012

Digital Infrastructures and Militarised Environments: Spaces of Conflict in the (post-)Anthropocene

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196—209

This paper presents the idea of multispecies *diplomacy* on the background of unstable and violent political geographies of the Anthropocene. The idea is first defined in terms of associated notions of *sympoiesis* and *habilitation*. After the preliminary arrangement of the conceptual framework of the paper, the possibilities of multispecies diplomacy are assessed in relation to current militarisation of environment, that prevents any diplomatic solution of climate change and leads to increased environmental injustices worldwide. This is illustrated with an example of conflict in the Negev desert, where changing climate is inherently integrated into the structure of conflict. Secondly, digital infrastructures are identified as an ambiguous factor influencing the outlooks of future practices of multispecies diplomacy. Thanks to their capacity to redesign existing environment, they can act as forces of deterritorialisation that can either stabilise existing hegemonies or lead to subversive appropriation. As far as digital platforms are open to ideological reframing, ecosocialist politics engaging in multispecies diplomacy is encouraged to appropriate them in terms of cognitive mapping and habilitation.

#Militarisation

#Habilitation

#Cognitive Mapping

#Sympoiesis

#Digital Platforms

Introduction

The two central notions of this paper are *war* and *military*. They can, however, only make sense if they are considered in duality with their respective counterparts—*peace* and *diplomacy*. Given the on-going period of ecological emergency (threating to culminate in unprecedented climate catastrophe) I would like to follow the metaphor of diplomacy, as originally set out by Bruno Latour (2004, 209–217). The art of diplomacy involves understanding the territories that precondition any planetary diplomatic relations, since in these territories peace is not considered as the default option—it must be patiently arrived at. Moreover, diplomacy is needed only if there is an urgency to manage and design relations, hence to politically and ethically intervene into world's *becoming* that way or another (to put it in Deleuzian diction, see Deleuze (1994, 41–42)). Such a standpoint implies: 1) The idea of *Nature* which is neither harmonious nor evil and catastrophic, but which simply does not exist at all (see Latour 1993; Latour 2004; Descola 2013); and 2) That diplomacy does not presuppose eschatology (which always smuggles into our ontological analysis some inadequately narrow normative presuppositions).

These two claims are inherently intertwined. The idea of Nature is very dangerous, since it easily justifies a belief in some historical point of arrival for humanity navigating itself throughout an overheating planetary ecosystem. Thus, it gives us false guarantees regarding our environmental political action, because it presents us a simplistic roadmap for climate change mitigation and/or adaptation that depicts a future time when climate change is definitively eradicated and when we can finally proceed – with a great relief – to solve other problems, less environmental and perhaps more "human" (for whatever that word might mean). In this respect, my idea of diplomacy is nihilistic, since it operates within an ever-changing environment that will never cease from our political horizons. Such an idea presupposes a world being in constant trouble and always inventing new troubles once the previous ones seem to be finally resolved (Haraway 2016, 10–12; 56). Optimism and catastrophism presuppose each other, and for this reason, exorcising the spectre of climate catastrophe must simultaneously mean to get rid of naïve environmental optimism.

Ecological entanglements and predatory relations are closely interlinked (Viveiros de Castro 2014; Haraway 2016). This does not justify predation *per se*, but only gives us a peculiar ethical perspective: it allows us to distinguish between acceptable and unacceptable predations and entanglements in a given context. In other words, this paper is motivated by strong intuition that if one takes seriously the idea of inter-species diplomatic relations in the Anthropocene, one should also seriously consider potential future sites of conflict, exploitation, and violence in order to prevent their harmful proliferation and multiplication. Throughout this paper, the normative framework of such diplomatic practices will be further developed in terms of interlocking concepts of *sympoiesis* (Haraway 2016), *conviviality* (Illich 1975) and *habilitation* (Likavčan and Scholz-Wäckerle 2018) and assessed as feasible if the task to assemble, reassemble, generate, and interconnect particular material spaces or territories is met in a serious fashion.

The paper will proceed as follows. At the very beginning, the key notions of *sympoiesis*, *conviviality* and *habilitation* will be properly defined. Secondly, the analysis of the processes that lead to the militarisation of the environment will provide an understanding of territories of transversal and cross-species diplomacy as highly conflictive zones that are further destabilised by climate change (Keucheyan 2016). Then, our focus will shift towards digital

platforms as emergent sites of governance and sovereignty in late capitalism and as potential post-capitalist infrastructures. They will be analysed in terms of Nick Srnicek's (2016) and Benjamin Bratton's (2015) accounts of *platform capitalism* and *the Stack* as instruments of deterritorialisation and reterritorialisation, and as infrastructures re-assembling territories and creating new spaces of control, governance or freedom. Demilitarised environments and digital infrastructures together present territorial and infrastructural conditions that determine the overall space of possibilities for radical political intervention against climate change. This space will be defined by the set of sympoietic and habilitative practices, which foster strong interface relations between human and non-human collectives and allow them to mutually flourish without aiming to reach some state of perfect equilibrium. As we will see, the peace of the Earth is in perpetual revolution.

Sympoiesis and habilitation

The emblematic idea of this paper – and of the emergent possibility of multi-, cross-, inter-, as well as intra-species diplomacy – is the concept of *sympoiesis*. Sympoietic practices and tools generate *multispecies flourishing* and *well-being* (Haraway 2016, 51). They enable proliferation of manifold parallel evolutionary dynamics criss-crossing each other and layering organic and inorganic beings in thick compounds, meshes and networks—i.e. in open-ended, patchy, planetary assemblages of kinship and companionship (so called *holobiont(s)*, see Haraway 2016, 60). Sympoiesis means *becoming with*, *making with*, *worlding with* and *thinking with* all the critters of this world rather than *against* them (Haraway 2016, 59–60). This approach of "staying with the trouble" exorcises the spectre of teleology in political interventions, since teleology would mean a negation of the irreducibly troubling aspects of this world. Hence, such attitude accepts the planetary assemblage in its irreducible and complex richness and thickness (Haraway 2016, 56). It is further defined by speculative appetite and an ability to follow the thread of manifold kinships without necessary sense of any ultimate direction. It does not imply any consolation or redemption and it allows individual and collective operations in space of deep and structural contingency (Haraway 2016, 10-12).[1]

For this reason, sympoiesis invents a wholly new operational mode of political and ecological intervention, laying outside the dichotomy of anthropocentrism versus ecocentrism, since it does not operate with a hypothesis of the Earth or ecosystem as a closed system (and for this reason, it operates outside of the register of One)[2] and it plays with the *intimacy of strangers*, where individual entities join collectives of juicy companionship. Here they can mutate, but nevertheless they are still treated as distinguishable subjects of kinships, thus they are not being dissolved in some planetary mesh of undifferentiated relations. Thus every agency in such a matrix enters relations of mutual *symbiosis* of a special kind: it always means a detailed negotiation between predation and deliberate withdrawal of predation (the idea of kinship in Amerindian perspectivism, see Viveiros de Castro 2014, 59). As Haraway puts it: "Eating each other properly requires meeting each other properly" (Haraway 2016, 73). It follows that every kinship and every sympoietic worlding is inherently precarious, but nevertheless it always includes care, patience, as well as passion (Haraway 2016, 55).

Such an approach furthermore denies both naïve beliefs in techno fixes on the one hand, as well as an opposite attitude of total scepticism or even

determinism on the other hand. Haraway rather calls us "to embrace situated technical projects and their people" (Haraway 2016, 3). According to her story, technologies are not the enemies, but also they are not the ultimate solution to any problem (ibid). In this respect, Haraway's notion shares many similarities with Ivan Illich's (1975) concept of *convivial technologies*. The innovation of new technologies as well as re-use and re-appropriation of the old ones should be kept in line with the long-term metabolic limits of energy and material consumption and ecosystem reproduction. This idea further emphasises worker cooperatives, consonance with democratic values, and development of the care economy or gift-exchange, and it also demands a novel mode of innovation that endogenously adapts to institutional changes and respects the entropy law (Georgescu-Roegen 1971).

The two scenarios of technology innovation and appropriation are analysed in this respect by Lukáš Likavčan and Manuel Scholz-Wäckerle (2018), and they are called *prosthetics* and *habilitation* (Callon 2008, 43–51): "In general, prosthetics stabilise agencies via processes of convergence; habilitation disrupts them and induces a substantive change in the distribution of agencies through divergent operations" (Likavčan and Scholz-Wäckerle 2018, 7). Prosthetic change can be further explained as a design strategy aimed to enable an actor to conduct a desired activity that she/he/it would not otherwise be able to execute (Callon 2008, 43). It leads to *disciplination* and subjectification of human and non-human users (Callon 2008, 45-46; Fuchs 2010; Bratton 2015), consequently leading to the petrification of existing power structures. Habilitation – contrary to prosthetics – plays the role of potentially subversive technological innovation. Rather than focusing on the enhancement of individual agency, habilitation aims at *interfaces* between agencies, and generates a shift in their performativity as a function of mutual adaptation (Callon 2008, 44); it therefore operates within post-humanist imagery and requires a knowledge of the actual environment where agencies are deployed and produced, not just of the agency itself. Thus it can be defined as *reversed prostheticisation*, de-centring humans and facilitating a series of *becoming* rather than stable structures of *being* (Bratton 2015, 274-276). For this reason, it can be further conceptualised as involving procedures of *cognitive mapping* (Jameson 1991, 51). Habilitative innovation thus reorganises the interfacing between technological agencies, and creates sympoietic alliances between and within various actor-networks. Habilitation does not privilege any actor in the network, and for this reason it carries emancipatory potential (Callon 2008, 47). Moreover, habilitation accelerates the creative potentialities of current technological innovation in information and communication technologies, as will be explained under Planetary-scale computation.

Nature is a battlefield

Sun Tzu (2009) introduces in his *Art of War* an old saying: "If you know the enemy and know yourself, your victory will not stand in doubt; if you know Heaven and know Earth, you may make your victory complete" (Sun Tzu 2009, 40). What is at stake here is a strategic understanding of territory as a pre-condition of decision-making. The context of any practice is never neutral—by shaping the terrain or by creating a new territory, you modify the results of operations executed upon the given site. Climate change itself functions in this respect as a fabrication of new territories and logics of both inter- and intra-territorial relationality. Late capitalism adapts to this changing landscape, as it: 1) Appropriates

military invention (Keucheyan 2016; Duffield 2011); and 2) Develops strategies of resilient extraction, production, and logistics for the Anthropocene (Evans and Reid 2014).

The contradictory (and unfortunately still more and more mainstreamed) greening of capitalism can be interpreted as an attempt to dystopically continue the dull system of exploitation of labour and appropriation of nature on the overheated planet (Kenis and Lievens 2015; Moore 2015). Prolonging an expired economic system, however, cannot be successful without techniques of power, and as a territory of power relations becomes significantly reconfigured by climate change, the institutional and technological innovation leads to new perspectives on how to appropriate and use destabilised weather patterns, intensive droughts and floods, or deserted landscapes for the sake of overall continuation of the ongoing economic constellation (Keucheyan 2016). Thus climate change itself functions as a generative process of new militarised environments (Keucheyan 2016). From this perspective, it is indeed a "natural weapon" against those who do not have sufficient economic power, technological means, and scientific knowledge to partially adapt to the new and uneven patterns of climate behaviour.

Keucheyan (2016, 104-109) gives us, in this respect, a very detailed account of how military strategies recently adopted to the situation of climate change. Extremely unpredictable weather conditions behave like general *threat multipliers* and so they raise demands on resilience of military technologies and on methods of tactical planning (Keucheyan 2016, 112; Duffield 2011, 757). Hence, armies gradually become *chaos specialists* that are capable of facilitating seemingly disorganised behaviour and contingent events, and they learn to intervene into territory not by direct force of weapons, but by tactical *hacking* of the territory itself (see also *environmental terror* in Duffield 2011). Post-disaster situations are future *operational environments* of armed forces and, for this reason, adaptation to disaster or even deliberate non-intervention that would otherwise prevent a disaster from happening is accounted into military strategies (Keucheyan 2016, 106). In terms of global international relations, this new emergent quality of military forces can lead to novel and nasty ways of leading warfare in the Anthropocene, since the destructive force of corrupted ecosystem processes joins the club of the cataclysmic means of total war, such as nuclear and biological weapons of mass destruction. One does not have to produce a catastrophe in order to win a war; it is sufficient to deliberately create conditions in which disasters tend to occur (Keucheyan 2016, 122–124). If the future is in Hell, capitalism wants to make sure it will get some profit even once we are all doomed there forever.

Using the environment as a weapon (and as an integral part of strategic planning) is not a new idea, as one can observe in Sun Tzu's (2009) writings. For example, Eyal Weizman (2014) gives us a very detailed account of a particular case when *desertification* is employed as a method of continuous, structural, political violence: a so-called "battle over the Negev" in Israel/Palestine, described as "a systematic state campaign meant to uproot the Bedouins from the fertile northern threshold of the desert, concentrate them in purpose-built towns located mostly in the desert's more arid parts, and hand over their arable lands for Jewish settlement, fields, and forests" (Weizman 2014, 7). In his picture, colonialism, military, and climate are intertwined—as a line of desert changes from one year to another, so the settlements of Bedouins are again and again built and then destroyed by Israeli Defence Forces. For example, one particular settlement in an area of al-'Araqib has already been demolished sixty-five times since June 2014. The threshold of the desert,

which is represented by pulsating a 200 mm isohyet aridity line (Weizman 2014, 8), denotes the borders of the legal apparatus of the Israeli state, and hence as the desertification of Negev proceeded, the Bedouin settlements occurred repeatedly either inside or outside of the juridical power that did not recognise their claim on a desert land which they tried to cultivate. The cultivation of land was an important marker of a legal claim for the land—by default Bedouins were considered nomads, having no techniques and practices of agriculture. They were not treated as having any legitimate right on the land, and so the desert landscape of Negev became, from an Israeli jurisdiction point of view, a *terra nullis*—the no man's land, which could be freely appropriated and repurposed (Wiezman 2014). Thus, in certain sense, Bedouins share the fate of many indigenous tribes across the world: they were, and still are, considered a part of the *natural environment*, not a part of state *polis*.

My claim is that, similarly, as a desertification is used in Israeli ecological-military strategy in the Negev desert, so by means of climate change, we will see a global militarisation of a changing and chaotic environment in future time, in order to petrify and govern lines of colonisation and environmental/climate injustices (Keucheyan 2016). For this reason, a new doctrine of military perspective as an expertise in governing chaos gains extreme importance. This is very bad news for anyone who wishes that climate change can become a major argument in a deliberate worldwide transition towards a more peaceful future, since in fact, we can see attempts to design new ways that conflicts can be produced and further amplified. The Siachen glacier on the borders between India, Pakistan and China is another testing ground of warfare in extreme weather. This rapidly melting glacier suffers from the military activities of the Pakistani and the Indian armies, as both states claim the right over this territory. Thirty years of continuous warfare changed the mountain wilderness into a rotten ecosystem, and the Indian army gained major know-how about military ecology from the conflict (Keucheyan 2016, 119-120). In other ways, armies often operate in the mode of *ecological task forces*, which aim to contribute to labour of nature preservation and conservation, not only in India, but also in China or Israel and Palestine. Obviously, nature has always been an object of military activity and re-fashioning: national politics is historically intertwined with the protection of biodiversity, as well as with the production of nature and wilderness, since these have always been important practices of building a consistent idea of national identity (sometimes even connected to racist stereotypes, as in historical cases of French, British or German conservation movement, see Keucheyan 2016, 38-40).

Getting back to the idea of environmental and climate (in)justice, we can see a general pattern that many environmental injustices are intersectional with racial, ethnic, gender, age, and class divides in late capitalism (Keucheyan 2016). Looking at the global picture, we can see a continuation of many colonial relations as they are translated into asymmetries in the quality of living environments of whole nations. We can further observe systemic "outsourcing" of global climate change to the countries of the global South, where it can serve as evidence to the imbalance between the impacts of the changing climate on respective regions—while island countries of Oceania are sinking and South-Asian countries face unprecedented extreme weather, such as well-known Hurricane Haiyan (that ravaged Philippines in 2013), countries of the global North hesitate to implement policies of radical climate change prevention and/or mitigation. Importantly, while we must count the accelerated economies of China or India among major polluters, we must first see climate change as a result of worldwide parasitic supply-chain

network of capitalist production, and hence cease from the old-fashioned nation-state optics. In this perspective, it is still predominantly the Western capital that is heavily burdened with an historically high carbon footprint (Malm 2015, 327–333). What is worse, capital and international power turns into a means of preserving oneself from the suffering generated by climate change, since it allows one to invest in military, technological and economic fixes of climate disasters. Thus it is predicted that the most advanced countries can, in limited fashion, withstand the initial impacts of climate change and literarily export suffering to the "buffer zone" of the global South, similarly as the poor neighbourhoods of New Orleans de facto served as an urban buffer zone for hurricanes (see Keucheyan 2016).

If the environment and climate change become militarised, we can expect a spectrum of highly conflictive ways to save one class, ethnicity, or nation from the impacts of climate change to the detriment of others. Hence it is claimed that the regulative ideas of multispecies diplomacy require the active dissolution of such zones of conflict and injustice, in order to progressively unfold sympoietic practices within socio-natural assemblages. It means that a successful facilitation of these practices requires an embracement of anti-capitalist normative presuppositions. De-militarisation of the environment must, in such a case, become an inherent part of both human intra-species political relations, as well as planetary inter-species diplomacy, since otherwise it cannot be ruled out that climate change will work in favour of class divisions and worldwide economic injustices, potentially leading to the total eradication of some habitable land *together with its populations*. Enclaves, exclaves, and areas of militarised climate management will be increasingly used as ways the armed forces and capital will coalesce into a global war machine that facilitates a late-capitalist regime of exploitation and appropriation (Deleuze and Guattari 1987, 351–355). Militarised environments, thus, can lead to deepened and prolonged economic predation on a global scale. Hence, if the era of climate change is to be replaced by a peaceful future, this trend must be overcome by the non-militarised production of ecosystems. In the next section, we will see how we can find sites of such diplomatic activity in digital platforms of the near future.

Planetary-scale computation

Nowadays, calculation of nature becomes an inherent part of the internal mechanism of algorithmic computation (Kittler in Gale and Sane 2007, 324), since no computation occurs without the transformation of matter to energy and energy to information (Bratton 2015, 75). The idea of ubiquity of computation in contemporary socio-economic formation was recently conceptualised by Bratton (2015, 66; 70-71) as *the Stack*—a massive planetary infrastructure that turns to be a technological regime plugged into the fabric of ecosystems as well as societies. The Stack is defined as a site of proliferation of digital platforms, and is structured as a layered architecture unevenly enveloping the globe. Its six layers are *Earth*, *Cloud*, *City*, *Address*, *Interface* and *User*. These layers function as relatively independent modules that can be modified and refashioned without affecting the functionality of other layers. The overall functional logic of this architecture is not as much horizontal as it is mainly vertical—throughout columns crossing the layers of the Stack, energy, material, and information flows can travel up and down, deterritorialising on one side of the world and reterritorialising on the other. Thus the Stack architecture undermines and "overmines" territorial jurisdictions and allows for the cosmopolitan mobility of the elements within the

planetary network, and hence the Stack operates within its own mode of sovereignty: i.e. *Cloud* sovereignty.

What is important, *Cloud* sovereignty generates its own *enclaves*, *exclaves*, zones of exception, and temporary or permanent *camps*. Some are used for extractive purposes (as in case of mines, oil fields, or plantations, see Mehrotra and Vera 2016), others as sites of *sacred life* (Agamben 1998), i.e. of total exclusion and political desubjectivation of refugees, minorities, or "pathological" personalities. Still, others are not realised as "geoglyphs" on the terrestrial landscape (Bratton 2015, 296), but as virtual *spaces within spaces* which are materially realised only as ephemeral bits of code flowing throughout servers and data centres. For this reason, the question of the design of the Stack is inherently political, because designing the Stack means also designing the future of a planetary ecosystem. Nowadays, the Stack *terraforms* the planet in a deadly way, speeding up the entropy of the ecosystem, as it relies mainly on extractive industries that feed its material, mineral, and energy appetite (Bratton 2015, 93; 259). In this process, the planetary infrastructure of ephemeral enclaves of extraction and distribution was set out (Mehrotra and Vera 2016). More precisely, militarisation and securitisation of the environment act as mappings that always simultaneously produce new territories, and hence draw new violent borders on the Earth's surface. According to Bratton (2015, 323-324), the multiplication of digital interfaces allows for further petrification of this state of affairs. Mark Duffield (2016, 151) also points out that, "the industrial–military–academic complex is continually being reabsorbed into the complex emergency of neoliberalism." The world was thus turned into a layered carbosilicon machine, where the energy of the sun was trapped in fossilised dead bodies and merged with abstractions of cybernetic algorithms (Pasquinelli 2017; Bratton 2015). Destabilised, appropriated, and militarised environments thus function as spaces of conflict between the capital and planetary ecosystem, where the extractive nature of the former allows the degradation of the latter. The task then is: how to refashion the machine of planetary computation without instituting a new regime of planetary *occupation*.

In this picture, digital infrastructures and platform economies are identified as major factors that affect the results and methods of potentially successful sympoietic practices. As one can see from the analysis of *Cloud* sovereignty, they do not only actively shape material environments and human behaviour, but they also give rise to political conflicts, they facilitate ideological hegemonies, and they create new sovereignties (Bratton 2015, 56–65). Under conditions of climate change, they can help to elaborate zones of safety from the ravaging of negative planetary feedback loops, since they can help us monitor the environment and manage the sympoietic practices upon solid data. The enclave/exclave logic of the Stack can be a precondition for new modes of environmental nomadism in the Anthropocene. However, these dialectics can also directly expose Earthlings to the worst outcomes of changing climate, since the creation of exclaves can easily mean the birth of the new regime of refugee camps, not the romantic and frictionless idea of humans being embedded in the environment (Agamben 1998; Ek 2006). As platforms provide the means for the invasion of abstraction and imagination back to their direct presentation in reality (due to augmented reality, virtual reality, hypermedia, biomedia, ubiquitous interfaces, Internet of Things), they can facilitate an unprecedented proliferation of fundamentalism and of secessionist tendencies (Bratton 2015, 241–242). The adaptation to climate change under platform capitalism can easily mean indirect warfare against the global South without a single bullet being fired, because

the environment itself can easily become the most active means of conflict, which can get even worse when technologies become new environments. Such a situation can easily lead to worsening injustices even if the global socio-economic regime becomes partially adapted to climate change (Duffield 2016, 148), because climate justice is a function of spatial justice, as seen above in Nature is a battlefield.

Digital infrastructures, however, can counter this trend if appropriated in sympoietic fashion—that is if they function under habilitative appropriation (Likavčan and Scholz-Wäckerle 2018). They have the power to re-connect the disconnected and map territorially scattered processes in cognitively accessible fashion (the idea of *cognitive mapping*—see Jameson 1991, 51; Srnicek 2012). For this reason, digital infrastructures represent powerful cartographical machines. Their potential was clearly demonstrated in 2010, when Google Maps shifted the borderline between Costa Rica and Nicaragua. This resulted in a severe diplomatic crisis, including the possibility of war between both states. Fortunately, the cartographic power of digital platforms can also be used in an opposite manner, since they can be particularly helpful in the context of building new spaces of sociality and exchange as well as in evangelising people about the effects of climate change. Interspecies diplomacy thus seems feasible if it leans on strong material groundings that provide infrastructures that are capable of generating spaces of sympoiesis. However, platforms can also similarly prevent the realisation of emancipatory political interventions, given the ideological context that embeds them (Easterling 2013; Mouffe 1979). Accordingly, digital infrastructures either generate spaces of conflict or produce sites of sympoietic practice if driven by complementary political goals and practices. The overall ideological environment of the given epoch thus must be shaped in parallel with technological innovation, since technologies are *sociomorphic* (Pasquinelli 2016). For this reason, I will offer in the concluding section a political design brief of viable habilitative innovation and appropriation.

Conclusion

If the Earth is wounded now, the wounds will leave scars even once they are healed. And the scars will generate traumas that will haunt future generations. A solution for climate change does not mean restoring some old order of things. It is an intervention as severe as changing the climate by more than 150 years of carbon dioxide emissions that were generated by intensive industrial production. The planetary assemblage of the Stack was fabricated in a series of unfortunate semi-accidents on the crossroads of multiple historical trajectories between humans and non-humans, and our political task is burdened with this crazy past (the idea of path dependency, see Pagano 2011, 382). As we have seen, we are trapped within a carbosilicon war machine (Pasquinelli 2017, 322), and hence we are left with no other option than to replace it with a new planetary machine, not necessarily less silicon but definitely carbon-free. We must think and act globally, since if it holds that we live in the carbosilicon machine of the Stack, the relation between global and local is perverted and there is simply nothing like a local action complemented with global thinking, or vice versa.

Such a political intervention needs its design brief. For this reason, we can now conclude with a list of diplomatic practices of sympoiesis for the age of the Anthropocene and planetary-scale computation (hopefully leading to a transition towards post-Anthropocene, meaning also *post-capitalism*):

1) *Cognitive mapping*: Cognitive mapping is developed in order "to enable a situational representation on the part of the individual subject to that vaster and properly unrepresentable totality which is the ensemble of society's structures as a whole" (Jameson 1990, 51). In other words, cognitive mapping is an aesthetic strategy to comprehend immensely complex entities, and in this respect, it mediates alien principles of association and makes them manifest in a manner adequate to human comprehension. The aesthetic experience of climate change gives us the impetus to seek for ecologically sensitive alternatives to the capitalist civilisation of infinite excess. Instead of focusing on the human perception of time, we must think in intentions of *geological time*. This can happen, for example, by means of a live visualisation of satellite data crunched by supercomputers. Another aesthetic strategy could be an intense visualisation of non-human gaze from nowhere (Likavčan 2016, 116). Such strategies offer us tools to create *non-human centred narratives*. Moreover, cognitive mapping can further serve as emancipatory strategy if it is understood as Agamben's (2009, 17–19) *profanation* of apparatuses, i.e. making opaque structures and systems exercising power upon individuals transparent again. In Agamben's words, it is "the restitution to common use of what has been captured and separated in [apparatuses]" (Agamben 2009, 24). As an example, one can introduce the practices that open the black box of digital technologies and shift power relations to the side of their users (Bratton 2015, 341–346)—open source/open access, creative commons, independent hacker initiatives, whistleblowing, etc.

2) *Technology appropriation*: Technology appropriation can be understood as a means of the ideological repurposing or reframing of given technology (Likavčan and Scholz-Wäckerle 2018). Since innovation is always embedded in the political context, technologies tend to be appropriated by hegemonic agencies. However, this trend can be countered by subversive appropriation, which can unlock some new spaces of interlocking complementarities and path-dependencies (Pagano 2011). In this context, we can especially emphasise *habilitative appropriation*, when the technologies are used in novel ways by counter-hegemonic agencies in sympoietic fashion. As an example, one can mention *terra0* (2016) project of Dutch artist Paul Kolling, who deployed a set of drones, sensors, and cameras in a forest. This forest thus gained a capacity to perform autonomous operations on blockchain markets, capable of buying new pieces of land, obtaining maintenance services, or even selling its own wood (Kolling 2017). Taken out of its hyper-libertarian ideological context, the principle of employing smart technologies to provide non-humans special capacities to act as equal members of some platform *polis* can be seen as one of the essential strategies of habilitative appropriation. Similar attempts are clear also in works of David Bowen (2017), Art-Act collective (2017) or in the Methbot operation by a Russian hacker collective in 2016, which resulted in earning 180 million dollars via online advertisement by faking hundreds of thousands of American user accounts. In academic literature, Bratton provides a more infrastructural example, when he mentions National Aeronautics and Space Administration's (NASA) project Rainforest Skin, which shall serve to measure capacities of global forests to absorb carbon dioxide (Bratton 2015, 88). As can be seen with these examples, a crucial feature of habilitation is its orientation towards interfaces and non-humans. For this reason, we can approach habilitative innovation and appropriation as *radicalised prosthetics*—as *non-human centred design*—where not only humans, but also (and simultaneously) non-humans are enhanced in order to achieve the regulative ideal of sympoiesis (see the idea of *reverse prostheticisation* in the previous section

of Sympoiesis and habilitation). The figure and the background are thus inherently reversible (Bratton 2015, 274–276), and hence habilitation stands for a continuous mediation through a series of interfaces. In such an agonistic picture of politics, the initial landscape of habilitative practice is necessarily conflicted and populated with predatory relations. Nothing can prevent reactionary re-militarisation and precarisation of the environment, and habilitative technologies convey a collective attempt for humans and non-humans to tackle this trend.

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Notes

1. On the importance of contingency in environmental philosophy, see Likavčan (2016).

2. Operating outside the register of One is a recurring motif in Alain Badiou's philosophy. See Badiou (1998, 25–27).

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Bio

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SELF-DRIVING CARS) IMPLICATION => [illegible] TO OWN CAR AND SO YOU DON'T NEED PARKING LOT IN FRONT OF YOUR HOUSE.

↳ CARS GOING TO SLEEP INTO MOBILE OBJECT AND MIGRATING INTO THE CITY IN THE MORNING

↳ ALSO EXAMPLE OF NEW RENTAL ECONOMY.

SOCIAL

RENT TO BE MANAGED BY PLATFORM, NOT A USER.

↳ EXAMPLE OF TROPHIC CASCADE AS WELL.

SPECIFICITY OF RUSSIAN CONTEXT = CONTRADICTORY EXISTENCE OVERLAPPING LAYERS, SECULAR AND SOCIAL UTOPIAS/DYSTOPIAS MIXED IN STRANGE QUANTITIES. + SIMULATIONS OF HIST. (E.G. CATHEDRAL OVER THE UNIVERSALIST IMPULSE OF EARLY 20TH CENTURY RUSSIA

↑

CONTINENTAL SCALE OF THE COUNTRY

↳ + COORDINATION OF THIS CONTINENTAL SCALE FROM SINGLE CITY-HUB]

↳ MOSCOW

HYPERBOREAN AUTOMATIC CITIES ON THE TOP OF THE PLANET

↳ ARCTIC PORTS & DRONE SHIPS

ALGORITHMIC REASON => DIS/REPLACEMENT OF HUMANS

↳ IMPLICATION OF AUTOMATION

↳ [illegible]