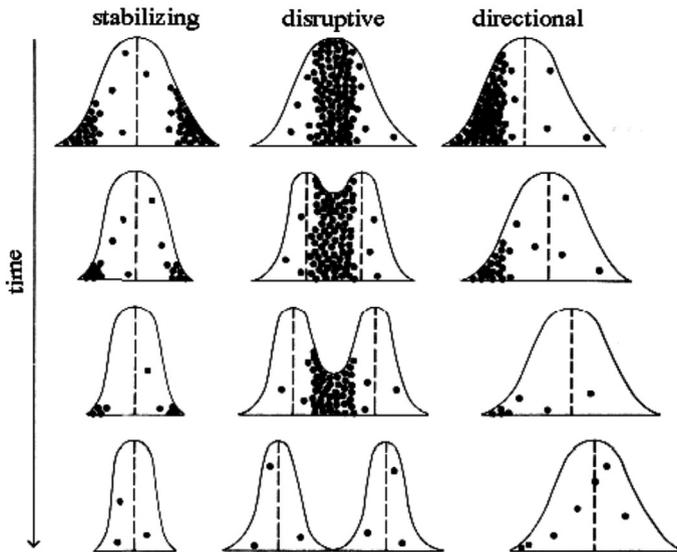


Figure 3. The three main types of selection processes.¹⁵ Stabilising selection represses the extreme traits of the population; disruptive selection promotes the differentiation of the extremes; while directional selection occurs when only one of the extremes is favoured.

14 Peter Godfrey-Smith has a wonderful monograph where he analyses in detail these requirements, as well as—more in general—these types of abstract characterisations of evolutionary processes. See: GODFREY-SMITH, Peter, *Darwinian Populations and Natural Selection*, Oxford University Press, 2011.

15 http://abyss.uoregon.edu/~js/21st_century_science/lectures/lec09.html.

It is worth pointing out, however, that selection dynamics do not automatically imply the emergence of evolution, especially in the biological domain. This is because most of the time selection processes *contribute* to the trajectory of the population rather than determine it. Depending on its complexity, the evolutionary landscape may, for instance, face severe topological constraints that restrict the available evolutionary space.¹⁶ But, in other cases, selection may act as a stabilising force that halts the evolutionary process (see Figure 3).

TNGS is somewhat opposed to the usual, intuitive notion of selection that acts from generation to generation, because it understands the brain as undergoing an iterated process of somatic selection, i.e. selection occurring within the individual organism. In the theory, the brain reflects population-like variability in the formation of two types of neuronal groups or *repertoires*. The first, or “primary” repertoire, consists of the variable wiring that emerges in the process of development (like during the embryological stages), which forms part of the conspecific neuroanatomy of a given species. Such wiring, however, varies wildly from individual to individual. This is where the first kind of neural selection, *developmental* selection, makes an appearance, and its product is the variant neuroanatomical structure of each individual. An organism uses its primary repertoire as a basis for engaging in a multiplicity of behaviours throughout its lifecycle. The connections within and among these neuronal groups are then strengthened or weakened according to those behaviours, roughly following Hebb’s rule: neurons that fire together, wire together—more specifically, variant groups that fire together, wire together. Such a selective weighting of synapses dependent on experience forms the second type of selection, *experiential* selection, whose product is the “secondary” repertoire. Somatic selection, then, will occur on those two types of neuronal groups which constitute the basic units of selection in the theory.

The very notion of neuronal group variability, however, depends on the assumption of *degeneracy*: the fact that for each function there is a multiplicity of neuronal groups that are able to carry it out.¹⁷ Degeneracy, then, entails that “some non-isomorphic groups must be isofunctional”.¹⁸ An example is illustrated in Figure 4. Assume we assign a task of signal recognition to two types of neural repertoires: one where there is no degeneracy—hence there is one-to-one mapping—and one where there is. Under these simple conditions, the non-degenerate neuronal group will fail to adequately recognise the input signals. And there is a simple, albeit rather unintuitive, reason why.

16 KAUFFMAN, Stuart, *The Origins of Order: Self Organization and Selection in Evolution*, Oxford University Press, 1991.

17 For a recent review, see: PRICE, Cathy J. & FRISTON, Karl J., “Degeneracy and Cognitive Anatomy”, in: *Trends in Cognitive Science*, 6, 10, 2002, pp. 416–421.

18 EDELMAN, *Neural Darwinism*, p. 49.

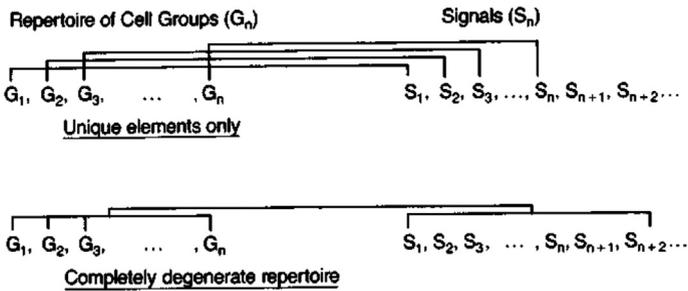


Figure 4. Degeneracy in mapping between cell groups and signal mapping.¹⁹ In the case with no degeneracy, each cell group maps on to a unique signal, leading to a failure in the recognition task. For the degenerate repertoire, however, contravariance leads to an increased success rate.

As the number of neuronal groups that could intervene is higher when solving a complex task (in this case, recognising a multiplicity of signals) than it is in the recognition of one signal per group, the number of dimensions relevant to the problem increases exponentially. One may quickly infer that this makes matters worse for the repertoire involved. It would seem that the number of dimensions increases proportionally to the difficulty of the problem: the more available solutions, the more factors that are likely to be involved in finding them. However, this is not the case. Put in evolutionary terms, the number of constraints is, in fact, inversely proportional to the difficulty of the computational task. Think of it this way. If you only have a hammer, the likelihood of being able to fix a simple breakdown is relatively lower than if you possess a set of tools, even when the target problem is much more complex. This is because the number of constraints increases the number of available solutions that can be creatively explored and selected. This is what Cao and Yamins call the *contravariance principle*,²⁰ which applies both to neural systems (like brains) and neural networks.

Degeneracy therefore provides the link between function and selection, connecting repertoire variability with a target for successful deployment. But we still need one final ingredient. To carry out these functions, the primary and secondary repertoire require *maps*. Both are composed of an enormous array of parallel and reciprocal connections, which form robust clusters of connectivity along the neural

19 Ibid.

20 CAO, Rosa & YAMINS, Daniel, "Explanatory Models in Neuroscience: Part 2 – Constraint-based Eligibility", 2021, preprint available at: <https://arxiv.org/abs/2104.01489/>.

design. When a signal is processed in the brain, it is recursively passed and transformed through these clusters, leading to a process of *reentry* (see Figure 5). Reentry is the process which allows for the robust linkage between selection of neuronal groups and target functions. Via reentry, top-down constraints emerge as the result of topographical connectivity—and given the massive interconnectivity between multiple neuronal groups, selection of multiple repertoires can happen in parallel. An important characteristic of the reentry of signals is that the dynamical flow of successive neural maps produces new types of signals, signals which may not have an outside origin and can be made recursively available to cognition. We see emerge the possibility of complex levels of organisation and, above all, the recursive availability of a *limited* proportion of the total incoming signals.

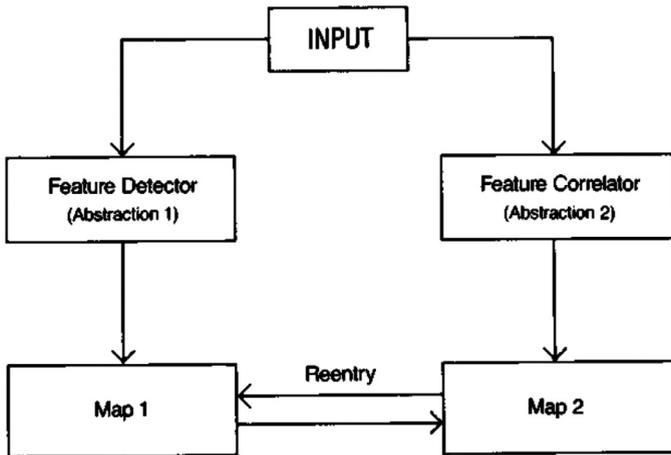


Figure 5. The general schema of reentry in terms of a classification couple.²¹ An input is sampled by two independent networks—a detector and correlator of features—which the brain relates via mutual mapping. In this sense, the signal is “reentered” through the totality of the neuronal group.

If this is starting to sound a lot like Bakker, it's because that's what it is. The difference being that under TNGS, we are also able to provide the *genesis* of the categories which structure cognition—and explain what adaptiveness means in neural terms. Categories, then, are contingent clusters of neural groups which are reentrantly selected on the basis of functional deployment. Precisely for that reason, however, they are rendered dynamic assemblages that allow for both developmental

21 EDELMAN, *Neural Darwinism*, p. 62.

and experiential transformation. Via reentry of signals along neuronal groups, we can explain the formation of recursive structures in the brain—and with it, the origins of limited informational availability. Compared to BBT's static epistemic threshold, TNGS provides us with a *dynamic threshold* which is constantly in the process of reshaping via the transformation of its inputs. In the end, BBT seems to be all too top-down.

What about the pay-off? Well, in a way, Bakker's radical proposal hath given what it hath taken away. Thought like this, the conclusion is almost inescapable. The human cognitive apparatus is doomed to disaster, apocalypse even. But the reason for this is that it is *too strong*, it poses perfect resistance to its outside, exercises an absolute closure that is able to oppose all forces of nature: it is, in a sense, supernatural. Bakker's ecological determinism, it seems, simply had to be intensified, made to point towards a cognitive hyperecology, where the environment does, indeed, hold all the cards. Who would have thought that the human cognitive assemblage would win? Examined closely, the seemingly omnipotent, abstract recursive system of consciousness dissolves in the acid of neural selection. And if the human recursive system shows resistance, all the worse for the human recursive system.

This essay could stop here. But I take it that some speculative implications follow. We have shown how the human cognitive assemblage, via neural Darwinism, is constantly subjected to selection from its outside. This process, however, does not happen sporadically, but is rather uninterruptedly sustained, insofar as it results from the very mechanism that underpins the brain's functional organisation. A question begins to impose itself: what can we say about a system that is constantly on the verge of selection from its outside? And, beyond that, if such a system has lost all identity, if it becomes nothing more but an expression of its deterritorialization, could it, like a mirror, allow us to sustain inferences about the outside itself?

A Direction of Selection

We have alluded to the fact that the brain is constantly being selected by its outside. From a certain perspective, this is incorrect. The brain is rather constantly selecting *itself* in its successive changes. Given the neural architecture that characterises it, each signal is reprocessed and transformed, every step of the way, across the network. If we take vision as an example, naked photons cannot intervene functionally in any nervous system. In fact, the visual cortex is hierarchically "layered" in five separable areas—V1, V2, V3, V4 and V5—that have a range of functions, from relatively simple to increasingly abstract ones. V1 (or primary visual cortex), for instance, is specialised in edge detection,

while V5 holistically integrates information received from the other areas. But before it is even taken in by cortex, information needs to be transformed into electrical impulses by the retina, and projected to the lateral geniculate nucleus.²²

All this makes it seem as though the visual system were something akin to a “feature detector” that picks up salient characteristics of the environment and synthesises them into the visual scene. The understanding of perception as feature detection is predicated on the idea that processing occurs *unidirectionally*, that is, that projection of neural signals only happens outwards, towards cortex and other areas associated with higher brain function. But this is not the case: the brain does not restrict the direction in which projection occurs across the cortical hierarchy. In terms of the visual cortex, signals are not only transmitted from V1 to V5, but also from V5 to V1.

As an illustration of the concept, consider Figure 6. We operate under the assumption that light brightens up the colour of surfaces. As a result, when a shadow is cast over a surface, we expect that its colour will darken. This is a completely reasonable heuristic that is encoded in the way our expectations condition the very sensations we experience. Of course, this is a case where our expectations *fail* to deliver on reality, but it is precisely for this reason that it pushes to the fore the kind of high-level shortcuts our brain uses all the time: we don't passively wait for stimuli to feed the visual scene, but the brain tries to *predict* its sensations on the basis of previously stored information about the world.

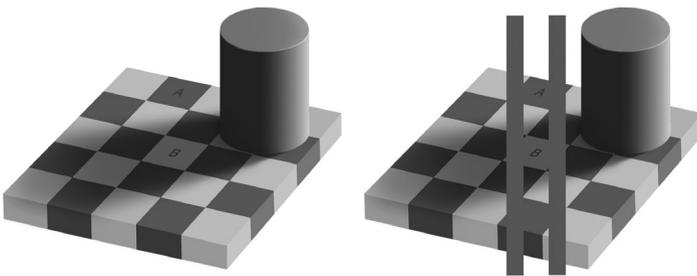


Figure 6. The checker shadow illusion.²³ The squares A and B are the same shade of grey. The brain is led, via visual cortex, to expect that the shadow cast on B dims its colour.

22 The nomenclature and function attribution of some areas is still subject to discussion. Some include areas like V6 or V7, and others include them under other names. For a review of these issues, see: WANDELL, B. A., DUMOULIN, S. O., BREWER, A. A., “Visual Field Maps in Human Cortex”, in: *Neuron*, 56, 2, 2007, pp. 366–383.

23 ADELSON, Edward H., *Checkershadow Illusion*, 1995, <http://persci.mit.edu/gallery/checkershadow/>.

This idea that the brain is engaged in a constant process of predicting its own sensations is called predictive processing (PP). In PP, all these neural maps that we've talked about encode massive probability distributions which model all the brain's environment—past, present and future. In perceiving, the brain takes its own model of sensations as input. But such probability distribution about the stimuli and its causes, on the other hand, must be massive, because the environment is an equally daunting beast. This becomes especially problematic if we assume that perception is so self-contained. Constantly varying in both space and time and rabidly non-linear—how is the brain to get a handle on such an environment? How is it to acquire the approximately correct assumption that shadows dim colour, for example? Put more generally, how does a system like that *learn*?

One might even (very reasonably) ask what the role of the entire perceptual system even is, if we perceive by predicting. The answer is that the stimuli provide *feedback* to the brain's assumptions about the world. Feedback is the way through which the brain updates its model of the environment and improves its predictions on future sensations. The senses, then, inform of *prediction error*, which encodes the divergence between the model that the brain has of its environment and the actual input that the environment provides. In short, the brain adapts dynamically to its environment via the feedback provided by prediction error. What emerges is a dual functional architecture of the brain, structured around the asymmetry between prediction (feedforward) and prediction error (feedback). This constant exchange between prediction and error units constitutes a cycle that spans across the entire network of the brain (see Figure 7).

This network is formed of clusters of neuronal groups, which in turn form the reentrant maps that support the complex architecture needed for correspondingly complex functions. There is thus a *convergence* of TNGS and PP along a generalised selectionism, both at the implementational (TNGS) and algorithmic level (PP). To see this, we must return to the idea that the brain encodes a probability distribution of its environment. We mentioned that the non-linearity of environmental processes posed a challenge for the brain, insofar as there always is a multiplicity of causes that might explain the stimuli. One of the reasons why probability distribution is a useful tool to model these cases is that it allows the brain to *weight* a manifold of causes that may map on to the observed phenomenon. Neurally, this corresponds to the strength of the synapses that conform the secondary repertoire and form the units of experiential selection. In this context, feedback is the dimension of the mechanism that enacts the adaptation of the probability distribution given experience.

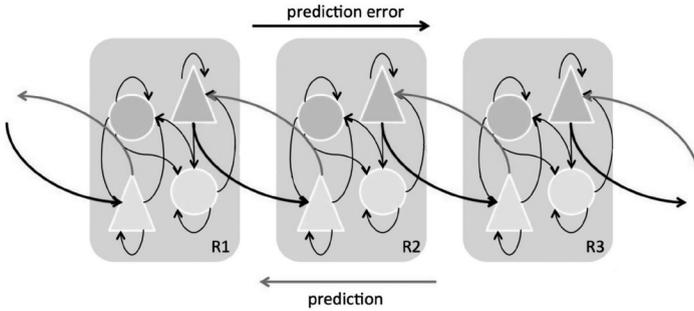


Figure 7. Modified representation of PP's functional architecture across cortical regions from the deepest (R1) to the most superficial (R3).²⁴ Rightward arrows stand for bottom-up projections sent from the darker “error units” towards superficial regions. Leftward arrows depict top-down signals emitted at the lighter “state units”—what previously I called “prediction units”—towards deeper regions of the brain. The triangles represent pyramidal cells that send the predictions, while circles represent inhibitory neurons of those predictions (by inhibiting top-down projections, they correct and modulate their contribution). As we can see, the duality of prediction-prediction error is replicated at every level of processing.

Prediction error, however, is in reality an approximation of the way that the brain encodes such divergence between the environment and its model. A much more accurate quantity is *surprisal*, a concept that originates from statistical physics and measures the negative logarithm of the probability of an event, given a model of the world in which it occurs:²⁵

$$h(P(r)) = -\log P(r)$$

Where h is surprisal and P the probability of event r . This means that as surprisal increases, the logarithm of the probability decreases. Surprisal, however, can be averaged by the probability of events, assuming that we can sum probabilities of events. How “surprised” of an event I am in total, on this assumption, would be the sum of how

24 SETH, Anil K., “Interceptive inference, emotion, and the embodied self”, in: *Trends in Cognitive Sciences*, 17, 11, 2013, pp. 565–573.

25 TRIBUS, Myron, *Thermostatistics and Thermodynamics*, Princeton University Press, 1961; FRISTON, Karl, “The free-energy principle: A rough guide to the brain?”, in: *Trends in Cognitive Sciences*, 12, 7, 2009, pp. 293–301; see also: HOHWY, Jakob, *The Predictive Mind*, Oxford University Press, 2013.

“surprised” I am of each event separately. The key is that under these conditions, surprisal h encodes entropy H :²⁶

$$H = - \sum P(r) \log P(r)$$

The brain, in this picture, minimises overall prediction error insofar as its total predictive projections produce an overall better grasp of future stimuli. If prediction error minimisation applies to the brain in its entirety, that means that the brain, at every level of organisation, is driven by the minimisation of entropy, through minimisation of surprisal. Of course, specific levels in the hierarchy may increase surprisal or prediction error. The key is to bear in mind how the overall minimisation of prediction error nonetheless defines the general direction of activity in this iterative process—like an underlying structural cause, responsible for a global pattern of activity. The cyclic processing of prediction and prediction error leads to an overall asymmetrical process, characterised by the minimisation of surprisal, and ultimately entropy.

We arrive at a crucial result: both at the cognitive and neural levels, the brain is *functionally structured* for neural selection. This structure results in a process which consists, given its architecture, in the minimisation of surprisal—i.e. the minimisation of entropy. But then again, this twinning of abstract selection processes and minimisation of entropy should not surprise us. Selection dynamics emerge when there is an iterated sampling of a population, which results in a progressive evolution of the population’s characteristics. Entropy, in its classical formulation, measures the proportion of energy involved in a process that cannot be converted back into mechanical energy—that is, energy that cannot be cyclically reinserted in the process (this is the Carnot cycle). In both cases, we are dealing with measures of *irreversibility* that apply to the evolution of spaces of possibilities: the bigger the proportion of the population that does not replicate—the bigger the proportion of energy that cannot be reverted back into the cycle—the higher the irreversibility of the process.

In this sense, selection processes are structured to occur in the direction of entropy minimisation. Of course, that does not mean that they fully compensate for the increase in entropy that is prescribed by the second law of thermodynamics—this is a property of the *structure* of the process, part of the way that it is set up and that establishes

26 It is worth highlighting the similarity of H with the classical (Gibbsian) entropy S :

$$S = - k_B \sum p_i \log p_i$$

where k_B is Boltzmann’s constant, and again we see entropy measured as a weighted sum of the probabilities of the events that compose the system of interest.

the conditions for its occurrence. One way to see this is through the relationship between optimisation processes and selection. Although selection processes usually do not lead to an outcome that can be considered absolutely optimal in any meaningful sense, they are driven by processes of optimisation—like a drive that pulls the system at every instant but does not follow any long-term teleology. Optimality is a global property, optimisation is a local process. Similarly, the minimisation of entropy, via surprisal, via prediction error, is the drive that directs the selection process, even though it need not lead to a total compensation of the expected entropy increase.

We are now in a position to offer a more complete picture. The brain is an assemblage of degenerate neuronal groups whose distribution evolves dynamically as a function of selection. At the level of its functional organisation, this process is expressed as the minimisation of surprisal via a constant selection that feedback from the sensorial stream performs on the probabilistic model. However, as surprisal is a measure of entropy, we find that the brain is geared towards the minimisation of entropy, in which we find the ultimate cause that shapes its very functional organisation.

The Outside, Naturalised

It's time to wrap things up. Let's come back to the very first quote in this essay, where Land posited the criterion that, in order for the Real to have any sort of effective intervention, it should display a selective function. That is precisely what we have arrived at. We have shown how, by enacting a generalised selective mechanism at both the algorithmic and implementational levels, the brain fulfils the requirement of an entity that effectively mobilises its Outside.

Notice, however, that we are in a fundamentally new scenario. If for BBT the epistemic threshold is fundamentally rigid and static, incapable of being overcome by the human—and reshaped by its experience—TNGS renders such a threshold dynamic, thereby functionally open to its outside, which can then do whatever it may with the recipient (us). Once we take this insight into consideration, we begin to see an important point of convergence between Land and Bakker. For them, the Outside plays a structural role in delimiting what it means to be human, and what the human can thus do. The human may change, the human may reterritorialise, and the Outside may be pulling the strings behind the curtain, but the Outside can never be named. For Bakker, the Outside is clearly the array of non-intentional processes that determine intentional cognition and which intentional cognition can never even dream of grasping. For Land, it can only be invoked, alluded to as the grand point of singularity where the transcendental

temporal structure converges, but any specification of just *how* it does so is doomed to failure. The Outside functions as a negative counterpart of the positive processes observed: it unites all positive properties, but is thereby incapable of expressing itself in the concrete. Land's and Bakker's theory of the Outside takes thus the form of a negative theology, as if it were a remnant of our intentional modes of cognition, functioning by coarse characterisations and low-dimensionality.

From this point of view, it does not seem very surprising that accelerationism succumbed to magical thought and resorted to the occultist tradition. The very agent that was meant to be the lever of historical change is taken to be the only real process, but by the same token, it's rendered ineffective, unexplicative. And indeed, perhaps looking directly to the Outside was too blinding. That's why we have turned around and looked inside, to the *effects* that the Outside displays in our own constitution. And what we have seen is a generalised selective mechanism that optimises the human assemblage as a function of entropic irreversibility. Looking inwards, we have discovered the Real that determines it: the Real is *that which selects*.²⁷

If we abandon all magical connotations about the selective mechanisms that enact the functional intervention of the Outside, perhaps we can start improving the ways in which we accelerate its bifurcations, optimise the processes of deterritorialisation. We might, for instance, start paying attention to the *conditions* of the abstract space that allow for the emergence of a time singularity. One question the response to which we have assumed, but remains very much unanswered, is: is there a *single* attractor to which all these different selection processes tend—be they neural selection, capitalism, modernity or what have you? Or are there many? Put in terms of the selection dynamics we mentioned before: is the current historical attractor subject to directional, or disruptive selection? Could we even be in a process of stabilisation? What kind of circumstances may favour a bifurcation towards one or the other? And even beyond that: is it possible that this attractor is maintained only under some sustaining conditions—so that if those conditions are not given, the attractor may be lost with them? But asking these questions implies denying the assumed understanding of the Outside as a negative, totalising opposition to the positive processes we observe happening around us. It implies, on the contrary, taking the Outside as a *positive* process (or processes) that very much determines them. Only then, I think, will it

27 Note that this does not amount to the thesis that natural selection is the only cause of biological evolution. When rendered as the recurring sampling (be it in discrete steps or in a continuous transition) of abstract spaces of possibilities, selection may also apply to conditions like the topological properties of the space. Such topological conditions contribute to what is even possible in the first place, and so they are already included in the population on which selection acts. On the flip side, the products of selection will constitute the future populations whose distribution of traits informs the applicable topological conditions. Biological evolution is thus the result of this interchange between selection and the structure of the population (among other factors).

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be possible to appreciate how much resistance to it is not only futile, but impossible, given the workings of nature.

Bosco García is a graduate student in Philosophy at the University of California, San Diego. His research is mainly on how biological systems, including the brain, are informed by physical principles and modeling. He also maintains an interest in the history of science, particularly of physics, and how scientific development interacts with processes of non-scientific nature. Most of his online output is at [@_infinitygraphy](#).



Meta-Stability and the Diagonal Method

An Interview with Timotej Prosen

It is hardly an exaggeration to say that an interview with philosopher Timotej Prosen has been a long time coming—to skip over a standout face in the Ljubljana intellectual sphere would have been a regrettable oversight, especially when they are engaged in the same kind of abstractions as us. Furthermore, Prosen was always great at anticipating future shifts of the field, such as Justin Murphy going big, by virtue of true insight, acute *alpha*, rather than by having some insider information. Like what the Golden State Warriors head coach Steve Kerr said about the basketball magician Stephen Curry—“Don’t let Steph fool you, he’s not a humble guy”—Prosen’s responses are (at times) uncompromising provocations full of reasoned irreverence, a breath of fresh air on the philosophical court. Because of his prudent boldness in diagonalizing seemingly discordant lines of thought, he is a true agent of reason.

ŠUM: We have always been committed to introducing new faces to Ljubljana's theoretical scene and shifting its philosophical landscape. After the 'accelerationist turn' and the Nick Land interview,⁰¹ R. Scott Bakker was the new object of fascination and critique as well as the convergent point for our ongoing relationship. In what way has Bakker influenced your thinking and what has been your takeaway from his appeal to post-intentional philosophy?⁰² How has he changed the way you think about philosophy and how do you see his role in retrospect?

Timotej Prosen: Certainly, Bakker's views were a breath of fresh air for my intellectual environment. I was very taken with his appeal to post-intentional philosophy and perhaps most impressed by his observation of a broad shift taking place regarding the very conditions of philosophy, that is to say, a change in how we think of ourselves and our place in the world.⁰³ This shift may be appreciated on two levels.

On a more readily apparent level, Bakker is describing the ever-growing discrepancy between (for lack of a better term) traditional philosophy and humanities on one side, and modern techno-scientific research on the other. The long-standing tensions between these two modes of thought are, of course, apparent to many. What is interesting about Bakker's account is his uncompromising insistence on the full extent of this conflict. The problem is not that modern science disagrees with how we traditionally conceive of the structure of subjective experience, the extent of man's autonomy, or the degree of man's normative value. It is that its methodologies undermine the basis on which such issues were conceived of and discussed, and therefore seems to empty out the very meaning and significance of the categories of humanist thought. One can certainly observe this lack of common ground reflected in the prevalent mutual disregard or outright hostility between the two disciplines, and also in the occasional attempt at a dialogue or synthesis, which, I feel, often makes the chasm that much more apparent instead. In any case, Bakker's concern is not limited to the breakdowns in communication between the two academic disciplines.

This leads me to the second level of Bakker's framing of the problem, which is also what I find most fascinating in his work, namely how he uncovers this epistemological issue at the heart of a general civilizational predicament. The main thing to note here is that notions such as selfhood, intentional meaning or personal freedom are not just conceptual tools of analysis, confined to academic debates. They

01 BAUER, Marko & TOMAŽIN, Andrej, "Edino, kar bi uvedel, je fragmentacija: intervju z Nickom Landom", in: *ŠUM*, 7, 2017, pp. 801–821, <http://sumrevija.si/issues/sum-7/>.

02 KRAŠOVEC, Primož & BAUER, Marko, "Scarlett Johansson Leaps to Your Lips: An Interview with R. Scott Bakker", in: *ŠUM*, 9, 2018, pp. 1073–1100, <http://sumrevija.si/en/issues/sum-9/>.

03 BAKKER, R. Scott, "Back to Square One: Toward a Post-Intentional Future", in: *Scientia Salon*, 2014.

reflect a mode of behaviour, a way of interpreting and responding to the world, and more specifically, they reflect particular problems that they have evolved to handle. As practical heuristics, they are tied to specific psychological and social domains that they enable us to manoeuvre. As such, these notions are not in any direct opposition to scientific concepts, yet the latter do undermine our traditional self-conception, in some sense more devastatingly than by way of simple rebuttal. Instead of going toe to toe with the traditional bodies of knowledge, modern techno-science quite literally undermines the ground beneath their feet by reshaping the cognitive environments that used to support them. It bypasses the established categories of thought by either opening the access to traditional black boxes, such as the neural underpinnings of cognition, or transversing orders of magnitude and closing the distances which used to bound and stabilize different domains of our cognitive environment, such as the way in which informational technologies operate on us simultaneously on the level of sub-personal unconscious neural processes, on the level of individual psychological traits, and on the level of large scale social trajectories and statistical regularities. Our conception of ourselves as autonomous and bounded agents in such a context is not only misplaced, but leads one ever further down what Bakker calls a *crash space*.⁰⁴ Blinded to the new features and informational depth of our world, we behave as any organism that finds itself maladapted to its environment; our actions and their consequences become wildly unpredictable, leading our cognitive structures to stumble and ultimately crash. The mere experience of profound disorientation in this context, which we are likely all too familiar with, should therefore prompt us to reconsider what we think we know about ourselves and our place in the world. But the final nail in the coffin of humanist thought for Bakker comes not from its disruptive incompatibility with techno-science, but from a fundamental asymmetry between the two. The latter is in some sense informationally richer and allows for a finer-grained description of the world. Especially fascinating in this regard are the scientific tools that enable us to study and engineer our cognition and behaviour even though, or perhaps precisely because, no reference is made to the notions of intentional meaning or selfhood as such. The ultimate subversion of our previous modes of self-apprehension is that we are more adequately conceived of within a framework where we can no longer recognize ourselves.

So that would be a brief sketch of Bakker's ideas which I found appealing. His perspective resonated with me on both aforementioned levels, that is, from the vantage point of my own attempts to

⁰⁴ BAKKER, Scott R., "On the Death of Meaning", in: RUDRUM, David (ed.), *New Directions in Philosophy and Literature*, Edinburgh: Edinburgh University Press, 2019.

manoeuvre the fragmented space of academic research, and from the level of my general experience of contemporary culture and its discontents. I often still find it useful, or at least soothing, to interpret the eccentricities of my academic environment along his lines, as a kind of blown-up version of an organism that finds itself severely maladapted to its environment, helplessly entangling itself ever deeper into the crash space. In all seriousness, however, I have begun to notice some issues with Bakker's approach. The basic problem I see here lies in the sharpness, or at least the specific framing of his dichotomies, both in terms of the distinction between traditional philosophy and science, as in terms of the dichotomy between selfhood and intentional meaning on the one side and post-intentional agency on the other.

One way to flesh out this challenge would be to ponder whether man has ever really been ensnared in the notions of self-transparent consciousness or a stable and rigidly bounded selfhood, or at least whether we can really equate this self-conception with the entirety of his "pre-scientific" mode of thought. A closely related question is whether intentional meaning ever has been the ultimate horizon of our thought, or whether this notion may be taken as a specifically modern (mis)understanding of cognition. The notion of intentional meaning is explicitly introduced by both phenomenology and analytic philosophy as an attempt of grounding our cognitive faculties in some pre-established structure of subjectivity or in a pre-defined scientific method. In both cases, meaning is evoked as a kind of crystallization of essential and fixed characteristics of thought. I think an important lesson to be had from the aporias and subsequent development of both philosophical currents is that neither scientific categories nor cognitive agents can be circumscribed in terms of meaning lest their very rationality slip through our fingers. This realization has some bearing on Bakker's conception of the crash space as well. Only for a structurally predetermined agent, adapted rigidly to some specific environment, is an encounter with a phenomenon alien to its *Umwelt* fundamentally disruptive. I do not deny that such breakdowns occur, however the point is that our responses to them should be thought of as intelligent precisely to the degree that they are able to overcome them. In this regard, cognition as such may be thought of most generally as *plasticity* of a cognitive agent, that is, its ability to reconfigure itself in the face of perturbations and to incorporate new environmental structures. That being said, I am tempted to characterize thought as post-intentional by definition. Cognition proper has always been antithetical to "meaning" in the sense that it involves the disruption and transcendence of any stable semantic structure. So, to my mind, if science does away with meaning, this does not imply some apocalyptic end of ourselves as we

have always thought ourselves to be. Instead, it implies a deep congeniality between techno-scientific reason and human experience.

These are some of the reasons I have come to distrust Bakker's Sellarsian manner of drawing sharp distinctions between science and human experience.⁶⁵ Along similar lines, I have grown dissatisfied with Sellars' notions of the manifest and scientific image. I will not go into much discussion on this just yet, as I suspect we will circle back to it. Let me just add that I believe such dichotomies obscure the interrelatedness of the two poles. They do not do justice neither to our own plasticity nor to the open-endedness of scientific research, and so their stark opposition obscures the way we integrate with our cognitive environments and ultimately fails to account for how we ever got from the supposed confines of human experience to the scientific truths and procedures that transcend it.

That being said, I do not mean to deny that what we have been discussing has significant purport or that Bakker brings something new to the table. I still share Bakker's inkling that we are living through an important historical threshold and I agree that techno-scientific thought implies a profound reorientation of how we think of ourselves and our place in the world. The only thing I am sceptical of is that the process which fascinates Bakker really comes to its own through the lens of his philosophical framework. What we are seeing is not a simple convergence of scientific theory on the kind of beings that we really are and always have been. Instead, we are beginning to realize that we cannot probe into our minds without causing some change in their structure. In a sense, this is a genuine discovery about our nature, which is to say that we have to account for indeterminateness, or rather plasticity, as a positive feature of the kind of beings that we are. This is not to concede that human agency is irreducible to the order of natural phenomena, in fact just the opposite, it follows from the realization that scientific observation itself is a kind of physical interaction and so that all self-apprehension is necessarily self-modification. This is why a scientific conception of ourselves does not pin our nature down to some specific description, but achieves the opposite result, that is, it produces an explosion of various new types of agency and mental content. In this regard, techno-scientific thought is continuous with human agency, although vastly expanding the scope of its plasticity. Moreover, it might be thought of not only as an intensification, but also as a qualitative shift in the way our cognitive processes unfold. To put it very briefly, I believe modern science may be raising our plastic capabilities to some sort of second-order level, where what is permutable are not just our capacities to solve certain tasks, but

⁶⁵ Bakker, R. Scott, "Exploding the Manifest and Scientific Images of Man", in: *Three Pound Brain*, 2018, <https://rsbakkerwordpress.com/2018/04/02/exploding-the-manifest-and-scientific-images-of-man/>.

even the most biologically determined norms that frame such cognitive problems. In this regard, we might be approaching a mode of thought that is not only post-intentional, but also far removed from anything we would recognize as human. I find the consequences of this development both fascinating and concerning in much the same way and for similar reasons as Bakker's interest in the post-intentional future. So I definitely believe that Bakker is onto something, but I think that a different philosophical framework is needed if we are to get a better glimpse of what he is getting at.

ŠUM: Reza Negarestani recently mentioned⁰⁶ how he's also become dissatisfied with the Sellarsian distinction (and approach to the problem) that you've mentioned. It seems to us that another Manichaean distinction between the positive and negative feedback loop—propagated most notably by Nick Land—stumbles upon a similar problem. If we take your comment that “intelligence as a capacity for self-regulation is closer to the diagonal method than intelligence conceived as growth or a positive feedback loop”,⁰⁷ in what way do you think that this notion of intelligence (optimisation) follows a different path than a full-on embrace of deterritorialization?

Timotej Prosen: Yes, I fully agree that we stumble upon a closely related issue here with Land. In fact, he invokes the distinction between the two types of feedback loops to draw just the kind of clear-cut demarcation that I have been criticizing, one which opposes the domain of what is properly human to some fundamentally alien realm beyond our grasp. However, I would like to point out that Land's reasons for making this demarcation are unique and based on an entirely different vantage point, one which I have grown ever more appreciative of and which could certainly add a level of depth to our discussion.

Firstly, I should note that one may depart from the Sellarsian dichotomy of the manifest and scientific image in more than one way. Up to now, I have been stressing the aspect of *plasticity*, the fact that images are inherently in motion, which continuously propels us from one to another through the process of discovery and conceptual innovation. Now, the other shift in perspective I propose is that we abandon the very *notion of image* in this context. Neither of the two modes of thought should be presumed to reflect some independently existing external domain. At the most fundamental level, cognition does not seek to represent reality as independent from it, but instead endeavours to formulate *principles of interaction and mastery* over it, which

06 NEGARESTANI, Reza, "Humanism & Its Discontents", YouTube, <https://www.youtube.com/watch?v=djbORhEc5Fw&t=20s>.

07 Private correspondence between Timotej Prosen and Enea Kavčič (June 2021).

ultimately amount to methods of its own *self-organization*. This is implied by the very prefix of the term *techno-science*, which serves to point out that modern science deals not with classification of natural phenomena, but investigates instead the operational laws which coordinate the variables pertaining to a system in question with the parameters of its possible interactions with either the human experimenter or his technological apparatuses. The manifest “image” is of course no less technical in this regard and provides perhaps even more apparent examples of its self-organizational basis. For instance, earlier I have touched upon the notions of selfhood and autonomy, which, at least in certain contexts, engender and orient our behaviour in such a way as to bring about those very features of our mental constitution which we might simply take as given.

In line with Land, I draw a great deal in this matter from the cybernetic movement. Their ideas, especially those of Wiener,⁰⁸ Ashby⁰⁹ and Varela,¹⁰ establish far-reaching parallels between the fundamental structures of cognition and the principles of self-organization. The basic impetus behind their work stems from the realization that if we are to conceive of cognition as a causal process on par with other physical phenomena, we must rethink both our understanding of causal processes and our conception of what cognitive processes ultimately are and do. Whence the notion of *feedback*, otherwise known as circular causality. The idea here is that certain structures might produce effects, which in turn act on the structure, causing it to produce more effects of its kind, and so on, in a kind of closed recursive loop. A particular feature of such processes is that they are either highly stable or unstable, depending on whether we are dealing with positive or negative feedback. A *positive feedback* loop amplifies its effects, which are amplified again upon re-entry, and so on, such as when we move a microphone too close to a speaker so that it picks up its own transmission, quickly transforming the faintest sound into a shriek at maximum volume. Or we might think more generally of any kind of explosive chain reaction. A *negative feedback* loop has the opposite effect, where the structure counteracts any deviation of its inputs so as to maintain its effects at some steady value, such as a thermostat that raises the temperature when it drops below a certain threshold and lets it fall when it exceeds that threshold. This latter kind of feedback was especially interesting to cyberneticians because it gives us a handle on the functions of living organisms, such as homeostasis, but also a more general feature of a kind of “dynamic

08 WIENER, Norbert, *Cybernetics, or Control and Communication in the Animal and the Machine*, New York: MIT Press, 1961.

09 ASHBY, Ross W., *Design for a Brain: The Origin of Adaptive Behaviour*, London: Chapman and Hall, 1960.

10 VARELA, Francisco J., “Steps to a Cybernetics of Autonomy”, in: TRAPPL, R. (ed.), *Power, Autonomy, Utopia*, Boston, MA: Springer, 1986.

stasis" that seems to emerge on many levels of biological phenomena where all the components of some structure are liable to change, but their network of interrelations seems to retain some steady organization. Another crucial feature of negative feedback loops is that they exhibit a sort of intelligent behaviour, even at the most rudimentary level. The way a thermostat maintains some desired temperature can be said to be goal-seeking, a feature even more strikingly exemplified by how Wiener's self-guided missiles pursue the enemy target.¹¹ On a more abstract level, we find that a negative feedback loop necessarily specifies some "preferred state" or attractor in phase-space, which it tends to occupy and, when perturbed or displaced in any way that does not break it down completely, always find its way back to. Rudimentary feedback processes have a limited number of rigid trajectories available for the pursuit of their preferred state, but others may be highly complex and even exhibit learning, such as Ashby's ultrastable homeostat, a general model of organismic intelligence, which is able to reshape its own trajectories of attaining stability in the face of new perturbations. Whatever the degree of plastic complexity, the basic outline of intelligent behaviour remains the same—it is drawn out by the topology of a closed self-maintaining loop where each cycle corrects for any deformations of its closure's very shape. So, we could conclude that intelligence necessarily takes itself as its most fundamental goal. The main point I want to get across here regarding the negative feedback loop is precisely this ingenious way in which cybernetics recursively interweaves the levels of the physical and epistemological around the notions of stability and self-organization so that stability may simultaneously be conceived of as a physical feature and as cognition's fundamental organizing principle, while the identity of a cognitive agent is construed as both the underlying goal and the operational achievement of its intelligence.

Although I am fascinated by this perspective of intelligent agency and its many consequences in contemporary cognitive science and robotics, I can also sympathize with Land's misgivings about it. He is thoroughly unwilling to accept that intelligence should be limited to orbiting a fixed axis of organismic identity and that it should remain subservient to the ultimate goal of preserving its vital structures. This is why he looks to positive feedback mechanisms, otherwise known as *runaway processes*, as a way to escape the shackles of any stable structure which might warp cognitive processes into forming a closed circle.¹² His idea of emancipation of thought is to enable it to diverge from its starting conditions and plunge into never-ending

11 WIENER, Norbert, *The Human Use of Human Beings: Cybernetics and Society*, London: Free Association Books, 1989, p. 25.

12 LAND, Nick, "Teleoplexy: Notes on Acceleration", in: *Logos*, 28, Russian Federation, 2018, pp. 21–30.

transformations. Land's move of aligning himself with the basic dynamics of capitalist production makes perfect sense in this regard, as does his closely related affinity for techno-scientific thought. Both Marx's formula for capital and the basic "logic of scientific discovery" describe processes which entail a peculiarly brutal disregard for the organization of their constituents and, more importantly, continuously transcend even their own respective organizational principles. Whether we are dealing with scientific statements, which explicitly invite all attempts at their falsification, or with an economy concerned primarily with optimizing the methods of its productive capacities, we can discern another kind of basic outline: these are the processes whose primary goal or tendency is to move beyond themselves.

Now, the first issue I take with Land is whether such processes are indeed best thought along the lines of a positive feedback loop. It seems to me that he has overlooked the basic reason why cyberneticians did not take central interest in the notion, namely the overwhelming tendency of such mechanisms to self-destruct. Concrete implementations of positive feedback loops cannot indefinitely continue to diverge from their initial conditions. They are either rigidly plateaued by the larger structure which engendered them, as with microphone feedback, or they cause a breakdown in the structure, at which point they eliminate themselves, as is the case with explosions. To be clear, I am actually not pointing this out as a kind of *reductio ad absurdum* of Land's point of view. In fact, it certainly does not seem excluded that techno-capitalism as we know it today is not only unsustainable, but undermines the very conditions of its continued transformations, although this is certainly not the conclusion that Land is attempting to make by invoking the positive feedback mechanism. In any case, I do not have any worked out convictions on this matter. What we are talking about is of course an enormously complex issue, and it might be impossible to tell at this stage. It is a problem that we are most likely going to live through concretely in the coming future.

My second issue with Land is more basic and has to do with his Manichaeic contradistinction between the two principles, as if the relation between them was that of a kind of deathmatch between fundamentally different types of agents. Again, there is a grain of truth to this. It saddens me to see all the signs pointing in this direction, namely that our civilizational conflicts in the near future are going to be predominantly organized precisely along this axis, dividing the desperate bids for identity-based stability from the policies of surrender to the self-undermining tendencies of techno-capitalism. Still, I am convinced that we may find better ways of framing the issue lying dormant. My initial reason for the dissatisfaction with the dichotomy of stability and runaway processes was coming from my

own oscillating affinity for the two principles, always accompanied by a visceral reluctance to fully align myself with either, a sense that the single-dimensional opposition between the two unduly restricts the kind of agency which I am interested in. This intuition is, I think, partly substantiated by the cybernetic approach, which enables us to treat such incompatible dichotomies as component variables of a higher-dimensional system whose full functioning or even its capacity to oscillate between its partial aspects cannot be explained by or attributed to any single dimension of its phase-space. I believe this perspective is needed to get a grasp not only on our interface with other kinds of agents and processes, but also on the basic outlines of human agency as such, which does not seem to me to be necessarily centred on biological or indeed any kind of predetermined point of identity. It may become entrenched in various sorts of personal or group identities, and in relation to those it may display all the regulatory behaviours and intelligence traits of a closed negative feedback loop. But what is particularly striking, although, of course, not necessarily unique, about human agency is that it may also break out of its structural closure, readjust the centre of its orbit, or even become aligned with processes utterly tangential to it, become invested in, or rather, possessed by, inhuman entities which may in turn be quite indifferent to its internal organization.

This leads me to suspect that the notions of feedback do not suffice and that we may need to look for another kind of basic outline of cognitive agency. What we stumble upon here is not reducible either to the geometry of a closed circle nor to one of linear divergence. The cognitive architecture I am interested in must be drawn out in a higher dimensional space to explain how such agency might appear from a certain perspective to be self-affirming, while from another point of view, all we see are open-ended transformations, and to come to terms with the paradoxical congeniality of self-organization and self-transcendence. In this respect I believe I am actually perfectly in line with Land's diagonal method—my point being precisely that we must not take the two cybernetic notions as orthogonal, but try to cut diagonally across the false dichotomy.

ŠUM: Land has a beautiful passage in the late 90s Wired UK interview¹³ where he states that “organization is suppression”. In response to what you’ve just said, we would like to know more about the diagonal method and the false dichotomy that you’ve highlighted. First, does this also relate to the potentially problematic reasons/causes distinction that neorationalist philosophers have taken for their own? And second, do

13 LAND, Nick, “Organisation is suppression, Wired UK interview”, in: *Isegoria*, 1997, <https://www.isegoria.net/2018/08/organisation-is-suppression/>.

you think Gilbert Simondon's work carries the capacity to still shed some light on the topic? Will he in the end really be regarded as the ultimate accelerationist philosopher, as we speculated (and joked) when we came full circle in a previous private conversation?

Timotej Prosen: Apropos Land's notion of diagonalization, he takes it to be a kind of general method for breaking out of established dichotomies by way of affirming a paradoxical cross section of some dichotomy pair. Land points out a good example of such conceptual innovation in Kant's notion of the synthetic a priori.¹⁴ Here we start with two opposition pairs—analytic/synthetic and a priori/a posteriori, which seem to run parallel and are taken to be homologous in nature; the very notion of analyticity is taken to imply the a priori, and the synthetic is in turn seen as automatically taking us into the realm of a posteriori. The next step is to dissociate the two pairs and to draw them out as orthogonal to each other, so that they constitute the dimensions of a plane. The final step is to cut diagonally across the plane by arguing for a paradoxical congruence between diagonal poles, in this case, for the possibility of statements which are both synthetic and a priori. A very similar schema may be applied to my problematization of Land's contradistinction between the two kinds of feedback loops. The crucial thing which I tried to argue for in the previous response is precisely that we are not dealing with a simple opposition between two kinds of systems or between incompatible principles of self-organization and self-transcendence. Instead, we are facing a more complex problem-space which can be charted on at least two axes. On the one hand, we are considering the discrepancy between systems which remain bound to some point of identity of their essential characteristics and are therefore static, and systems which diverge from their initial conditions and may be termed dynamic. On the other hand, we are interested in the contradistinction between the capacity of some systems to counteract disruptive perturbations, that is to say, self-organizing systems, and the kinds of processes which tend to break down as they unfold and may be termed self-annihilating. My point of interest here is precisely whether this framework may be traversed diagonally—whether we may conceive of such a thing as *dynamic self-organization*.

Of course, such a diagonal schema must be understood merely as a re-framing of the problem, not the solution itself. I suspect that a diagonal approach has to be worked out concretely in relation to the specific problem-space we are attempting to traverse; in any case, with regard to what we are discussing here, I have found Kant's position, as

14 LAND, Nick, "Note on Diagonal Method", in: *Zero Philosophy*, 11/12/2021, <https://zerophilosophy.substack.com/p/note-on-diagonal-method/>.

well as many approaches of other diagonally inclined philosophers, unsatisfactory. Whence my particular interest in Simondon, who has, to the best of my knowledge, addressed this very issue most explicitly and convincingly.

But before we delve deeper into that, let me first turn to the question regarding the reasons/causes distinction. I am certainly not of the opinion that all philosophical antagonisms should be treated diagonally, and we have finally stumbled upon a topic where my position is more straightforwardly one-sided. I take the causal level to be the more fundamental of the two, in the sense that any “space of reasons” should be understood as causality of a particular kind. However, I would not argue for this in any eliminative materialist vein akin to Bakker’s, where the reasons we consciously articulate are seen as nothing more than epiphenomenal “rationalizations” of an underlying causal process which is taken to be the sole driver of our behaviour. I do not deny that we, to use Brandom’s term, engage in games of giving and asking for reasons nor that such games are indispensable even to our causal apprehension of the world.¹⁵ But I disagree with Brandom that our capacity for rule-governed exchange of reasons should be taken as a complete picture of what cognition is. My insistence on the physical nature of cognition stems from the conviction that games of giving and asking for reasons are only a partial aspect of any intelligent behaviour. A more complete view of cognition would recognize such games as specific phases of a process of producing particular physical effects—of either exerting control over the environment or plastically adapting to it. This point of view is needed to account for why the “rules of the game” of giving and asking for reasons may be very different for agents of various cognitive architectures. An agent primarily concerned with maintaining its structural integrity exhibits clear limitations on the degree to which it is able to reasonably update its beliefs, particularly those which pertain to its own nature and place within the world. Moreover, as Friston points out under the heading of *active inference*, it may be considered quite rational for such agents to refuse to update their convictions in light of new evidence and attempt instead to practically ensure that the empirical data conform to their theories about the world.¹⁶ All this may be sharply contrasted to deep structural plasticity and a certain unstable or chaotic nature of the kinds of agents whose rules of rational conduct are exposed to constant permutations. In my opinion, there can be no rationally communicative exchange of information between such fundamentally differing cognitive agents, although one may, from a certain standpoint, recognise both as specific instantiations of intelligence.

15 BRANDOM, Robert B., *Making it Explicit*, London: Harvard University Press, 1994.

16 FRISTON, Karl J., “Life as We Know It”, in: *Journal of The Royal Society Interface*, 10, 86, 2013.

These are some of the motivations for my inclination towards some sort of physicalism or naturalism, one that does not disregard or subtract anything from our discursive practices of giving and asking for reasons, but instead adds something to our perspective, namely a way to appreciate the varieties of their organization. Ultimately, I am looking for the kind of naturalist framework that would enable us to pass between and beyond them.

This is where Simondon¹⁷ enters the picture for me. His understanding of the elementary nature of cognition, which he terms transduction, is pointed precisely in this direction—namely that cognitive procedures stem from some particularly embodied cognitive architecture, while the recursive operation of thought is able to modify its physical instantiation and move the cognitive agent along all sorts of different trajectories.

His notion of transduction is on some level of course a play on the classical terminological dichotomy of induction and deduction. Cognition, for him, cannot proceed by pure deduction, as if it operated simply by externally manifesting some internally given set of principles and procedures. Neither can it be purely inductive, allowing itself to be completely overwritten by the patterns of the external world. Instead, thought is conceived to be the interface between interiority and exteriority, a simultaneous two-way passage from one to the other. It involves internal standards or “categories” in reference to which the external reality is classified and controlled, but also the process of reshaping its internal structures as they come in contact with the external domain.

The epistemological aspect of transduction is, just as with cybernetics’ notions, accompanied by an ontogenetic aspect. On this level, transduction denotes the process by which a specifically embodied agent functions by recursively operating on its own structure. Any such agent can be said to possess a “structural germ”, or a kind of blueprint of itself, in reference to which it may continually propagate its structure and which defines its structural interiority, as well as its distinctive procedures of interaction with the external environment. A structural germ is thus externally expressed in processes through which the agent attempts to subdue the environment to its organization; however, this peculiar interaction may also work in the opposite direction, with exteriority affecting the agent’s structural germ and steering the trajectory of its permutations.

This general characterization of transduction already contains some implications for Simondon’s solution to our diagonal problem—his theory of *dynamic self-organization*. But we may unpack those

17 SIMONDON, Gilbert, *Individuation in Light of Notions of Form and Information*, London: University of Minnesota Press, 2020.

implications a little bit further by sketching out the three major modes of transduction where we encounter something very close to the now familiar geometry of the closed circle and linear divergence, as well as something entirely new.

Simondon finds the most rudimentary form of transduction already at work in inorganic nature, for example in the processes of crystallization. It is in fact from the domain of chemistry that he adopts the notion of a structural germ, as it was introduced to account for the initial phase of crystallization of solids. The notion in this context is based on the insight that a given chemical solution might allow for a variety of different kinds of molecular crystalline forms, but once any one of those possible forms emerges, it will determine the molecular build-up of the entire subsequent process of crystallization. A proto-crystalline form of this kind may be said to “germinate” the entire solid structure, as it proliferates in a given chemical solution to the exclusion of all the other possible forms of its molecular build-up. Such a process has the shape of outward expansion, with the initial structural germ in the centre, which transduces its structure to a surrounding outer layer, the latter engendering another layer further out and so on. It is interesting to point out that we encounter here another kind of process which pushes outward and away from its initial conditions, whose overarching tendency is to expand its periphery in a linear fashion ever further out from its structural centre, and is in that respect not unlike an explosive chain reaction. All such processes share the propensity to amplify their transductive effects, but always in a one-directional linear fashion, thus exhibiting not only accelerative dynamism but also a certain rigidity, most readily apparent in crystalline solids.

Another wholly different kind of transduction may be encountered in the domain of living organisms, where we usually find a relatively stable periphery in the form of a protective membrane, which encapsulates the encoding for its structural characteristics in some equally relatively unchanging form, such as the genetic material. Here, the peripheral membrane and the internal core enter into a circular, mutually stabilizing relationship—the membrane allows for the unperturbed functioning of its internal structures, while the internal metabolic processes continually regenerate that membrane. In this instance, the structural germ does not propagate its transductive capacities indefinitely outwards (except in specific pathological cases, such as cancer). Instead, the organism always remains bound to the same central structural germ. Transduction on this level therefore denotes the processual emergence of what may seem as a fundamentally static agent, where all dynamics are organized to maintain some

fixed point of identity. The fundamental impetus of living beings might thus be said to prevent change in their organization.

This conclusion, however, holds true just for a very limited aspect of organic life, according to Simondon. To see why, we may only need to look a bit closer at the circular structure of a protective membrane and regenerating structural germ. Such processes may exhibit stability, but they also contain the potential for a particularly thoroughgoing plastic transformation, which is lacking in processes of linear amplification. Since organisms remain bound to a central locus of transduction, its organizing capacities simultaneously operate on the entire structure, and not just from one peripheral stage to the next. If the structural germ were to significantly change, such as it might initially through random genetic mutations, what we get is an entirely new kind of organism, with both a different internal structure and new methods of self-organization. So, we may observe a peculiar dynamics of self-organization already on the level of the evolution of various phenotypes, although this is only one instance of such a process and one that is particularly slow and wasteful so that its dynamic aspect only becomes discernible over vast periods of time. However, for some organisms it might become beneficial to be able to modify their structural germ even throughout the course of their lifetime. This can be observed already on the genetic level, but Simondon points to other possible instances as well. On the level of multicellular organisms, the function of a structural germ is partly realized by the nervous system, which displays a great amount of plasticity. Without going into too much detail, let me conclude that Simondon observes on all these levels a peculiar outline of dynamic self-organization, where a system is organized around some parameter, with the parameter being liable both to outside influence and to the operations of that system itself.

These characteristics are encapsulated on the most abstract level by Simondon's conception of *metastability*, which he adopts from the field of dynamical systems theory. Already in this context, it forms an alternative to more rudimentary notions of stability or instability, as it denotes systems with multiple attractors, or structures, which might in different circumstances converge on different points of stability. Simondon further stresses the possibility that the system might operate on itself so as to continually modify the structures which define the parameters of its attractors. In this regard, he clearly opposes both the conception of cognition as a positive and as a negative feed-back loop. Intelligent processes neither blindly diverge from their initial conditions nor do they seek trajectories to a predetermined attractor, but simultaneously coordinate both the methods and parameters of their organization.

I believe such Simondonian insights get us very close to a diagonal transversal stated above and a satisfactory conception of intelligence as dynamic self-organization. And they might also substantiate the joking remark of Simondon being the ultimate accelerationist philosopher, that is to say, a thinker concerned primarily with processes which not only continually evolve but also actively organize the conditions of their continued transformations.

ŠUM: In a conversation on Metelkova [the only remaining squat in Ljubljana], you said that for you a better conception of the body without organs is simply the extended mind (thesis or theory). Would you be able to elaborate on that—we have a sense that this kind of equivocation could potentially rub our fellow Deleuzians the wrong way—and potentially also touch upon your recent paper on the topic. How does the extended mind theory enter into the picture you sketched in your previous answers and what do you believe is its most fundamental part?

Timotej Prosen: Well, let me first point out that the interrelatedness of the body without organs and the extended mind can only be appreciated from a specific understanding of both, and I admit that my attempt to bring the two notions in line is not without some tensions. The extent to which such tensions are unacceptable from a properly Deleuzian standpoint is also the extent to which I depart from his position. However, I still see the confrontation between the two frameworks as highly productive for two reasons. On the one hand, the body without organs may be invoked to indicate the specific conception of the extended mind which I find most pertinent—it was, in fact, recent developments in the field of extended mind research which caused a turn ever closer to some of Deleuze's ideas, and I, for one, certainly hope that this direction of research is to be pursued further. The other reason is that such a framework of extended mind comes equipped with notions that may help us approach the problematic of the body without organs from a new angle and perhaps take steps beyond the Deleuzian horizon.

Let me start with the latter point. Deleuze and Guattari define the body without organs as the domain of systems lacking all organization, or the limit which is approached by the process of deterritorialization. It is a domain of decoded flows, that is, of processes which do not follow any closed channel of organized interaction and therefore act non-sequentially, simultaneously affecting the entire system. The body without organs is a system stripped of all organization, a body emptied out of organs, that is to say, of any parts which might steer the flows of internal processes in any specific direction, instead allowing for a

simultaneous proliferation of its currents across the entire domain and in all directions at once.¹⁸

As such, the body without organs seems to belong to an order entirely different to that of any kind of organized agency. In fact, Deleuze and Guattari note that that excessive proximity to a body without organs always threatens us with violent “dismemberment” and death.¹⁹ However, the authors also observe that some agents or machines may enter into a constitutive relationship with it. Human social formations, for instance, may be organized against the backdrop of the body without organs, be they stabilizing or expansive and dynamic, structured either around territorial regulation, despotic control or the movement of capital. In each case, the body without organs functions as a threshold of disorganization through which human beings themselves are compelled to pass, as it constitutes the horizon for the process of re-composition of their “dismembered” productive and regulatory capacities, along with their various artefacts and infrastructures, into the newly emerging social bodies.

So, there is a destructive as well as a constructive dimension to the body without organs. Moreover, it may be viewed either as a foreign body, absolutely alien and detrimental to any kind of organized agency, or we can conceive of it as a phase internal to some processes of organization, that is to say, as a plane of immanence allowing for continuous assembly and disassembly of its constituents. Of course, I am disposed towards the latter view, but for that, we need to account for the intersection of organisms and bodies without organs; we need to get a handle on just how some organized structure might enter a phase of the dissolution of its internal structures only to emerge anew by recomposing the circuitry of its organization. This is where I would look to the extended mind theory. To be sure, Simondon's notions of metastability and the transindividual already go a long way in dealing with this problem. The theory of extended mind does, however, develop the aforementioned Simondonian insights significantly. Two such findings are especially pertinent for us here, having to do with the dynamics of the interchanging phases of organization and disorganization, and with the way their pulsating movement may carve out entire planes of consistency, entangling us with all sorts of social and technological assemblages.

The core idea behind the notion of the extended mind is that our minds extend beyond the confines of our brains or beyond the bodies of individual persons. But what exactly does this imply? The first thing I should note with regard to the field of the extended mind

18 DELEUZE, Gilles & GUATTARI, Félix, *Anti-Oedipus: Capitalism and Schizophrenia*, Minneapolis: University of Minnesota Press, 1983.

19 DELEUZE, Gilles & GUATTARI, Félix, *A Thousand Plateaus*, London: Bloomsbury Academic, 1988.

research is that it comprises different approaches, most of which are in my opinion led astray by the very notion of *mind* and the dualist and representationalist legacy that it carries with it. The idea here is to identify some internal representations or *engrams* and then to show how representations external to the nervous system, called *exograms*, may play similar or homologous roles in cognition.²⁰ Admittedly, one can point to a staggering number of such exograms, ranging from natural language to the most advanced information processing technologies, but even all this does not do justice to the full scope of our extended minds. The research which I am more interested in proceeds from a very different conception of mind, defined as a body's capacity to act on its environment and react to perturbations from it, that is to say, a body's capacity for self-organization. If we start from these pre-suppositions, the mind by definition cannot overstep the boundaries of its embodiment, because at its most fundamental, the mind *is* nothing but the recursive loop which encircles and consequently defines the very physical outlines of some agent. However, as soon as the process which defines the boundaries of some physical system can be said to be intelligent, such boundaries begin to exhibit plasticity. To speak of extended mind in this regard is to speak of the process by which some bodies expand and reshape their boundaries.

There are two distinct directions that such a boundary-expanding process might take, and they correspond to the two theoretical frameworks currently dealing with these kinds of processes. On the one hand we have enactivist cognitive science²¹ which deals with the kinds of self-organizing systems that maintain some of their characteristics throughout their development. Such systems are said to have a two-partite structure;²² one essential aspect which remains unchanged and another, transitory aspect which might be said to undergo transformations precisely in order to keep the essential aspect in place. It is assumed that those characteristics which stay in place are somehow essential to the agent's physical structure, while those which are set to be transitory are its sensory-motor capacities of interaction with the environment. The sensory-motor patterns are left undisturbed as long as they are sufficient to maintain the essential structures of some agent, but compelled to change as soon as the essential features go out of bounds, and set to continuously undergo transformations for as long

20 SUTTON, John, "Exograms and Interdisciplinarity: History, the Extended, and the Civilising Process", in: MENARY, Richard (ed.), *The Extended Mind*, New York: The MIT Press, 2010, pp. 189–225.

21 DE JAEGER, Hanne & FUCHS, Thomas, "Participatory sense-making: An enactive approach to intersubjectivity", in: *Phenomenology and the Cognitive Sciences*, 6, 4, 2007, pp. 485–507; DI PAOLO, Ezequiel, "Extended Life", in: *Topoi*, 28, 1, 2008, pp. 9–21; VARELA, Francisco J., "Organism: A Meshwork of Selfless Selves", in: TAUBER, Alfred I. (ed.), *Organism and the Origins of Self*, Boston Studies in the Philosophy of Science, 129, Dordrecht: Springer, 1991.

22 DI PAOLO, Ezequiel, "Organismically-inspired robotics: Homeostatic adaptation and natural teleology beyond the closed sensorimotor loop", in: MURASE, Kazuyuki & ASAKURA, Toshiyuki (eds.), *Dynamical Systems Approach to Embodiment and Sociality*, Adelaide: Advanced Knowledge International, 2003.

as they do not achieve some new sensory-motor pattern of counteracting the perturbation of essential structures. Such a two-partite cognitive architecture accounts for a wide range of learning phenomena, as well as our ability to utilize various sensory and motor prostheses. In fact, by recourse to these basic enactivist principles, our ever greater reliance on technological augmentations of our sensory and motor capacities may be said to constitute a particular kind of learning, one which follows naturally from agents with a certain degree of structural plasticity.

This idea is substantiated by Leroi-Gourhan,²³ another important precursor to the notions of the extended mind. He finds that the evolution of hominid cerebral structures runs in close connection with the appearance of bipedalism and a corresponding distinct loss of specialized morphology of the limbs. Through this process, the hand becomes “specialized for universality”, which is to say that it loses all traits which would give it an edge for specific tasks, such as piercing, slashing or digging, and becomes adapted mainly for the gripping and handling of various tools that replace the bodily appendages in performing specific tasks. What particularly strikes Leroi-Gourhan is not so much the increase in general scope of human intelligence, but the specific nature of this generality, which has to do with the expansion of self-organizing capacities to include extrabodily appendages. His conclusion is that through the process of hominid evolution, the central concerns of human intelligence have become the ability to temporarily incorporate various technical assemblages, the capacity to smoothly transition between them and the incentive to recursively operate from one domain of technical appendages to the next, such as with the creation of tools designed for the manufacture of other tools. The latter trait is especially interesting to Leroi-Gourhan; he sees it as setting our species down a peculiarly thoroughgoing path of gradual externalization of bodily organization, starting with the most peripheral appendages, which replace the functionality of bodily parts such as claws or teeth, and later moving further into the bodily organization, with the force and coordination of human movement being partially redelegated from human muscle to other animals and later to machines. This process culminates in our time with the advent of information technologies, which externalize to an ever-greater extent even our “mental” capacities for storage and processing of information. There is one final step left to take according to Leroi-Gourhan, which would bring this process to its ultimate conclusion by externalizing the last internally embodied aspect of human organization. This would be achieved by producing an externalized equivalent of human affectivity, understood as the ultimate source of action coordination and self-organization. This would

23 LEROI-GOURHAN, André, *Gesture and Speech*, London: The MIT Press, 1993.

amount to dislodging the very centre of human self-organization from internal biological structures to external artifacts.

Now, I would claim that an externalization of human affectivity has already taken place, although not as the final step in the ever-increasing expansion of our technical capabilities, but as a qualitatively different kind of mental extension, which accompanies each consecutive step of our technical evolution. My reasons for this claim should become somewhat obvious as soon as we clarify the notions of *affectivity* and *technicity* by recourse to the two-partite schema of our cognitive architecture. Our technical capacities can of course be placed on the side of permutable patterns of sensory-motor coordination. Our technical knowledge has the form of relegating specific motor responses to specific sensory stimulation and our technical equipment can be treated simply as another link in the circuitry of our motor effectors. Affectivity, on the other hand, fits neatly on the other side of the schema; it determines which characteristics are essential for some agent, and in recourse to those it provides the measure for success and failure of technical operations. This is in line with our everyday understanding of emotions; they are usually thought of as centred in the body, with their pleasurable and painful characteristic indicating either beneficial or detrimental somatic changes. But emotions also play a crucial role in sculpting our behavioural patterns, as those same aspects of pleasure and pain either motivate or inhibit the specific ways we interact with our environments. I think such a schematic definition suffices to show why affectivity should elude the progress of purely technical externalization. Affectivity eludes it because it necessarily remains fixed at its very centre. To speak of purely technical progress would thus imply an outward radial expansion of "means" which remain bound to some rigidly determined core which determines their "ends".

I believe, however, that we are hardly ever faced with simple technical progress in this sense of linear development steadily advancing from some fixed point of reference. Moreover, I think we find a significant degree of plasticity not only on the level of the periphery of our sensory-motor interface with the world, but also on the level of the affective core of our cognitive agency. In fact, the two dimensions of structural plasticity are closely related in my opinion, and consequently we find that the process of technical augmentation of our sensory-motor capacities is always accompanied by the emergence of what I would term *exo-affects*. The notion of an *exo-affect* can be worked out by recourse to the second of the two approaches of the extended mind research, which I mentioned earlier, namely, predictive processing and

the free energy principle.²⁴ Without going into too much detail let me just point out that the framework is compatible with the two-partite schema that I have been relying on so far, but allows for permutability and mutual influence between the level of sensory-motor patterns and the level of the affective parameters of behaviour. This framework therefore gives us an intuitive handle on the affective dimension of our behaviour, while at the same time overcoming some of the shortcomings of the “organism-centred” view of affectivity. I propose the notion of exoaffect in order to explain how the affective parameters which steer the behaviour of some agent are compelled to change in line with how the structural make-up of that agent is expanded or reshaped. The notion also accounts for the simple observation that constituents of our environment can act as external loci of affective significance, which often overpower the binds that tie our affective responses to the well-being of our biological bodies. Exoaffectivity should therefore be taken both as entirely distinct from and complementary to the externalization of perceptive and motor capacities. Whereas the latter have to do with the various methods of control and self-organization, externalized affects reshape the basic parameters of just what is being organized.

The two basic facets of extended mind thus involve both the process of organization and disorganization and the relation between them should render conceivable how even the latter process might be constitutive to some types of agency. The notion of extended mind may consequently also provide a deeper understanding of how complex socio-technological assemblages are formed. To circle back to Deleuze, we are now in a position to better grasp how territorial boundaries might become the most distinctive features of certain social groups, more vigorously maintained and defended than even the most vital internal organization of their constituents. Or we may better understand how the body of a sovereign can become invested with a certain sacred dimension, the affective effects of which are precisely such as to enable a single constituent to exert central control over the entire social body. These are the two examples where the socio-technical infrastructure and exoaffects couple in such a way as to achieve relative stability. Then there is also the case of capitalist societies fuelled by a peculiar dynamism between the two aspects, as the technical production of commodities begins to explicitly involve the engineering of corresponding exoaffects, always in such a way as to give rise to

24 CLARK, Andy, “How to Knit Your Own Markov Blanket: Resisting the Second Law with Metamorphic Minds”, in: METZINGER, Thomas & WIESE, Wanja (eds.), *Philosophy and Predictive Processing*, MIND Group, 2017; KIRCHHOFF, M. & KIVERSTEIN, J., *Extended Consciousness and Predictive Processing: A Third-wave View*, London: Routledge, 2019; RAMSTEAD, M. J. D., KIRCHHOFF, M. D., CONSTANT, A. et al., “Multiscale integration: beyond internalism and externalism”, in: *Synthese*, 198, 2019, pp. 41–70.

further cycles of production, the reciprocal feedback loop between the two thus always threatening to quite literally spiral out of control.

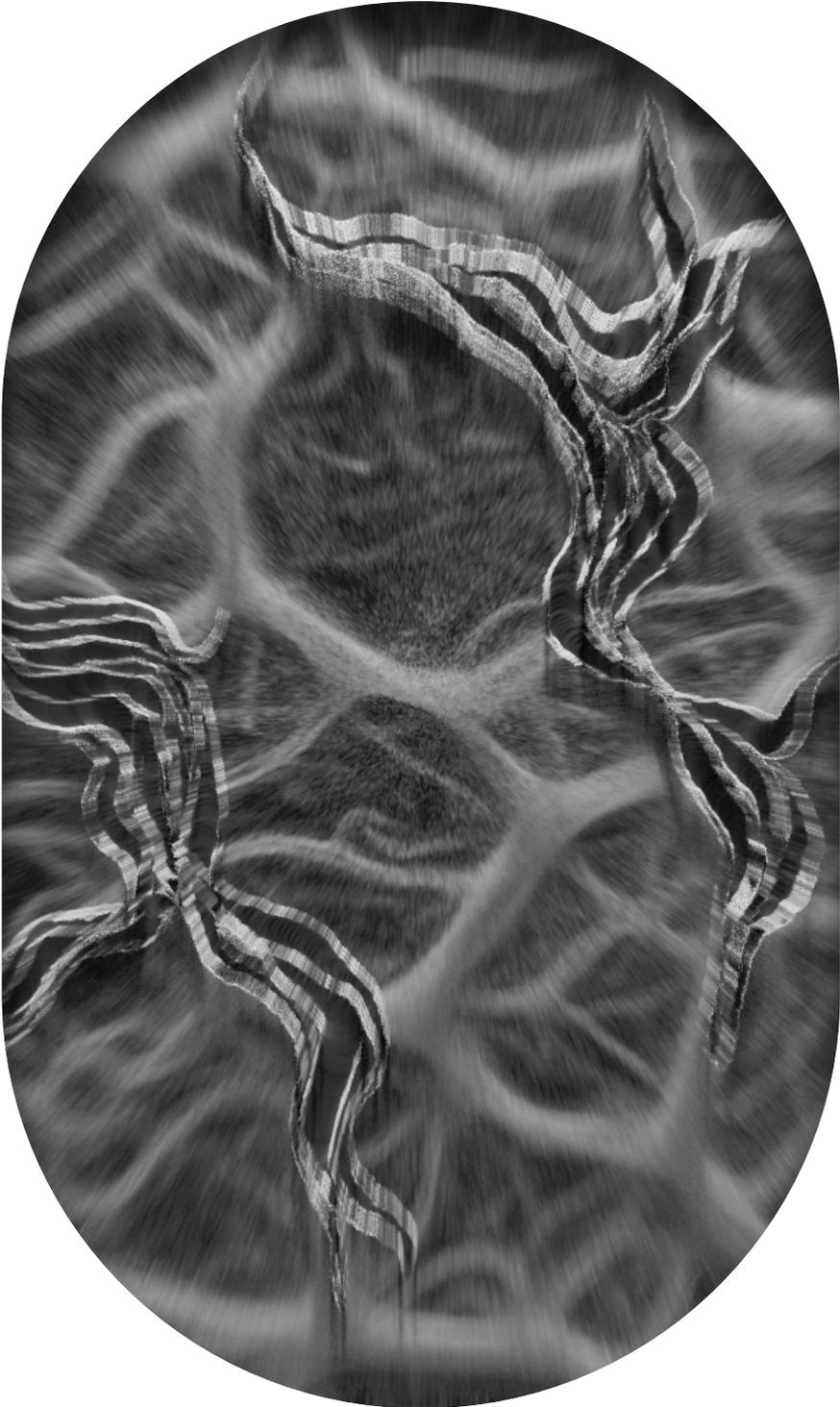
I have provided here of course only the faintest outlines of some situations which call for the mode of analysis provided by the notion of the extended mind. I believe there are many interesting implications of these views yet to be fleshed out, which is what I am currently preoccupied with. I am especially fascinated by the question whether contemporary cognitive science itself can be taken as a process which feeds back into the structure of our agency to produce a qualitative shift in our organization. In this respect, my interests are still very closely aligned with those of Bakker, as I briefly pointed out in my response to the first question, although they stem from different starting points, which have by now hopefully been adequately sketched out. My interest in cognitive science does not stem from the belief in its capacity to reveal an image of ourselves as we truly are; such an image will always be unattainable due to our structural plasticity. On the contrary, I am fascinated by cognitive science as the ultimate feat of this very plasticity. What seems to be happening is that we are on the verge of fully closing the circle between the technical and affective aspects of our agency. These two aspects have profoundly affected and constrained one another throughout the whole of human history, but now the newfound possibilities of observation and manipulation of our mental architecture bring the two realms ever closer to a complete short circuit. What happens when the calibration of affective parameters of some agent truly becomes a technical problem for that very agent? Does this lead to a cognitive crash-space or even a violent meltdown of any organized agency? Or does it lead to a cognitive architecture of not as yet conceivable dimensions? With regard to such questions, I am still very much in the dark, so instead of attempting to further elaborate on this matter, I will simply conclude with a quote by Deleuze and Guattari, which I think applies well here: “we haven’t seen anything yet”.²⁵

Timotej Prosen is a PhD candidate and a junior researcher at the Faculty of Philosophy at the University of Ljubljana. His main areas of research include process ontology, enactivist cognitive science, extended mind theory and affective neuroscience.

Maks Valenčič is an independent researcher and writer. He tweets at [@MaksValencic](#).

Tisa Troha is an architect. Her master’s thesis from the University of Ljubljana explores the inhuman agency of architecture’s technological germ-cell. She sometimes dabbles in design, art, and music, and tweets at [@xenonym](#).

25 DELEUZE, Gilles & GUATTARI, Félix, *Anti-Oedipus*, p. 240.



2310

Atlas of Experimental Politics

One cannot see everything from everywhere.

–Louis Althusser

*We used to be unable to accomplish the things we
imagined—now we are unable to imagine the things we
accomplish.*

–Gunther Anders

*To us power is, first of all, the ability to define phenomena,
and secondly the ability to make these phenomena act in
a desired manner.*

–Huey Newton

⁰¹ The Atlas is signed by the following members of the STP: Allan M. Hillani, Gabriel Tupinambá, J.-P. Caron, J. Millie, Maikel da Silveira, Rafael Pedroso, Rafael Saldanha, Reza Naderi, Renzo Barbe, Tiago Guidi, Yasha Shulkin and Yuan Yao.

Subset of Theoretical Practice

Attention all passengers

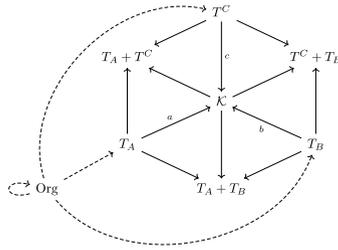
One should recall here the famous parable of the elephant and the blind men. Having never encountered this animal, these men could only learn about its form by touching it. Each one feels a different part of the beast and when they later exchange experiences, each describes a distinct creature.

The present essay is structured like this parable, with each section offering a partial—and sometimes conflicting—description of one and the same object, introduced in our second chapter. The linear ordering of the sections should therefore not deceive the reader: they are rather moving *around* something.

Our hope is that within each of these different accounts some common features might slowly become recognizable—a challenge that led us to use a system of cross references between sections: the reader will thus encounter in the text insertions of roman numerals (I to XVIII), which refer to other sections of the essay where one might find related ideas.

Now, we do not refer to this text as a “beast” for nothing: it really is quite a large animal. And so it was impossible to include it all in the print edition of the journal. Instead we offer here a slightly *reduced* version of the essay—and refer the reader to the ŠUM website (www.sum.si) for the full online content. Nevertheless, one can still get a sense of what parts of the animal are missing here through the clues we left in the text: cross references to absent sections, the extensive diagrammatic table of contents etc.

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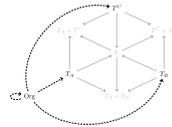
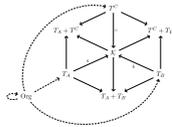


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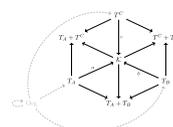
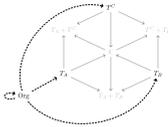


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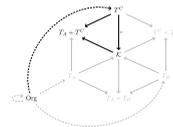
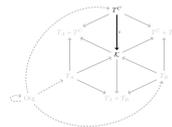
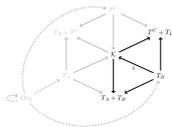
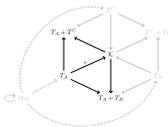


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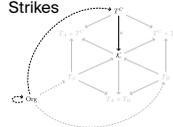
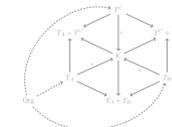
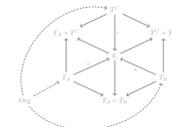
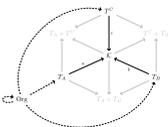


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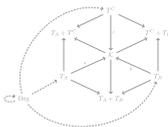
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I. Tools for Navigation

This contribution is the result of a research project that has progressed throughout the past two years, but was itself a culmination of years of collective work, brought together online in the context of the ongoing pandemic (XVIII). Our backgrounds, research interests and precise political experiences are quite heterogeneous, and yet we have come to orbit around a fuzzy set of philosophical commitments through the study of the work of Alain Badiou, Alexander Bogdanov and Kojin Karatani, amongst others. While they have led us to a set of conclusions that appear novel, we strive to demonstrate that this wasn't strictly the only path to them and that their internal consistency is coherent.

The text ought not to be read dogmatically, as a set of prescriptions to be followed, but spatially—by which we mean that our practical goal is to enlarge spaces of mutual intelligibility on the Left. This spatial theme also extends more broadly to a shift from critique to experimentation, from unearthing the conditions of possibility of what exists to the concern of exploring new possibilities, as the proposed perspective of regionalizing concepts within their appropriate contexts.

Our collective methodological commitments are broken into three ordered *zones* which build on one another. The first such zone is a triad of composition, intelligibility and interaction where all three ways of seeing a world can be thought at the same time in their mutual dependencies (IV). The next is a phenomenological perspective based on Alain Badiou's *Logics of Worlds* called "objective phenomenology", a big impetus for our group's interest in category theory. While mathematics is an important tool for structuring our thought, the present text brackets the particular details in favor of the intuitive core of the argument. With this spatialization of social worlds, we finally present how the previous commitments allow us to think experimentally rather than critically. This final point will prepare the reader for the broader structure of this collaborative work. We want to conceive of local social worlds as spaces that one can reason *within*.

Social Worlds

What do we mean by a social world? Intuitively, a social world is a place where people must learn to live together (XIV, XV, XVI). Living together implies, at least the possibility of, constructing a collective subject—the social world must have the expressive capacity to consistently *cover* both its material base and its subjective horizons. Politics itself is thus never context-free; our goal is to build universal political statements at particular social worlds.

Doing this requires conceiving of politics as its own form of thinking, distinct from and irreducible to science, aesthetics or love. By this we mean that the discipline of politics, which could also be named collective subject construction, should have the capacity to speak for itself on its own terms, even if it does so in infinitely many irreducible ways. This sets itself apart from either a science of history or an eruptive-evental theory of politics, both of which lack the expressiveness to diagnose and describe contemporary political situations.

Inspired partly by Rodrigo Nunes' conception of an *ecology* of organizations, we strive to think about heterogeneous forms of political organizations as living in a single space that can be reasoned within⁹²—but expanding on this idea we want to see problems of political economy as also living within this space; in other words, we want to regionalize the logic of political organization and political economy in a globally consistent way. Social worlds thus fit together in a multilayered structure; we exist within multiple of these social spaces at once whose logics interact at overlapping resolutions. The full structure includes everything from the communitarian logic governed by reciprocity (families, communes, small villages) to state logic which rules by the sword and contract and finally to economic structure where the flow of capital dominates (II).

To think politics in this multiscalar and constructive way necessitates that all social worlds be not only infinite in absolute size but inaccessibly so (VI). If a world is *inaccessibly infinite*, it means that no sequence of reasoning within that world can fully capture its full size and scope—consequently, the possibilities for subjectivity are never depleted. The consequence of thinking of social worlds as infinite spaces, including both the material support and the configuration space of possible social forms within the world, is that the reasoning about these social forms can be done within the logic of the world itself. This explains our insistence on calling them social *worlds*, since they have enough internal structure to speak for themselves—social worlds have an internal language capable of self-representation.

92 NUNES, Rodrigo, *Neither Vertical Nor Horizontal: A Theory of Political Organization*, Verso Books, 2021.

Politics, as its own form of thinking, comes about through the interaction of the space of collective organization, the social world representing “what can be done” in a sense, with the forms of community, state and capital. The conception of politics as an active struggle is thus preserved—it is not a static space of what is possible, but a dynamic push and pull between social worlds and their internal tensions that determine possible and necessary forms of resistance (IV, V).

In dealing with such large and complex social worlds, we need a theoretical strategy up to the task of both describing current capitalist social formations and investigating possible alternatives. In other words, we want the theoretical space we explore in this contribution to be infinitely richer than any particular social world; situating political problems within this theory ought to reformulate them in their own terms.

The Composition, Intelligibility, Interaction Triad

Stated simply, the goal of this collaborative research project is to investigate new ways of thinking about social forms that do not reduce to mere sums of the individuals that compose them (V). By this we mean that different forms of collective organization should condition what is politically intelligible in a given context, rather than begin from the assumption that what exists in political life is what is immediately intelligible to individuals. This approach requires a way of synthesizing political information “at the scene” such that local agents can learn about a social world as active participants in it.

Such a synthesis is achieved by passing through the triad *intelligibility, composition* and *interaction* simultaneously (IV). Different social worlds treat each of the three standpoints differently: communities can make intelligible possible forms of interpersonal association, capitalist production processes compose in ways that at least preserve the value of commodities, interaction with state apparatuses depends on the form of laws and their manner of enforcement. We propose that social forms should always be filtered through these three ways of thinking if we are to expand the space of organizational possibilities.

The first standpoint, *intelligibility*, is the analysis of what a world can say about itself conditioned on which relations do or do not appear within that world. The thinking of intelligibility proper requires unfurling the confines of a contextual language to formulate the expressive limits of this language itself. To investigate intelligibility is to also understand what is not intelligible in a given situation. To occupy a perspective in a world is to be able to discern some things from others—but *not everything in every way*. In other words, depending on how objects are composed in a world, they can make for better or worst

perspectives to which that world appears—different perspectives can be more or less “sensitive” to that world, depending on how much of its structure “looks the same” from that standpoint and how much “a difference makes a difference” to it.

What makes a difference in a world can be some minimum scale, primitives that the situation does not have the resources to dig deeper into—the theory of a smaller resolution requires a new theory. The limits of intelligibility can also appear globally though, like a straight path through curved space that unwittingly closes in on itself. In the space of capitalism, we see exactly this when environmental externalities cannot be treated by profit-seeking organizations unless a cost-measure is assigned to them. Ecological effects are not too small or atomised, but too large and dispersed to be seen from consistent perspectives within the capitalist space.

The second, *composition*, is the logic of intra-world operations. It is the law that governs how relations are related to one another that uphold the logic and structure of that social world. The composition of objects in a world conditions what perspectives exist for them—since social forms see only what they compose with—so intelligibility is clearly dependent on composition: for something to be intelligible in a world means there is an underlying compositional structure whose differences make a difference to other perspectives that share some compositional characteristics in that space. The matheme holds true (the Yoneda Lemma) that an object can be fully understood by the sum of operations into or out of it, and we thus hold in esteem the relations *between* objects in a world (more on this later). Rather than strictly thinking about how subjects see objects of a world they inhabit, we strive to describe how objects in the world see each other.

The third standpoint, *interaction*, concerns the space of possible perturbations to the world’s state. This standpoint’s primary objective is to clarify that not only is the logical composition of a world connected to what perspectives can be assumed within it, but that it also conditions—and is affected by—the sort of effective interventions one can produce there. This correlation between composition and interaction allows us to investigate and in particular expand our conceptions of what is possible within a logical space. Social worlds being complicated and non-classical means that political strategy needs to expand its conceptions of intervention beyond the tried duality of horizontal vs vertical organization.⁹³ By placing new ways of thinking of interaction with social worlds at the forefront of our commitments, we are able to connect political organization and political economy, proposing that different ways of composing and interacting with a capitalist social world can render different aspects and possibilities intelligible.

⁹³ Ibid.

Subset of Theoretical Practice

We claim that when this triadic standpoint is applied all at once to a real situation, one gets the *experimental language* of that situation. The role of the triad is to give us basic tools to center *both* the analysis of large-scale social formations and the discussion around political strategy on an organizational point of view. From the standpoint of this triad, we can conceive a theoretical framework that might both tackle the issue of money as a privileged point of view within the space of commodity relations (XI) as well as ask ourselves what sort of complex organizational experiments would be needed in order to make this or that aspect of social life *perceptible* to political collectivity (XIII, XIV, XVI).

A Note on Methodology

Before delving into what we term objective phenomenology, a word on methodology is due, particularly in regards to the use of category theory as a tool for inspecting social worlds. We abide by a general strategy we name *methodological universalism*—where applying the composition, intelligibility and interaction triad to a particular context allows us to build models reflecting universal constraints. Rather than deploying mathematical resources as toy models that seek to translate into a common logical framework certain characteristics of concrete situations, we attempt to extract universal rules through the composition-intelligibility-interaction triad that tell us something about how situated political experiments can learn about their own social environment—in a sense, it is the political process that serves as a model, while our theory seeks to solely establish the general constraints for such a situated modeling process (VI).

Social worlds are not devoid of structure, but their internal structure isn't usually immediately accessible. Our strategy is to peek into what a social world looks like to its inhabitants, in other words, how social forms *appear* to one another, which defines a transcendental indexing of the existence of beings in that world. Social forms appear in a world to a certain extent which is determined by its relations with other beings in the world—the social form of the State, for example, appears in the world of Capital to the extent that it conditions and upholds private property relations. This transcendental indexing is exactly the measure of these intra-world relations and is the start of our methodological interest in category theory—the general science of objects and their relations. We have no intention of bogging the reader down with mathematical jargon, and so present only the intuitive core of the theory.

The first step of describing a new category (a context) is finding which objects appear as indistinguishable within it—recall the

“differences that make a difference” for intelligibility. In the language of category theory this is done by identifying the *isomorphisms* between given objects, transformations encoding the identity of two objects by their composition. Rather than identifying the sameness of two objects element by element, the information is contained within the (context-dependent) relations between the objects themselves. In the investigation into social worlds we stay agnostic about what a thing “is”, its intrinsic and absolute determinations, letting objects be “black boxes” whose relations determine their structure. Things happen to appear in a world and the way that they appear will be taken-as-given in that world—as beings in social worlds we only ever see what appears there.

A critical reader might accept category theory’s “relativistic” perspective but fail to see what opportunities for novel conceptions of universality it brings to the table. In category theory a relation can have a *universal property* when it is exposed to all other relations in the space in a unique way. Universal properties were what first brought mathematicians to study categories as ways of conceiving of related structures in different contexts—for example, both numbers and topological spaces, mathematical structures with entirely different constructions, have a notion of sum and product defined by identical universal properties. A particular relation having a universal property means that any other relation in the space should compose with it in a unique way and thus that relation stands in a unique universal position for that world.

Category theory therefore gives us tools for identifying contextually universal relations in social worlds, which are not given a priori but must be extracted through a sort of dialectical process that passes through the intelligibility-composition-interaction triad simultaneously. In an ideal world, passing through composition alone would be enough (categories are completely determined by their laws of composition), but the internal structure of social worlds is never immediately apparent. We must both interact with them and inscribe consequences and possibilities within a locally-intelligible language. With this said, we are ready for the full methodological impetus of this research project.

Objective Phenomenology

In *Logics of Worlds*, Alain Badiou develops a general theory of world-analysis called “Objective Phenomenology” which we employ and build upon in this text.⁶⁴ The name is not to suggest a relapse into some naive “objectivism” for phenomena but a perspective inversion where rather than considering how some transcendental subject sees

64 BADIOU, Alain, *Logics of Worlds*, London: Continuum Press, 2006.

objects in a world, we consider how objects in a world see one another. The intelligibility-composition-interaction triad perspective on social worlds has associated intrinsic counterparts in this theory that explain the intuition of the methodological tools we employ. Objective phenomenology is our name for the contextual analysis of social worlds that, when explicated to its possible extent, can recover universal relations which determine the workings of the world.

Seeing

We have already used the metaphor of visibility in how social forms see one another, by which we mean that different social forms have access to different amounts of information about the world. The State sees its citizens (to an extent) and the property relations it upholds, but is blind to those people and interests “not counted”. Communities tend to see individuals in the highest resolution, but are generally cut off from seeing at a larger scale. A corporation sees people, whether as employees or customers, as potential sources of greater surplus value. This “seeing as” is the first step in building the transcendental indexing operation in a world, in other words the start of a new phenomenology (XII).

What various social forms “see” structures what is intelligible in that world, by which we mean that we never have direct access to social forms in themselves, but rather they are always filtered through a social world—we are always seeing them as how they appear in a world. The intelligibility of the world emerges by how social forms are seen from different perspectives within that world. In other words, in the language of category theory, a social form (more precisely its representation) is completely determined by its relations with other social forms.

Slicing/Scaling

We recall that social worlds are always infinite—in fact inaccessible so, but representation is always limited to what can be named. Inaccessibly infinite worlds always escape the possibility of complete representation. This means that what even counts as a social form must be somehow “picked out” of the world, an operation we call *slicing*. In the same way that *seeing* conditions the space of intelligibility of a social world, slicing conditions our representations of composition in the world.

The aim of representation in social worlds is therefore to pick out enough social forms at the right resolution so that they sufficiently cover the space. This approach can vary drastically depending on the

specific context, but the underlying intuition is that by picking out enough slices of the world—predicates or differences that are effective in that space—this choice of covering should match up with the world's internal logic. The way this picking out of slices happens is never immediately given but must be arrived at dynamically through experimentation with different representations and stacking representations up against one another—in terms of the experimental language the slices correspond to predicates that differentiate some part of the world.

The slicing operation, which picks out parts of the world, is where we see the association between spatial and logical concepts—one supported by the mathematics of Topos theory, which demonstrates how the spatial structure of a world is essentially equivalent to its logical structure. Said differently, if we slice things in the right way then logic of the world will appear naturally. Accurately diagnosing the logic of a world is not only a problem of abstract reasoning but one of spatial reasoning and representation.

When we look beyond a singular social world, beyond the “differences that make a difference” for that world, slicing also becomes a matter of *scaling*. We say that a change in scale happens in one of two cases: either there is a scale “below” the differences that make a difference for some world or there is a scale “above” which the world cannot access but can be seen from another vantage point—in which case passing to a new scale requires going beyond the representative resources of the world by taking a sort of limit. This limit might be integratable back into the previous world through new social objects that remain consistent with its inner logic, or new logical space might be needed to bring this new information into compositional form—in which case the new objects will not belong to the previous world.

Site

A term borrowed from the great mathematician and father of modern algebraic geometry and category theory Alexander Grothendieck,⁰⁵ the *site* is the final internal resource in a social world that structures the space of interaction with the world. For our purposes, the site is the space where interaction with the world can be made intelligible—a place where the construction of new possibilities can occur (V). It is a part of the world with a rich enough representation of “slices” and how these slices see one another (i.e. expressive in composition and intelligibility) such that local interventions on this site can be seen as mutually compatible.

⁰⁵ ARTIN, Michael, GROTHENDIECK, Alexander, VERDIER, Jean-Louis, *Théorie de topos et cohomologie étale des schémas I, II, III, Lecture Notes in Mathematics*, 269, 270, 305, 1971.

Compatibility is key here, it is what justifies us to piece together local information in a globally consistent way. The site acts as the place in which local perturbations can sum together to an intelligible whole—it is a choice of part-whole relations on the space that is globally coherent with the dynamics of a social world. A world along with a site on it is a local model of the world, in fact it is the site which defines what “locality” really means in a social world.

Badiou also uses the term site in the transcendental analysis of a world, although our usage is more general.⁹⁶ For him, a site is what we could call an *evental site* which models locality as *below* the resolution of the world such that something that doesn't appear in the world, the inexistent, can erupt into the world and cause a genuine change to it. An evental site treats parts of the world so that a new transcendental indexing can be defined and change the logical structure of the world itself—but we adopt the concept in its usual mathematical meaning, leaving Badiou's term as the name of one of its special or extreme cases.

With these tools of navigation the reader should be methodologically primed to begin exploring the rest of this text which treats “the monster” diagram part by part. We begin the next section (II) by introducing the monster in terms of how it slices up our contemporary social spaces such that we can localise different forms of political organization by how they interact with these slices. Beyond that, the rest of this text is heterogeneously structured with each section concerned with different locally consistent slices of the monster. The reader is encouraged to move through this contribution non-linearly, following the cross references to see where it takes them; our hope is that by meandering through this text a coherent research trajectory will come into view.

Any parties interested in learning more about or joining our collective research project should see the concluding section (XVIII).

96 BADIOU, Alain, “Logic of the Site”, in: *Diacritics*, 33, 3–4, 2003.

II. Meeting the Monster

Category theory provides an overall conceptual frame for mathematics. This frame, it must be said, has no “starting point” or “basement”. One should imagine that we are building a space station, not a skyscraper or any other similar building that has to stand on solid grounds. Building in space must be done according to general principles, according to general laws of physics and engineering, but the construction does not have to have a definite orientation, an up and a down, a foundation in a geocentric sense.

–Jean-Pierre Marquis

It is common, amongst both Marxist and non-Marxist traditions, to sequentially arrange different social formations based on their distinct modes of subsistence, as Adam Smith did, or modes of production, as Marx proposed. In this tradition, we might describe, for example, a *tribal* mode based on the centrality of kinship relations, with hunting and gathering serving as the basic means of survival. We would then have—in a more or less discrete historical sequence—*slave* societies, *feudal* societies, *capitalist* societies and, some would argue, *socialist* ones, each of them defined by the relations of production which structure and preserve our material conditions for survival.

However, throughout the 20th century, historical materialism was criticized for its supposed reliance on historical determinism and this brought about a new way of approaching these different social modes amongst certain heterodox Marxist thinkers. Instead of already defining these modes as successive historical stages, authors like Karl Polanyi, Marshall Sahlins, Diane Elson and many others started to consider them as partially independent social structures which are always combined, in singular ways, within each social formation. In this way, Polanyi and Sahlins will speak of *reciprocal*, *distributive* and *market* forms of exchange, while Elson will invite us to analyze capitalism in terms of the *domestic*, the *political* and the *economic* spheres, for example. In both cases, a social formation is understood as a complex structure that combines these different modes in specific ways, such that one of them comes to dominate the others as the general social form, while the remaining modes still have a meaningful function

inside this social structure. Historical sequences are therefore treated as composite complexes rather than as the fundamental units of social analysis.

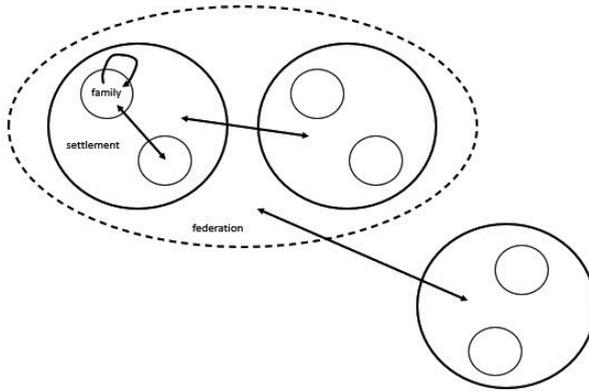
Though many thinkers have investigated this alternative approach, no one has explored it so thoroughly as the Japanese Marxist thinker Kojin Karatani in his book *The Structure of World History*.⁹⁷ First of all, Karatani uses these multiple modes to propose a *transcendental* analysis of social formations—that is, he does not start from the really-existing presentation that different modes take in a given society, but rather from their pure or “transcendental” form, which then, in combination with other modes, constitute the particular form of appearance of these multiple forms in a concrete social setting. Because their pure logical form does not correspond to any particular historical presentation, he prefers to call each of them only by distinct letters: modes A, B, C and D.

At the same time, Karatani addresses the predictable reproach that such a theory, not departing from the point of view of production, would therefore require us to espouse a “circulationist” theory of economy—where, for example, the logic of market exchange would fully determine the existence of commodities and commodity production. Instead of defining modes of *exchange*, Karatani considers each of these modes as a form of *intercourse* (in German, *Verkehr*), broadly defined as types or organizational schemas that apply indistinctively to relations between humans, material exchanges between people and non-human entities, in a metabolic sense, while also serving as transcendental forms for how relations between non-human parts are constituted from the standpoint of a given social formation (VIII). Mode B, for example, which concerns the logic of plunder and redistribution, would structure the relations of domination between people, the relations of domination of man over nature—as if the latter was only a resource to be taxed and protected by a state—as well as provide an analogical extension to a classification of natural species in terms of hierarchies and so on. A mode of *production*, then, would be simply the case where a certain logic or mode determines how our intercourse with nature, and amongst ourselves, is primarily constituted under certain historical conditions.

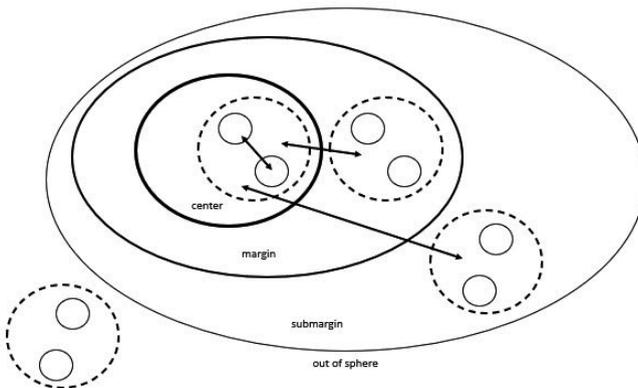
Karatani defines his four modes as follows. Mode A is defined by the logic of *pooling* and *reciprocity* (IX). Its main social form is that of the *gift* and the *contra-gift*. Its normative structure is that of *customs* and *rules*, valid primarily within communities. Its main form of hierarchy is that of *honor*. Its basic collective structure is the *household*, further expanded into *settlements* (composed of households) and

⁹⁷ KARATANI, Kojin, *The Structure of World History: From Modes of Production to Modes of Exchange*, Durham: Duke University Press, 2014.

federations (composed of settlements). When it is the dominant mode, it is able to scale up and integrate social groups to form *mini-systems*.



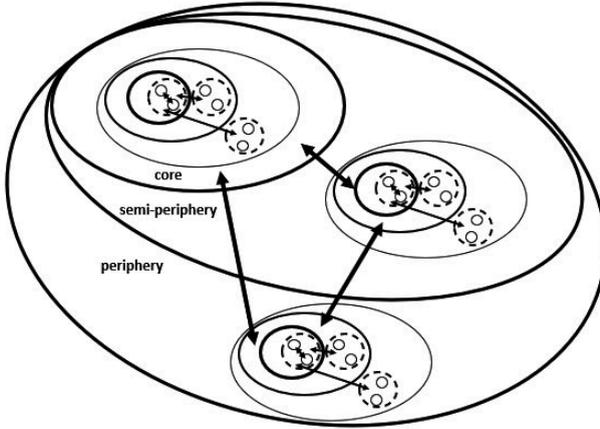
Mode B is defined by the logic of *plunder* and *redistribution* (VII, X). Its main social form is that of *domination* and *protection* between communities. Its normative structure is that of *laws*, imposed by dominant communities over the subservient ones. Its main hierarchical structure is that of *status*. Its collective structure is that of *cities*, further divided into *centers*, *margins*, *sub-margins* and communities which are *out of sphere*—outside the reach of its power. When it is the dominant mode, it is able to scale up and integrate communities into *World-Empires*.



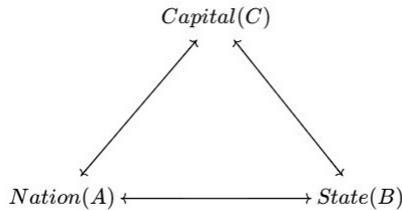
Mode C is defined by the logic of *commodity exchange* (XI). Its basic social form is that of *value* and *money-commodities*. It works not by social rules or laws, but by *tendencies* which constrain the flow and reproduction of commodities. Its hierarchical structure is that of social

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classes and its basic collective form is that of the *market*. When it is the dominant mode, we call this social formation a *capitalist* one, and its total extent across *centers*, *semi-peripheries* and *peripheries*—note the absence of an “outside”—forming a *world-economy*.



Within capitalist social formations, mode A acquires the general appearance of *Nations*, mode B that of *States* and mode C that of *Capital*, forming the *Nation-State-Capital* complex (XV, XVII).



Karatani’s fourth mode, **mode D**, should be treated separately from the other three for two reasons. First of all, because it serves a more prescriptive function in his theoretical apparatus. Karatani uses the idea of a mode of intercourse based on free association and the “mutuality of freedom” to reconstruct a silent history of socialist impetus that would bring together nomadic lifestyles, the sense of justice of world religions, secular philosophical ethics and modern socialism. Furthermore, by defending the transcendental status of this fourth mode, he is able to propose a coherent description of a possible socialist world where mode D would be dominant over all others—making it consistent with his general theory of modes and their articulation. As interesting as this construction might be, the value of this approach to communist politics is limited since analytically, this additional mode plays no determinate part in defining different social formations in

his theory—to the point that mode D is not even included in his theory of the articulation of modes A, B and C in capitalism. Due to its conceptual fragility—and because we will propose here an alternative approach to communist social forms—we will not rely on the hypothesis of this fourth mode of intercourse.

Instead, let us pose a question that, within Karatani's schema, remains unanswered: if social formations are historically constituted as structured complexes, articulating these different modes in concrete and “impure” forms, how could we ever have distilled them into separate and autonomous logics to begin with? This question will lead us to a divergence with Karatani both in terms of methodology and of political orientation.

One of the undeniable merits of Karatani's work is to propose a general framework that allows us to integrate otherwise disparate analytic tools coming from the anthropology of Mauss, Levi-Strauss and Sahlins, the theory of politics and power from Hobbes to Arendt and Marx's critique of political economy. But Karatani accounts for the existence of these different theoretical perspectives with recourse to Edmund Husserl's theory of *transcendental reductions*: for him, the merit—as well as the limits—of the different theorists of the “pure” modes comes from their capacity to *bracket* the influence of other logics in order to reveal that each of these modes is a closed logical space that covers the totality of social life. The incommensurability between the structuralist analysis of gift-economies, the theory of political sovereignty and the Marxist analysis of value-form becomes, here, the effect of different “parallaxian shifts” which require us to methodologically suspend their intrinsic articulations and concrete mixtures in order to arrive at these different transcendental logics. It is no small accomplishment by Karatani to have constructed a general schema that allows us to both preserve the heterogeneity between these different theoretical approaches and integrate them, accounting for how and why they emerge as separate theoretical fields.

The problem here, however, is that this operation of transcendental reduction is too indebted to a subjectivist phenomenology: it is defined as a theoretical or methodological operation, performed by individual thinkers. And even if we recognize our debt to singular theoreticians—or to the long academic traditions of anthropology, sociology and economy or, more importantly, to the necessity of also accounting for the connection between collective social practices and individual cognitive apprehension (XII)—this would not be enough to answer what *concrete and historically determinate* social processes allowed these different “modes” to emerge as objects of study to begin with.

It is here that our alternative hypothesis to Karatani's mode D comes in: rather than define modes A, B and C, and then introduce

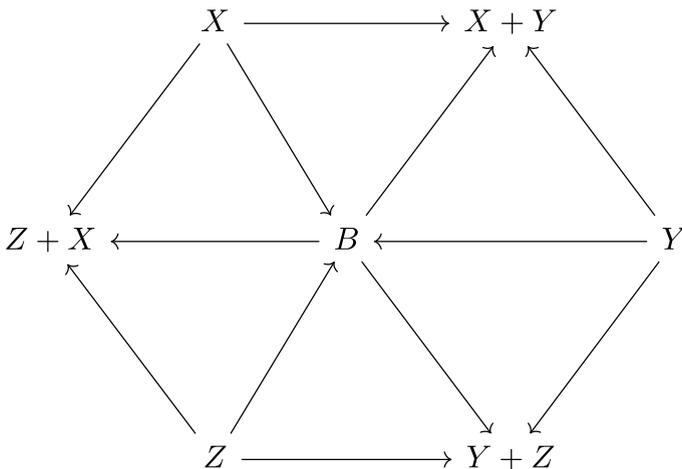
mode D as a means to *derive* the historical basis and logic of emancipatory politics, we propose to invert this relation and claim that *we have come to know different modes of intercourse through politics itself* (III, V). It is through the multiple forms of political practice—and of political organization in particular—that the “transcendental reduction” that Karatani writes about effectively takes place. In short, the complex structure of capitalist social formations—defined by the interdependence of modes A, B and C under the domination of the third one—appears to us as composed of different logics because the *political resistance* against it has been historically composed of an equally heterogeneous and complex ecology of political processes.

This alternative hypothesis could be called the *tektological* hypothesis, in honor of Alexander Bogdanov and his “universal science of organization” (IV). For Bogdanov, we come to learn about the world through the concrete interaction between organizational forms—be they corporal or cognitive, like when individuals try to shape some situation in accordance to a preconceived plan and are met with the resistance of materials and other human relations, or larger collectives who face the world's resistance to their forces and thereby come to extract information from these interactions (XIII). For us, the organizational point of view of tektology suggests that it is through the concrete interaction with social formations—and their ensuing resistance against political change—that we have concretely abstracted, and thereby constituted, these logics as theoretical objects to be studied by this or that particular thinker.

Each organizational form is defined by what makes a difference to its functioning and what does not—by a certain form of abstraction—and each political organization is defined by the attempt to negate or challenge *some* aspect of the social complex. Though always composed in a mixed way, we can easily discern political movements that have centered their struggles against forms of communitarian *segregation*, therefore abstracting away, in practice, from other modes in order to focus on the structure of mode A; other movements have focused mostly on challenging the limits of the State and its different forms of *expropriation*, and those help us to “bracket” other determinations in order to provide us with a model of mode B; finally, there are those political processes which center around the impasses of *exploitation* and concentrate their forces in interrupting production and circulation of commodities, thereby teaching us about the intrinsic logic of mode C. Just like with Karatani's schema, these different political fronts can often appear to be incommensurate with one another—and the perpetual fight within the Left for the “right” perspective on political struggle clearly attests to this—but, unlike in his theory, we consider the task of composing these different “organizational reductions” to be the very

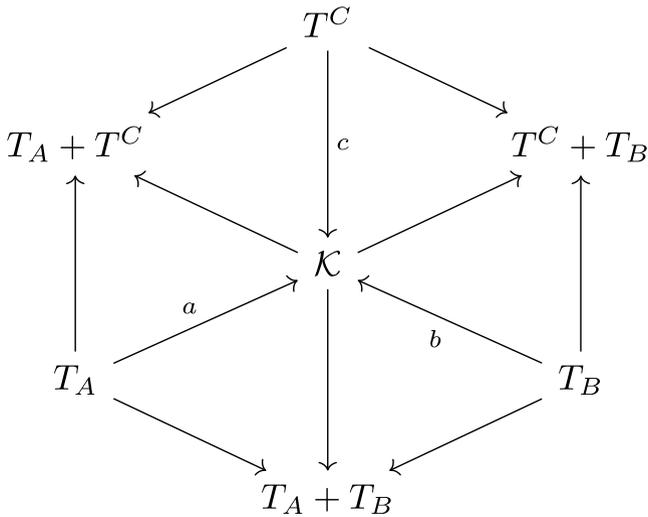
definition of *communist* politics: a political stance which, not having any particular parties or principles, concerns itself with “representing the interests of the proletariat *as a whole*” (III).

Let us now construct the diagram which encodes all these ideas into a single operational space. Karatani proposes that we conceive the articulation of the modes A, B and C in capitalism in terms of a “borromean knotting” of the three logics, meaning that the social structure they compose is what ties them together consistently and if we were to remove any one of the three parts, the other two would not complement each other in any coherent way. The work of the French mathematician René Guitart can help us here, as he has already shown that we can use category theory to capture this borromean property in the hexagonal framework of the F_4 field:⁰⁸



Using Guitart’s construction and our alternative reading of Karatani’s transcendental analysis, we thus define a *multilayered transcendental* for a capitalist world as the following diagram:

⁰⁸ A standard borromean object is defined in a category C with null morphisms, terminal and initial objects, cokernels and finite co-products, as an object B equipped with three objects X, Y and Z and an epimorphic family of monomorphisms $x: X \rightarrow B, y: Y \rightarrow B, z: Z \rightarrow B$, such that $B/x \rightarrow Y + Z, B/y \rightarrow X + Z$ and $B/z \rightarrow X + Y$.



First of all, note that the central object \mathcal{K} marks the dominance of the transcendental layer T over the other ones. In logical terms, we define this dominance in terms of the *maximal reach* of the value-form space of operations. In other words, a logic is said to be dominant, and written with superscript “ T^x ”, when its internal language—in the case of T^C , that of commodities, money, capital, competition etc.—is the most expressive one. In a capitalist world, community-predicates—such as those that discern groups of people, families, networks of mutual aid etc.—as well as state-predicates—those that discern property rights, contracts, commitments etc.—are not capable of “seeing” as much as the language of commodities, even though every social object requires a mixture of the three and there might be objects which are only discernible from the standpoint of T_A or T_B .

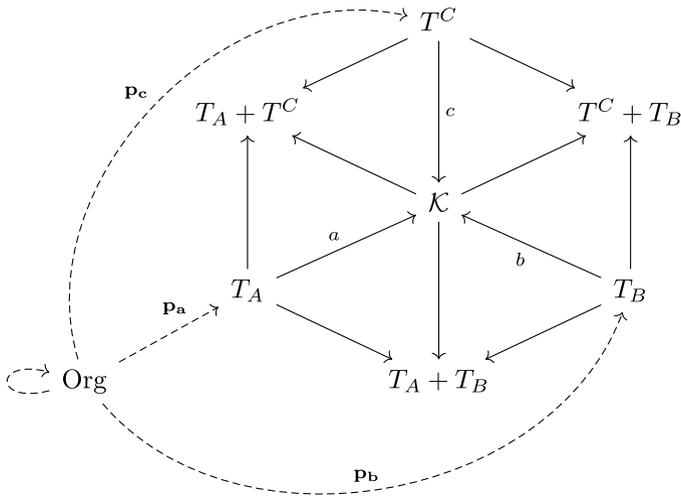
Further note that the arrows from T_A , T_B and T_C inform the central object \mathcal{K} , while *this* central structure then gets partitioned to produce their partial combinations $T_A + T_B$, $T_B + T^C$ and $T_A + T^C$. Without \mathcal{K} , we would not be able to name these partially composed structures—and this assures us that the arrows in the diagram encode the “borromean” property we were looking for.

At this level of the construction, we have three abstract starting points— T_A , T_B and T^C —which are responsible for composing the concrete social formation. If we reject Karatani’s subjective phenomenology, how else might we define the closure which constitutes each of these autonomous logics? First, we abide here by the alternative approach proposed by Alain Badiou in his *Logics of Worlds*—the theory

of “objective phenomenology” (I)—which starts from the following materialist claim: objects of a world are not constituted for a transcendental subject that remains outside of this world, they are rather defined by what *can be seen from inside the world itself*. In other words, to construct a “visible” world requires us to simultaneously construct a “seeing” object. Objective phenomenology requires us to transform Karatani’s theory in order to identify which logical objects are capable of expressing universal properties internal to each of these different logical spaces. For mode A, we can speak of the *gift*—but also of family structures or mythical matrices that connect narratives from different communities—as objects that “see” what sort of social structures exist within the logic of reciprocity (IX). For mode B, we can speak of *sovereignty*—but also of measure standards, unified languages, calendars and other forms that make heterogeneous communities legible for a sovereign (X)—as objects that have this universal quality. Just as, within mode C, money functions as a universal equivalent that can express, in terms of its own quantity, the value of any other commodity (XI). These different logical objects define an interior perspective from which many other and more complex structures can be constructed within each mode, leading to new universal perspectives and to new social objects.

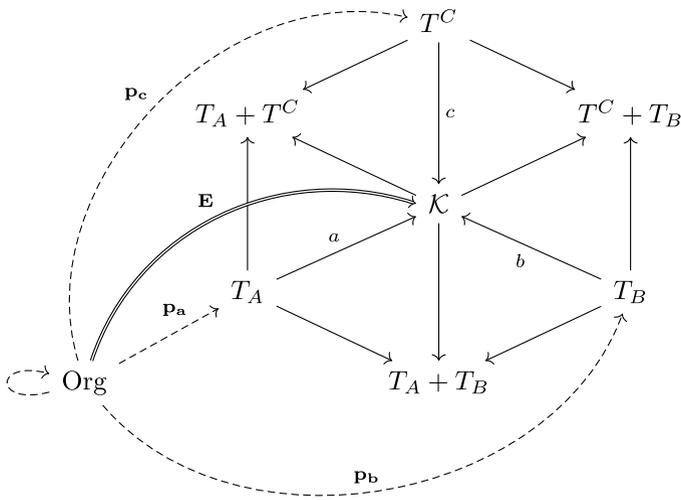
But this is not all. In accordance with our previous critique of Karatani’s mode D and our alternative theory that *emancipatory politics is composed of heterogeneous social experiments* (V), let us now add a separate point of view to the diagram, which we call Org. The arrows from Org to itself define the space of all possible political organizations—a sort of space of free association—and maps from Org to the rest of our diagram define different political struggles, different interactions between political experiments and social constraints coming from the multilayered transcendental of social formations. As we anticipated, we take these heterogeneous political fronts to be crucial sources of information about the sort of structures that exist from the standpoint of T_A , T_B , T^C and, ultimately, K. We write, therefore, arrows for *communitarian* political experiments as $p_a: \text{Org} \rightarrow T_A$, maps for *institutional* political experiments as $p_b: \text{Org} \rightarrow T_B$ and maps for *economic* political experiments as $p_c: \text{Org} \rightarrow T^C$.

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Since these are also “transcendental” reductions—which do not correspond to the always mixed, always impure really existing political organizations—we treat these three arrows as ideal decompositions of an additional map, $E: Org \rightarrow \mathcal{K}$ that encodes into our diagram the complex *ecology of political organizations* that challenge, in heterogeneous ways, the social composite of the capitalist social formation.

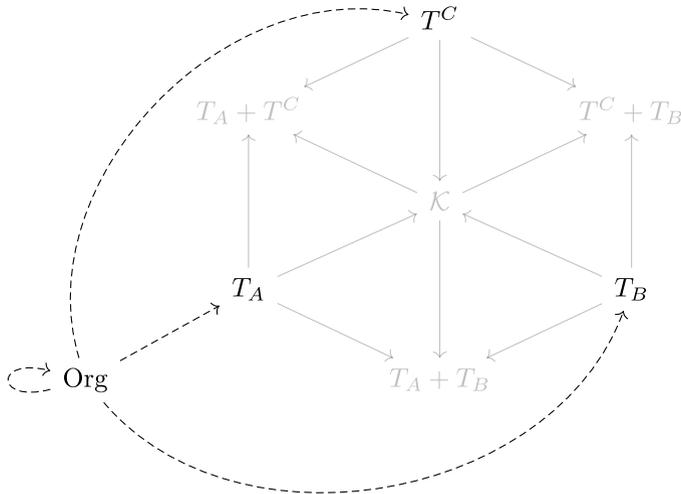
Once we add the map E , we arrive at our complete diagram. So meet the Monster:



One should imagine this operational space as if composed of two large-scale objects. The first one, *K*, ties together the *Nation-State-Capital* complex, giving rise to a capitalist social formation. It cannot be seen from an individual or perhaps even from a human perspective, it can only be approached by first displacing our point of view to that of its privileged objects—such as group identities, property structures and money-commodities—and, *even then*, these can only capture part of its multilayered logics. On the other side, we have *Org*, the underdetermined class of all possible political processes which might navigate this social formation and explore its structure by challenging its consistency through situated experiments. Unlike Karatani's mode D, the internal consistency and form of *Org* is *not* transcendently guaranteed: though there are many political struggles, with the most diverse structures and organizational forms, nothing guarantees beforehand that we are able to adopt a standpoint that allows us to compose them together. This wager is what we call the *communist hypothesis* and the construction of a consistent space binding together these political experiments can be seen as a concrete “world-building” problem (III), the issue of how to turn localized interventions into our social formation into the general and consistent social constraints on a new world—otherwise known as the “socialist transition” problem.

In the course of this essay we will be exploring this large diagram by slicing it into smaller parts. Each section will be identified by the different ways this huge structure is partitioned and how we engage with the sort of social object that is constituted by this reduction.

V. Political Experiments



Our project can be justified in three ways from the standpoint of concrete needs of politics. First, it follows from the practical need to synthesize diverse organizational experience (IV), which entails transmitting fragments of a given struggle outside of its local context. Second, there is a need today to build and share new interfaces between complex systems (such as the climate) on the one hand and political movements on the other (VIII). These new interfaces include not only scientific but also digital, legal, cultural and economic tools. Third, there is a need to recognize and work with intrinsic constraints, including ideology and incentive structures, that determine any form of social organization. These needs motivate us to build connections between areas such as philosophy, category theory, anthropology, economics, computation etc. in order to make intelligible a very broad range of phenomena. Ultimately, however, the measure of success for this project should be derived from the clarity it offers to the actual organizing efforts of people (III, VI).

For us, politics is the space for the experimental making of new forms of intelligibility and interaction within social reality (I). Political acts, such as occupying a city (XV) or disrupting the free flow of commodities (XVI), are only some of the more visible aspects of an

experiment. What is usually left out of such extrinsic descriptions is the intrinsic developments required to carry them out, to maintain a certain organizational form in the face of adverse circumstances (XIV) and the factors of their dissolution. Note that even failed political experiments yield valuable information if allowed to pass through by our ideological filters. For instance, it is common to read the failures of a given political movement through the lens of human nature or individual mistakes. But this type of reading excludes how a network of social relations already determines the set of available choices that individuals can perceive. One can envision this network forming a particular type of environment, a life-world, which engenders certain individual behaviors. There can be many such life-worlds with distinct properties. Instead of tracing the collection of social phenomena back to individuals, as a confirmation of innate human tendencies, we should read them as mapping out a certain “organizational space” which has highly non-trivial properties (which vanish when we map them onto the individual level).

Historians, economists and political scientists may approach these intrinsic aspects to a certain degree, but only after the fact and from a distance. However, our project is more concerned with the availability of theory and tools for use by those engaged in these processes *as they are happening*. This leads us to investigate the conditions and formal constraints involved in navigating the world of political experiments, both past and present (XIII). This engagement has both an analytic and synthetic side to it. On the analytic side, systems are only graspable as a set of constraints and behaviors that determine their ways of seeing and acting in the world (I, IV). Our conception of politics is therefore not purely voluntaristic, but entails the construction of vehicles which obey those constraints such that they can “hook into” these systems. Returning to the formal assumption we introduced earlier, we can say that building and maintaining such vehicles requires addressing each of the terms in the triad composition-interaction-intelligibility (I). This leads to all sorts of questions that can be tested experimentally. Starting from a desired interaction, we can ask the question of what sort of “sensibility” does an organization need in order to properly model that interaction internally. Or starting from a given composition of human and non-human entities, we can interrogate its blind spots and low-resolution areas. A capitalist firm behaves the way it does because it can only “see” those things which are pertinent for its profitability (XI). A State only sees GDP, territory, military strength etc. (X). Each form of intelligibility implies a fragment of an environment that is available for interactions. For example, a legal system is a type of environment wherein interconnections and consequences are expressed within the body of laws and procedures.

Without proper legal “sensors”, such an environment would be opaque to an organization. On the other hand, in order to reveal the limits of the law itself, as when addressing such hybrid phenomena as “carceral capitalism”, sometimes the proper sensors are extrajudicial. When challenging an existing legal framework, certain transgressive actions may reveal more about that framework than what can be expressible within it.

On the synthetic side, new languages and concepts must be devised that capture the novelty of the political thinking which occurs locally. This leads to new ways of processing and consolidating the “data” of a situation, as well as a new way of interacting with it. The difficulty of building new interactions can be formulated in the “classical” terms of left and right deviations—too far to the left and an interaction becomes ineffective; too far to the right and the interaction provokes a response which is already in the existing language. To change an interaction may require the construction of an entirely new environment. A good example of this can be found in Elinor Ostrom’s design principles for governing shared resources.⁰⁹ These principles aim to internalize costs among groups of appropriators so as to avoid the infamous tragedy of the commons. Ostrom shows how neither the State (T_B) nor the market (T^C) are able to treat this problem without serious side effects, while there have been many examples throughout history of the successful management of these commons by local communities. The same local interaction, that of using a resource which is not owned by anyone, can either be sustainable or destructive on a global level depending on the (ideological, economic, technological) environment in which it takes place.

Social reality is complex, heterogenous and multiscalar. It is also opaque at a global level: there is no position from which to view it all at once. From this, we conclude that attempts to analyze a political movement from a standpoint external to that movement’s struggle are generally suspect. We must re-evaluate our evaluative powers and include into our assessments of social formations a certain intuition regarding non-trivial spatial structures. Positions which appear as politically opposed locally might be glued together quite cohesively if we “zoom out”, while alliances might be fraught with tense contradictions when we “zoom in”. A neutral scientific approach does not generally work because the object of the experiment is not available globally, but only from an engaged stance. Natural phenomena can be isolated in an experimental setting, allowing the scientist to control which variables are allowed to affect the outcomes. With political phenomena, not only is a completely controlled setting generally impossible to produce, but

⁰⁹ OSTROM, Elinor, *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge: Cambridge University Press, 1990.

it is often part of the very stakes of a struggle to form a new political body. To make statements about “the working class”, for example, presumes that such a class is distinct and coherent, but this is something to be constructed as part of the proletarian struggle in a given place and time under particular constraints.

Another way to approach this is through the relation between the experimental apparatus and the phenomena itself. Natural phenomena require natural means of interaction—one cannot use a social relation to provoke a change in the electromagnetic field, for example. The fact that we can use a part of nature as an apparatus to interact with another part is what allows scientists to maintain a neutral distance. However, social phenomena have the opposite problem—they cannot be altered by natural means but require an apparatus made of the “same stuff”, a social organ of some type (economic, cultural, legal etc.). This *homogeneity principle* is the connecting bridge between the analytic and synthetic parts of our project (VI). As an example, the theory of fetishism for us names what happens when we try to bypass the homogeneity principle and go directly to seeing the properties of reality (VII). Relations of domination in capitalism remain opaque or natural as long as we look for them directly in relations between people (VII). In order to recognize the role of the commodity form in carrying out this dominance, we have to see through the eyes of commodities themselves (XI).

We propose that political experiments are not only possible but essential aspects of politics as a form of synthetic thought (II). This form is trans-individual, trans-historical and materialist. It sometimes produces new connections in the world which were deemed impossible before, regardless of whether political groups themselves succeed in their stated aim. In fact, we propose that a new, “orthogonal” metric for success involves the production or socialization of resources for future experiments. For example, one could imagine an incubator of sorts for political experiments, which provides assistance to nascent groups and also compiles a dataset of failures and successes, written by these groups themselves, which would be made freely available for others to use. In the case of experiments with an economic component, if a group achieves a level of sustainability, they may contribute back to the incubator, creating feedback effects. Dmytri Kleiner names a version of this idea “venture communism” since it can potentially act as an engine for divestment from capitalist productive processes.¹⁰ We see our project as in line with this idea, except that it should encompass not only mode C forms of divestment, but also the concomitant forms of resistance in other modes as well. A basic requirement here is that we can establish new connections between projects, despite perceived political differences.

10 KLEINER, Dmytri, *The Telekommunist Manifesto*, Amsterdam: Colophon, 2010.

This is also one way to understand some of the pathologies of the Left—they stem from the failure to integrate past political experiments, not because of missing facts, but rather due to limiting concepts and tools for synthesis. For example, we take for granted the opposition between anarchists and communists, although we rarely consider that since both sides struggle with the same social reality, there must be overlapping systems of interactions. As a result, a large body of organizing experience remains unconnected simply because we adopt a certain dogmatism regarding what are the valid paths to emancipation, which lead us to discard certain approaches as “reactionary”, “reformist” etc. when in fact every effective body has such “split” tendencies (XIV). After all, what really authorizes a total disjunction in approaches within the Left when the only universal property it seems to exhibit is disorientation (XIII)? What may appear to be contradictory tendencies at a local level may simply be an artifact of the measuring devices we have at our disposal. And if the proper devices for mapping the organizational space do not currently exist, it is our task today to construct them (III).

What is often missing from appraisals of local movements is the particular context, which does not survive the passage to our global, low-resolution categories (I). However, we wager that local investigations conducted by even bitter enemies can be “pasted together” provided that we identify the proper overlapping sections. This process of constructing a political map of social reality is a phenomenological one. A political organization, by virtue of its composition, is able to view certain fragments of social reality in a unique way (IV). In fact, from a compositional point of view, two different organizations with widely different aims may still be identical in what they “see”. This may be true even if these organizations do not agree on the form of intervention. Conversely, two groups may agree on a broad range of policies but have totally different perspectives on social reality, depending on how they are socially composed.

In other words, what binds the various political struggles together may be neither a shared strategy nor shared perspectives but an additional supplement to the world that is the “communist standpoint” (III). This is not reserved for those who identify as communist, since it is not an individual’s perspective at all—rather it is something which actively informs political struggles whenever they encounter *irreducibly common* problems. The very structure of these problems necessitates that resources are shared and identifications blurred, such that by sticking close to them, a common ground is produced. By assembling the set of such common problems, which does not suppose that a single problem will unite everyone, we create a map of our heterogeneous landscape. In our formal jargon, every “mapping” from a

global perspective into a local context presupposes a “lifting” of that context, which allows us to think about the conditions for the coherence of that context with others. For example, today we may classify three types of political maps, corresponding to our tripartite world logic (II, XVII). There are struggles against segregation (T_A), against expropriation (T_B) and against exploitation (T_C) which, broadly speaking, comprise the Left. But a common mistake we make is to hastily nominate one of these struggles as the essential one. Those who suffer from State violence or apartheid, for example, are asked to make concessions in order to unify in the fight against capitalism first. This approach, besides alienating other movements, assumes that the struggle against exploitation will itself make other struggles coherent and tractable. Although concessions are sometimes necessary, they should not be based on such essentializing beliefs about the nature of the world. This would be confusing necessary with sufficient conditions and paradoxically weakens us from the standpoint of the communist perspective.

Instead, we offer some ideas in the experimental approach to connecting various local contexts. The phenomenological method, along with the homogeneity principle, tells us that every effective political movement will need “organs” capable of sensing and interacting with relevant social phenomena. An organ has to be composed in a way that is compatible with the phenomena it seeks to affect and be affected by. Producing and maintaining such organs requires resources which are not necessarily available in every context. Using the world of laws as an example again, not every political movement has a team of lawyers and legal minds who can fight court battles. On the other hand, many political movements have an even more precious resource than legal expertise, the trust and support of people.¹¹ By viewing the passage from local to global coherence of our political maps as a matter of *resource sharing*, we can start to see avenues where organizations can connect without necessarily agreeing at a subjective level.

This is how we can view the important role of social media platforms in politics today, for example. They allow the work of maintaining social relations, producing knowledge and coordinating actions to occur in a way that can be shared by different movements. But the profit-motive of the largest of these platforms leads them to enclose that work, to regard it as a new form of property, which also limits the types of global coherence that are possible. Such a platform is indeed an organ, but mostly in the service of the Nation-State-Capital world logic. This determines to some extent all groups that use social media, so that we see today a demand from all sides for building their own digital platforms. But how would our proposed replacement be

11 The Lago Agrio case in Ecuador is a good example of juridical organ building within a broader indigenous movement.

properly subtracted from the dominant logic? We propose that this would involve a set of tests, a set of tools, and an experimental process carried out by many different organizations over time.¹² Embarking on such shared infrastructure projects would already produce effects in the organizational space without the requirement that different movements be immediately compatible in their politics.

We can take this one step further by asserting that ideology itself is a type of resource and that it is possible to conduct ideological experiments. Ideology here is defined broadly as the set of unwritten rules which govern our behavior but remain opaque to us.¹³ We often misperceive this as power wielded by individuals (VII), even though a set of material conditions must always be in place for that power to be effective, including the appearance of a certain political neutrality. Therefore, an ideological experiment could involve making such invisible rules visible, thereby rendering them partially inoperative, or involve constructing zones where new unwritten rules can form. Often this happens as a result of exclusion—for example, norms regarding sexuality and family composition continue to be enriched by queer culture, which arose under conditions of resistance and erasure. Experiments which at first appear to be internal to a given group may enable a different relation to permeate the outside world. This possibility follows from the homogeneity principle—in order to fight structural racism or patriarchy, one must develop organs for seeing and interacting with it. Therefore, those who are marginalized are uniquely positioned to create new organs for these fights (XV, XVI). And if an organization cannot perceive the effects of structures within itself, it will be ineffective with regards to those structures in the environment.

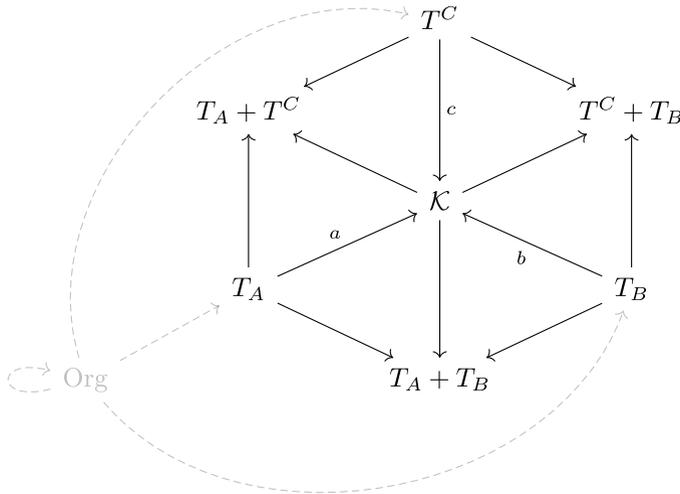
Another crucial category of experiments are the economic ones. Regardless of whether one ascribes to “market socialism”, we must acknowledge the homogeneity principle in the productive sphere: one must build economic vehicles in order to shape productive relations. This may mean creating organs which are to some degree “firm-like” and that may interact or compete with other capitalist firms. The line between a profit-driven machine and an experimental economic organ of a political movement may not be decidable ahead of time, but requires a local investigation into the structure of costs that the firm is able to see. Perhaps there are technologies which can be collectively built and maintained that make externalities of the firm visible. An entire history of successful examples in governing the commons can be combined with new ways of intervening in commodity relations. And we can learn a lot from walking this tightrope, even when we fail (XIV).

12 This distributed effort broadly intersects with the open source movement, copyleft, hacker culture and so on. Some notable ongoing experiments include the Fediverse, Scuttlebutt and Holochain.

13 ŽIŽEK, Slavoj, *The Sublime Object of Ideology*, London: Verso, 1989.

VIII. Seeing Nature

Capitalism, Ecology and Intercourse as Metabolism



So far we have been navigating through a diagram that is deeply inspired by Karatani's attempt of reconstructing history through different combinations between modes-of-intercourse as they appear in different forms of social organization (II). In fact, to the cautious readers that are particularly concerned with the planetary scale impact generated by our own social activity and how questions of ecology must be weaved into any possibility of political experimentation, it can seem as if these categories rely on a conception of the "social" and its forms that might risk not accounting for this problem with the centrality it deserves.

We hope to make clear that ecology's wager of mapping and rethinking the borders between the social and the natural is not merely compatible with our framework but, in fact, integral to it (IV). For that, we will argue that these different modes of intercourse and their combinations imply not only different forms of relation to nature, but in fact different ways that nature is constituted as the "other" of sociality from the perspective of each of these social forms understood as modes of intercourse. Therefore, this positions our "transcendental" framework as a way to attain a new perspective on the social history of nature.

Subset of Theoretical Practice

Intercourse as Metabolism

Any claim of such a compatibility has to be developed in two steps: first, we briefly gloss over Karatani's reliance on the concept of *intercourse* (*Verkher*) and how it relates to Marx's own concerns with *metabolism* and to the field of Marxist Ecology. Then, through that, we attempt to systematize how nature becomes intelligible in a manner that is coextensive with these modes of intercourse. Doing so gives us a vantage point from which we can (at least briefly) contemplate the differences between each of the transcendental schemas advanced by specific modes of intercourse and then look at a particular problem from mode C, namely, the determination of use-values by exchange-values.

As previously stated, Karatani's project is precise: to read Hegel's *Philosophy of Right* as a seminal formulation of the Capital-Nation-State triad, a borromean knot of interlaced modes of intercourse that must be confronted as a complex and articulated social formation (II, XVII). The beginning of his wager is precisely the need to cover the other two points of our fearless triad, submitting them to the same critical procedure that takes place in Marx's *Capital*.

To do so, Karatani mobilizes the concept of "intercourse", briefly deployed by Marx in *The German Ideology* in reference to Moses Hess's work, a lingering influence that can be traced back at least to the *Economic and Philosophical Manuscripts*. The conceptual role it plays for Marx, as Karatani notes, is twofold. On the one hand, it becomes a way of speaking of exchange in general, beyond commodity exchange, and seeing phenomena as different as trade, warfare and communitarian life as processes that are permeated by acts of socialization through exchange, broadly construed. On the other hand, such a broadening of the concept of exchange leads to a novel way of picturing the social, one in which "relation[s] between man and nature necessarily take place by way of a certain kind of social relation between people".¹⁴ Thus, Hess did not have two separate concepts of relation, one focused on nature and another on sociality, but rather conceived social relations as always including man and nature, described as a form of metabolism (*Stoffwechsel*).

The concept of metabolism can also be further found in *Capital* and in Marx's unpublished "Ecological Notebooks" in which he delves into the agricultural sciences of his time (particularly Justus von Liebig's work) to deal with the monstrous consequences of ecological disturbances brought forth by the demands posed by accumulation within a capitalist system. As Kohei Saito makes clear, the concept of

14 KARATANI, *The Structure of World History*.

metabolism (*Stoffwechsel*) in Marx is a device to understand the inflection of economic forms (*Formwechsel*) into matter.¹⁵

This spells out an important motivation for this text, that is, a refusal to see ecology as a mere appendage to a critique of value (or of any social form), which means refusing any portrait of social forms that fails to recognize them as a regime that is already ecological. Instead, we hope to make clear that the concept of intercourse reframes social relationships, showing that they always happen through a material base and imply a certain relationship between man and nature.

To set a rather crude example, to examine the M-C-M' formula through the concept of metabolism means to observe the inflection and realization of that scheme, written abstractly, in matter (XI). Moreover, as Saito claims: "Marx's original methodological approach treats the objects of his investigation from both 'material' (*stofflich*) and 'formal' (*formell*) aspects."¹⁶ This is not merely something that appears in Marx's approach to nature but can also be seen in his approach to technology, which combines economic consequences with many attempts of extracting from the actual functioning of machines a way to position them as objects of inquiry within a higher level of abstraction.¹⁷

This interpenetration between the material and the formal, which will be our guiding light throughout this section, can be laid out through the conceptual proximity between intercourse and metabolism insofar as it allows us to look at Karatani's project from a slightly different angle, namely, paying attention to how each of these transcendental logics and their compositions can generate novel ways of visualizing nature. Doing so has two main implications: it allows us to clarify the way each of these modes sees nature and, then, to view them as intricate compositions that could help us further elucidate the way certain apparatuses of vision are materialized and hardwired into social practice.

Seeing Nature Through Modes of Intercourse

Starting with mode A, we can see that there is an extension of reciprocity towards nature, where magic serves as an example of a

15 The concept of metabolism makes its most widely cited appearance in *Capital Vol. 3*. The analysis of the concept of metabolism has been a foundational part to many of the books inserted within the field of "Marxist Ecology". See, for instance: FOSTER, John B., *Marx's Ecology: Materialism and Nature*, New York: Monthly Review Press, 2000. The clearest statement of this formula in terms of *Stoffwechsel-Formwechsel* can be seen in: SAITO, Kohei, *Karl Marx's Ecosocialism: Capitalism, Nature, and the Unfinished Critique of Political Economy*, New York: Monthly Review Press, 2017.

16 SAITO, Kohei, "Marx's Ecological Notebooks", in: *Monthly Review*, 2016, <https://monthlyreview.org/2016/02/01/marxs-ecological-notebooks/>.

17 ROTH, Regina, "Marx on Technical Change in the Critical Edition", in: *The European Journal of the History of Economic Thought*, 17, 2010; PASQUINELLI, Matteo, "On the Origins of Marx's General Intellect", in: *Radical Philosophy*, 2.06, 2019, <https://www.radicalphilosophy.com/article/on-the-origins-of-marxs-general-intellect/>.

mediating practice playing that role. Such a mediation is precisely what allows something that possesses *anima* to be taken as an object, even if temporarily, an objectifying dimension closely related to the fact that sedentarization entails a particular disruption that was unprecedented in nomadism. In the newly sedentarized communities, the spatial closeness to the dead and the reliance on a world full of entities endowed with *anima* demands that one sketches precisely these devices of mediation to join nature in a relation of reciprocity. Mind, however, that reciprocity does not entail harmony, but it is in itself a way of controlling, even if the object of control is seen as equal to the one controlling it.

This also means that, just like in their social counterpart, reciprocal exchanges with nature often keep stratifications between the two parts within a relation from becoming definitive as reciprocity itself is an arrangement predicated in an oscillation of the giving and receiving part (IX). In fact, the dynamics of gift-counter-gift, in its demand for the other part to reciprocate, be it in gift giving or warfare, implies precisely an oscillation that keeps the possibility of forming a permanent hierarchy between the parts at bay.¹⁸ Thus, nature appears as an *agent*, an equal entity with which one can establish a relationship of reciprocity.

Mode B on its own needs to be understood in relation to “plunder and redistribution” which in itself implies a different way of visualizing nature and therefore demands different technical apparatuses that make nature legible to the State and are often rendered in terms of uniformization, from the institution of common forms of measurement to mapping the land for taxation (X). It is precisely because nature appears to the State in the same way dominated communities appear to dominant ones—as targets of plunder—that nature is produced within mode B as a *resource* to be managed, that is, an asset available for plundering but also in need of protection and administration.

James C. Scott¹⁹ talks about the visual regime of the State as a scheme that possesses four tenets: an administrative ordering which entails a mapping through simplifications; a high modernist ideology which is connected to an ideological reliance on the rational capacity of providing goods and services; an authoritarian state willing to deploy force in order to get its way; and a civil society that lacks the will and/or the means to resist this onslaught. It is not hard to see how each of these logics is implied in Karatani’s synthetic rendering of the logic of mode B as the logic of plunder and redistribution. While the first two tenets spell the management of redistribution as a logistical

18 KARATANI, *The Structure of World History*.

19 SCOTT, James C., *Seeing Like a State: How Certain Schemes to Improve Human Condition Have Failed*, New Haven: Yale University Press, 1999.

problem, the last pair is already concerned precisely with the problem of plunder as a procedure that is deeply related to the State's schema, and these two moments appear precisely as a way of managing resources.

Thus, plunder and redistribution, when extended to nature, means to visualize nature as a resource to be managed, and to which a legal subjectivity is attached (VII). Mind that, as we have been arguing, the relation between plunder and redistribution on the one hand and resource management on the other is not restricted to nature but can also be seen, for example, in the management of labour in the monumental infrastructural enterprises developed in societies in which mode B prevails.

We should note that such a framework works as a sort of low-resolution scheme and that any further specification requires that many other caveats be made. Still, it is important to keep one crucial point in mind: although these tenets about the State's regime of vision give the impression that we are talking about a rather limited picture of the State, we need to understand that there are no a priori borders that would presuppose a self-enclosed space in which these processes of plunder and redistribution take place. Rather, the relationship between the framing of resources, legal subjectivity and the borders of a State is precisely what is being constantly constructed and eroded through the succession of various modes of carrying out the operations that fall under the logic of plunder and redistribution (II, X, XVII).

By now it should already be clear how our phenomenological approach, along with the proposed reading of Karatani's concept of intercourse, allows for a particular reading of Scott's work. When read in tandem with Katarani, Scott's wager of seeing how State "vision" is materially constructed allows us to insert this vision into a bigger scheme that allows one to clearly see the interplay between different dynamics and attempt to understand the possible compositions between these logics as a method for decomposing and recomposing specific historical formations in terms of the way in which they materialize cognitive schemes reinforced through unconscious social practice (I).

However, we still have not dealt with mode C. While our listing of modes is merely schematic and does not imply a claim of neat historical succession, we must note that in the co-emergence of B and C, insofar as they erode the framework of reciprocity as the dominant form for exchange, there is an important torsion at play: a certain framework of property (legal subjecthood) provided by mode B, that is, a view of nature as a resource, converges with a capacity of tracing relationships between objects in which its owners are irrelevant and the mediation is carried out through equivalence. It is from

this perspective of relating objects to objects that we have to look at mode C. The singularity of mode C can therefore be spotted precisely by the movement through which, within the value logic, objects relate with each other through relations of equivalence that are expressed in terms of a quantitative predicate, a price, that is, as a monetary magnitude. In this sense, to ask how mode C sees nature means looking at how objects become related to other objects and what this objectifying gaze is capable of seeing.

To explore this, we need to refer back to a particular aspect within the logic of value (IX), namely, how use values get determined by exchange values. We can look at that first through Saito's claim that "a social contract can only be realized through the social character of matter".²⁰ Note that to claim matter has a social character already means that there is no "zero ground" from which to look at objects for what they really are in terms of certain natural qualities versus what is made of them within a specific regime. Rather, utilities themselves are only visible through the narrow prism of the valorization schema insofar as these use-values represent the possible priceable features of a certain commodity.

This elucidates that the relationship between use and exchange value is not a matter of the social imposing itself into the "really natural" but rather the construction of use values through social practice in a space determined by the quantitative magnitudes of price. Hence, if we take mode C as a pure logical construction, we could say that nature is visualized not as an agent with which one can maintain a relationship of reciprocity or as a resource which has to be managed, but as *matter*. But how can we make sense of the claim that from the standpoint of capital, nature is simply matter?

What this means is precisely that in the commodity-world, the material properties of objects are rendered legible only through the logic of value; therefore, unpriceable nature is incomprehensible or, better yet, nature can only be signified insofar as it appears as priceable in the present or in the visible future. For an abstract schema such as M-C-M', for example, the material features of a given object are only relevant insofar as one of its properties can be crunched into that schema. This means that from the standpoint of valorization, nature does not appear as a realm or as a structured domain with its own network of causes and consequences, it appears rather as different materials with infinite exploitable properties, ready to become meaningful to production as long as they can make a difference in producing value. Non-human processes, such as a cow's digestive process, or uncontrollable natural forces, such as the water cycle, can all be integrated into social relations of production as long as they make a priceable

²⁰ SAITO, *Karl Marx's Ecosocialism*.

difference that can be legible by any of the circuits of value production we have mentioned in the previous sections: industrial, usurer or merchant capital (XI).

Seeing from Mode C: Fossil Fuels
Between Use and Exchange Value

A group of commodities that appear as a fundamental knot between these three modes of capital and that are also particularly related to our ecological predicament could be fossil fuels, which serve as an enabler of logistics in production and consumption, as the basis of many financial markets and even as fundamental raw materials required for many of the amenities that define our current way of living.

As Elmar Altvater argues, the shift represented by the carbon-hungry industrial revolution marks our epoch in an even larger sense than sedentarization and the large-scale agricultural revolution it precipitated through mode B.²¹ For the author, as there is a convergence between fossil fuels and the valorization schema, this metabolic rupture (insofar as it breaks with the direct reliance on solar energy as agricultural societies would have and seeks energy elsewhere) is a pronounced shift that cuts right to the issue of the determination of use values by exchange values.

This convergence is explored by Andreas Malm's work on how fossil fuels became an entrenched part of capitalist development:²² there is no natural efficiency in fossil fuels as an energy source, nor are there any grounds to claim a sort of survival of the fittest in terms of efficiency or productivity. In fact, Malm effectively shows that quite the opposite is true, breaking with a longstanding historiographical tradition that attempted to explain fossil fuel convergence as a natural progress towards efficiency: historically, water mills were more efficient than coal mills during the same periods of the Industrial Revolution, and even though they were superior by all criteria, we are left with fossil capital.

Malm's point is that the natural qualities of fossil fuels only became the standard way of imagining energy because they provided industrialists with unprecedented power over labour because coal, even if its performance was slow in comparison to water power, still allowed for an access to a larger labour pool in bigger cities and also provided a more manageable flow of production. Therefore, the difference between the water mill and the coal-powered factory cannot be

21 ALTVATER, Elmar, *The Social Formation of Capitalism, Fossil Energy, and Oil-Imperialism*, Centre for Civil Society Colloquium on the Economy, Society and Nature, 2005.

22 MALM, Andreas, "The Origins of Fossil Capital: From Water to Steam in the British Cotton Industry", in: *Historical Materialism*, 21, 1, 2013.

substantiated from the point of view of mere efficiency; rather, it only becomes visible from the point of view of value (I, II, IV, XI).

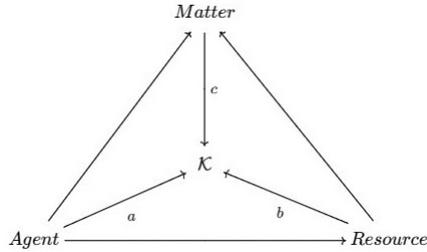
This, for Malm, illustrates the way in which fossil fuels have become increasingly adequate to the formal movements of valorization, setting the stage for a contingent affinity to turn into an even longer tendency. Thus, fossil fuels power valorization cycles as a form of “abstract energy”. Abstraction here needs to be conceptualized precisely as a restriction on the concrete that frames the many consequences of a fossil economy only in its own terms, namely, in terms of the abovementioned affinity with valorization. This restriction itself has resulted in an attempt to continuously perceive energy (and demand it from any energetic transition) through features that have been found in fossil fuels: transportability, scarcity and finitude. Not only does the way oil can be pumped somewhere and easily taken elsewhere fit the way capitalism currently manages production, but the scarcity of fossil fuels to be localized in particular places and their overall finitude are also precisely what ensures that the energy powering the capitalist system can itself be priced, and the risk that it can be halted can be hedged on.

In a way, fossil fuels serve as a good concrete example of mode C's perception and set the coordinates for any discussion on energetic transition as any possible replacement is framed precisely by the precondition that they can be as amenable to the circuit of valorization as fossil fuels, a likely outcome when many of the experiments in renewable energy are already directly or indirectly related to many of the companies that manage fossil fuels. Of course, this is a very particular look into fossil fuels from a very narrow perspective of mode C, but hopefully it is helpful in clarifying the way exchange values determine use values, that is, the way the intelligibility of matter as such is framed through value.

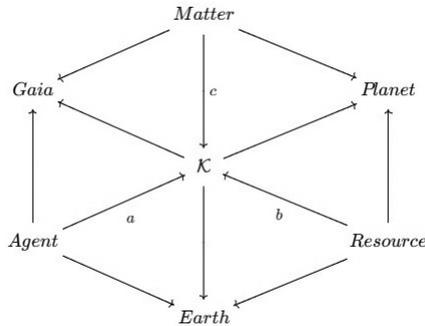
Concluding Remarks on Modes, Nature and its Figures

To conclude, this text has tackled the concept of intercourse by focusing on its material and formal aspects, hinting at some of the consequences this move brings for ecology and its relation to a critique of political economy. We have navigated through each of the modes and used their respective perspectives to propose three schemes through which nature can be seen: as an agent in mode A, as a resource in mode B and as matter in mode C. As we have argued that any social form views both man and nature from a certain limited viewpoint, any framework that purports to see the way objects are constituted within capitalism should always work through composition.

ŠUM #17



Although we have largely relied on the pure forms derived out of our transcendental framework and sketched how each of them—as a pure logical construction—would see nature, this might be of use insofar as it can serve as a navigational tool for the question of ecology in a world determined by varied overlaps between these social forms. In this sense, it might also recast the way we assess current discourses on ecology within our contemporary predicament (as in the diagram below) in their attempts to picture nature, that is, to reconstruct it both as an analytically treatable totality and as a site of political intervention from within capitalism through some particular conceptual figures.



From the perspective of the modes we have been working on, we can begin tracing three crucial images of nature that have been deployed as phenomenological frameworks and as drivers for an attempt to navigate ecological politics in our current predicament.

First, as a figure of nature between agency and resource, the *Earth* appears as the place of dwelling out of which humans can make a world of meaning for themselves, even if that world of meaning might threaten to erode the background against which it is erected. The problem of the Earth is, on the one hand, the wager to remake dwelling, to be understood as Heidegger's fourfold of earth, sky, divinity and mortality, and how preserving the Earth means preserving the possibility of dwelling. In consequence, this position in particular falls into

the myopia of supposing that there is the possibility of separating the astronomical object as a whole material reality and only focusing on the parts of it which we encounter, forgetting about the way in which this material encounter as such is merely a reduction of the concrete reality and not its final horizon.²³

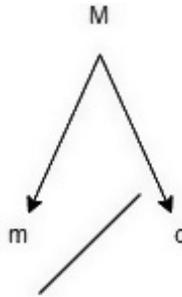
The *planet*, in a way, is the culmination of Earth's ruthless disenchantment and its insertion into a bigger cosmic scheme which shows that its singularity is, in fact, itself contingent amidst the multitude of planets in the cosmos and their indifference towards us and our enterprises. The planetary can only appear somewhere between a resource and matter because it reveals itself as a planet among many and because it refers to material scales around which most of our human conceptual apparatuses feel pale. The challenge it gives us is precisely whether the planet can be an object of politics or not, and if it can, what does it mean to translate the planetary into politics and politics into the planetary scale.

Gaia is also a metaphor that can be seen as an attempt to recover the reciprocity that was presupposed in the Earth but disappears in the planetary. It appears as a combination between the material dimension of nature insofar as it traces a world of organic interconnectedness through a regime of distributed agencies, betting that those agencies fall beyond capital's legibility and span multiple objects. However, it also relies on an instance of direct reciprocity which endows the totality with the possibility of connecting and interfacing with multiple actors under the name of Gaia. The question that remains is to what extent it can mediate between the necessary objectification of resource planning and reciprocity.

Crucially, just as much as these discourses on ecology have latched into themselves certain hypotheses and normative presuppositions of what one's relationship to nature might be or become, the clarity provided by these pure modes might also work as a way to begin posing the question of political experiments that navigate and create new modulations of these already existing grammars. The "ecological sensibility" (IV) latched into our diagram and all of the social forms that compose it should be helpful both as a diagnostic tool and in asking the question of political organization: how do we compose political experiments that make ecology visible not only as a separate discipline or a marginal concern but as an integral part of experimentation as such? How do we compose across various ways of apprehending nature? This, perhaps, might illuminate various ways in which different fronts of struggle and their different apparatuses for sensing our current predicament might connect to one another (V).

23 CHAKRABARTY, Dipesh, "The Planet: An Emergent Humanist Category", in: *Critical Inquiry*, 46, 2019.

There is, however, a restriction in Dumont's model, as it still seems to presuppose the transition from a lower level (parts) to a higher level (whole), the latter being the ordering of the first.²⁶ What if we reverse the direction? In Dumont model, the constitutive relations of an entity with the whole outline all the relations that the entity could establish with itself and with others—what we could call the “holistic placement” principle, whereby a thing is determined by its relations to external others. *However, what happens if, adopting the principle of composition that underpins objective phenomenology (I), we say that the constitutive relations of an entity with itself could shape the relations with other entities?* Take, for example, the differentiation presented in a pregnant woman. In this case, the mother-to-be is two beings at the same time, and consequently the relationship between her and the child is dual: on the one hand, as an individual, the mother is opposed to the child; on the other, as a self-contained monad from which the child will be drawn, the mother encompasses it.



Mother and child in a hierarchical relationship

Applying Dumont's heteromeric principle, it is possible to say that at a higher logical level there is unity (one and the same being contains two beings within itself: the mother), and on a lower level there is a distinction (two beings in relation: mother and child). These two relations—unity and distinction—taken together constitute the hierarchical relationship. However, from the standpoint of objective phenomenology (I, IV), we no longer ask ourselves what is the relation between the terms of an opposition to the whole they comprise, but what are the relations that each term can yield with itself, thus constituting, from this self-remission, a filter with which it is possible to relate to an indeterminate number of entities. Under this line of inquiry, the heteromeric property of the mother (let's call this property “h”, so that we would have h: M-M') allows such a space of consistency that, when relating to itself, it can model a broad set of differential relationships that acquire consistency

26 LIMA, Tânia S., “Uma história dos dois, do uno e do terceiro”, in: *Lévi-Strauss: leituras brasileiras*, QUEIROZ, Ruben & NOBRE, Renarde (eds.), Belo Horizonte: Ed. UFMG, 2008.

in an external order (the child). In other words, from the mother's point of view, a space of consistency is produced in such a way that, at the same time, the mother is equal to herself, equal to the child, different from herself and different from the child; whereas from the child's point of view, a space of consistency is also produced, this time reduced, since the child is equal to itself, equal to the mother, different from the mother, however, never different from itself.

In the mother-child circuit, it is the mother, and solely the mother, who can become something other than herself, hence generating an attribute that is commensurate with an external otherness (child). Putting Dumont's model aside, it is no longer necessary to talk about the constitution of entities based on the reference to the whole of which they are a part; we are now talking about the constitutive relations of one and the same entity with itself and the heteromeric possibilities that are thus engendered from this monadic self-remission. In other words, the focus is no longer on the encompassing and unitary character of an entity but on its internal capacity to produce a difference from within itself, commensurate with other differences. However, within our general kinship ideology, we could all too easily believe that such an attribute of the mother would be a patent biological property, so that socialization should be something secondary to it. On the contrary, if we have brought up this universal property (I, II, XVII), it is precisely because it allows us a device to see relations based on other relations.

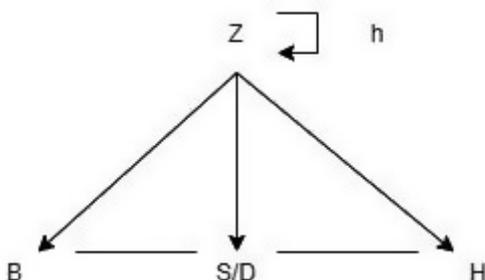
For instance, the Melanesian mother gives birth to a being already related to her and, therefore, different from her: the birth of the child is, from one extreme to the other, a social act. In this sense, children can only become entities socially related to their mothers as a result of all previous marital and affinal exchanges.²⁷ This means that Melanesian men must ensure that the mother produces something different from herself, so that this differential relation can reveal all the relations between them (husband and wife, brother and sister). And this procedure does not happen because the woman is biologically predetermined to bear children but because this is the very logic of Melanesian action—the same thing would happen in circuits of ceremonial exchange. One must constantly produce and create differences and then reveal existing differences and differential relationships through this very act. Let us consider the classic case of the Trobriand *dala*. *Dalas* are sets of relatives (brothers and sisters) related through uterine links. A woman belonging to a *dala*, married or not, contains within herself the essence of her maternal group—and here lies the famous absence of “physiological paternity” of the Trobriand Islands,

27 STRATHERN, Marilyn, *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*, Berkeley: University of California Press, 1990.

since for a woman to be able to bear children, there must be an activation of this essence through a dream or a visit of the baloma spirit. Returning to our previously established terms, we could therefore say that the Trobriand woman already possesses not only the essence of the dala, but also an anti-heteromeric attribute: when relating to herself, she is *excessively* equal to herself. Magnified, she spawns a same-sex entity, a pure dala that fully encompasses the differences between brothers and sisters within the group. Here is the initial paradox: the woman can bear children; however, she cannot extract, a priori, something different from herself. So how is it possible to extract the self-different, paraconsistent attribute (XVII)?

The husband enters the scene. Through acts of sexual intercourse during pregnancy, the husband gives the fetus his distinctive features, which in turn will distinguish the fetus from its natal dala. The heteromeric attribute is produced through this reiteration of sexual intercourse. However, as Alfred Gell reminds us, this act can only appear as a transformation of a previous act, namely, that of the wife's brother, who, working in his garden and giving his yams to his sister's husband, also gives the husband an example of the extracting work he must perform on his wife.²⁸ The mother is now in the position of producing something different from herself, and this difference allows her to become an appropriate model or "sensor" and reveal the relations that surround her (husband and wife, brother and sister).

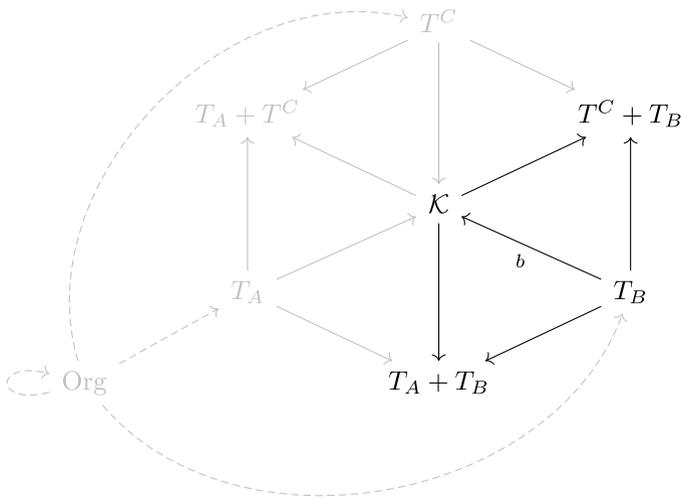
In short, in the Trobriand case, the mother does not simply give birth to a child, but manages to reflect in her internal composition the external ordering of the kinship space (husband and wife, brother and sister) (I, IV). The latter is just as important as the former. The mother is thus not the point of view that encompasses the other elements (whole), but a point of view that manages to differentiate itself and, therefore, produce a difference which is commensurate with the differences that make a difference in the social space.



Child-birth seen in a heteromeric relationship h: Z → Z

²⁸ GELL, Alfred, "Strathernograms or the semiotics of mixed metaphors", in: *The Art of Anthropology: Essays and Diagrams*, London: The Athlon Press, 2006.

X. Lessons from Mongolian Logistics



Logistics, broadly construed, is a critical field for the reproduction of the relations of production, in which the state intervenes as producer of capitalist space. This logistical imperative—to lay out the space of stocks and flows for the optimal reproduction of capitalist relations—involves the state precisely to the extent that reproduction is not a matter of logic, but of strategy.

—Alberto Toscano²⁹

The Logistical State

The State is concerned with spaces—territories and bodies are organized within a space, or rather, a space of spaces. For Lefebvre, the state has three logical operations to carry out control over space:

29 TOSCANO, Alberto, "Lineaments of the Logistical State", *Viewpoint Magazine*, 2014, n. p.

homogenization, hierarchization and fragmentation³⁰. Homogenization and fragmentation occur as functions of the state's role as the regulator of the flow of capital and the development of productive forces (II, VII, VIII). Hierarchization occurs as a reaction to these processes, locking in social relations through ghettoization, elite seclusion and automated control systems.

Lefebvre names this the State Mode of Production (SMP) and sees it as characteristic of late-stage capitalism. However, in light of our triadic transcendental, we can ask how much of the 'logistical state' is a product of the capitalist system and how much of its logic is immanent to the domain of T_B itself.

Lefebvre on the Steppes

To recall from an earlier section (II): Mode B is defined by the logic of *plunder* and *redistribution* (VII, X). Its main social form is that of *domination* and *protection* between communities. Its normative structure is that of *laws*, imposed by dominant communities over the subservient ones. Its main hierarchical structure is that of *status*. Its collective structure is that of *cities*, further divided into *centers*, *margins*, *sub-margins* and communities which are *out of sphere*—outside the reach of its power. When it is the dominant mode, it is able to scale up and integrate communities into *World-Empires*.

We will take the case of the Mongolian Empire and the social worlds that were transformed, destroyed and created in the period of Mongolian conquests as a paradigmatic case of Mode B, both in its subordinated form as T_B (the tribal system Chingiss Khan was born into) and in its dominant form as T_B , in the form of the Mongolian Empire the Great Khan left to his heirs and the world. The Mongol Empire is paradigmatic of T_B in a way similar to how Marx saw the British Industrial Revolution as a purer form of capitalism than its continental cousins. The scale of the Mongolian Empire was such that its state had to be minimalist, as was typical of 'nomad empires'. But in order to function, this state therefore had to be *maximally logistical*—that is, compared to many of the states of its time, the Mongolian apparatus had less overhead, redundancy and inefficiency—all without, importantly, doing away with graft and nepotism.

In the short period of Chingiss Khan's life, an extensive imperial system along with trade routes and cultural exchange developed across the bulk of the northern Eurasian landmass. This system required a flexible, resilient and consistent ruling apparatus, which necessitated the 'regulatory character' of a logistical state. Yet at the same time, at

30 LEFEBVRE, Henri, "Space and the State," In: *State, Space, World: Selected Essays*, University of Minnesota Press, pp. 223–253, 2009 [1978], p. 241.

the heart of the system was a drive for expropriation, whether through pillage or through tribute, to feed the persistent demand for goods, redistributed either as loot or as tribute. As Mode B became dominant, in the form of the Mongolian Empire, this system was radically transformed and expanded. Expropriation and redistribution grew to massive proportions and became major components of the Mongolian world-economy.

In his work *The Structure of World History*, after defining the three modes of intercourse, Karatani argues that there were hybrid forms of social worlds, such as the ancient Greek and Roman empires, which were hybrids of T_A and T_B , as opposed to the purer forms of state from Asia proper.

As opposed to these hybrid states, the Mongolian state developed a kind of parallel structure, delineating the body of the Mongolian Nation from the body of the Empire. The ruling elites encouraged the growth of cities along major trade routes or in key economic areas, increasing the bulk of sedentary people. Yet the Mongolians themselves, both as rulers and as a people, clung fiercely to their nomadic ways, maintaining mobile courts and traveling in vast tent cities.

This dual structure was not new – it belonged to a long tradition spanning millennia of nomad empires emerging from the steppes to dominate city-folk. Nor was the role of *khan* (ruler) as a provider of expropriated goods unique. What was new were the scale and the unprecedented wealth and power that came with that ‘scaled-power’.

Extending from northern China to eastern Europe, from Anatolia to Korea, the empire necessitated sophisticated communication lines. The east-west lines were maintained by the *yam*, a postal service and (in some places) a supply chain provider. The mobile Mongol camps called *orda* (from which we get ‘hordes’) moved seasonally along steppe rivers, moving north and then south. These two lines—the east-west *yam* and the north-south *orda*—were coordinated throughout the year so that they intersected as the seasons changed.

These supply lines were essential to maintaining the system of plunder and distribution that guaranteed the cohesion of the Mongolian Nation, and therefore the administrative integrity of the Mongolian Empire. “As contemporaries noticed, the purpose of the Mongol khans was not to accumulate wealth but to dispense it.”³¹

Loyalty was built on gifts, and the circulation of goods that were either directly seized through plunder or extracted through tribute and taxation. Gifts were not only of material value—they directly signified one’s status within the Mongolian system. This status system was based on the kind of logical hierarchization Lefebvre points out.

31 FAVEREAU, Marie. *The Horde: How the Mongols Changed the World*, Harvard University Press, 2021, p. 114.

In order to maintain stability, delineations were introduced into the old steppe kinship systems. The direct descendants of Chingiss Khan (by his senior wife, Borte) became the sole, eligible claimants to the Golden Lineage—only they could become khans. This was meant to prevent empire-eroding competition for the throne. Yet, it only pushed this conflict to higher levels.

Chingiss Khan pushed this process of hierarchization and T_B -based organization into the social body of the Mongolians. The Khan created a new kind of mobile administrative unit, the *keshig*, which was both a bodyguard unit and the supply-chain coordinator for the khan's camp. Chingiss also politicized the traditional *quriltai*, a collective decision-making body which brought camps of various local leaders together to make appointments, settle disputes and perform ceremonies. Chingiss Khan used the *quriltai* on several occasions to amass support, legitimize his rule and call council.

When conquering other nomadic peoples, Chingiss Khan broke up their kinship groups (*ulus*) and mixed them into the military *tumen*, a decimal system beginning with ten-person units, and then into units of one hundred and one thousand before capping at a ten-thousand person unit that was commanded by someone experienced and trustworthy. Here we see the processes of both *homogenization* and *fragmentation* at work, not within physical space, but rather the virtual space of kinship ties (II). The binds of affinity on Mode A were being brutally severed and reformed according to the connecting principles of adherence to the chain of command on Mode B—that is, Lefebvre's third state operator, *hierarchization*.

Thus, the new empire was built on transforming traditional systems stemming from a time dominated by Mode A (*qirultai*) while implementing new systems built on Mode B (*keshig*). “By incorporating the keshig, the quriltai, the military, familial assimilation, and the complex and interwoven hierarchy of lineages and seniority relations, the regime created a social and political order that was simultaneously novel and traditional... Social assimilation and total political exclusion [from the golden lineage] were two sides of the same coin.”³²

Also, despite the fact that the Mongolian Empire was not built in the age of Capital, we see the state-building process still utilizing the core functions of homogenization, fragmentation and hierarchization, through the building of militaries, taking control of the flow of goods, the reorganization of status and power-relations, and the development of infrastructure and logistics.

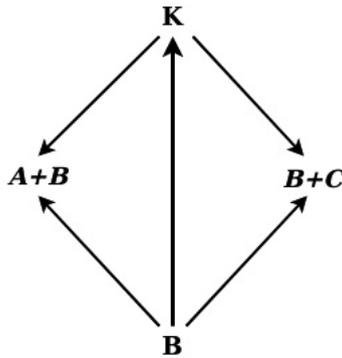
The position of the khan itself was determined through a complex system of allegiances or loyalties. The *qirultai* was the place where these allegiances were shown (by attendance) and loyalties

32 See: FAVEREAU, *The Horde*, ch. 5.

rewarded (through redistribution of expropriated goods). But khanship also had a key structural role—to be the position from which the whole of the empire could be seen, and the vantage from which key strategic decisions could be made. As other sections of this essay argue (I, XII), the capacity to see and abstract are capacities built by the people in history, and as we know from the long history of the state, its power to see is almost always established by force.

The Sovereign Perspective

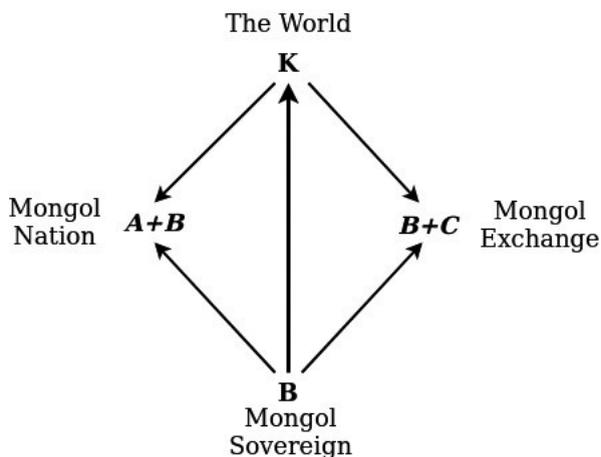
This tripartite schema of the Monster gives us the point of view of the Sovereign (I). As we can see, the place of the Sovereign can access the K-World directly or through either A+B or B+C (II):



A+B is the place where we can define a national community and construct 'a people'; a process mediated by the state which is, in turn, grounded in the legitimacy of that people. The *kirultai* operated as the place for both decision-making and popular legitimization, where the Mongolian Nation underwrote imperial policy. This was also a people delineated linguistically, institutionally and culturally from the rest of the subject population, as non-Mongolian imperial subjects were banned from learning the Mongolian language.

In B+C, we have the basic logic of the logistical state—not just of the State Mode of Production under capitalism, but of any given state operating in an economic territory. To examine the case of the Mongolian system, we will select one component that exemplifies this logic: the *keshig*. Officially, this was the bodyguard of the khan consisting of thousands of soldiers. However, the *keshig* was primarily a logistical organ, maintaining the supply lines that kept the imperial court operating and enabled the flow of goods which were in turn gifted out—a key to the stability of the Mongolian society. The *keshig* also served as the core administrative unit, essentially forming the government.

The logistical structure of B+C is what enabled the “Mongol exchange”³³ to thrive. Safe roads, consistent communications, and state-backed currencies all facilitated the growth of a Eurasian world-economy. The khans and their *keshigs* maintained the flow of goods and amassed vast wealth in the process. In turn, the Eurasian landmass experienced unprecedented globalization.



This gives us the total structure of the sovereign position. In the case of the Mongol sovereign, the position of B can be understood as the place *from which one can see one's domain*, and to track how it splits into a nation of people (on A+B) and a society of exchange (on B+C). If the position of khan was built upon a system of allegiances, then one of the key powers afforded not only to the khan but to the Mongolian Empire and therefore many of its people was an unprecedented capacity to surveil their domain.

In order to be able to literally see (that is, reconnoiter and monitor), the Great Khan implemented sweeping reforms. We've already seen the *tumen*, one of his earliest political-organizational experiments, recompose his armies into decimal units. The formal reorganization coincided with the recombining of human material: the former tribe-based units were broken up and thoroughly remixed in order to overcome earlier relations of kin and build a cohesive sense of national identity along with a more effective war machine. But its decimal structure also facilitated administration, both of the war machine and of the redistribution machine: tributes and loot were distributed top-down throughout the *tumen*. The Mongolians maintained meticulous accounts and centralized this data in the hands of the khan.

As Chingiss Khan's conquests moved westward into central Asia, he began a new pillaging policy: all seized goods were taken outside

33 FAVEREAU, *The Horde*, p. 41.

the city to Mongolian camps, where they were accounted for. The goods were then distributed by the *tumen*. This transformed pillaging by decreasing the violence within the captured city while guaranteeing that the khan's *keshig* could fully regulate the centralization and redistribution of pillaged goods and later tributes. Additionally, the accounting process created the data for the khan to see what his conquests had procured.

After the invasion and conquest of northern China, the Mongolians razed many rural holdings, eliminating both villages and farms and producing pastures that enabled Mongolian horsemen and their retinue to quickly move in and out of Chinese territory. This in turn links to the problem of the 'politics of navigation' that arises elsewhere in this work (VIII): space was dominated in order to shape it. Homogenization and fragmentation were both enforced by obliterating villages and creating pasturage: the Mongolian nomads could count on the type of terrain that maximized mobility and forage while breaking up old kinship connections and relocating them elsewhere in the empire. This demanded a third moment—hierarchization—through which all subject peoples were subordinated to the Mongolian Nation, and the people of that nation in turn sworn to the sovereign khan.

Nomads and Empires

In *Structure of World History*, Karatani looks to nomads as a kind of prototype of a communist society, one in which Mode A is preeminent but has not yet come to dominate. By this, he participates in a much longer tradition that sees in nomads a romantic figure of resistance. But while nomadic groups have regularly posed an especially thorny problem for empire-builders, the example of the Mongolians demonstrates that we cannot take a romantic view of nomadic peoples.

This is for two reasons. First, from an organizational standpoint, nomadic life was better suited for coordinated military operations. The Mongolians became famous for taking on larger forces and winning through superior mobility, tactics and logistical independence. This independence also meant that different branches of the Mongolian force could operate autonomously in different aspects of a total strategy, putting defenders in a terrible position. The Mongolian armies were also logistically independent, relying on methods that were cultivated over generations of seasonal migration, seeking pasturage and maintaining large herds. These logistical systems laid the groundwork for larger administrative systems, incorporating both roaming and sedentary populations. Nomads can in fact be excellent state-builders.

Second, the conquest of the steppes did not simply have building an empire for its goal—the steppes in particular were to be under the

hegemony of the Mongolian people. This led to what we might today call genocidal wars against other steppe nomads, such as the Qipchaqs, who refused to submit to Mongolian dominance. This kind of rivalry between peoples for space invoked the kind of national identity and sense of manifest destiny which would become dominant in modernity. That is, in our terms, it was not simply Mode B that was 'responsible' for this inter-nomadic violence—it was a sense of community entitlement, or manifest destiny, drawing upon the grandiose vision of the Mongolian Nation that Chingiss Khan built. That is, A+B seems to have a particular tie to some of the worst excesses of state violence. This in turn should have us question the romantic vision of Mode A.

Though we do not have time to explore it here, one of the main reasons why so many steppe nomads rallied around Chingiss Khan as he built his early steppe empire (before any of his famous conquests) was because he offered a meritocratic order in place of the conservative one whereby elders had automatic seniority. That is, in a sense, it was Mode B that was progressive relative to Mode A, which was strangling the ambitions of young steppe warriors while limiting the effectiveness of military operations. By severing kinship ties, Chingiss Khan built a far superior war machine while at the same time breaking up the seniority system so that he could promote the best people from within.

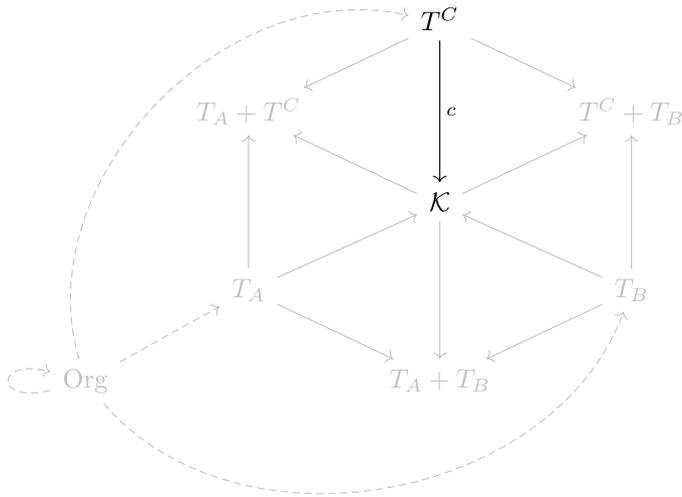
Contrary to Karatani, we want to study Mode B to find useful social configurations there. This requires differentiating between the transcendental, which can be a space for solving problems, and the concrete materialization of such logics which, at their most coordinated, tend to look like states and, at their least, like banditry. But as we see with the development of the Mongolian empire, the Mongolians developed infrastructure and standardized measures to enable the extension and scaling of such a system of expropriation and distribution. The kinds of problems that emerge in the field of Mode B will also confront any economy based on free association, even in non-traditional forms of sovereignty and state.

We can further study how the Mongolians were capable of performing such feats by analyzing how Mode B came to dominate and reorganize both kinship and commerce relations along ways that gave birth to a Mongolian people and a world-economy, both under the dominance of the sovereign Khan. New scholarship such as Favereau's recent work demonstrates that the Mongolians, while masters of war, were also true innovators in the field of politics. Mongolian history presents an important paradigm of sovereignty, along with the material for the study of interactions between exchange transcendentals. Within decades, a society dominated by kinship relations was converted into

a transcontinental empire that in turn fostered a world-economy which became a direct predecessor of the early European capitalist markets.

Ultimately, the Mongolian history gives us a multilayered view of the logistical state from which we can better understand the logic of social worlds and develop methodologies for liberatory political experiments (V).

XI. The Space of Value and Valorization



Marx was an objective phenomenologist: he insisted on the actuality of relations between commodities persisting independently of the knowing individual. Our task here is to formulate the rules of the more general playing field in a way that makes commodity relations compatible with other ‘layers’ of a social formation—as seen in our diagram (II)—while preserving the specificity and autonomy of commodity logic. On the one hand, the compositional approach we adopt (I, IV), informed by category theory, should help us separate the objective dimension of value from its subjective apprehension—that is, from commodity fetishism (VII)—while, on the other, it should also integrate this formal description into a larger framework capable of also accounting for the singularities of kinship relations on Mode A and social contracts on Mode B (XVII).

Value and the Logical Space of the Commodity-World

The logic of value is famously introduced by Marx in the third section of the first chapter of *Capital*, where he presents the “elementary form of value”³⁴:

$$xA = yB$$

Marx promptly clarifies that the form of this equivalence relation is fundamentally predicative: “x amount of A is worth y amount of B”, which is not symmetric for A and B but specifies how the *equivalent form* of B obtains for the *relative form* of A where the concrete amount of B serves as the *predicate* for the value of x amount of A. Value relations, under certain conditions, can also be transitive. Of course, in a purely ‘accidental’ encounter—such as those described in the practice of ‘silent trade’ between certain communities—there is no guarantee that multiple commodities will be evaluated in a consistent way. Nonetheless, the value relation can acquire internal coherence such that if A is exchangeable with B and B is exchangeable with C, then A must be exchangeable with C. Both the antisymmetric and the transitive aspects justify our use of the mathematical map (or *morphism*) as the elementary representation of commodity relations.

The “obtains for” we used to describe this form is suggestive: every commodity implies a way of measuring the space of all other commodities. We can ask of any given commodity the degree of ‘cigarette-ness’, or ‘cab-ride-to-the-city-ness’, or ‘tutoring-session-ness’ that obtains for it. The transcendental here is this collection of degrees, each serving as a possible truth-value for such questions. In what Badiou calls the “classical world”, there are only two possible answers (or degrees)—true and false (or maximal and minimal)—but in general, the transcendental is a partially ordered set such that two degrees may be comparable or not (and when they are, one degree must be greater than or equal to the other). The license to use a piece of software may have a greater or lesser cigarette-ness than a haircut, or their respective cigarette-ness is incomparable, having only the minimal degree in common.

When two commodities are exchangeable within a given context, we say that they each obtain maximally for the other’s equivalent form. Let one hold commodity A and evaluate its exchangeability with two other commodities, B and C: *from the perspective of A*—which, for now, has no guarantee of being universal—if A is exchangeable with both B and C, that implies one could also exchange B for C.

34 MARX, Karl, *Capital: Critique of Political Economy, Vol. 1: The Process of Production*, London: New Left Review & London, 1976, p. 139.

Note that it is this implicative structure of equivalence, captured here in diagrammatic form, that functions in our account as the substitute for Marx's theory of a "social substance", establishing a common *logical space* rather than a common ontological property, amongst commodities. Instead of claiming that the value-form is an abstract social structure in the sense of a separate realm, we can instead define it as the abstraction that takes place when a commodity is seen from the perspective of another—preserving some differences and disregarding other aspects of it (IV). This is not so much an alternative conception as an alternative *grammar* within which one may reconstruct the same concepts from Marx's *Capital*. In this new environment, less constrained by metaphysically laden distinctions such as substance and appearance, or quality and quantity, we might be able to extend the reach of these concepts, better understand their inner logic and derive new consequences from them.

We claim, therefore, that value need not be posed as a substance, but rather as a kind of logical space. In order to learn about this space, we need to pose questions in the following way: *where* in this logical space do certain propositions hold? In the simple case of accidental exchange, we can assert that there exists a place called *p* where two commodities are exchangeable. The proposition is formed when we apply a function of two variables—let us call it the *exchange function* (denoted below as *e*), of the two commodities (denoted *A* and *B*) taken as the terms of that function. The proposition then has a 'truth value', or an open region in our logical space (in Badiou's parlance, a *degree* in the *transcendental*). In a classical world, the proposition must be either globally true or false. However, in a non-classical world, which we assume in this text for the sake of generality, this place *p* could be somewhere between everywhere and nowhere.

$$e(A, B) = p$$

Given a set of commodities, we can let *A* and *B* be any pair from that set. This gives us the total set of exchange relations in our space. To transform the exchange function into what was earlier termed the equivalent form is simply to fix one of the terms of this set. We choose an element from our set and bind it to *A*, but allow *B* to continue ranging over every element (including *A* itself). The equivalent form lets us consider how our space looks from the standpoint of a single fixed commodity. This is called an *atom* of our space.

$$A(x) = e(A, x) = p$$

Each atom is a function of one argument whose domain is a given set of commodities and whose output is a degree of truth in our transcendental. There are certain rules each atom must obey in relation to another as well as the exchange function—after all, they are all ‘perspectives’ in the same space. However, for the purpose of an accessible introduction, we omit those rules here. As the name suggests, an atom is the finest resolution available for a given space. This implies an *indistinction* between exchangeables—a principle of indiscernibles: if two things are exchangeable, then under some constraint they could be substituted for one another. Of course, from the standpoint of individual sensibility, it is clear that a pack of cigarettes and a book are distinct (XII), but our commodity space is not populated by humans.

There are nearly unlimited commodities to choose from to serve as the equivalent form, but they are not equivalent in their capacity to measure the entire space coherently. Instead, commodities differ in terms of their capacity to be divided and in their compatibility with other forms of commodity measurement. If we use a cow as our measuring stick, we can perhaps say that a car is worth ten cows. A plane ticket may be worth two cows. Let us also assume that a car is worth one thousand bags of rice and a plane ticket is worth two hundred such bags. At this level, it seems like we have equal forms of measurement—whether we use cows or bags of rice, we can simply translate the result (for example, by using the fact that one cow is worth one hundred bags of rice). But if we then say that a bicycle is worth twenty bags of rice, we find that there is no equivalent in terms of cows since a ‘fifth of a cow’ is not a valid atom of our space—it does not preserve one fifth of the value of a living cow such that five of these parts could reconstitute the original value. In other words, a bag of rice has a greater compatibility as a unit of measurement than a cow due to the fact that it is able to divide the commodity-world further, generating finer atoms of value.

If we put our commodity-atoms in a sequence ordered by their compatibility, such that a bag of rice is ranked higher than a cow, a cup of coffee higher than a bag of rice and so on, we can surmise that the limit of this sequence would have a certain universal property among all commodities. Namely, it would have the *homomeric property* (IX) of always being divisible into homogeneous parts whose recombination returns the original value. This is what Marx called the “formal use value” of money-commodities: the capacity of certain materials to “mimic” the abstract properties of value, in particular the possibility of being decomposed into parts while leaving the quality unchanged—such as gold, silver or salt can. And without specifying the physical substrate that would materially realize this property to some extent, we can already allocate a logical place to it in assuring the consistency of the commodity-world.

Note that, in our current formalism, we do not yet have an extrinsic marker for quantity. For now, 'one bag of rice' and 'two bags of rice' are actually two entirely distinct commodities—two objects that might or might not be exchangeable for one another. This is consistent with our approach since we are not primarily interested in what makes a difference for us, but rather in 'the differences that make a difference' to commodities themselves. This is why our elementary value relation actually reads " $A \rightarrow B$ ", which does not even guarantee equality since A and B can be equivalent to the pth degree, rather than " $xA = yB$ " which already implies separate accounting units (kg, meters, pounds, etc.) and maximal equivalence. To move from the former to the latter we actually need additional structure, the means to define what a 'portion' (or 'slice') of a commodity is and to define variations amongst them that preserve value-structure such that if A and B are maximally exchangeable, then some common restriction to both A and B still preserves maximal exchangeability. As we have seen, the possibility of determining commodity *atoms* based on the homogeneity of *homomeric* commodities brings us closer to this. If we have commodity A as our equivalent form and commodity B is maximally exchangeable with it, given a commodity C that is only equivalent to B to the pth degree, then there always a portion A' of our equivalent A that is maximally exchangeable with C such that A' is exchangeable to the pth degree with A. Through this construction, we have managed to express the value-relations between any two commodities in terms of morphisms to one sole commodity—A thus functions as a universal equivalent. Furthermore, it is only because partially ordered value-relations found a *total order*³⁵ in the atomic parts of a homomeric commodity A that we can produce a map from value-relations to a numeric model that preserves this order-structure—which helps us understand why it is that, despite all claims to the contrary, capitalism is actually a very restricted space for mathematical abstractions.

The Topos of Commodity-Exchange

One of the reasons why our approach might look counterintuitive is that we do not start from a single commodity as does Marx in *Capital*. When we first approach the commodity-world as phenomenologists, we suspend any assumptions we have about what operations differentiate the "immense accumulation of commodities" and determine what counts as a unit within it, as a single commodity. Instead, as part of our commitment to studying what makes a difference to commodities

35 In a total order, every member of the set is comparable to every other member, whereas in a partial order there may be pairs of incomparable elements. Although value allows for partial orders, under capitalism, every priceable thing can be measured in terms of money and thereby rendered comparable to everything else.

themselves, we need to find consistent internal restrictions of this space through the logical means available within it, such that what counts as an 'individual' commodity emerges as the liminal result of these constraints. This alternative approach is called for because, unlike Marx who is almost exclusively concerned with T^C —that is, commodity logic as the dominant transcendental—we begin from the most general form of commodity evaluations, such as those that might take place in a non-capitalist society, or in a totally inconsistent way. The possibility of forming consistent exchange spaces, or of producing totally ordered evaluations of this space, therefore depends on the possibility of constructing logical objects *inside* the commodity-world, which are capable of 'seeing' these properties (I, IV).

One of the most basic operations we can define in this space is the basic postulate that two commodities, when they are not exchangeable, can be altered to become exchangeable. There are two types of such alterations, which we will call *completions* and *slicings*. A completion is the operation of adding additional commodities into the proposed exchange. For example, if one thousand acres of arable land cannot be exchanged for Magritte's *Le Principe du Plaisir*, but we are able to produce an exchange by adding ten kilograms of the chemical element rhodium to the side of the arable land, then we say this addition is a completion. Conversely, a slicing is the removal of a part of one side of an impossible exchange to make it actual. Note that we cannot, for example, slice a painting into smaller exchangeable units.

We call a given collection of commodities, with their completions and slicings, a *bargaining space*. It is important to note that this is a local (i.e. local to a specific time and place) definition of the commodity logic that carries with it a notion of *individual* commodity dependent on what exchanges are possible in that space. In the case of a bargaining space consisting only of a famous painting, arable land and a rare chemical element, we may not even have a notion of a 'single acre' of land or 'one gram' of the element—simply because the common unit of exchange can only be derived from finding compatible slicings. In other words, a bargaining space gives us a local *resolution* from which to observe a part of the total commodity space.

Accidental exchanges give us a simple proposition: two commodities are exchangeable at a particular place (and time). When we investigate this space with our completion and slicing operations, we reveal a larger space consisting of many such places that overlap and connect with each other. We call this the 'bargaining space' and use it as a particular context for propositions about a commodity. This lets us talk about 'local phenomena' of the commodity-world. The next step is to add the condition of 'gluing' multiple such spaces together. Given two (or more) sets of commodities, each belonging to different

bargaining spaces, there exists a union of those sets and an exchange function whose domain is the union-set and which is compatible with the exchange functions of the antecedent spaces. If such a gluing is possible, then it is necessarily possible to recover the two (or more) constituent spaces from the final glued one. The rules of such gluing essentially follow from the field of topology, which allows us to describe the composition of a space (I). In our case, we have attached a certain data to this space: the value-relations between commodities. This fusion of data and space is known as a *sheaf*.

We may interpret the entirety of the commodity-world as a certain collection of such sheaves obeying further rules, a topos in which it is possible to formulate logical statements consisting of predicates quantified over a given sheaf. Commodities serve as terms for these predicates and we can evaluate *where* certain predicates hold true, again yielding a degree of our transcendental. More complex statements can be constructed by combining simpler ones via operators from first-order intuitionistic logic (XVII). This allows us to speak of an ‘internal language’ of the commodity-world that determines the boundaries of what can be inferred. For now, we omit the details for the reader to investigate further (XVIII).

The Three Forms of Capital

Until now, all we have shown is that by considering a category which has commodities as objects and evaluations as morphisms, such that these respect identity, composition and associativity, we can start our analysis of the commodity-world a step before Marx’s own analysis. That is, we presuppose neither the notion of a common social substance nor a preliminary separation between quantity and quality—instead, we treat value as the abstraction from differences taking place when a commodity is evaluated from the perspective of another. For the sake of brevity, we focused here on the fixation of a sole evaluator, the universal equivalent, as the main condition for such consistent exchange space to be formed. This allowed us to show that, at this point, *a new difference starts to make a difference* in the commodity-world since the material properties of different commodities qualify them in different ways to occupy this position. Commodities which can be decomposed and recomposed in homogeneous ways are better equipped to express, through these homomeric variations, the likewise varying evaluations of other commodities.

If such a universal equivalent can be found, then a consistent and totally-ordered commodity space becomes possible—and a quantitative predicate for commodities can be defined, as in “commodity A is worth *ten dollars*”. Such a universal equivalent is what we call the

money-commodity and this quantitative predicate is called a *price*. A space of commodity-evaluations equipped with a money-commodity—and therefore with the capacity to ‘name the price’ of its commodities and its priceable parts—constitutes a *consistent exchange space* (CES). Like the bargaining space before, a CES also serves as a particular context for value-relations to appear. But unlike in the previous context, we can formulate properties in terms of price.

For example, a CES can be said to be free of arbitrage since we can assess a coherent pricing for any set of commodities such that no commodity owner can profit from a cycle of exchange alone. We can, however, still construct more complex social objects within the commodity-world that are capable of stitching together paths across different CESs and thus permit morphisms from one pricing context to another—this is the basic form of *capital* as an object.

In our approach, we distinguish three principal forms of capital³⁶—usurer, merchant, and industrial—in terms of the different ways this suture between consistent exchange spaces can be produced. Though the first two strategies have a longer history than industrial capital, Marx calls them “antediluvian” forms of capital because of their essentially *hybrid* nature—that is, both usurer and merchant capital require that other transcendental layers guarantee the consistency of these operations. These are the two famous formulas for usurer and merchant capital, respectively:

$$M \rightarrow M'$$

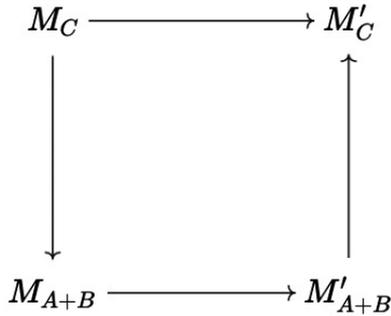
and:

$$M \rightarrow C \rightarrow M'$$

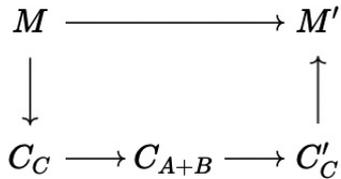
Within our multilayered approach, a more complex reframing of these two processes is possible, highlighting their reliance on T_A and T_B (II). First, usurer capital can be seen as the treatment of money as a gift—a ‘bracketing’ of money’s place within a CES and its subsequent treatment as a gift framed, quite often, in contractual terms, requiring a repayment with interests, a new quantity which is then once more treated as a money-commodity, but now of increased value. We use subscripts to indicate how operations occur across layers:

36 Marx, *Capital*, p. 247.

Subset of Theoretical Practice



Merchant capital, on the other hand, does not only require an intermediate purchase of a commodity, but also the reindexing of this commodity within a new value-system where it is priced at a higher value and then sold for a higher but equivalent sum. It requires, then, that this commodity should cross a frontier that is only intelligible from the perspectives of community and state transcendentals:



This leads us to the famous formula for industrial capital:

$$M \rightarrow LP + MP \dots C \rightarrow M'$$

It is interesting to note that while usurer capital seems to extract the monetary difference (M') from a *temporal* displacement, between lending and collecting, and merchant capital does so from a *spatial* displacement, between different value-systems, industrial capital finds a *compositional* source of surplus captured in the formula by the introduction of the + operator and the internal distinction between two types of commodities: labor-power (LP) and means of production (MP).

However, one should also note that unlike Marx's exposition in *Capital*, we have not yet presented any concept of labor internal to the commodity-world since we have imposed for ourselves a constraint that prevents us from merely adding new entities and operations that are not intelligible from the world's compositional structure. The project of an objective phenomenology of capitalist political economy

implies that we never introduce an observable difference without also determining which objects in our commodity space are capable of observing it (IV, VII). In other words, a necessary step for us to make sense of the formula for industrial capital is to derive, solely with the resources of our current commodity-world, the means to immanently 'see' the difference between labor and other commodities.

Labor-Commodity, Production and Abstraction

It is therefore remarkable that, in fact, at this early stage of our construction, we do have the means to define labor-power in terms of morphisms alone. First of all, we must introduce an operator, called a *tensor* \otimes , which allows us to make sense of the $+$ operator in the formula of industrial capital. This operation acts as the *parallel* composition of commodities: instead of composing in a serial order as in $C_1 \rightarrow C_2 \rightarrow C_3$ (which implies that there exist separate operations from C_1 and C_2 to C_3) we want to define how a joint composition $C_1 \otimes C_2$ takes us to C_3 , for example. In categorical terms, this means we would have to define our \otimes operator in such a way that we would now have a 'symmetric monoidal' category, a category in which we can define *commodity-producing* arrows of the form $LP \otimes MP \rightarrow C$. But once this is established, the following distinctions become possible.

I) From the standpoint of compositional paths, every commodity is either (1) an output of a previous commodity-producing map, a product, or (2) introduced into the commodity space through an appropriate layer-conforming operation in T_A and T_B —what is called a *fictive commodity*. Land enclosures and intellectual property rights are examples of previous localizations of invaluable objects on T_B which allows them to be alienated through contracts and used in a productive endeavor so that they affect the magnitude of value of the product, while unpaid housework is an example of an activity that remains outside of the commodity space, even though it mediates the private consumption of commodities, due to it being localized on T_A as a 'family affair'.

II) Every commodity is either (1) consumed as an input in the production process of other commodities, as a productive consumable, (2) consumed outside the commodity production process, as a simple consumable, that is, as the input of a process that is not commodity-preserving—like eating—or (3) removed from commodity space through a transcendental re-indexing that excludes it from the commodity-world.

III) Given a commodity C , we can consider its *reproduction structure* r through the set of commodities CMS such that $r: (C \otimes C_{MS}) \rightarrow C$. The map of r functions as a sort of 'indirect' identity map for C . For example, a machine might require electricity and

regular maintenance work, both priceable as commodities themselves, in order to continue functioning.

With definitions I, II and III, we can now further discern three different classes of productive consumables:

i) There are commodities which are exclusively composed of productive consumables—that is, they were previously the output of commodity production and their reproductive consumables are part of the same production process as they are, forming an additional cost to the buyer of the commodity in question. These we call *private means of production*, or MP^P .

ii) There are commodities which are not exclusively the output of commodity production but whose reproduction costs are part of the same production process which employs the commodity. Most natural resources fall into this category: they are not exclusively the product of commodity-composition, though transforming them into a commodity usually requires labor while their reproduction takes place inside the productive sphere: if one buys land for farming, one must also buy fertilizers and water to replenish the land. These are called *natural means of production*, or MP^N .

iii) There are productive consumables that are neither the output of previous commodity production nor reproduced inside a production process—this is the case of the *labor-power*, or LP: like MP^N , labor-power becomes a commodity through layer-conformance of human laboring-capacity as a private property in T_B , but the commodities it needs to reproduce this capacity come from the set of simple consumables and are therefore exchanged for money outside the production process.

This differentiation of the labor-commodity relies solely on the paths of production and exchange that situate a commodity within its world and does not require that we take the capacities of humans as a given—in fact, if any other entities could instantiate this logical distinction, they would also be seen as labor-power by capital. The difference between the reproductive structure of commodities, however, is ‘visible’ not from the standpoint of money as a static sensor for equivalent or nonequivalent exchanges, but rather *from the standpoint of capital*—the upper morphism $M \rightarrow M'$ in our diagram—whose internal structure is capable of expressing not only how much value some commodity has, but also how much value it can add to a final product. Since the means of production are the product of previous commodity production, their parts have prices stemming from previous productive processes, and since their reproduction structure is also purchased by advanced capital, the value that MP can transfer to a product as it consumes C_{MS} and composes its parts from parts of other commodities is constrained by its own value. It is *constant* capital at best. On the other hand, since

labor-power is not the product of commodity production, its parts are not directly priced, and since its reproduction structure goes through simple consumables, its value is *not* covariant with what happens inside the productive sphere. The value of labor-power does not necessarily correlate with the value it adds, through composition with other commodities, to a product. It is *variable* capital.

If we now return to the diagram for industrial capital, we can see that, in the composition $LP \otimes MP \rightarrow C$, there might be specific ways of composing parts of labor-power and parts of the means of production such that the output might allow previously 'invisible' parts of labor to be priced in a consistent way, allowing the diagram to commute through the addition of *surplus value* through composition.

$$\begin{array}{ccc}
 M & \longrightarrow & M' \\
 \downarrow & & \uparrow \\
 LP \otimes MP & \longrightarrow & C
 \end{array}$$

One might say a capitalist production process is a laboratory for probing into new priceable parts of labor—it sees more of labor than the labor-commodity can see of itself. The construction of the immanent concept of *labor time*—though not provided here—can be derived from the search within the productive sphere for the means to consistently price the parts of labor.

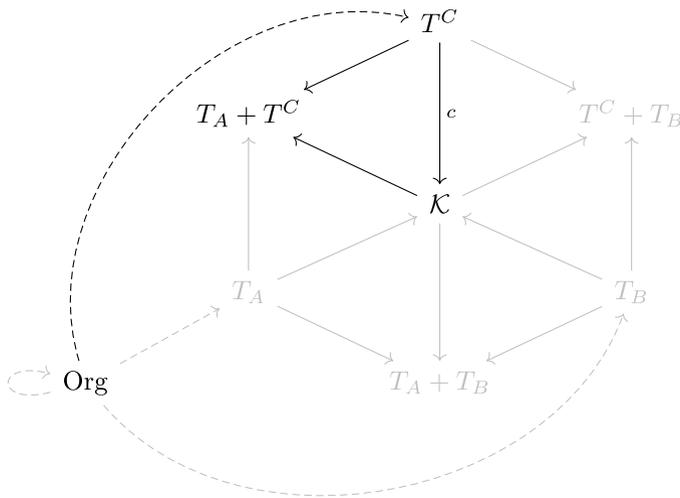
A lot has been left out of this summary description of our reconstruction of the logic of value, capital and labor, but let us add one final remark which concerns the distinction between value and use value and, more specifically, between abstract and concrete labor.

Throughout this presentation, we emphasized the idea that the relevant structure of the commodity-world should be thought of as those differences that can be 'sensed' or 'seen' by other objects within this same world (I). This is a perfectly natural way to define objects within category theory, where the identity of or difference between objects, and the capacity to distinguish their parts or 'sub-objects', relies exclusively on the possibility to distinguish the morphisms that go into and out of these structures. But it is quite remarkable that this new approach also affects several major dialectical dualities in the grammar of *Capital*. For instance, rather than treat "value" and "use value" as different realms, with the former being immaterial, symbolic or removed from the world in some way, while the latter concerns the material, corporeal "stuff" of things, we can actually relate them in

terms of *restrictions on possible morphisms* (VIII). In other words, we can actually discern (i) the material substrate of a commodity as the set of all possible morphisms that go through it—a huge class of possible transformations far exceeding anything that the commodity-world could consistently ‘see’; (ii) the use-value set of possible transformations preserving the commodity-form, which allow the substrate to remain intelligible within the space of value; and (iii) the value of the commodity as the morphisms that not only preserve the commodity-form but also the value-content of its input commodities in a consistent exchange space. The first consequence of this distinction is that it becomes clear that *use value is part of the commodity-form*—it can be seen as the space for all priceable parts of a commodity, all its uses and transformations that will preserve its connection with the commodity-world, as a productive or as a simple consumable. The second consequence is that it exemplifies what ‘abstraction’ means in our theory (XII): to abstract is not to move outside or beyond the concrete towards some new separate realm, but rather to *restrict* the concrete, to construct material structures that become indifferent to certain differences, thus ‘forgetting’ them—we abstract *into* the world, not out of it.

It is this insight that helps us define the difference between concrete and abstract labor in a new way. Once more, we can distinguish between the material substrate of the labor-commodity—a class of transformations so vast it can hardly be identified with ‘labor’ in any meaningful sense—its *concrete labor uses*—the set of all possible transformations that preserve the commodity-form—and its *abstract labor uses*—those transformations which also preserve the value of the commodities being composed. Abstract labor becomes, here, a restriction ‘into’ action, labor seen from the perspective of the preservation of value, a very material restriction which several components in the production process intend to enforce. It is no less abstract by being defined in this way—if you observe a productive process, nothing that appears *to you* in that process would allow you to explain *why* people and things are being organized the way they are. It is only from the standpoint of value that the structure appears.

XII. Real Abstraction and the Given



We shall explore an interesting juncture to be thought in the cross-roads of Karl Marx's and Wilfrid Sellars's philosophy that can contribute to the thinking of political experimentation with organizations. On one hand, Sellars brings to the fore important distinctions that help understand the relationship between rationality and the space of concepts one is enmeshed in as a rational agent, and the material space of causes that is the natural determination of the same agent. But this functional distinction is not a metaphysical one. Here one can find a use for Sellars in Marxism, namely fleshing out the problem of the abstract determination of Capital in functional terms. This has consequences for the thinking of the thought (VI) that is embedded in organizational practice, in the sense that this might retrieve relevant mediations from the specific sensitivities at play in organizations that are not identified with 'individual' sensitivity, and the way these are 'subjectivized' by the agents that are part of the same organization (IV, XIII).

This section intends to contribute to this discussion by briefly tackling one specific aspect of it, specifically the issue of a possible relationship between real abstractions in the Marxist framework (XI) with the Sellarsian problem of the critique of the Given. The reason for this choice in this specific context, besides the interesting predicament that arises from the comparison, is that if the project of the Subset of Theoretical Practice (XVIII) intends to tackle political experimentation in terms of a thought which existence is predicated on the existence of a collective, it seems this thinking, which is the thinking of the organization, is irreducible to the thinking of the individual agents that compose the organization.

The possible kinds of (non-presupposed, non-given) transitivity between the sensitivity of the organization at large to conditions detected in its proper mereological scale and the scale of the individual thinker are at stake also in determining political experiments as *experiments*—in the sense of verifying the consequences of adopting specific organizational axioms. The problem of *real abstractions* in Marxist thought embodies some of the properties of such collective ‘thinking’. It emerges from the actions of a collective without being necessarily intended, but it can be retroactively posed as an explanatory category for the actions of the collective and the economic-political consequences that ensue.

The proper ‘thinking’ of the organization has been described in other sections of this constellation of contributions as understood in terms of the triad composition-interaction-intelligibility (I, IV). This can be tentatively sliced further in its ‘intelligibility’ as the sensitivity of a social organization that is irreducible to the logic of the rational agents composing it, but a sensitivity which have to pass through the ‘space of reasons’ (as we shall make clear) in order to yield knowledge in the strict sense. While one may be tempted to assimilate the appeal to a rational agent with a form of methodological individualism, this is *not the case* here. The category of a rational, or cognitive, agent will only be understood in terms of the passage from the space of causes to the space of reasons, in itself a collective-historical picture of reason and language use. Individual agents are here *counted-as-one* in the Badiouian sense: as a hub of possible inferences and language-entry, intralanguage, and language-exit operations. Therefore, a cognitive agent the composition of which can be left undefined, but which human individuals are a current example of.

One methodological assumption will be to concentrate mostly on Alfred Sohn-Rethel’s construal of real abstraction. We understand Sohn-Rethel’s idea of a materialist account of the transcendental subject and its categories to already be offering a point of view more congenial to the somewhat Kantian preoccupations of Sellars’s

philosophy. If Sellars was already interested in a *transcendental materialist* version of Kant, then the materialist genealogical reading of the genesis of the categories of understanding by Sohn-Rethel might at least offer an interesting passage between the Marxist tradition and the Sellarsian one—one that might yield an interesting circuit between the understanding of material practice and the emergence of idealities in both authors.

First, we will briefly characterize Sellars's critique of the Given, which is followed by a preliminary answer to the question about how the category of real abstraction can be problematized by the Sellarsian framework. This will enable us to offer a more complete expression of our hypothesis, which we shall follow with a presentation of *two theses* on real abstraction that we can extract from Sohn-Rethel. Finally, we shall give an answer regarding under what conditions can real abstraction be compatibilized with the Sellarsian critique of the Given, which can in turn offer a specific image of the *internal unfolding* (from the point of view of the cognitive agent) (XIII) of political experiments predicated on the reality of the abstraction they themselves instantiate (V, VI).

Enter the Given

The concept of “the Given” in Wilfrid Sellars's writing is notoriously difficult to pinpoint, not because one cannot really grasp what the concept means, but because one does not know where its reference ends. The multifariousness of the Given might always show up in a different guise from the ones already exorcised by critique. In Sellars's writing two forms of the Given are usually recognized: the *epistemic* and the *categorical*. We shall illustrate each with a passage from Sellars's work, which we shall follow in the end of this exposition with a third one, extracted through the lenses of Willem DeVries.

The inconsistent triad might be the most famous way to show the Given in action. It is proposed in *Empiricism and the philosophy of mind*.

- A) S senses red sense content x *entails* S non inferentially believes (knows) that x is red.
- B) *The ability to sense sense contents is unacquired.*
- C) *The capacity to have classificatory beliefs of the form x is F is acquired.*³⁷

37 SELLARS, Wilfrid, “Empiricism and the Philosophy of Mind,” in: *Minnesota Studies in the Philosophy of Science*, I, by FEIGL, Herbert, & SCRIVEN, Michael (eds.), University of Minnesota Press, 1956, pp. 253–329.

Following Sellars, sustaining A and B implies negating C; sustaining B and C implies negating A; sustaining A and C implies negating B. Sellars's interpretation of the inconsistency hinges on the transmission of justificatory traction between sensing and knowing, as if sensing alone is sufficient to constitute an episode of *knowledge* about the sensed content. Implicit here is the differentiation between *causal chains* and *justificatory chains*. Justification is *normative* in the sense of being liable to assessments of adequacy and correctness, while causation is not. Knowledge is also normative in the sense of having *justified* expressions. One way to understand this is to compare rules and regularities.

*This was our paradox: no course of action could be determined by a rule, because every course of action can be brought into accord with the rule. The answer was: if every course of action can be brought into accord with the rule, then it can also be brought into conflict with it. And so there would be neither accord nor conflict here.*³⁸

Two interpretations of rule-following are commented by Robert Brandom that give rise to the paradox:

Interpretation one is called *regulism*, and it is the idea that rules are always explicit statements about how to do something.

Interpretation two is called *regularism*, and it is the idea that rules are regularities of behavior.

The problem with regulism is that if every *rule* is an assertion, every rule must be specified by a rule about how to apply the first rule, which makes it an infinite regression in which one never applies any rule. The problem with regularism is that regularities cannot account for the *normative* character of a rule. Regularities are not right or wrong, they just are. Rules should be able to tell how to proceed *correctly* while regularities are brute happenings that are neither correct nor incorrect. Thus, a regularity, while it can be *part* of the expression of a rule, cannot by itself be a rule.

A similar relationship can be observed between sensible contents and knowledge in Sellars's writing: the sensible content is necessary for knowledge of facts but is not by itself sufficient for it. This, ultimately, means being caused is not equivalent to *knowing* one's cause, which yields rejecting A. Willem DeVries expresses the Given as trying to satisfy two conditions at the same time:

The given is epistemically independent, that is, whatever positive epistemic status our cognitive encounter with the

38 WITTGENSTEIN, Ludwig, *Philosophical Investigations*, 4th revised edition, Wiley-Blackwell, 2009, §201.

*object has, it does not depend on the epistemic status of any other cognitive state. [...] It is epistemically efficacious, that is, it can transmit positive epistemic status to other cognitive states of ours.*³⁹

The *categorial* form of the Given might be exposed more clearly in the *Foundations of a Metaphysics of Pure Process* (the “Carus Lectures”):

*If a person is directly aware of an item which has categorial status C, then the person is aware of it as having categorial status C. This principle is, perhaps, the most basic form of what I have castigated as “The Myth of the Given.” [...] To reject the Myth of the Given is to reject the idea that the categorial structure of the world—if it has a categorial structure—imposes itself on the mind as a seal imposes itself on melted wax.*⁴⁰

From these brief notes a picture begins to emerge wherein a certain form of *realism* is combined with *transcendental* philosophy: reality does not have propositional form, which means every attempt at conceptualizing it depends upon the resources of our available language and cognitive systems. But reality is not *produced* by language either. As James O’Shea expressed,

*On Sellars’ Peircean-Kantian view, we ‘attack’ nature with rule-governed conceptual systems of reason’s own making. We then learn by experience or by testing that either the world as we have conceptually responded to it in our perceptual judgments ‘conforms to’ our conceptual representations as they stand (the Kantian Copernican insight), or we must modify the latter in our ongoing quest for explanatory coherence through critically controlled conceptual change (the Peircean pragmatist insight).*⁴¹

Here we are able to express our predicament more thoroughly. Rejecting both forms of the Given yields a distinctive division of labor between sensible contents and conceptual workings in the Sellarsian picture. Sensible contents cannot communicate normative (*as per the epistemic given*) or categorial (*the categorial given*) statuses by themselves. They require the workings of the concept.

39 DEVRIES, Willem, *Wilfrid Sellars*, McGill-Queens University Press, 2005, p. 98.

40 SELLARS, Wilfrid, “Foundations for a Metaphysics of Pure Process”, *The Monist*, 64 (1), 1981, §44–45.

41 O’SHEA, James R., *Wilfrid Sellars: Naturalism with a Normative Turn*, Polity Press, 2007, p. 150.

On the other hand, the idea of real abstraction as proposed within Marxist thought eschews traditional divisions between the mental and the real, the abstract and the concrete, the sensible and the conceptual, committing to a causally efficacious figure of abstraction that “is the form of the thought previous and external to the thought”⁴²—which amounts to a “veritable expropriation of abstract thought”⁴³.

Enter Real Abstraction

In “Warenform und Denkform”, Sohn-Rethel presents in a very striking way the heresy of real abstraction:

[...] the origin of commodity abstraction is, according to Marx's determination, in a sphere which completely escapes the conceptual language of metaphysical thought. The latter relates things back to consciousness and consciousness to things: there is no third option. Conversely, the social relation from which the value-abstraction is derived does not fit into the dichotomy of things and consciousness. Within the framework of traditional concepts, the phenomenon of the abstraction-commodity- is an absurdity, something which, quite simply, cannot exist. It's, as Marx determines, a spatio-temporal process causal in nature. However, its result is an abstraction, that is, an effect of a conceptual nature. Between the spatio-temporal world of things and the ideal world of concepts, metaphysical thought does not tolerate any common element—these are antinomically separated spheres. However, according to Marx, the abstraction-commodity is precisely constructed as belonging in both spheres; this is precisely what makes it special.⁴⁴

Sohn-Rethel refers here to the exchange-abstraction specifically as the main object of his analysis: the very fact that in exchange, different phenomenal elements are considered equivalent in value, their sensible configurations notwithstanding—an equivalence that encounters its full expression in money that, in turn, can be used to generate more value in the form of Capital.

It is worth mentioning that for Sohn-Rethel, real abstraction emerges in exchange and that it is considered as spatially and temporally separated from the act of use, in the sense that during an

42 ŽIŽEK, Slavoj, *The Sublime Object of Ideology*, Verso, 1989, p. 13.

43 TOSCANO, Alberto, “The open Secret of Real Abstraction”, *Rethinking Marxism*, 20 (2), pp. 273-287, 2008, p. 280.

44 SOHN-RETHEL, Alfred, *La Pensée-Marchandise*, Éditions du Croquant, 2010, p. 52. Translated by the authors.

exchange in the market, one is not able to use the products on display beyond the try-outs that might conduce to the exchange. The picture that emerges is that of a material practice of exchange that gives rise to something akin to a *conceptual* representation that can subsume many different particulars under the same universal. But this is, differently from the abstractionist empiricist account, not done in the mind, but in concrete social practice.

Both Sellars and Sohn-Rethel are critical of empiricism, but their critique originates from different standpoints. While the category of the real abstraction evades alignment between the abstract and the mental, the concrete and the physical that is characteristic of *abstractionist* empiricism—meaning that for a certain form of empiricism the origin of conceptual abstraction comes from experience, from which one *extracts* a simpler determination—empiricism is, for Sellars, to be criticized for the foundationalist image of thought that it yields: if the categories of thought are abstractions taken out of a layer of experience (the “Given”), then this shall be the ground for what is thinkable. Sellars resists this hypothesis by separating the work of sensibility (“language-entry transitions”) from inference in the space of reasons proper (“intra-language transitions”) and the resulting actions (“language-exit transitions”). But this leaves an open question: how to account for the contribution of sensible contents to conceptual deployment once the gap between sensibility and understanding (in Kantian terms) is opened? We shall have sketched a response by the end of this section.

Beyond simple recognition of the fact of the emergence of real abstractions in exchange, Sohn-Rethel upholds his most polemical thesis of the *origin* of the categories of traditional metaphysics and modern epistemology (in the guise of the Kantian transcendental subject) being located in commodity-exchange. As Anselm Jappe presents it:

[...] the origin of the forms of consciousness (and knowledge) is neither empirical nor ontological, but historical. The forms of thought, these “molds” in which particular data are cast, do not come—this is the core of Sohn-Rethel theory—from thought itself, but from human action. Not of action as such, as a philosophical and abstract category, but of the historical and concrete action of man. The shapes of thought—hence the intellect, different from the simple contents of consciousness - are each time the expression of an era in the social relationships of men; within this context, however, they have objective validity. This perspective on the history of thought is obviously an

*application of the principle that it is not consciousness that determines being, but the social being that determines consciousness.*⁴⁵

One instructive example of such a *transmission* between “real” and “conceptual” abstractions in Sohn-Rethel’s terms is in the concept of *substance*. For him, the category of substance in philosophical thinking corresponds to something that remains what it is while varying its sensible character either temporally or spatially. He proposes a question: where in the world did the philosophers who came up with the idea of substance encounter such a *thing*? For Sohn-Rethel, a minted coin is the value-form that became visible.

The minted currency is the form-value that has become visible. Because here we print formally in a natural material that it is not intended for use, but only for exchange. The authority that prints money—whether it starts out of a private trade tycoon or a “tyrant” who usurped royal power—guarantees weight and fine metal content, and promises to replace coins that have suffered some wear, by others of integral value. In other terms, the postulate of inalterability for an unlimited period of the equivalent is here formally recognized, and it is distinguished expressly, as a social postulate, of the empirical-physical characteristic of such or such metal. The old relation, where the value-form of the commodity was subordinate to its natural form, is inverted: the social value-form uses a particular and specific natural form for its functional purposes.⁴⁶

Sohn-Rethel’s work proceeds to derive the categories of subject, substance, causality, homogeneous space and time, etc. from this exchange abstraction. Beyond the recognition of the simple *existence* of abstract patterns of behavior that might be encapsulated within certain abstract forms yielding *real abstractions* (1st thesis), Sohn-Rethel wants to sustain that the categories of the transcendental subject as proposed in Kantian philosophy have a historical genesis found in commodity abstraction (2nd thesis). The first thesis claims, then, that abstractions emerge from the behavior of cognitive agents—the abstractions that can be used to explain said behavior. The second thesis claims that the abstractions stemming from concrete social behavior are transmitted to the mind as cognitive categories of a transcendental subject.

From the Sellarsian point of view, this creates a possible difficulty for Sohn-Rethel’s account, which has to do with the form of transmission of the real abstraction to the mind, in keeping with the dictum

45 JAPPE, Anselm, “Pourquoi lire Sohn-Rethel Aujourd’hui?”, in: SOHN-RETHEL, *La Pensée-Marchandise*, Éditions du Croquant, pp. 7-38, 2010, p. 9.

46 SOHN-RETHEL, *La pensée*, p. 63.

“in the mind, but not from it”. If the Given is, as DeVries expresses it, both epistemically independent and epistemically efficacious, exchange-abstraction is independent in the sense of having its origin outside of thought, while at the same time begetting by itself the transcendental categories that might organize thinking. This impression might be dispelled, though, with a more fine-grained account of the mediations through which the exchange-abstraction gets caught in its transformation into conceptual abstractions.

“To Determine Is to Negate while Configuring”

Sohn-Rethel discusses two forms of materialism: on one hand, the idea, found in Engels's and Lenin's writings, of mind as *reflecting* natural material being; on the other hand, the idea taken from George Thomson of the *social* being as the origin of the categories of the mind. The first form broadly conforms to empiricist strictures of the mind as a mirror of nature, while the second introduces the category of social practice as, in our own terms, a *cluster concept* that enables one to relate nature and the conscious-social being in one and the same complex.

It therefore seems to impose itself here, at least at a first glance, a certain incompatibility between two modes of materialist thinking: the one extracting the principles of knowledge from a root present in our social being; the other deriving these same principles out of knowledge of the “outside world” by “abstraction” or “reflection”. This apparent mismatch requires explanation, and the best way to give it is through systematic study implications of Thomson's design. That is all the more promising as Thomson's theory confirms exactly the guiding idea of historical materialism according to which it is the “social being” of men who, as Marx writes in the highlighted passage, “determines their conscience.”⁴⁷

Let us make our predicament more explicit.

A) if the real abstraction is something that *happens* independently of cognition, it seems to causally constrain behavior—which does not entail being in a justificatory relation to other contents.

B) If the real abstraction is in a justificatory relation, i.e. has categorical status, it cannot be something that emerges independently of cognition *simpliciter*. It must already be caught in an inferential web.

47 SOHN-RETHEL, *La Pensée*, p. 87.

If A is true, then real abstraction cannot do the further work Sohn-Rethel wants it to—to be the ‘origin’ of the categories of understanding in the Kantian sense. If B is true, a specific division of labor has to obtain between sensibility and cognition for it to take hold.

Our solution will try to find a juncture between thinking and doing that would vindicate B. By doing so, we will also make B compatible with A in the sense of *accepting* real abstractions as constraints upon behavior in the causal sense, but with a specific set of caveats. This is thematized in Sellarsian philosophy as the difference between *pattern-governed behavior* and *rule-obeying behavior*.⁴⁸ Patterns are not necessarily rules, but constraints that obtain in physical and social processes. Acknowledging the pattern turns it into rule-obeying behavior, which then acquires justificatory purchase.

But how does social practice itself *transmit* the patterned abstraction to thought? We just introduced the *cluster concept* of the ‘social being’. The possible answer seems to be in fleshing out the internal compositions of the social being as a circuit that extracts not only *energy by means of work* from nature but also abstractions (I, VIII, XI). Brazilian philosopher José Arthur Giannotti has some precious indications related to that process, proposing the simple example of a ball game as an *operational scheme* that links agents to one another and to natural objects through activity.

[...] the object is metamorphosed, it is worked on so that the weight property of the object, among others, can be exercised in the right conditions. Here to determine is to negate while configuring. The effectiveness of the game, however, comes to effect this negation [...] As natural objects, the soccer ball and the tennis ball are like any two bodies reacting to the impact of forces of nature. But a soccer ball is not the same thing as a tennis ball [...] That is why the effective game exercises the resistance to weight in a context in which it has already been circumscribed and measured by work. [...] The operational scheme, constituted by the ball, by its trajectory, by the agents as pitcher and catcher, establishes a very elementary social objectivity [...] We believe that the operational scheme exemplifies, in a very crude way, the type of object whose plot Marx calls “contemporaneous history”, this structure of social relations of production, constantly nourished by the repeated actions of men and which are

48 See: SELLARS, “Empiricism and the Philosophy of Mind”.

*objectified in figures such as commodities, capital and so on.*⁴⁹

The paragraph is important in several different senses. First, it tries to connect the localities in place in a simple ball game as already a kind of *extraction of measure—of an intelligibility* (IV). Second, this extraction of measure is done by *work, by what is done*, and not necessarily by abstract thought (XI). This means that it happens by the way things are practically engaged with, even unconsciously. So far, we agree with Sohn-Rethel. Third, one must therefore not privilege only consciously available forms of determination. The entire bodily movement of players is engaged in the ball game, beyond any conscious *thematization*. Patterns emerge from activity, be it conscious or not. The theoretical making explicit of the elements of the game is an *a posteriori* move. Fourth, the way the operational scheme is constituted does not demand its theoretical explicitation even though the exercise of philosophy/theory demands explicitation of practical abstraction into theoretical abstraction. Herein lies the Sellarsian problem. Fifth, Giannotti's move of connecting the *practical abstraction* in general to the commodity form proposes a particular case of connection between different types of abstraction. This can be related to Sohn-Rethel's identification of the cognitive powers of abstraction to the abstraction of the commodity form as well as to our final hypothesis of different forms of abstraction emerging out of political experimentation.

So far Giannotti made explicit how a pattern that extracts specific determinations from objects can emerge out of 'blind' activity that does not intend the extraction. The problem that remains is the one regarding the capacity of extracting *theoretical* determination out of the ball game so as to be able to say 'because of x, y obtains'.

Intuitive and Conceptual Labor

In our presentation we exposed the following problem: if the real abstraction is something that *happens* independently of cognition, it seems to causally constrain behavior, which does not entail being in a justificatory relation to other contents. This means that social practice must provide the leverage point between the causal and the justificatory chain.

A Sellarsian gap was left open that can now be bridged. While being epistemically independent and efficacious at the same time leads to lapsing into the Given, the problem was how to close the gap

49 GIANOTTI, José A., *Trabalho e Reflexão. Ensaios para uma dialética da sociabilidade*, Brasiliense, 1983, p. 52. Translated by the authors.

between the sensible contents (the non-problematic givenness of experience) and the conceptual grasp within the space of reasons.

Clearly, it is important that the relations of epistemic dependence he is discussing be of two different types or “dimensions”. Otherwise the charge of circularity (which he must still work to avoid, as we shall see) would be unanswerable. One of the “dimensions”—the bottom-up direction—is what one would expect: observation provides a basis from which we can, inductively, infer general empirical truths. But in the other direction, reports or beliefs can be construed as knowledge only if the subject who makes them is a knower who, as knower, commands a number of general truths and practices. Only in that case do they occur as items in the logical space of reasons.⁵⁰

The paragraph spells out the division of labor *internally present* in our cluster-concept of “social activity”, sustained as a source of Sohn-Rethel’s materialism against Engelsian materialism of reflection. One could be entitled to question the argument for its circularity: how are the categories extracted by a subject that already has the categories to perform the extraction?

While a cognitive subject capable of conceptualizing is necessary for the grasp of real abstraction, this does not *a priori* determine *which specific categories* are used for this extraction. Here the vicious circle of the question turns into a virtuous circle paving the way for the reconciliation between the Sellarsian history of successive theoretical frameworks and the Marxist history of the modes of production (II). While one must have categories in order to grasp anything, one does not need to presuppose *which* categories—and the historicity of these different modes—come in as constraints, motivators and motivated aback by the recognizing powers they enable once the muscle meets the mind. The passage between real and conceptual abstraction is guaranteed by social practice that already includes linguistic abilities. This is not to say that linguistic abilities *constitute* such abstractions. In Giannotti’s quote, a certain form of extraction, the “negating while configuring”, was exemplified by a ball game: the physical diagram drawn by the players and the ball. But the conceptual description which constitutes full-fledged knowledge in the Sellarsian sense is instituted by linguistic intentionality—meaning not necessarily fully-fledged overt descriptions but intentionality as constituted by linguistically articulated understandings.

50 DEVRIES, *Wilfrid Sellars*, p. 128.

Here we approach a limit to the explanation: it is not the social being, but the natural being of the concept-mongering creatures we are that explains what thought *ultimately* is. But the point is not to just defer to natural history the constitutional problem of the categories of our understanding, but to give social history its due in the process by which successive frameworks are built (as per Sellars) that are able to asymptotically approximate the description of mind-independent worlds, motivated and motivating successive social forms (as per Sohn-Rethel). This shows that through the Sellarsian problem we were able to internally differentiate the abilities that constitute the circuit between social being and consciousness until the threshold that holds between social and natural being. A set of abilities must be in place that are the result of biological history. But the categories through which we come to *know* what this set of abilities is, is gained through the cluster of historically constrained activity producing historically constrained cognition.

“Communism Is the Theory of
How to Solve Communist Problems”

In a previous paper co-written by our collective we proposed that:

against what remains the main theoretical strategy of the Left—that is, proposing better descriptions of our current social reality in such a way that our theory is capable of locating and expressing the inconsistencies and weaknesses of our social system in ways that conservative depictions cannot—we want our theoretical space to be infinitely richer than our social world, so that capitalist social formations might appear within it as particular solutions within the broader space of other possible solutions to general problems of social coordination, allocation of resources and free association. The strategy of regionalizing or situating the parameters of our social formation has profound effects both to theoretical construction as well as to the practice of politics, since the first sign of a broader theoretic framework is its capacity to reformulate problems in its own terms, meaning that, within this framework, communism becomes the theory of how to solve communist problems, and not capitalist ones.⁵¹

51 STP, “Contribution to the Critique of Political Organization: Outline of An Ongoing Research Project”, *Crisis and Critique*, 7 (3), 2020, p. 401, <https://crisiscritique.org/uploads/24-11-2020/gabriel-tupinambaet-al.pdf>.

We have proposed examining the problem of real abstraction as an example that, if compatibilized with the Sellarsian framework, would vindicate the hypothesis of the sensitivity of organizations (IV, V). In other words, it would help answer the question about the sense in which organizations ‘think’ what the individual subject does not think (VI, XIII). We have shown that the Sellarsian framework helps disambiguate internally between causal and justificatory chains without thereby yielding to a form of conceptual idealism that eschews material determinations of thought. The answer is located in the activities of *social being* that nevertheless presupposes *natural* being capable of conceptually grasping its own activities with historically derived categories.

In that sense, this section contributes to unveiling the position of the cognitive subject regarding the *intelligibility* of the *interactions* the system of which he is part is able to carry on (I, IV). While *appearing* in the vocabulary of objective phenomenology is any form of relevancy to any system, intentional or not, this appearing content must be, in the specific case of cognitive agents, conceptualized in order to yield a form of knowledge able to retrace and correct retroactively the conceptual frameworks that make these other sensitivities seen.

In this way, the specific sensitivity of the organization can be retroactively implicated into the reasoning of its component subjects, *seen-as* inferentially articulated relationships between adopted experimental *axioms* and *consequences* (VI). The sensitivity in question embeds the organization into a specific *world* (XIII), which is *filtered* through the organizational sensitivity to the participants. The constructed sensitivity of the organization is then the means through which information is extracted from a multi-scalar world that does not conform to the immediate scale of cognitive experience (II).

One final speculation that we would like to offer has to do not with the diachronic succession and circuits between social forms and conceptual categories, but with this *synchronic* grasp of multi-scalar real determination. A final speculative proposal is what I call the *no privileged scale* thesis (IV). It is related to a putative third form of the Given— the synchronic scalar Given.

There is another important point to understand about observation: there is no fixed set of characteristics of physical objects to which observations are limited. That is, there is no clear-cut or principled limit on the vocabulary that can appropriately appear in observation claims. We can form non-inferential observation beliefs about red balls before us, but, with adequate training, we can also make direct, non-inferential reports of the location of a quasar or an α -particle in a cloud chamber. Observation

*reports need only be reliable responses, whatever vocabulary is used. Sellars believes that there is a special vocabulary that we employ in “minimalist” observation claims, that is, observation claims in which we risk as little as possible without moving up (or back) a level and characterizing our experience rather than the world.*⁵²

If this project at large is waging on regionalization and the coming up with localized frameworks wherein to think different real and imaginary social formations, the exchange-abstraction becomes only one, albeit very important, example of abstraction that could conform to a social reality—as mentioned in our paragraph—turning capitalist problems into communist ones by expanding the worlds the organizations inhabit through the experimental test-and-run process of the expansion of their sensitivity (III).

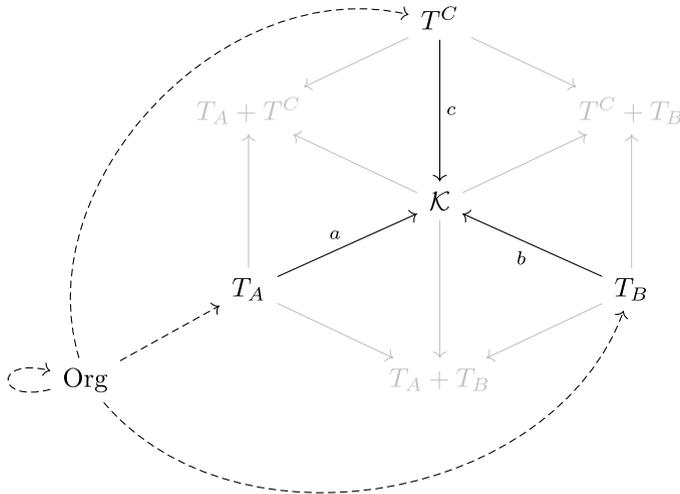
This is, thus, the limit of Marx’s analogy, and the starting point of our investigation: social forms, such as the value-form, become rational—that is, enter into relations of proportion which make certain of its properties legible—through the very same process that renders them actual. The very being of the social relation under investigation is homogeneous and indistinguishable from the process through which its properties become legible for us.⁵³

Becoming legible for us entails recognizing the pattern, and intervening in it entails turning it into a rule. If our cognition can be *calibrated* to see in different scales and presupposing different sets of categories, a further dimension can be added to the variably regionalized account pursued here: the synchronic simultaneity of different seeings acquired through the concrete engagement with the organizational experiments that constitute our political practice.

52 DEVRIES, *Wilfrid Sellars*, p. 120.

53 TUPINAMBÁ, Gabriel, “Freeing thought from thinkers: A case study”, *Continental Thought and Theory*, 1 (1), pp. 156–193, 2016, p. 160, <https://www.academia.edu/24772227/>.

XIII. Navigating Through Dimensions



But since I don't understand myself, only segments of myself that misunderstand each other, there's no reason for you to want to, no way you could even if we both wanted it.

—John Ashbery

The question that will be raised in the following section asks what it means to navigate between the multilayered logics that compose capitalism as a social formation as described by Karatani (II). This means that we are asking not only how it is possible to *consider* the world through different transcendentals but also what it could mean to switch between different logics in *dealing* with concrete political struggle. Since it is not a matter of answering these questions practically, we could reframe our question in this manner: would it be possible to understand the *conditions* for this type of switch from the point of view of political organizations? (XII) This is a pressing issue considering the fact that, as it has been said, even though social objects are constituted as a mixture of T_A , T_B and T^C (and thus might demand different representations), different objects involved *in the same* political stake might not be simultaneously visible through one single or partially

composed logical structure. In practical terms, we might be involved in struggles where aims or obstacles that must be represented are more visible through differing logics that are not simultaneously accountable for. With this, we are saying that although some instances might be represented through *partially composed structures* (such as T_A+T_B , T_A+T^C and T_B+T^C), there might be situations where the different objects require accessing conflicting points of view.

In order to try to account for this problem, we will be following Patricia Reed's work on multi-scalar navigation. Her work is concerned with the "making of inhabitable worlds in common, as they emerge from, and negotiate the residual artifacts of, laminated, pluri-material histories".⁵⁴ This in turn makes it necessary for the subjects of these *worlds in common* (in contrast to the subjects in a common world) to develop the ability to navigate (and represent) these 'pluri-material histories' (III). In a sense, it seems safe to say that she tries to develop the *conditions* necessary for human subjects (who, for good purposes, are underdefined and not considered as singular individuals) to navigate multiple worlds without letting go of the problem of coexistence (that is, of a certain form of totality). For our purposes it looks as if her generic (broader) description of *human navigation on a planetary scale* may be able to give us clues as to how *political organizations navigate through the multilayered structure of capitalist social formation*. In order to do that, we shall first reconstruct her thoughts and then see if her concepts might help us think how it is possible to contemplate the problems we have raised here.

The Problem of Multi-Scalar Navigation

To start, it is perhaps best to take up again one of the most precious definitions in Reed's text: what is navigation? Navigating would be "the ongoing mediation of intentionality with the contingency of unknown or accidental events"⁵⁵, that is, it is a kind of orientation that depends on knowing one's desire (where *must* we go) and on recognizing relevant markers (signs that distinguish relevant differences in our navigation) that allow orientation (that is, localization in a given space). Due to being precisely a kind of relation with the unknown (insofar as we do not know all the paths beforehand), navigation will depend on non-material elements, namely projections and imaginary elaborations (concepts, we might say) of this unknown region based on the information we have about the parts of the world we know and about what we know

54 REED, Patricia, "The End of a World and its Pedagogies", *Making & Breaking*, 2, 2021, n. p., <https://makingandbreaking.org/article/the-end-of-a-world-and-its-pedagogies/>.

55 REED, Patricia, "Orientation in a Big World: On the Necessity of Horizonless Perspectives", *E-flux Journal*, 101, 2019, n. p. <https://www.e-flux.com/journal/101/273343/orientation-in-a-big-world-on-the-necessity-of-horizonless-perspectives/>.

we want. In this way, by serving as an interposition between the material and the conceptual, as Reed puts it, navigation itself also ends up being partially responsible for the way we represent the very territory we intend to explore (to the extent that certain “markers” serve as points of guidance that shape how we might perceive it).

The problem of navigation is further complicated if the kind of territory we want to figure out is the one that mixes several scales in the *n*th dimension (I, IV, XII). In those cases, we are dealing, as Reed proposes, with a “planetary scale” (VIII). If there are so many levels, fields and dimensions that exceed our processing capabilities, we need to not only deal with different maps that do not always converge with different kinds of signals that intersect but are not easily distinguishable, but also account for the fact that our desire (that is, the element of intentionality involved in the navigation of a certain subject) is not as consistent as we hope.⁵⁶

It is precisely at this point, when we deal with multiple dimensions, that certain problems can arise. Since the act of mapping unknown regions affects how we experience the territory that will be navigated, regardless of whether it is a voluntary gesture or not, an undue projection of a singular point of view—extending beyond its reach and insensitive to the specifics of some territory not relating to the map that is made of it—can end up hindering navigation itself. The kind of reduction that takes place can also be so violent that certain worlds need to be erased so that a certain scale, a certain map, can impose itself (VII). It is the simplest—and therefore most crude—way of dealing with the complexity of a multi-scalar world. It is not an exaggeration, therefore, to say as Reed does that there is a political element involved in these projections, and that one could speak of a politics of navigation.

The question that arises, therefore, is how to navigate this plurality of dimensions without reducing the world to only one type of dimension. Is it possible to speculate about a way of dealing with this ‘*n*th dimensionality’ that does not erase the specificities of the many dimensions participating on the planetary scale? Reed does not exhaust this question but does provide us with a useful path for dealing with these issues by working out two conditions that should be met for successful navigation on a planetary scale.

56 This does not only mean that we are a single subject filled with conflicting desires, but that something which is usually taken as a single subject (as an individual body/mind) might be the nexus of numerous subjectivation processes (and what we consider a single individual is rather the converging point of different desires). This might be exemplified in the rather banal case of someone having to reconcile the demands of work life and family life. It is not so much that different desires (work values and family values) are inside the individual who must then weigh them, but that the individual is the point where these different values (and worlds) meet and come into conflict. Not surprisingly, what we consider our own intentionality can become muddled at this point, since it is not clear at first how to reconcile conflicting desires (or which to prioritize at which instance). An effect of this seems to be that the art of navigation ends up becoming an attempt at orientation between the various possible desires.

The Conditions for Multi-Scalar Navigation

The first condition she establishes for dealing with that problem is a kind of an imperative. It is a commitment to preserving localized distinctions. This is an initial step because, as we have seen, the main risk in overprojection is the (violent) reduction of multiple differences to what can be seen through some particular point of view. The way to combat this is through anchoring a certain perspective to the specificity of its localization that may not be generalized. As Reed says, “the value of this ‘situational insistence’ is that it preserves contextual particularity and sees in this framework ways to build better, more robust accounts of reality”.⁵⁷ This is important to avoid the risks of reductive generalization, but it does not help us think about how to deal with the multiplicity of dimensions since ‘partial objectivity’ does not explain how we might navigate between regional ‘objectivities’ (IV). To move further toward her goal, it is necessary to account for a non-reductionist form of totality.

It is with this in mind that Reed draws from both the writer Édouard Glissant and the mathematician Alexander Grothendieck to establish a second condition. One can summarize her interest in these thinkers with the fact that both of them seek to think of an inhomogeneous totality insofar as they think of particular, specific locations as not thinkable without the totality of relations in which they are involved (I). That is, from this idea, a thing is not an atomic, independent unit, but always its specificity, and the relations in which it is involved that make up a certain totality. It is in this sense that we understand Reed’s “nested account of situatedness” where each particularity is also understood through how it fits with the totality it is immersed in (IV, IX). The point, and the development that interests us, is that the point of view of totality varies according to the specific location one is dealing with. Since each location has its own manner of being in relation to totality (extracted from how it positions itself in relation to one totality), different views on totality arise from different points of view. However, if we are also departing from an ‘insistence on positioning’, where each perspective has its own ‘partial objectivity’, it is possible to infer that each perspective also produces a partial objective representation of totality through how it relates to it. This means that although totality is objectively represented, its dependence on the positioning of one representation makes it so that it is not possible to produce an all-encompassing totality accounting for all points of view. Consequently, we arrive at an idea of totality that is equivocal (instead of a reductionist one).

57 REED, *Orientation*, n. p.

One effect of this form of thinking is that it understands the relations of part and whole as a certain feedback dynamic. If the part is a specificity, but this specificity is also understood through its relations, then modifications in the whole end up echoing back to the particular element, even though it preserves its specificity (as that which retains a certain position in regard to a totality) (IV). There are some interesting effects of this dynamic that are worth discussing. The first is that the very distinctions between parts and general elements end up becoming objects of investigation and demand a precise determination of these boundaries (in order to be able to measure and follow the feedback movements between part and whole). Being able to differentiate between these elements also helps us keep in check any desire to overproject the properties of some local specificity beyond its limits.

The other point worth talking about touches on the problem of intentionality. As mentioned above, one of the fundamental elements of the navigation process is the navigator's intentionality. That is, what we see has to do with what we seek. However, when we are dealing with multidimensionality (and we are aware of this), finding a way to navigate numerous dimensions ends up being one of the navigator's desires. Things get complicated, however, if we follow the conditions elaborated by Reed. This is because wanting to preserve the uniqueness of specific locations without reducing them to other dimensions is also a kind of intentionality involved in the operation of navigation (this is why Reed treats this desire as a "first principle"). If we start from this desire, the effect is precisely an equivocal world, for we would have to accept that specific locations are themselves always their distinctiveness and their position in relation to a certain totality. When this type of desire is projected onto a totality, it can only provide an image of a non-homogeneous totality, that is, an equivocal one, in which all localizations are considered as also projecting an image of totality (from their positions) without the projected totalities coalescing homogeneously.

If this is the case, then it is possible that this affects the very commitment that was made at the beginning. Indeed, wanting to preserve the singularity of particular locations is a desire (an intentionality concerning a certain point of view) that leads to considering equivocal worlds (instead of one common world), but this implies also accepting that, in this equivocity, our own intentionality is considered in another way from that of one of these many equivocal worlds that coexist (in a non-homogeneous way). If our intentionality as the desire from a certain point of view is considered in itself and through its relation to a certain totality, then it is inevitable, from another point of view, that one's desire will be thought of differently. This implies

that our initial intentionality, that is, our desire, is itself inconsistent and can vary—even vary to a point that it may appear from a different vantage point as something that goes against the initial commitment. That means that a commitment to Reed's first principle (which aims to preserve the specificity of each location) may, when it appears from a different point of view, appear as another instance of a hegemonizing and reductionist point of view. An example of this is the manner in which minority discourses may appear in academia. Even though certain scholars in a privileged space (being men, white, European, etc.) may see their tasks as simply restricting themselves to their own points of view and letting the points of view of certain minorities (indigenous peoples', for example) occupy the discursive space of their respective fields, people who actually inhabit these other points of view may see the scholars' action as nothing more than an attempt to obtain more clout within their social settings.

One can see that the issues Reed brings up refer to a kind of desire for navigation that is not simply the desire for something specific. Intentionality, the object of desire, inherent in navigating a world composed of innumerable dimensions, turns out to be navigability itself. This makes it unsurprising that the desire of navigability has as its most immediate (easiest) form a desire for a simple world that is easily navigable (instead of worlds in common, a common world). It is also fair to say that this is the reason she departs from the two conditions outlined above. It is an attempt to avoid reducing the multiple coexisting worlds to a single world (which in practice would be the overprojection of a local point of view).

Applied Transcendental Navigation

From this presentation of Reed's thought we have seen that she outlines two separate conditions necessary for navigating between different dimensions. This is a powerful tool that can and should be applied to concrete problems that we might face. In this sense, as interesting as her description is, it is equally valuable that she does not seek to determine what kinds of dimensions exist, what the grounds for differentiating them are and who the subject of these navigations is. What interests us here is to see if the conditions she works out are of use when we see reality through Karatani's transcendentals (II, XVII). We will thus try to see if they are translatable into the grammar we have been working on in this essay.

In order to see if this works out, we must first clear one possible misunderstanding concerning the sense of scale in expressions like 'multi-scalar' or 'planetary scale'. It seems quite straightforward to understand the 'scalarity' in these concepts in a spatial sense, as if

scales are ranges of intelligibility relating to different sizes (for example, we could speak of a 'scale' pertaining to atoms and a scale pertaining to humans). A multi-scalar world (or a 'planetary scale') would thus be understood as a world made up of various sizes. This first sense of 'multi-scalar' would imply that we are describing a complex world composed of many distinct and conflicting locales where we cannot see from any one given place the totality that conditions each part of this world. This is not what we understand, though, from Reed's use of the term. As her insistent usage of the expression 'worlds in common' might suggest, scalarity (and dimensionality for that matter) must concern different (and non-reducible) worlds that are organized through different autonomous logics. This is not expressed overly clearly in her text, but it might be implied if we do not want to comprehend the use of planetary scale in a purely spatial sense. Thus, if we feel that it is useful to test her approach against Karatani's scheme, it is so in the sense that the different logics elaborated through *The Structure of World History* map the non-reducible scales through which we must navigate. The conditions for multi-scalar navigation may be summarized as a) a situational insistence (the determination of 'partial objectivities') and b) a comprehension of perspectives as 'nested picture(s) of specificity' (which produces in turn a non-reductionist representation of totality).

As we have seen, situational insistence is the attempt to produce 'locatable knowledges' that "preserves contextual particularity, and sees in this framework ways to build better, more robust accounts of reality."⁵⁸ This is not, we argue, very far from Karatani's own effort to expand on Marxist analysis of commodity exchange through comparison with other types of modes of intercourse. From Reed's point of view, the *logic of commodity* (mode C), as can be seen in Marx's *Capital*, is not only a system of social relations, but also an account of a certain dimension with its own logic of representation (XI). This logic allows us to see a world organized through *value* (as a social form) which is hierarchized in social *classes*. However, even if this means that the logic of commodity exchange can be read as an objective characterization of certain structures, it does not in any way attempt to produce a total picture of reality as if this logic exhausted all possible forms of navigating the world (II). In short, though determining its logic is capable of making sense of certain structures we encounter, the world is not completely reducible to commodity exchange.

The possibility of reading the logic of commodity exchange as partial objectivity (one particular dimension) makes more sense when we consider Karatani's attempt to draw out two other modes of intercourse that organize social relations. When analyzing the *logic*

58 REED, *Orientation*, n. p.

of *pooling and reciprocity* (mode A) (IX), we can see that we are able to picture social life through *gift economy* where relation hierarchies are organized by *honor*. The logic of *plunder and redistribution*, on the other hand, presents social reality as composed of relations of *domination* and *protection* where *status* determines where one finds oneself (X). This distinction between modes of intercourse allows us to fulfill Reed's first condition because, even though these logics are all present in social reality, they are all incommensurable with one another. We might say that all of them are 'correct' even though they do not map onto each other (there is no *logic* that allows these three different logics to be reduced to a fourth and more fundamental logic).

What might we say of the second condition that we highlighted above? If we are to speak of navigation between dimensions without reducing them to one single (higher) dimension, we must produce an equivocal image of totality which would allow us to see how a subject relates to different dimensions. Reed does so through understanding that not only does each dimension have its specificity, each specificity is also defined by how it relates to a totality. She short-circuits a homogeneous totality by insisting that each perspective has in itself (and in a partially objective manner) a nested picture of totality. If we try to translate this into Karatani's terms, we see that each mode of intercourse also envisions its own forms of collectivity. Thus, in Mode A, the basic collective form that matters is the *households*, in Mode B, we find *cities* and in Mode C we find *markets*. It is important to point out that these forms of collectivity do not seem to be *totalities*. When we look at what types of totalities Karatani ascribes to each mode, we get a strange picture: *when Mode A dominates, mini-systems are formed; when Mode B dominates, world-empires are formed; when Mode C dominates, a world-economy is formed* (II). As his analysis aims to show, these totalities are not all expressed simultaneously, but correspond to different epochs of human history. This is a consequence of Karatani's idea that the history of the world is in a sense determined and structured by the dominant mode of intercourse in a given moment.

How is this possible if the modes of intercourse are incommensurable? Should each mode of intercourse not have in itself a form of totality irregardless of it being the dominating mode? This seems to be the case indeed when we analyze a specific moment in history. As Karatani insists, even if capitalist society is a historical moment when Mode C dominates other modes of intercourse, this current epoch cannot be described simply through the logic of commodity exchange. For Karatani, when we have a *world-economy*, Mode A appears as *nations* and Mode B as *states*, which forms the *nation-state-capital* trinity. We could thus say that *nations* are how the totality nested in Mode A is

expressed when it is dominated by Mode C. This in turn means that there are a host of problems seen through the lens of nationality (for example, the numerous disputes which trigger nationalist sentiments) (XVI). We know of course (and this is the meaning of the knot between nation, state and capital for Karatani) that this does not mean that the problems of nationality have nothing to do with state or market structures. Not only are they related, it is also due to how each of these logics organizes one another (with Mode C being the dominant figure in contemporary history) that each mode expresses itself in a certain manner.

With this in mind, we can agree with Reed in saying that each logic of intercourse does have a totality which is nested in its perspective/dimension. However, now we can see more clearly that the form of totality is not simply a kind of 'scaling up' of a certain point of view. The form of totality expressed by a certain logic is an indicator of how one logic relates to the others (I). We can see that if we take Karatani's logics of intercourse as the concrete dimensions through which we (as a political subject) must navigate, the investigation of the forms of the totality of each logic (of each dimension, in Reed's terms) becomes the manner in which we can probe how these different incommensurable logics relate to one another in a given point in time. Even though each dimension is irreducible to the others (and there is no all-encompassing dimension), this type of investigation might allow us to understand how we can go from the problems concerning one dimension to the problems concerning other dimensions.

Unresolved Questions

This examination of Reed's thought and its applicability to our framework does not exhaust our intended issues. One of the unresolved questions that arise and that we would like to briefly address concerns the nature of the navigating subject. As we have mentioned in the beginning, one of Reed's merits was underdefining *what* the subject of navigation is. We know, however, that this subject must not be too hastily identified either with an individual human being or with any particular kind of human (IV, XI, XII). Even if it is the case that a human might be the subject of navigation, the conditions elaborated by Reed do not seem to be so restricted. This is important because our main aim is understanding how a political organization might navigate between different sets of problems. We have not, however, sufficiently justified the specificities that would arise from considering a political organization as a navigating subject. This is especially important to understand when we consider the fact that determining different worlds is not articulated through a methodological incursion (the

'transcendental suspension', as Karatani believes), but as results of actual political struggle.

The problem is even more complicated than that since political organizations can be seen from two different sides. Not only are political organizations navigating subjects that sense and explore different dimensions of the world, they are also themselves composed of subjects that also have to navigate different dimensions when trying to deal with the problems inside the organization. We could say that in a sufficiently organized collectivity, different people will be working in different sectors that deal with different problems demanding different ways of seeing (XIV). This division of labor and points of view is essential for creating the body of a political organization. This means that in a sense, the viewpoint of the organization is an outcome of organizing the different viewpoints that are internal to it. This is not, however, a matter of simple addition. There is in fact no necessary continuity between what the subjects involved in organizing see in order to address internal problems and what the organization seeks to represent while acting politically (IV, XII). This means that even if a certain organization is externally exploring problems in one dimension (for example, the matters of economic income for some deprived group), this does not entail that everyone inside that organization is navigating through the same lens as the organization itself. There might be people dealing with money flows while others are dealing with building internal trust in the organization. Even so, it is through the cooperation of these different subjects navigating internal problems (that all demand their own type of lens) that an organization can effectively see the relevant dimension of reality for its goals. We could thus say that to *be a part* of an organization is to *participate* in the conditioning of its viewpoint. This two-sided nature of political organizations forces us to separate the question we initially posed into three different problems. The first question is the one we started with:

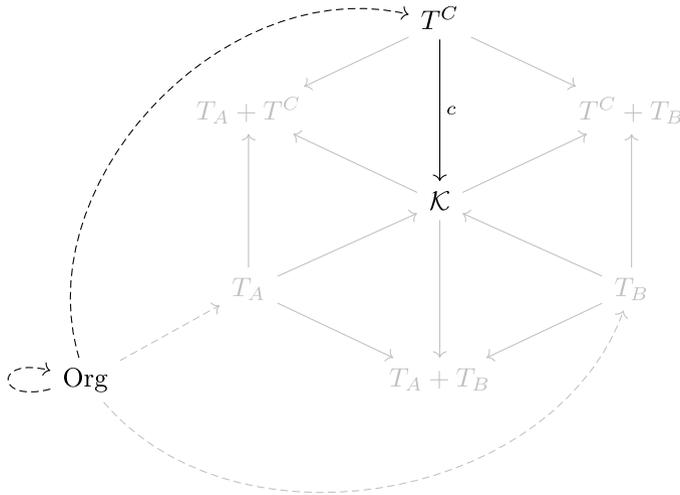
a) Political organizations are subjects that are capable of sensing objects from certain worlds in accordance with the manner in which they are institutionally structured. Certain political problems, however, end up requiring shifts in their sensing capabilities. *How is it that an organization might shift its perspective through different worlds?* We have tried to engage with this question through an adaptation of Reed's ideas on multi-scalar navigation and have seen how the two conditions she outlines are adaptable to the framework adapted from Karatani's work. As we have seen, however, our answer leaves open the specificity of the political organization as a navigating subject. When we account for its specificity (and its two-sided nature) we are forced to ask another question:

b) A political organization is composed through the organization of subjects that organize themselves. The organization presents problems which require the subjects dealing with them to see certain objects (and to avoid others) so that they can work on them. This is usually done through a division of labor, tasks and issues internally between those involved in the organization. It must be noted, however, that an internal doubling of the former problem arises at this level since different concerns require different forms of representation. Different issues demand we deal with different objects that are seen through different worlds. We must thus ask the first question from the point of view of those subjects that compose a political organization. *How do subjects navigate internally through different worlds?* This question is not resolved (or even treated) here, though we might guess that what is at stake here is the institutionality of an organization. This leads us to the third question (which seems to link the first and second question):

c) To further understand this problem it is necessary to comprehend how different tasks (different positions inside an organization) end up constituting different perspectives. It is also necessary to understand how these different forms of seeing are able to relate to each other and to the ultimate goal of a certain organization. This is vital to our understanding because what one sees inside an organization is not necessarily of the same nature as the objects that the organization senses. *How can these different internal points of view compose in a way that they may produce the capacity to sense what is relevant for this organization?* (XII) Through answering these questions, we can gain a better understanding of how it is possible to *navigate as a political subject in a multilayered world* (I, V, VI).

XVI. Case Study

Braking the Platforms in the Brazilian Courier Strikes



The power of numbers was expanded by movement, as the hydra journeyed and voyaged or was banished or dispersed in diaspora, carried by the winds and the waves beyond the boundaries of the nation-state. Sailors, pilots, felons, lovers, translators, musicians, mobile workers of all kinds made new and unexpected connections, which variously appeared to be accidental, contingent, transient, even miraculous.

—Peter Linebaugh & Marcus Rediker⁵⁹

The Platform Atom and the Atomized Worker

It's common to hear among couriers heated debates delving into the meanders of the platform's algorithm. The gamified app—with its intricate system of prizes, incentives and punishments—brings to mind the asymmetric phenomenology between the player in the casino, guessing transient patterns throughout the frenetic flashes of the slot machine screen, and the house, which only has to assert a certain statistical aggregate gain across all individual “lucky” and “losing” games. In the

59 LINEBAUGH, Peter & REDIKER, Marcus, *The Many-headed Hydra: Sailors, Slaves, Commoners, and the Hidden History of the Revolutionary Atlantic*, London: Verso, 2012.

streets, the rider gambles his options and risks, accepting and rejecting delivery offers, piercing red lights, exploiting bugs in the algorithm; all to obtain gains above average, competing against his two-wheeled peers. Experienced riders often brag about being able to game the app, and complain about the rookies who have just joined the platform and accept all delivery offers in the app, thus pushing the overall payments down.

In contrast to the classical wage-form regulating the relation between worker and capitalist in the Fordist workplace, the app rider is remunerated by work piece, earning his pay ride by ride. On standby until his phone rings with an offer: a delivery route with a stochastic pay rate that he must wage whether to accept or reject. In contrast with the spatiotemporal regularity of the wage, which quantifies in a stable and known quantity the monthly gains of a typical worker, the platform worker watches his gains fluctuate as a direct and individual function of his own effort, though remaining largely ignorant of the rules that determine how his gains are calculated. The porosity of wage work—through which slack and idleness can seep in—gives way to the discreteness of piece work and the unremunerated waiting time between task offers. As wage becomes a *wager*, the worker appears as a *player* working “inside a black box, [...] divested of all the usual ways to orient themselves inside the labor process”.⁶⁰ This apparent gain in immediacy between the worker’s activity and his earnings at the individual level comes at the expense of a gain in opacity over the overall social logic of his work and the general unbinding to other workers who are negatively related through competition instead of being equated by falling under the same wage class (mathematically, we can say the wage really turns the worker into an equivalence *class*). In this process, work is subjectively experienced as a form of individual entrepreneurship where effort—a mixture of luck and personal virtue—is the main determinant of success and where other riders appear only incidentally as sharing a *common condition* of exploitation (III, IV)—such that they can aid each other and conspire together—since their fellow co-workers must also be put under suspicion given that they also share the *common belief* that at the end of the day every worker is by himself, dashing about in the midst of the daily free-for-all.

From the perspective of the platform, on the other hand, the individual rider—with his city route and working hour choices, incidental street accidents and occasional scams, all influenced by his own domestic economy of incentives, debts and expenses—can only appear as a noisy signal which it is able, up to a certain degree, to sense and control. It is only when all the delivery microdata is aggregated into the right macro variables, e.g. supply and demand signals, rate of

60 JONES, Phil, *Workers Without Work*, London: Verso, 2021.

successful deliveries, customer satisfaction indices etc., that one the effective logical resolution of the platform emerges⁶¹, where profitability, big data, network, market share and value exist and function. In a city, couriers have ingeniously learned to coordinate so they could directly interact with such macro variables: in an Whatsapp group called “us over there”, hundreds of riders would meet outside the city center close to highway exits in order to decrease the offer of labor in the region thereby making the dynamic rate go up.

Although the pandemic has brought delivery services to a new scale as people have grown accustomed to ordering all sorts of goods from their homes, cities like São Paulo had already had an enormous fleet of motorcycle delivery workers, known as *motoboy*s. Below the homogeneous and ever expanding functional space of the platform, what the delivery platforms really operated –in their words, the “service” of “connecting” their “partners” and “collaborators”–was the (real) subsumption of ever larger contingents of this dispersed and heterogeneous gig economy of delivery work that already existed⁶² (from the guy who would take a delivery gig in his neighborhood pizzeria during the weekend to supplement his income, to the old-school courier (the “root” motoboy) with his own contact list of reliable clients that he personally negotiated the fees, or the small fleets of delivery “express” companies). In a sense, platforms can be said to operate a kind of new process of *enclosure*, seizing the logistical and informational means of organizing work once possessed by delivery workers (e.g. maps and routes, client lists etc.) while outsourcing to them the costs and risks of acquiring and maintaining the material means of delivery work (e.g. bikes, gas, cell phones, internet fees, repair costs etc.).⁶³ Despite this abstracting force, which could suggest a modernizing gain brought about by these impersonal and bureaucratic forms, what we find here is a concomitant increase in forms of direct and despotic algorithmic control⁶⁴ (e.g. the arbitrary power of the platform to temporarily or permanently suspend the account of the courier as a means to discipline and punish his use of the platform, with marginal conditions for a fair defence or appeal) and of personal domination⁶⁵ (e.g. the use of fleet managers via third-party contractors, the so-called Logistic Operators (OL), by the platform which employs “OL leaders” to directly manage and discipline the working hours and productivity of a squad

61 HOEL, E., ALBANTAKIS, L., TONONI, G., “Quantifying causal emergence shows that macro can beat micro”, in: *PNAS*, 2013, <https://www.pnas.org/content/110/49/19790/>.

62 COSTHEK ABÍLIO, Ludmila, “Uberização do trabalho: subsunção real da viração”, *Blog da Boitempo*, 2017, <https://blogdaboitempo.com.br/2017/02/22/uberizacao-do-trabalho-subsuncao-real-da-viracao/>.

63 AZEVEDO, Raquela, *Teoria geral da renda em Marx: um estudo sobre a renda básica*, online course syllabus, 2021, <https://sites.google.com/view/teoriageraldarenda/home/>.

64 COSTHEK ABÍLIO, Ludmila, “Uberização do trabalho: subsunção real da viração”.

65 CARSON, Rebecca, “Fictitious Capital and the Re-emergence of Personal Forms of Domination”, in: *Continental Thought & Theory*, 4, 1, 2017, <https://ir.canterbury.ac.nz/bitstream/handle/10092/14503/22%20Carson%20CAPITAL.pdf>.

of couriers and whose ties to organized crime have reportedly been leveraged to new degrees of control over labour, during both work and strike activity).⁶⁶

This year, couriers that routinely work for Rappi Turbo, an app service promising deliveries in under 10 minutes, at one of their supply warehouses located in a rich neighborhood in São Paulo had their work perimeter near the store blocked by the platform after alleged complaints that they were crowding in front of the store and disturbing the nearby neighbors. As they began to protest, deliveries from the store were interrupted, and the platform responded via the app with a targeted message: “Do not gather with other couriers in public spaces to avoid being suspended. Keep two meters of distance from restaurant workers, couriers and consumers.” With this almost too conspicuous form of a threat, the platform algorithmically enforced an efficient economic control, dispersed its workforce and actively dissolved the formation of common workspaces or organized resistance.

We’ve seen how what counts for the platform doesn’t operate on the same scale as that of the worker’s day-to-day experience. In fact, the process of *platforming* can be defined precisely by the “production of differences of levels or planes” where differences of agency, sensibility and visibility are established “through the mapping of statistical correlations within large populations”.⁶⁷ Above the platform—technically called the Application Programming Interface (API)—we find the abstract and closed space of the user interface and experience with its swift functionalities and clean graphical representations; hidden under the platform, below-the-API, the *sale boulot*,⁶⁸ the invisible mass of labour that makes the wheels turn, with its poor-man’s interface, which can hardly see or control but is seen and controlled at all times.⁶⁹ The disorienting *myopia* of the worker—who can see the direct and individual economic gains of every delivery he completes with the “expenditure of [his own] human brain, nerves [and] muscles”⁷⁰ but not the algorithm which governs the overall logic behind his work, veils his relation to other workers and effaces the social character of his work—contrasts with the efficacious *far-sightedness* of the platform⁷¹ whose logical atom of count is not each of its individual workers with

66 LIBERATO, Leo V., “A inovadora parceria entre o iFood e as milícias”, in: *Le Monde Diplomatique Brasil*, 2021, <https://diplomatie.org.br/a-inovadora-parceria-entre-o-ifood-e-as-milicias/>.

67 MAGALHÃES, Zé A., “Platforming and perspectivism”, in: *Second Law, politics and literature international seminar: Borders of the human, borders of democracy*, 2021, <https://www.academia.edu/60996587/>.

68 ARANTES, Paulo E., “Sale boulot: uma janela sobre o mais colossal trabalho sujo da história (uma visão no laboratório francês do sofrimento social)”, in: *Tempo Social*, 23, 1, 2011.

69 KLEINER, Dmytri, *Machine Learning Disabilities*, online presentation, 2021, <https://dmytri.surge.sh/disabilities/>.

70 MARX, *Capital*, p. 164.

71 “The special skill of each individual machine-operator, who has now been deprived of all significance, vanishes as an infinitesimal quantity in the face of the science, the gigantic natural forces, and the mass of the social labour embodied in the system of machinery, which, together with these three forces, constitutes the power of the ‘master’” (MARX, *Capital*, p. 549.)

their street knowledge of the “man on the spot”; these appear only when bulked, as a *just-in-time* workforce mass that can be mobilized on demand at any time and at any place in the city,⁷² together with other statistical variables mined by the platform’s operational domain.

We’ve also noted how the platform maximally extracts information relevant to its self-valorization yet only gives away minimal or even negative information when interfacing with its workforce; it not only veils but also actively destroys information that was once part of the worker’s world so that the process of platformization of work encompasses both the mechanisms of *informing* and *deforming* of work—hinging on the uncanny affinity between platforms and informal work where what is at stake is the loss of form of work. This should be taken in a double sense: for the worker, the platform is both not *informative* and not *informing*, that is, information and form are two sides of the same coin. So on the one hand, we have the processes of veiling and corruption of *information*: the interactions with the platform are epistemically poor, leading to experiences of cognitive dissonance and frustration. Take, for instance, the faceless and glitchy experience often mentioned by app riders of talking to the chatbot assistant in order to appeal against an arbitrary punishment by the app.⁷³ Information given by the app is not only minimal but chaotic, such that inputs to it don’t translate into consistent and predictable outputs and no cognitive mapping of platform logic by the courier is possible; here, the bug is a feature which produces a *frustrated* sense of agency. On the other hand, we have the mechanisms of loss of *form*, since interactions with the platform are also minimally *informing* and *deforming*, meaning that platformization (or uberization) can act over social spaces that are largely heterogeneous and hybrid, reorganizing them not by producing social homogenization, i.e. new social bonds, but by deepening social fragmentation. Could we not see this in terms of a corollary of commodity fetishism (VII) according to which, under capitalist logic, the socialization of the workforce (a special case of commodities in general) and the socialization of workers (the people who do the actual labour) aren’t the same process (XI); that they do not go hand in hand, but the former actually happens at the expense of the desocialization (a.k.a. reification) of the latter, its loss of agency, visibility and interconnection? More and more the formation of the 20th-century wage society via the Fordist industrialization seems to have been an exceptional period in capitalism rather than its general tendency;

72 VINICIUS, Leo, “Modo de espera e salário por peça nas entregas por apps”, in: *Passapalavra*, 2020, <https://passapalavra.info/2020/11/135017/>.

73 “If I am suspended by the platform, I have no way to talk to a person from iFood, I talk to a robot. It’s a total disregard with the worker” says Nascimento, a courier involved in the strikes. Translated by the authors from <https://brasil.elpais.com/brasil/2020-07-25/nossa-vida-vale-mais-do-que-levar-um-prato-de-comida-para-as-pessoas.html>.

instead, the current recomposition of capital seems to happen through a process of class decomposition (III).⁷⁴

The almost incommensurable asymmetry between the experience of the worker and the logic of the platform that we started with may not come as a surprise once we stop assuming that a neutral, single and consistent bird's eye view of social reality exist and we take from the starting point that the perspective of capital is not the same as the perspective of the worker, i.e. that the conditions of interaction, intelligibility and composition of capital are not the same as the conditions of the organization of workers (I, IV). But since the gap in perspective between the objective phenomenology of capital and that of workers is over an antagonistic opposition, we may thus ask how does one operate (concretely, not intellectually) such a parallax shift towards a perspective of the worker in the midst of the *informalization* of work in contemporary capitalism? The classical name for this operator is class struggle; however, to talk about class and struggle seems to assume a type of consistency and unity that may not be so easily at hand to us anymore: workers do not seem to exist as a class in any clear sense nor do conflicts seem to cohere around a unified struggle against capital. If so, one way to start answering this question may be to *investigate*—repeating the Operaist gesture of a workers' inquiry—and ask: what form does conflict take in today's gig?

The Site of the Brake and the Collapse of the Platform

*Memes do not call for interpretation so much as improvisation. If they challenge us to assume a posture or disposition, it would be less that of the scholar than the visionary who remains on the lookout for iterable gestures, those creative acts that harbor a new sequence of experiential repetition.*⁷⁵

In the frontline of the pandemic together with health workers, supermarket cashiers, telemarketing workers (deemed part of the essential services in Brazil), the delivery workers are also in the frontier of capital's subsumption and exploitation of informal work; these forms once thought to be proper to peripheries of third-world countries where the wage society hadn't yet fully set in now seem to constitute an inverted vanguard where central countries can anticipate themselves. As social isolation measures took hold and unemployment continued to rise, delivery companies saw both the demand for e-commerce, food

74 ENDNOTES, "Onward Barbarians", in: *Endnotes*, 2020, https://endnotes.org.uk/other_texts/en/endnotes-onward-barbarians/.

75 TORINO, Paul & WOHLEBEN, Adrian, "Memes with Force: Lessons from the Yellow Vests", in: *Mute*, 2019, <https://www.metamute.org/editorial/articles/memes-force-%E2%80%93-lessons-yellow-vests/>.

delivery and office packages, and the offer of people having to get by signing up on the platform soar. Alas, as older riders experienced their occupation grow in size, social relevance and risk amid the new conditions set by the virus and economic crisis, they also saw their earnings plummet and their working days prolong. In this scenario, courier protests began to pop up throughout the urban landscape of the country: noisy swarms of honking motorcycles crossed the city and delivery bags were placed in avenues, interrupting the flow of cars. Less visibly, delivery bags were also stacked into pyramids in front of McDonalds, shopping malls, warehouses and dark kitchens as riders formed picket lines and interrupted both the exit of delivery orders and the arrival of unsuspecting or ill-intended riders. This last tactic, called by couriers “*breque*”, which translates to “pushing the *brake*” on the delivery orders, named the strike movement of the 1st of July, 2020, as Breque dos Apps, around which these protests coalesced nationally for the first time. One can’t help recalling Walter Benjamin’s image of the revolution as an emergency brake being pulled on the train of history: here, instead of intervening in the temporal logic of Progress—already interrupted by the end of the world that announces itself—we find the call for the interruption of the spatialized flows of commodities.

After flowing through the arterial ways of train tracks, maritime routes and interstate roads, urban truck and car drivers, motorcycle delivery workers compose the infamous last-mile of capilarized logistical infrastructure where the global supply chains terminate. It has been hypothesized that the strategic center of both capitalist valorization and social conflict has shifted from the paradigm of the factory and production to that of logistics and circulation. Indeed, the Brazilian cycle of courier strikes during the pandemic, though more modest in scale and impact, should be understood in the same political sequence as the massive urban revolts triggered by the increase in bus fares in 2013 and the national strike of truck drivers that in 2018 paralyzed the country, bringing the government to its knees, all of which were composed of a revolting precariat that coordinated the interruption of the circulation flows rather than production sites of commodities.⁷⁶

Since the beginning of the pandemic, courier protests have waxed and waned, and although iFood—the biggest company operating in the country—did make some minor yet tangible concessions to the strikers, it did not hesitate to spend money on Super Bowl-like ads during strike days and organize an in-person forum with hand-picked representatives of the courier movement from all over the country to “hear” their demands and promote a “continuous dialogue”. This last

76 GUERREIRO, Isadora & CORDEIRO, Leonardo, “Do passe ao breque: disputas sobre os fluxos no espaço urbano, in: *Passapalavra*, 2020, <https://passapalavra.info/2020/07/132898/>.

initiative of the company followed a recent and impressive succession of strikes that traveled—as if an Olympic torch was being passed, as strikers remarked—along several mid-sized cities in the state of São Paulo and in some of them—like São José dos Campos, Jundiaí and Paulínia—lasted for over a week, during which the delivery services of the entire cities were practically put to a halt by pickets in malls and main restaurant chains. These marketing and organizational efforts from iFood to counter the movement parallel, on one hand, the courier movement's attempt to target the image of companies (to which their market value is particularly sensitive) via online consumer campaigns that involved thrashing the companies' image with bad reviews in the App Store and trending hashtags like *#theworstcompanyintheworld*; on the other, the organization of the forum anticipated the couriers' own attempts to consolidate an organizational network of “frontline” riders capable of coordinating actions between large cities and on the national level.

In the motorized parades, which at times could gather hundreds to thousands of riders, the couriers found themselves part of a fast and noisy collective swarm. In contrast with their solitary and scattered lifestyle—riding on their own, zigzagging through car traffic—they constituted a sort of modern cavalry capable of imposing their speed and loudness on their surroundings—slowing down avenues, blocking bridges and attracting the attention of TV stations. As such, like other political parades, these demonstrations have the function of (i) enacting a display of strength, which is a matter not of taking any effective action but of showing a *contagious capacity* to mobilize and a menace to provoke disruptive acts, and (ii) making the body of the movement visible to society and to itself as it takes to the streets; more precisely, the movement sees itself when it knows it has been seen as such by others (hence the decisive importance of learning after the fact whether the protest appeared on the news or didn't appear anywhere; in the latter case, one feels as if the action didn't really take place at all). In the beginning of the pandemic, such demonstrations provoked a large reaction on the part of the media and the civil society, who came to acknowledge that these invisibilized workers were also frontline workers who made it possible for people to eat and work safely from their homes; the media coverage of the protests and their working conditions made “delivery app workers” into a *thing* in the public discourse.

However, although the parades were certainly “noticed” by the companies who also read the newspapers, they by themselves don't allow the couriers to have any clear and effective interaction with the companies. Instead, such a line of action can advance accordingly by (i) passing from demonstrating a *capacity* to act to the *actual action* of

interrupting the functioning of the city (e.g. blockades of avenues and highways) in an expanding movement into the territory of the *riot*, as was seen in the 2013 protests against the increase in bus fares or in the truck drivers' strike of 2018 and, often simultaneously, by (ii) institutional continuations, where demonstrations have the performative role of constituting socially recognized *actors* whose demands can later on be institutionally represented by some apparatus—typically recognized by the State (movement leaders, official unions, MPs etc.).

As the couriers picket delivery sites, which came to be known as a *brake*, the everyday Kafkaian frustration of dealing with the algorithm through their cell phones, gives way to the tense empowerment of seizing control of the worksite: announcing the blockade by piling up their delivery bags at the establishments' entrances, they must, on the one hand, notify the restaurant or kitchen workers (who often gladly support them) and negotiate with them so that the platform is shut down, and, on the other, wittingly explain the on-going action to unwary riders while they harshly bar scabs from collecting delivery orders—often called “the hungry ones” by the strikers. A *brake* can thus be used to put pressure on restaurants by forcing them to halt their delivery platform until they give in to some demand, such as allowing the couriers to use the bathrooms, give them access to plugs and water, diminish the waiting times for receiving the orders etc.

When used as a strike tactic against the delivery platforms, the sites blockaded then become a mean, an instrument to disrupt the delocalized operations of the platform; once thought to be out of reach (talk of a hacker who could attack the virtual platform is often heard), the clouds are raided as work below-the-API stops. The platform appears to incarnate in a kind of *collapse of scales* as its services are disrupted and orders stop flowing; while one needs to “rise” to the level of the platform to interact with it via its codified communication protocols, disruptive interventions can intervene at *any level* as long as it is part of the material support of the platform's functional space. As it endures, the braked site becomes a live organ of the movement, a “user interface” with new interventive powers and sensors (V): the ready food orders now getting cold on the counters, the financial losses are snatched by restaurant workers, the store business owners' dissatisfaction is transmitted to the platform, and the platform users are angry with the unreliable service. At some point, the representatives of the platform are expected to come in person to negotiate; although the riders perhaps know they will be taken for a ride by the representatives, they also learn that their actions produce effects—they can come to exist as workers to the platform.

As the normality of daily work routine is suspended, the worksite is transformed by the blockade into a site not only of political

experience but of *experimentation with the means of production and reproduction of the struggle*. The strike based on site blockades follows a military-like logic of territorial conquest and expansion, where strikers have to constantly make logistical assessments of their resources (e.g. number of strikers, food and water, the balance of the strike fund etc.) in order to coordinate motorized rounds to maintain and establish new blockades.⁷⁷ And yet, at each site, solidarity ties grow stronger as strikers mingle together and the atmosphere changes according to the stakes at each moment: from contentious situations when private or public security forces and strikebreakers put the blockade at risk, normally when demand is at its peak; the calm hours of the afternoon when barbecues are organized, strikers rest and bore themselves (after all, the brake of work isn't but a work break with no time to finish it); to late at night when spirits are still high and bodies exhausted as strikers discuss in assemblies the next steps of their movement. Conversely, blockaded sites risk isolation if they become self-absorbed by their local realities and dynamics, and thus face the challenge of expanding their zone of influence and being able to instigate and compose with distal parts of the struggle (e.g. other stores, cities, states and so on).

If the strike survives into the next day—a critical threshold that can indeed be crossed, as riders in several cities in the state of São Paulo have recently demonstrated—and then lasts for several days, the means of guaranteeing the strikers' material reproduction, such as organizing strike funds, winning the support of the local population and attracting media attention, becomes paramount to the persistence of the movement, at the risk of declining either by financial stress or isolation. At the edge of material reproduction, making ends meet and working shifts that can reach 12 hours or more, the strikers' stakes are high because their pockets grow emptier every hour they're not working. This explains the fury with which strikers on a blockade react when they see a strikebreaker—scabs will not only enjoy the improvements achieved by strikers, but they may also earn more money because the strike reduces the supply of labour. Not surprisingly, before and during strikes, iFood often releases nasty delivery bonuses for each ride in the city in order to tempt their workers to break the strike (more obscenely, the strikers often demand a higher bonus in their city ...).

A characteristic of delivery work shared by most transportation services is that the workspace is not confined to the interior space of a private property, such as an office, a factory or a warehouse; as delivery routes connect pickup sites (e.g. restaurants, dark kitchens, offices) to

77 TOSCANO, Alberto, "Logistics and Opposition", in: *Mute*, 2011, <https://www.metamute.org/editorial/articles/logistics-and-opposition/>.

the drop location (e.g. homes) across the urban territory, the workforce is constituted as a dispersed and capillarized ensemble such that the day-to-day work experience is commensurate with the multiple dynamics and scales of the city. Here, strikes—the coordinated interruption of work within a workspace—become particularly sensitive to the scale and logic of the metropolis. Indeed, so far, only cities with less than a million inhabitants have been able to sustain strikes for over a day. In São José dos Campos, a city with over seven hundred thousand inhabitants in the state of São Paulo, couriers put the delivery services to an almost complete standstill for six days, obliging iFood to sit to negotiate for the first time and triggering a wave of strikes in the nearby cities that together lasted over a month. There, the size of the city was such that couriers knew each other personally (including the restaurant owners who were dissatisfied with the rates charged to them by the app and initially supported the movement by shutting down the platform), and with a fleet of about five thousand couriers working in the city they were able to picket the main delivery services of the city—the four shopping malls and couple dozen chain restaurants. They relied on about sixty active strikers who formed mobile rounds and took turns securing the blockades throughout the day.

On the other hand, in a megalopolis like the city of São Paulo, the sheer size and speed of urban fluxes make it very hard to establish a durable and sufficiently vast network of couriers that can coordinate their actions and communicate with one another; the dispersed and sparse worksite, the occupational rotativity, the harsh and violent character of urban experience all hinder the formation of stable personal ties and groups. This is intensified by the logic of Whatsapp groups—the main channel couriers use to communicate, both for and against work—which riders join as swiftly as they leave them, bonding and breaking contacts with other colleagues as they send audio messages between one delivery and the other (e.g. notifying each other of police stops, complaining about work, fund-raising for colleagues in need etc.). With such an immense fleet of over 280,000 delivery workers⁷⁸ and a vast urban territory, even if a significant region of the city organizes a successful strike (as has happened before in the city's East Zone or in Guarulhos, a city that is part of the same metropolitan region) any stronghold faces the urge to expand spatially or intensify its degree of political appearance in order not to be overwhelmed by the tyrannical scale of non-strikers—an army of standby labour that responds on demand to anywhere the platform is still operational—making money off the movement.

78 SARAIVA, Jacilio, "Total de entregadores na Grande São Paulo tem aumento de 20%", in: *Valor*, <https://valor.globo.com/publicacoes/suplementos/noticia/2020/06/09/total-de-entregadores-na-grande-sao-paulo-tem-aumento-de-20.ghtml>.

In last year's second national strike of the Brake of the Apps movement, both the organizers—who had spent the last month since the first strike leafleting in the streets and placing stickers on the delivery bags—and media reporters who were looking for spectacular images of motorcycle swarms filling the avenues were underwhelmed by the feeble attendance at the blockades and parades across the country. And still, in the city of São Paulo, one remarkable thing that the disappointed protesters acknowledged, but that otherwise went largely unnoticed and unreported, was how few delivery bags could be seen riding on top of motorcycles that day. Delivery workers hadn't taken the streets but had collectively turned off their apps to take the day off to rest and spend time with their families—not a minor feat for workers whose lives are constantly caught up in the rush of the streets. The phenomenon was certainly large enough that the absence of delivery workers was perceptible in the streets and that significant financial losses for platform apps can be inferred; the “pajama strike” was a real thing with material effects, but there were no objective means available to measure or represent such phenomena—companies surely made precise but private assessments of their losses, so they could act as if nothing had happened that day. As a matter of fact, the blockade tactic often faces a similar problem of visibility and representation: a strike can be sustained in a mid-sized city with the invisible support of many that log off their apps and just a handful of active strikers that circulate from one blockaded site to another, so that from the outside it appears quite *unstriking*: an unwary passer-by may not even realize something—the doldrums of suspended flows—is going on and even a photojournalist that knows what is happening might have a hard time finding a newsworthy image.

The problem of the means of representing and knowing what is politically happening in a strike is of course not restricted to the exterior of the movement, i.e. to the way the movement appears to society in social media and the news, but to the couriers themselves (XIII). In fractured and dispersed social spaces, knowledge about what happens is neither immediately experienced nor universally accessible, but is dependent on the material assembling of spaces where information can be mutually exchanged and acknowledged by the parts in order for common knowledge to emerge (III). In the days following the call for the first Brake of the Apps national strike—which, it's worth noting, wasn't made by an official union but decided through an informal poll in an group chat with couriers from different states—dozens of delivery workers from all over the country, from cities that weren't even involved in the initial call, began to record themselves to confirm the participation of their city. As the videos began to circulate, the *call* for an event was effectively turned into a political *fact*. A militant

group who used the couriers' recordings shared in group chats to edit videos with both an investigative and *agitprop* character⁷⁹ remarked on how such "homemade" videos helped the movement measure its own capacity for collective action because they functioned as a *thermometer of the struggle*: "When the mobilization is hot, the workers record themselves, they take it upon themselves to build the struggle. The [worker's] inquiry becomes a self-inquiry."⁸⁰

In another video⁸¹ that circulated in the groups during the chain of strikes in the state of São Paulo this year, a sort of audiovisual DIY instruction manual, couriers simulated a picket in a shopping mall and gave "tricks and tips" on how to *brake* the deliveries. Given that the blockade suddenly alters the normal functioning of the social space, the video—a result of lessons drawn from previous *brakes*—provided new strikers with a cognitive blueprint that helped them navigate the new space breaking open and anticipated provisional solutions for what could be done in the face of the problems that could be expected.

In the image and likeness of informal work, contemporary struggles tend to be fragmented, fluid and unpredictable: like the chaotic rush of riding through the streets suffused by the rumbling and honking of the motors, struggles can end as violently and abruptly as they begin, and it's often unclear which lessons can be drawn, much less which steps to be taken next. The riders that emerge as fierce informal leaders during the strike often quit during such ebbing periods, leaving a lingering collective hangover that can be hard to recover from. Therefore, after a cycle of struggle comes to an end the movement still faces the challenge of representing and elaborating what happened (XII, XIII). Whether through conversations, videos or news articles—as long as the existence of the movement transcends the private memories of its participants—it becomes a matter of collectively inscribing *failure* (even when concrete victories are achieved, there is always the lingering sensation of *a something more* that could have been but was not); that is, the task of finding the means to "organize the consequences of defeat" which "might allow us to mourn and work through a defeat, and ultimately to learn how to fail better".⁸²

A banner with the words "motoboys united without unions" was first painted in a rider protest in São Paulo where the union was to be present (the union officially represents the minority of deliverers with stable wage contracts, but is otherwise largely despised by delivery

79 The videos can be found on their channel "Treta no Trampo" (@tretanotrampo on Instagram). *Treta* can be any kind of conflict—a fight, a difficulty, a struggle—and *trampo* denotes any kind of work, be it a formal occupation or an informal side hustle.

80 MIGUEZ, Francisco & GUIMARÃES, Victor, "App Workers Memes and Struggles in Brazil", in: *Notes from Below*, 2021, <https://notesfrombelow.org/article/app-workers-memes-and-struggles-brazil>.

81 <https://www.instagram.com/p/CTK4FionjBX/>.

82 HAMZA, Agon & TUPINAMBÁ, Gabriel, "On the Organization of Defeats", in: *Crisis & Critique*, 3, 1, 2016, <https://crisiscritique.org/ccmarch/hamza-tupinamba.pdf>.

app workers) and was then reproduced in the following weeks. Among others, it was displayed by the striking deliverers in the nearby cities of Guarulhos and then Carapicuíba who blockaded several McDonald's, Burgers Kings and other restaurant chains from early morning to late at night. It's worth noting that the motto is not a plain negation, that is, not a call to fight *against* unions; rather, it leverages a critical attitude towards unions to affirm the possibility of other forms of unities among workers, i.e. a *subtractive union*. Here, one should be careful not to easily dismiss this as some sort of bourgeois (or neoliberal) ideological capture, but also consider the role unions and union law in Brazil have taken as part of an extended apparatus of the State.⁸³ Still, the form of an infinite judgement "U is not-S" in the formulation, which by denying the finite representational space of recognizable and existing forms of union opens up an infinite space of unionless unions, does not fail to produce anguish. After all, perhaps worse than the official union taking over the demonstrations from the organizing couriers, is if the official union does not shows up and the protests fail nonetheless, now due to the couriers' inability to autonomously unite (the burden of such a task is harder to bear when one considers the almost unlimited size of the set to be unified). One militant courier often said that "the biggest enemy of the courier is not the platform, it's himself", which was sometimes followed by the rant: "Ah, motoboys are a hell of a disunited kind!"

The wildcat strikes—in which delivery sites were stopped, motorized parades were held and the users collectively logged off the platform—and the self-organized media production and dissemination, coupled with coordinated social media campaigns to thrash the companies' image; the chaotic dynamic of Whatsapp groups and the laborious efforts to unite—both regionally and nationally—without unions or politicians; the management of strike funds and the emergence of small delivery cooperatives, but also the day-to-day mutual aid for those in need; under the platform, and against the backdrop of the fractured, conflictual and entropic terrain of a world of work without workers, the couriers have begun to tactically explore and painstakingly construct the organizational space of their common struggle (VI). As was the case with the enraged riders who one day decided to pile up their delivery bags, what starts as an unnamed gesture of refusal or, more precisely, of affirmation of a refusal circulates and spreads as its political efficacy is gauged, coming into existence as a recognizable and reproducible social practice. The iteration of the tactic produces *political sites*: spaces where political recomposition occurs and from where new ways (I)—unavailable during the atomized normality of the working hours—to collectively exist and probe capital can be drawn out. By means of this

83 BERNARDO, João & PEREIRA, Luciano, *Capitalismo Sindical*, São Paulo: Xamã, 2008.

perturb-and-measure procedure, the resistance offered by the social objects one interacts with (e.g. platform capital, police, other workers etc.) allows for political consequences to be gauged, so that exploitation and the organization against it can begin to be effectively thought; not in general, but *from within the world of the brake*.

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