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ARTICLE



Re-imagining the left through an ecology of the commons: towards a post-capitalist commons transition

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ABSTRACT

Our main hypothesis in this paper is that in the current conjuncture, we are moving towards a 'dominance' of a 'commons' format for societal development. The commons format assumes a 'third' mode of development that indicates civil society and community as critical initiators and guardians of common value. The emerging commons model should be distinguished from both the regulation of capitalism by social-democracy, and state-centric Soviet types of socialism. Just as a full-fledged capitalist system could be seen as starting with the seed forms developed in the medieval city-states, so a future commons-centric society can be hypothesized from currently emerging commons-based seed forms. We believe that just as the revolutions bringing full-fledged capitalism were preceded by the development of capitalists and their seed forms, so a commons-based systemic change is necessarily the result of commoners developing their own seed forms. Therefore, the creation of a systemic ecology of the commons becomes an essential strategy for social change. The key approach for emancipation is no longer a redistribution of market value, or a state-centric appropriation of productive assets, but an interweaving of commons-based production and redistribution

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Introduction

Scholars such as William Robinson (2004) and Leslie Sklair (2005) have argued through their global systems theory that the contemporary capitalist political economy needs to be seen as a post-national process of accumulation. Capitalism, having gone global, is personified through a transnational capitalist class, which synchronizes policy for the benefit of multinational corporations. The phase shift from national capitalism to global capitalism which they document is then a pre-figurative analytical context within which to understand global class formation (Cox 2005).

Indeed it is through this lens that we can see the impacts of capitalism on communities around the world that were not traditionally included within the circle of 'left solidarity', i.e. male European workers. Today victims of capitalism include indigenous people struggling against mining companies, prisoners suffering within corporatized profit-seeking prison systems, and if we expand the circle wide enough, future

generations condemned to live in an unsafe climate because of the fossil fuel industry's lobbying efforts.

We see this expansion of definitions of solidarity through the language of the commons and practices of 'commoning'. Just as the left, coming out of the European historical context, first constructed solidarity around the worker, today we see a number of emerging solidarities that exist in variegated and co-mingled contexts. All of these commons solidarities are related to the crisis of capitalism we experience today, but have different scales and logics. We understand this as a historical transformation or phase shift, a reorganization and expansion of counter-hegemonic energies and movements.

The World Social Forum Process (WSFP) and alternative globalization movement provided a new vision for what counter-hegemony can actually mean (Ramos 2010). It included indigenous movements for land sovereignty, an emerging cognitive precariat (the global IT worker within the platform economy), union and cooperative movements, landless peasant movements, peasant farmers struggling against the global agrobusiness-dominated system (for example associated with Via Campesina/food sovereignty), women's solidarity, and many more. Santos and Rodriguez-Garavito (2005) and Santos (2006) discuss this as 'insurgent globalization', indicative of an epistemology of the Global South. We see this expansion of counter-hegemonic energies through the lens of the commons.

The idea of the commons has been popularly associated with natural resources and local inhabitants who want to govern and protect localized commons for their own use, as with the common pool resource institutions that Elinor Ostrom (1990) studied and became well-known for. Drawing from, but also expanding on this notion, we see commons more generally as combinations of shared resources which are co-produced and managed by a community of stakeholders according to their own rules and norms. This definition aims to be objective, stressing the existence of a shared resource, which can be 'immaterial' such as a community and its activity; it emphasizes the intersubjective aspects, as it requires human choice and intervention; and it involves institutional/property arrangements. This definition does not idealize the commons as necessarily being egalitarian, nor universal, nor for the benefit of everyone. Commons exist in various scopes and scales, and include various forms of inequalities, reflecting broader societal structures and dynamics (Bollier and Helfrich 2015). Open source communities, for example, produce digital commons, which are qualitatively immaterial and global in scale. Alternatively, residents of a city may work together to manage and tend to commons such as parks, water systems or even energy production systems (Gorenflo 2017).

Commons in a broader sense, however, become so by implication into a community of shared concern which has an interest in protecting and extending that which they mutually depend on for their survival and well-being. For example, left solidarity in the traditional working-class European context was understood as based on class, yet this could have been framed simply as a solidarity of common concern. This notion of 'common concern' is critical in the transformations which we describe in this article. The explication of a commons, a domain of common concern, is simultaneously the invocation of a community who must steward the good of that commons – commoning. Like the formulation of the working class, a particular commons can only be as such because it is valued by a particular group of people. Because it is valued, that group tends to that commons – protecting it, extending it, or creating it. In the case of

working-class communities the commons became the welfare and right of workers and their families.

This notion of 'common concern' serves to expand the scope of what is a commons and who is a commoner. In the case of planetary life support systems, the value of this as a commons is fundamentally implicit in that it does not appear valuable to a community until it is activated by virtue of a contextual shift. When the ozone layer became threatened due to certain industrial pollutants, which in turn fundamentally threatened human well-being, the ozone layer became a commons for collective governance, an 'object of commoning' (Buck 1998).

For an issue as fundamental as climate change, it is the personal awakening that we all share an atmosphere with seven billion other humans (and countless species) as a commons of concern. Through the accident of circumstance each of us have been 'plied into' this shared concern of the twenty-first century. The planet's atmosphere has thus shifted from an implicit commons to an explicit commons. Our atmosphere has become a matter of survival for all, and suddenly people have become commoners to the extent that they see how they are entangled into this shared concern, with a concomitant responsibility for action. This implies a radical democratization of planetary governance.

Commoning as an act of governance mirrors this movement of self-awareness – those who share this commons for their mutual well-being and survival must make a shift towards becoming active protectors, shapers, and extenders of that commons. To rephrase Marx, this is a movement from a *commons-in-itself* to a *commons-for-itself* (Borland 2008, 134). The crucial difference from a stricter reading of class is, perhaps, that the language and literature of the commons emphasizes a relational cross-implication of one commons in another. Yes we need a world where workers have dignity and power, but these same workers are commoners of the atmosphere as well, which they and their own future generations depend on for their well-being and survival. This 'ecology of the commons', which envisions dynamic solidarities and collaborations across ontologically different commons communities, is the conceptual position we take to consider the transformation of the left in this paper.

Contexts and political program for commoning

We thus see commons as thriving through interdependence across multiple scales and dimensions, with myriad communities enacting themselves as commoners who engage in the active creation, defence and management of their commons, but not to the exclusion of others. It might be said that in terms of epistemology, the emerging foundations of the commons perspective shares a radical perspective on the dynamic interconnections that exist between a multitude of forms, as well as a process orientation (Bollier and Helfrich 2015). Arturo Escobar (2015, 355) discusses this relational dynamic as a 'pluriverse ... made up of a multiplicity of mutually entangled and co-constituting but distinct worlds'. Given this, there is a broader political, ecologic and economic context which needs to come with commoning.

First, we do not see any room for exclusionist approaches in our definition of commoning. Historically, labour movements centred on the White European male were exclusionist in orientation (for example the White Australia Policy had its origins in labour movements, and in the United States the Chinese Exclusion Act of 1882 was

also supported by labour unions), and in the current era we see, for example, the United States 'alt-right' that has emerged as a nativistic construction with an even more virulent form of exclusionism. In contrast to such an exclusionary understanding, our view might be understood as 'cosmopolitan solidarity', in which the activity of one particular group needs to do no harm to, complement, or even support the well-being of people universally, not just one group to the exclusion of another. As such, in this paper we put forward the idea of cosmo-localization, the notion that one community of productive commoning on one part of the planet also can and should support other communities of production and commoning in other parts of the world, through the development of a global design commons that democratizes production.

Second, given the ecological crisis that we face, commoning cannot be reductively defined in terms of one community's activity if it runs counter to the overall health of the whole. A planetary ethos, a view that takes the health of our planetary life support systems as central, needs to guide what it means to enact a commons – the activity of a particular group needs to complement and support the general well-being of planetary life support systems.

Third, commons need to be aligned with a post-capitalist political program. Both nativism and ecological crisis need to be understood as, in certain ways, products of capitalism. Anti-globalization was indeed at first a radical green-left position, as demonstrated by the alliance of 'Teamsters and Turtles' at the Battle of Seattle and the wider global protest circuit (Kaldor 2000). For the good part of two decades these demands and cries for transformation have been largely ignored by our neoliberal policy makers, leading to both reactionary populism and a deepening ecological crisis (Ramos 2017a).

This paper begins with a simple depiction of the birth of a 'civic/civil' oriented commons, which has emerged concurrently and in the aftermath of the demise of state-socialism and the neoliberal assault. We then provide a theory of change – our proposition is that transformation and phase transition is based on the emergence of seed forms. We provide several historical examples, and we discuss the emergence of the commons as one such seed form. To provide a theoretical and ontological foundation for understanding the emergence of the commons as a seed form within a macrological time-scale, we discuss the work of Alan Page Fiske (1991) and Kojin Karatani (2014) and the implications of their work for an ecology of the commons and reformulation of the left. We then segue into a short discussion on this ecology of the commons as a response to civilizational overshoot and collapse. Within this context of civilizational crisis and the aforementioned theory of change, we trace the general outline of the transition, and describe the emergence of cosmo-localism, Design Global/Manufacture Local (DGML) strategies as a key element of the commons shift. In conceptualizing the practical elements of this proposed ecology of the commons, we present the German *Energiewende* as a proto-model for state-community co-creation, and a template for future possibilities. We then look broadly across the ontological forms of the city, the nation-state, and global transnational structures as emerging constituent and co-creative elements of such an ecology of the commons. We end with some implications for the left and the challenge of transforming the dark energies of populism.

1) The epistemological/axiological/ontological shift

There are moments in history when deep epistemological/axiological/ontological shifts are necessary. One such moment was 1789 and the French Revolution. Up until that time, political and social controversy and dissent were mainly expressed in religious language, and power was legitimized with reference to the sacred. After 1789 however, discourse became explicitly political, and new forces such as liberalism and socialism were no longer limited by religious discourse.

We argue that 1989 was also such a moment. Indeed for us, 1989 signified an exhaustion of the socialist tradition, in its two main forms. In 1989 the state-socialist Soviet form (which could with some justification be called state-capitalist since it carried the same categories of labour and capital at the heart of its organization, but changed the locus of accumulation to the state) collapsed, leaving neoliberal capitalism as the hegemonic form. At the same time the other competing, social-democratic form became a mere manager of capitalism, during a phase when it steadily diminished the proportion of wealth going to labour. While there have been other socialist traditions, in particular the 'civic/civil' strain, which we consider as the predecessors of our own approach, they have become marginalized. We found that, when the commons and other modes of exchange are re-introduced into our understandings of how societies work and allocate resources, many of the debates in the socialist tradition – which are most often limited to the public-private binary or to how to abolish, transform, or reform the state – are re-imagined in productive ways, in particular in terms of the satisfaction of common needs and production for common interests.

2) A new understanding of revolution and phase transition

A second inflection point concerns our understanding of revolution. Following the iconic examples of the French and Russian revolutions, some of the radical left traditions, in particular Marxist-Leninism, have been focused on how to strategize the final assault on the bourgeois state. Other left traditions (anarchism/autonomism) emphasize an exodus from the state. And still other left traditions take a gradualist approach. But an examination of the phase transition towards industrial capitalist structures shows rather a greater variety of moments of change, with many different kinds of actors, as when Bismarck introduced the welfare state in Prussia/Germany, or when the Russian Tsar liberated the serfs, or the constitutional civil wars in England and the United States. Moreover, if one looks at the earlier phase transition, say from the Roman system to the feudal system, one sees a very long transition based on seed forms that slowly emerge, start interacting with each other, and create the conditions for a phase change that can take on multiple forms. But instead of an attentiveness to the importance of these moments of change (or seed forms), the main remaining socialist traditions reiterate a debate from within the capitalist mode of exchange, either about the right share of the fruits of labour (social-democracy), or about how to re-orient the functioning society with the state as the agent of capital, but still within largely the same organizational frameworks based on salaried labour.

Similar to the phase transition from ancient to feudal, the constituent factors of the capitalist system emerged as early as the eleventh century AD. The development

of capitalism that led to the predatory capitalism¹ and green capitalism² of our current era followed from early seed forms traced back to the Italian city-states. The *longue durée* of the phase transition we are part of is dependent on the creation of seed forms that ultimately ‘burst’ into the organizational logic of the societies in which they had been planted.

For the emergence of a post-capitalist commons political economy the seed forms are much more recent, from the twentieth century, and the *longue durée* can be seen through the distributed experiments (involving commons and commoning) that indicate and bring forth a new organizational logic.³ This is not to say that there will be no ‘revolutions’, but they will be the result of more long-term changes in the productive systems and structures, and the social forces they create. If we have capitalism, it is because we had capitalists; if we have a post-capitalist commons transition, it will be because we have commoners. So what then is the nature of these seed forms for a post-capitalist commons transition?

3) The evolution of the four modes of exchange

This brings us to a third inflection point. If it is true that societies transform through seed forms, then the question arises, what are the seed forms today that point to a radical societal re-organization? For us, beyond any doubt, it is to the commons that we have to look.

The commons are generally defined as shared resources, governed by their users and stakeholders, according to their own rules and norms. In this way, the commons are conceptually distinct from both the private and the public. It is a ‘third way’ (but actually, one of four) to allocate and distribute resources and organize provisioning systems. Commons commingle with state and market forms, and some of the most transformative examples of commoning find critical structural couplings with market and state; yet it is users and stakeholders who drive the movement from a *commons-in-itself* to a *commons-for-itself*, whereby an embodied recognition of shared interest is key to the enactment of solidarity and the production or protection of common value.

To provide some theoretical grounding to this, we draw on the work of Alan Page Fiske and Kojin Karatani. Fiske’s (1991) *Structures of Social Life* denotes four basic modes by which value is exchanged:

- (1) Pooling: mutualizing or sharing resources in a pool, which he calls ‘communal shareholding’; this is what we today call commoning and is the co-production of the commons;
- (2) Equality Matching: a gift economy that involves the social obligation to return the gift;
- (3) Market Pricing: allocation through the market involving impersonal exchange through currency and credit systems;
- (4) Authority Ranking: redistribution according to rank, this includes state-based redistribution of resources, both top-down and bottom-up.

In short, early nomadic groups mainly practiced Pooling; more complex tribal societies mainly practice the Gift Economy; pre-capitalist class formations are based on Authority Ranking, as was the Soviet system (which could be interpreted as another

form of the 'capital system').⁴ Capitalism brought Market Pricing into dominance. These modalities have existed in different regions and time periods, in various combinations, but also with a primary form that forces the other forms to adapt. This insight allows us to historicize the evolution of the modes of exchange, work that has been done by Kojin Karatani (2014) in his study, *The Structure of World History*. According to his perspective there are four fundamental modes of exchange:

- (1) Mode A, reciprocity of the gift, based on the 'community';
- (2) Mode B, ruling and protection, based on the 'state';
- (3) Mode C, commodity exchange, mediated by the 'market';
- (4) A hypothetical Mode D, 'associationalism', with a planetary commons transcending the other three.

The logic of the shift from mode A to mode C works by way of constraint, reinforcement and reiteration. This is to say, a seed form or modality may struggle to emerge while another form is dominant, and a dominant modality will constrain the potentials of previous and future modalities (for example the tension between the power of the state and capital in the twentieth century, the regulation of capital after the New Deal, and most recently with the ascendance of capitalism, the disciplining of the state by capital). Even though one of the modes may be dominant, social systems will have a combination of all three modes A to C, and elements of D. Historical transitions play themselves out through conjunctures and struggles between these various modalities.

For example we saw an early transition from pooling of resources practiced by nomadic groups to reciprocity-based gifting practiced by more complex tribal systems. A later transition saw the shift from reciprocity-based gifting practiced by tribes towards state systems of authority, imposed through a combination of warrior and priest classes, which would take both protecting and paternal roles as well as extractive and exploitative ones. In early stages this takes the form of kingdoms, in later stages, of empires, and in more advanced stages, of states, with the most recent administrative and bureaucratic systems being developed in a post-Westphalian context. A third transition, as explained earlier in the example of the Italian city-states and the later mercantilist European kingdoms and empires, was the emergence of the market modality, first through a seed form dominated by the state form, but later coming to dominate the state form, culminating in the emergence of global capitalism and a world economy. The last transition that Karatani posits, mode D, 'associationism', reiterates mode A, pooling, but on a global scale, prefiguring the network commoning processes that we argue for in this paper. As Bauwens and Niaros (2017a, 16–17) argue:

In terms of mode A, Karatani stresses that Marx did not distinguish between the pooling of resources in nomadic bands and the reciprocity of the gift in tribal systems. He makes that distinction very clear, though he still uses the overall name and concept of mode A (the reciprocity of the gift) to refer to this joint period, which can sometimes cause confusion. But it becomes obvious that his description of mode D (the transcendental one) is congruent with the thesis that we may currently be at the threshold of a new type of civilization and economy based on a new mode of exchange (i.e. a new configuration under a new dominant mode). Very specific about the argument of Karatani is that mode D is not just a return to the reciprocity of mode A, nor a pure nomadic band structure, but a new structure which

transcends all three preceding structures. If mode A is dominated by gift exchange and on the pooling of resources, then the digitized commons enable all kinds of pooling of physical and infrastructural resources, but at a global scale. In other words, mode D is an attempt to recreate a society based on mode A, but at a higher level of complexity and integration.

Below, we offer a hypothesis as to the evolution of the place of the commons in these different modes of exchange. We propose, in line with Karatani, that such a mode D has already emerged in seed forms, yet its interaction with the forces of capitalism, the state and communities will be the foundation from which such a commons-oriented and sustaining post-capitalist system will be born. Indeed all four modes are critical in the formation of an ecology of the commons, whereby structural synergies of power are formed that reinforce and make resilient the possibility of commons-based and post-capitalist societies.

4) The time of the commons shift

Our main hypothesis is therefore that in the current conjuncture, we are again moving towards an emergence and eventual dominance of the commons format. There is also a 'cyclical' argument to be made for this shift in the current conjuncture. According to Mark Whitaker (2009) in his 3000-year review of ecological crises in Europe, Japan and China and how societies/civilizations overcome these types of crises, the commons repeatedly plays a crucial role. His basic thesis is that state-based competitive polities almost always systematically over-reach their natural resource base and over time create 'degradative political economies'; against this, ecological-religious movements arise which re-balance societies until a new phase of degradation occurs. An important aspect of these ecological re-foundations involves the commons. As the HANDY (Human and Nature Dynamics) model has shown, reducing carrying capacity is the most efficient way to avoid or soften societal collapse, or to recover from it, and pooling resources is a key way to reduce matter-energy footprints (Motesharrei, Rivas, and Kalnay 2014).

For example we can consider the mutualization of knowledge by Catholic monks, who were also the engineers of their time, and who, according to Jean Gimpel in his book about the first medieval industrial revolution, were responsible for nearly all technical innovations of that era (Gimpel 1976). The monastic communities effectively functioned as a knowledge commons; the monasteries themselves can be seen as a mutualization of shelter and common productive units as they provided shelter, culture and spirituality at a dramatically lower footprint than the cost of the Roman elite, as well as relocalizing production. The resemblance with our own conjuncture today is uncanny. Faced with ecological and social challenges, we see a re-emergence of knowledge commons, in the form of free software and open design communities; we see a drive towards mutualization of productive infrastructure, for example the emergence of fablabs, makerspaces and co-working spaces, but also the capitalist 'sharing economy', which is focused on creating platforms for under-utilized resources; finally, new technologies around distributed manufacturing, which are prototyped in makerspaces and fablabs, point to a reorganization of production under a 'cosmo-local' model (Kostakis et al. 2015; Ramos 2017b).

Today we see an exponential rise in knowledge commons; infrastructural commoning is also emerging rapidly,⁵ and not just in the southern European countries where state and market failure is the most obvious. A recent research project on urban commons

conducted a study of the Flemish city of Ghent, which showed the existence of nearly 500 urban commons, active in all areas of human provisioning (Bauwens and Onzia, 2017).⁶

The difference with earlier cyclical re-emergences of commons in times of crisis is that the current exhaustion of resources and the dangers to our ecosystem are global in nature, requiring transnational and globally coordinated responses.

5) The nature of the transition

Regarding such phase shifts, we see the following process at work:

- (1) The dominant system starts to degrade;
- (2) This causes an exodus of various social groups from the mainstream system in search of alternative solutions that do not exhibit the same destructive logic as the degradative system⁷;
- (3) This exodus leads to a flowering of new seed forms that interconnect to form ecosystems, eventually coalescing into prototypal forms of the emerging successor system.

The transformation from a state-corporate industrial orientation to a post-industrial commons orientation is one key thematic arc we can track. First, the dominant industrialization-based mode of development has fundamental contradictions. The massive impacts industrial capitalism has had on ecosystems, ecological degradation, climate change, resource depletion, sixth extinction of animal life, etc., are obstacles to the reproduction of the system. However socialist states have not fared much better in terms of ecological impacts, and therefore both statist-industrialism and capitalist-industrialism have been scrutinized (Broad and Cavanagh 2009; Wallerstein 2002). We think it is important to note that this search for an alternative stems from both a critique of growth-based capitalism (for example *The Limits to Growth* report by the Club of Rome (Meadows et al. 1972)) as well as state-led development (Mumford 1970), which emerged as the abuses of state-socialism in the former Soviet Union, China, and other communist experiments began to become more widely known. Since the 1960s and 1970s there has been both a conceptual exodus and more recently an experimentally embodied and figurative exodus, as various social groups from the mainstream system search for alternative solutions that do not exhibit the same destructive logic as the degradative system. This movement arguably gave rise to proto-commons ideas, experiments and prefigurations (Cavanagh and Mander 2003; Osava 2001; Ponniah 2006; Ramos 2010; Santos 2004; Schroyer 1997). This exodus has led to a flowering of many new seed forms that interconnect to form ecosystems, and that will eventually coalesce into prototypal forms of the emerging successor system. Recent social processes and events such as the WSFP, Occupy, and Los Indignados, amongst others, have essentially been ecosystem-building meta-formations (Ramos 2016) that have coalesced.

Applied to labour, the current degradative system logic includes financialization-driven crises that have split the global economic strata between the beneficiaries of casino-capitalism and the losers, non-investors and those that rely on debt-laden state support. For several decades now, the crisis of inequality has been, in both financial and

political terms, increasing inequality and social strife, putting the political system under stress. There is an exodus from the salary and worker-labour conditions in the Western core, creating layers of precarious knowledge, service, and affective workers; the salariat becomes the precariat (Foti 2017). The precariat is interconnected through digital networks, self-organizes new forms of work and life, and is very often connected to the creation of new commons and the building of infrastructural commons alternatives, including new forms of solidarity ('commonfare'). Two studies, *Homo Cooperans* (De Moor 2013) about the Netherlands, and the Oikos study (Van Fleur and Holemans 2016) about Flanders, show a tenfold increase in urban commons over the last decade.

6) The evolution of the commons format

The original format of the commons in both hunter-gathering and pre-capitalist class formations is the natural resource commons, which connect the people to the land and its resources. These are the forms of commons governance that Elinor Ostrom (1990) highlighted in her research that eventually won her a Nobel prize.

Yet such commons are very rare from the vantage point of capitalist industrialized states that have been dominated by the binary of either private or state modes of property management, and which separate the means of producing livelihoods in a separate class of capital owners, sounding the death knell for most natural resource commons in the Western countries. Therefore, under capitalism the dominant form of the commons became the 'social commons' as developed by the labour movement to ensure its survival in solidarity, i.e. the mutuals, cooperatives and other forms that were eventually taken over by the welfare state and bureaucratized. The New Deal and formation of Western European-style social-democracy was the consolidation of a mode of social commoning whose solidarity was based on a political community.

Today, under cognitive capitalism, with the invention of digital networks for the co-production of shared knowledge, it is the knowledge commons which have come to the fore. However, without capabilities for self-reproduction of the commoners, most of these knowledge commons are subsumed under the new forms of netarchical capital, the new fraction of capital which directly exploits human cooperation and extracts value from it. This is the crisis of the platforms, that extract new types of 'rent' from their monopoly *cum* dominance positions (Pasquale 2016; Schor 2017; Srnicek 2017).

Netarchical capitalism is a hypothesis about the emergence of a new segment of the capitalist class (the owners of financial or other capital), which is no longer dependent on the ownership of intellectual property rights (hypothesis of cognitive capitalism), nor on the control of the media vectors (hypothesis of MacKenzie Wark in his book *The Hacker's Manifesto*), but rather on the development and control of participatory platforms.⁸

Under conditions of capitalist crisis and global urbanization, and especially after the global financial crisis of 2008, which severely affected the infrastructural capabilities of many states, urban commons have become the locus where precarious workers merge physical infrastructures with knowledge commons, and urban culture with networked cooperation culture. Urban commons are a response to market and state failures, they are a form of infrastructural commoning. In the face of a neoliberal state which fails to provide basic security (health, pensions, social cohesion), they remake solidarity and

support along civic lines. In the face of market failure (offshoring, automation), they provide a locale for cooperativization.

Urban commons infrastructures, such as fablabs and co-working places, are not only places where the culture of the commons becomes embodied, tackling social-ecological transition concerns through experimentation with new provisioning systems (for example the circular economy), but also where prototypical forms of production are invented, which prefigure the coming productive commons. This model is called cosmo-local production (Ramos 2017b), or 'Design Global, Manufacture Local' (DGML) (Kostakis et al. 2015). This mode of production and exchange combines global cooperation in knowledge commons, for example, open design, and local fabrication in distributed local factories. These communities increasingly experiment with open and contributive accounting systems (Bauwens and Niaros 2017a), and with open and participatory supply chains. They show the potential future of a more fully organized commons-based society and economic system.

It is important to re-emphasize, within this cosmo-local/DGML format, any design which becomes part of the 'global design commons' enhances the production capabilities of any 'worker' and producer community in any part of the planet.⁹ As local communities address ways of satisfying their own livelihood needs, and in this way make their solutions part of the global design commons, other communities are then able to use this and iterate such designs for local needs, in a virtuous cycle of co-productive development. This model fundamentally circumvents the contradictions experienced in the twentieth century system of interstate capitalism, whereby states support industries to compete against other states.

Indeed, the history of protectionism and interstate competition are entwined. Even within social democracies and in highly unionized environments, workers in one state have become unwitting competitors and adversaries to workers in other states, competing based on profit and innovation-based criteria (with heavy social and ecological externalities) for local to global market share. Much of the sad racist lapses from traditional leftist domains, for example the White Australia Policy and most recently Trump's racist populist rhetoric targeting rust belt states, were based on the simple conjunction between interstate competition and worker interests. Cosmo-local/DGML formats for production have the potential to decouple local development and production from interstate competition, in effect re-weaving a global solidarity system of producers based on a commons framework, something the left had all but abandoned by the middle of the twentieth century.

7) The structure of commons-based peer production, the commons-based economy and the commons-based society

Digital peer production communities take a very distinct format, which we have also seen in the urban commons in Ghent (Bauwens and Onzia, 2017). The core consists of the productive community which co-produces the commons; these communities consist of paid or unpaid contributors who co-create the shared resources according to their own rules and norms. The infrastructure of these commons is managed by infrastructural commons organization, the 'for-benefit associations' which enable and empower the cooperation to occur over time (such as the FLOSS Foundation in open source communities). In order to

sustain their commons and create livelihoods, commoners create generative *entredonneurial*¹⁰ coalitions, which have both local and transnational expressions. These consist of entities that aim to generate income for the commoners, in ways that are compatible with the maintenance and expansion of the commons; in cases where the value is extracted by netarchical capital, commoners are engaged in attempts to generate commons-based alternatives, such as platform cooperatives (Scholz 2016), where the infrastructure for exchange – the platform – is considered and managed as a commons.

These seed forms paint a picture of an emerging post-capitalist alternative which simultaneously transforms civil society, the market and the state forms. Civil society becomes productive, since citizens and inhabitants are commoners contributing to shared resources. The market forms become non- or post-capitalist, transformed to be compatible with the logic of the commons. The accumulation of capital is transformed into the accumulation of the commons. Public authorities become enablers of the personal and social autonomy necessary to be able to contribute to the commons.

The *Energiewende* in Germany (Mueller 2017) shows how this logic operates in practice. First, commons-oriented civic groups started a movement to create renewable energy cooperatives which put pressure on the government and state. The German government, prompted by a crisis (Fukushima), and in the context of strong political pressure from the green party in the coalition, decided to enact enabling legislation, the feed-in tariff. This feed-in tariff created a safe market mechanism which allowed the broader population to engage in the same practice. Commoners alone could innovate, but not easily scale in a hostile regulatory and market environment; public authorities, under pressure, created supportive regulation, which resulted in a generative market. The *Energiewende* has since weakened and stalled, since the commons movement was still politically too weak to force permanent adjustments. However, the dialectic between seed forms, conflict, and its temporary resolution through political compromise shows a change-oriented dynamic.

8) The role of the city, the nation-state and global transnational structures

The idea of the left, as has been argued, is in the process of reformulation. Some critical insights from the past two decades of resistance to neoliberalism help us to understand how. From the Zapatista uprising in 1994 came the *encuentro* process of engagement. Their call for international solidarity, and the mode by which solidarity would be formed indicated a movement beyond the worker as the categorical definition for struggle, an opening into a multitude of actors contra-neoliberalism. Following in these footsteps, the WSFP widened the circle of counter-hegemonic globalization. Through the WSFP, intensive networking and meta-formative innovation has given rise to social ecologies of alternatives. These are connections between and across varieties and types of communities, movements and processes, that while ontologically different, are implicated in the defence and co-production of mutual commons. It is this process of solidarity across categorical difference that makes what we are experiencing today in the left distinct from both the old left (worker-based) and the new left (via identity/cultural politics). It is the process of solidarity and exchange across difference which is fundamental. It is asymmetrical in nature, as a multitude are implicated into being active stakeholders in shaping a post-capitalist ecology of the commons for mutual survival.

Understanding the transformation of the left requires this understanding of asymmetrical value exchange. In this new equation, we factor in a variety of old and new categories of action and actors. Peer production communities are foundational to the new logic of the left. They are producing the contributory commons whose value knows no borders. Commons-based peer production creates new transnational forms: both global productive communities and global generative market coalitions.¹¹

The political-institutional state form however (earlier noted for the logic of Authority Ranking), remains a fundamental dimension for our aspirations for equity and deep sustainability, even though it has been largely captured by neoliberalism. So we seek state forms that can act as enablers of this multiplicity – the institutionalization of support for commoning. But what is the state-form that could act as such a ‘partner-state’?

Under the current political regime, the nation-state acts as the ultimate arbiter of contemporary social contracts. While ultimately we must bend the nation-state towards regimes of support for commoning, the nation-state has been weakened by the market-state form (Bobbitt 2002) that it has taken since the 1980s, unable to regulate global capitalist forces. Global peer-based civic polities and entredonneurial coalitions can generate counter-hegemony at the global level, but how can they obtain institutional support within the contexts that concretely govern people’s lives?

The answer at this particular juncture may well be the cities, not seen in local isolation, nor abstracted from struggles at the nation-state level, but in their potential transnational combination. In our vision, allied leagues of cities can become a partner-state form that commoners require. Cities can sustain their own urban commons and provisioning alternatives, but it would be absurd to recreate a multitude of separate infrastructures. Cities can therefore support a ‘protocol cooperativism’ needed to develop and sustain globally available infrastructural software, knowledge and design commons. It is on top of these global infrastructural cooperations, supported by the cities, that open platform cooperatives can operate the common needs of their provisioning systems, subject to local contextualization and adaptation.

Platform cooperatives are mutually owned infrastructures for the exchange and sharing of products and services amongst peers, while open cooperatives are production or service cooperatives that are committed both to the common good and the actual creation of commons, and not just to the common interest of their own members (Troncoso and Utratel 2017). Thus open cooperatives are an alternative to worker capitalism of the classic cooperatives. Protocol cooperatives are the common global infrastructural layer that allows common infrastructures for both open and platform cooperatives.

This requires new strategies for both the pooling and mutualization of value, protocols for generating Gifts, and new commons-based Market Pricing and provisioning. This may entail new credit or currencies systems, creating a planetary sub-economy that can regenerate value back into commons and worker-based enterprises. Institutions that support Commons-Based Reciprocity Licenses (CopyFair) may provide ways to maintain the strength of design and knowledge commons that underpin this potential transnational sub-economy of distributed localized production – cosmo-localization.¹²

The role of commons-friendly progressive majorities at the nation-state level becomes the development and support of commons in their territories (localized and driven by contributory community-based commoning), but transnationally networked and connected to commoners everywhere. The role of the left is to use the state form to

sustain and develop resilient cosmo-local production practices through public-commons partnerships, fully inserted in global transnational structures of cooperation.¹³

9) The left and ecologies of the commons

Obviously, the new vision, practice and premises of the new political philosophy described above have significant implications for the left. Rather than an expression of a declining industrial working class striving for socialism, the left here becomes the expression of an emerging class of commoners (which includes labour) that is already actively constructing post-capitalist alternatives. We believe there are sociological majorities to do this and we call for commons-oriented progressive coalitions between social-populist (Podemos), municipalist (En Comu), social-democratic and other progressive traditions to coalesce around pro-commons transition programs.

The nation-state becomes a vehicle, not for national competition between working classes, but a means to a transnational end, i.e. the global cooperation of commoners to create livelihoods and solve structural problems on a global, transnational scale, through support and development of cosmo-local production. At different scales what will be required will be an expanded understanding of solidarity, our mutual implication into a variety of different commons, and a nuanced appreciation for the asymmetrical value exchanges across a variety of commoning forms – the emergence of an ecology of the commons.

For example if governing local resource commons, we will need to be supported by city regions or states through frameworks for community-state governance based on principles of stewardship and equitable use; supported by transnational digital and design peer production communities through the knowledge commons for smart stewardship; and supported by transnational communities for the protection of our life support systems through a deepened understanding of planetary boundaries and frameworks for thriving within ecological limits.

When considering social commons, which are stewarded by nation-states and cities, they will need to be supported by local resource commons through contributions to public finance through taxation which is equitable; supported by transnational peer production communities through the sharing of livelihood solutions in a post-growth or steady-state context, and knowledge design resources for cosmo-localization; and supported by transnational communities for the protection of life support systems through shared planetary governance approaches, so that all cities and nations can thrive in a generative/non-zero-sum virtuous cycle.

When considering the transnational communities for peer-produced commons, they will need to be supported by community-based commons through the sharing of knowledge and practice for local development, governance and sustainability; supported by cities and states through a partner-state model that enables citizens as initiators and innovators, and generates a transnational civic mutualism (city alliances); and enfranchised citizens as commoners, providing financial and in-kind support for commoning projects.

Finally, when considering our planetary life support commons (our atmosphere, our oceans, etc.), they will need to be supported by local communities finding ways to use local resources that are in harmony with planetary sustainment principles and

boundaries; supported by cities and states by making state-based research and technology development open access and part of a cosmo-localization strategy to accelerate humanity's transition to a post-growth low-impact circular and livelihood generating model; and supported by transnational peer production communities through the building of open knowledge and digital platforms for radical and high-impact solutions to human impact and sustainability problems.

10) Transforming the dark energy of populism

Trump and similar far-Right nationalisms may well represent a crucial crisis point that accelerates the shift towards the commons. In our reading, the welfare state was a compromise between the leaders of the labour movement and the ruling strata on a more just distribution of wealth, paid for through an acceptance of the system of unsustainable industrial development, and the exploitation of the peripheral regions by the core drivers of capitalism. The challenge of the '1968 movements' brought on the decision to compromise on cultural matters, but to de-industrialize the Western world, eventually leading to the neoliberal compact which became a class compromise between the ruling strata and the leaders of the cultural left. The election of Trump shows this model is in crisis. His support base consists of the desperate and declining middle and working classes, while his policies signal both ecological disasters through increased predatory capitalism, and a mobilization against cultural rights. But a simple status quo around cultural rights, to the detriment of workers' material conditions, is no longer politically viable.

We believe a commons-centric policy offers a number of crucial answers. As pooling/mutualization of infrastructures can drastically diminish, by up to 80%, the material footprint of human civilization on the planet's resource base, the commons is a huge part of the solution to the planetary-ecological crisis (Rizos and Piques 2017). The cosmo-local mode of commons-based peer production, based on the local rebuilding of productive capacities, can be a powerful engine for job creation and in turn creates the possibility of an alliance with blue-collar workers around the creation of meaningful local jobs. One design solution for a community in one part of the planet becomes a resource (rather than competitor) for communities planet-wide. As every citizen is also a contributor to the commons, it creates the basis of political and social movements' alliances from local to transnational scales.

The election of Trump signals a desire to return to the old compromise – where working-class whites had stable jobs in an American dream, a model that many countries have tried to emulate. The foundations of this were contradictory from their inception – ecologically unsustainable and socially exclusionary. Neoliberalism superseded this with a new model of capitalist globalization, opening up new cultural space, but fundamentally disowning the welfare of workers and indeed accelerating our ecological crisis.

The reformulation of the left should therefore neither swing towards a globalism that disowns workers' needs, regional requirements, or ecological concerns, nor should it swing towards a nationalism that disowns the need to protect our planetary commons, and the transnational solidarity and contributory systems that are emerging in the peer-to-peer economy. The way forward is through a dynamic interweaving of strategic categories of commoning activity, an ecology of the

commons, the city-state, productive communities, both local and transnational categories of solidarity and action, and the enactment of deep solidarity and value exchange systems, protocols and logics that can create coherence and strengthen these seed forms into torrents of wise and regenerative change.

Notes

1. For elaboration of predatory capitalism, see: <https://www.jacobinmag.com/2011/12/four-futures>.
2. See the discussion on this by Bruno Latour: http://www.editions-ladecouverte.fr/catalogue/index-O__atterrir_-9782707197009.html.
3. https://wiki.p2pfoundation.net/History_and_Evolution_of_the_Commons.
4. See: https://wiki.p2pfoundation.net/Capital_System.
5. See: <https://research.vu.nl/en/publications/infrastructures-as-commons-and-common-infrastructures>.
6. See: Bauwens and Niaros (2017) and also see the Dutch-language report: *Commons Transitie Plan voor de stad Gent* (<https://stad.gent/sites/default/files/article/documents/Commons%20Transitie%20Plan%20Gent.pdf>).
7. Graeber (2004, 60–61):

The theory of exodus proposes that the most effective way of opposing capitalism and the liberal state is not through direct confrontation but by means of what Paolo Virno has called “engaged withdrawal”, mass defection by those wishing to create new forms of community. One need only glance at the historical record to confirm that most successful forms of popular resistance have taken precisely this form.

8. http://wiki.p2pfoundation.net/Netarchical_Capitalism.
9. The capital system is to be understood as a historically specific mode of social metabolic reproduction, whose various organic elements all serve to reinforce the power of capital as a whole, and thus cannot be approached piecemeal. The transition to socialism therefore requires the creation of an alternative, communal form of social metabolic reproduction, one that challenges the capital system at every point, and that is rooted in the struggle for substantive equality. See: <https://www.telesurtv.net/english/opinion/Remembering-Istvan-Meszáros-1930-2017-20171115-0024.html>.
10. As the etymology of entre-preneur, ‘taking in between’ points to the extractive nature of capitalist business practice, we choose this concept of entre-donneur, ‘giver in between’, to denote ‘generative’ practices that add value to human and natural commons.
11. A Spanish-based peer production group, *Las Indias*, has proposed the concept of ‘phyles’, used in Neal Stephenson’s Cyberpunk classic, *The Diamond Age*: ‘Phyles are business-empowered communities: They are not companies linked to a community, but transnational communities that have acquired enterprises in order to gain continuity in time and robustness’. At the P2P Foundation, we monitor a number of them like *Enspiral*, *Sensorica*, and others. See our entry on Phyles, at <https://wiki.p2pfoundation.net/Phyles>, and more examples in our Post-Corporate category index: <https://wiki.p2pfoundation.net/Category:Post-Corporate>.
12. More info via <https://wiki.p2pfoundation.net/CopyFairand> https://wiki.p2pfoundation.net/CopyFair_License.
13. This contrasts both with the focus on interstate internationalism of the Soviet system and the nation-state focus on welfare orientation of social-democracy.

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