

The Anthropocene and the urbanization of nature: towards sustainability?

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The aim of this essay is to critically reflect on two major “obstacles” (absences) that preclude from seriously investigate the contemporary world ecological crisis. The first one is connected to the contemporary politics and narratives existing around the idea of ‘sustainability’, its current depoliticization and technocratic use. The second one, on the other hand, recognizes the urban process – here conceived as “metabolic flows” of nature which enters/exits the city – as responsible for the contemporary ecological crisis. Through the theoretical lenses of *post-ecology* (Bluehdorn & Welsh 2007) and urban political *ecology* (Heynen et al, 2005), I unfold the flaws that are currently hindering a socio-ecological theorization for more sustainable futures.

The theoretical lenses adopted in this article are deeply rooted in critical perspectives of post-ecology (Bluehdorn and Welsh, 2007) and urban political ecology (UPE) (Heynen et al., 2005). The first approach entails that, today, sustainability is mainly conceived as a technocratic practice aimed at managing unpleasant implications of ecological change (un-sustainability) for as long as possible, through politics which prioritize interests of today, discounting those of future generations (Bluehdorn 2011, 2013).

Today, in fact, western democracies try to overcome a paradoxical situation: by acknowledging that systemic and structural transformation is needed in order to obtain sustainability, they simulate concern about ecological issues ‘neutralizing’ and reframing the sustainable theme as a technical or economic issue, avoiding any political confrontation (and conflict) around it. Such ‘simulative’ policies and technologies, in the name of a non-negotiability of certain lifestyles and degrees of consumption, thus represent one façade of the green-washing and populist era we are living in. The second approach, instead, recognizes in the ‘urban fabric’ the most important and disruptive engine of ecological depletion. According to this vision, environmental problems are closely related to how people live in cities and the urban metabolisms of consumption and distribution of nature’s flows. For many years urban scholars have naively framed the relation between the city and nature as a matter of ‘greening the city’, thereby overlooking the most pressing and urgent aspect of the ‘urbanization of nature’, a process of socio-ecological change and struggle. Cities are, in fact, “built out of natural resources, through socially mediated natural processes” (Heynen et al. 2005:4). “In UPE, social power relations cause alienation from nature, or from the complex fabric of social and spatial relations involved in its production, relying in part on practices of political hegemony and social exclusion which serve to keep natural processes under control (Di Quarto, 2018). From this perspective, the only possible sustainable and ecologically-sound politics are those that generate a more equitable distribution of social power and a more inclusive way of producing nature, as a management of the commons (natural resources).

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The Anthropocene, (un)sustainability and depoliticized natures

Societies have now been struggling with ecological issues for at least 40 years. Despite the great interest (proven by research and investments) on more ecological futures, contemporary western liberal democracies are still unable to define themselves as 'sustainable' societies (Bosselmann Klaus, Engel Ron 2008). It is quite clear, in fact, that the most frequent problem that our democracies face stems from the tendency to prioritize economics with immediate profits over long-term sustainability so that institutions and timeframes favor short-term gains over long-term responsibility (Bosselman ibid. 2007:15). As a matter of fact, democracy is closely associated with a capitalist economic model – blending the distinction between political/economic features – which is why it makes sense to talk of liberal or "capitalist democracies". However, contradictory relations between capitalism and environmental sustainability are now more clear than ever, as critics have argued that capitalism necessarily undermines the conditions of production (i.e. soil, water, minerals...) to sustain capital endless accumulation (Marx 2008 [1867]; O'Connor 1998; Foster 2002). Nevertheless, although capitalism and environmental sustainability seem in binary opposition, since the beginning of the 1990s it has emerged the idea that with a rational and efficient ecological modernization of the means of production and consumption (through a 'green eco-friendly' industrial apparatus) economy and ecology could harmonically coexist (Gouldson and Murphy 1997; Pellizzoni 2012). Recently, however, it has become clear that this way of approaching ecological and social issues is failing, as all social and ecological indicators suggest that we are witnessing a very delicate phase in the Anthropocene that might lead to increasingly unsustainable conditions, if not extinction, for much of humanity as well

The best way to improve the world ecology, therefore, would seem to acknowledge the fact that nature, in itself, is not right, beautiful or good and that the constant depoliticization of socio-natures represents the problem of its 'sustainability'.

as animal and vegetal species (Mikkelsen, Gonzalez and Peterson 2007; Motesharrei, Rivas and Kalnay 2014; Ceballos, Ehrlich and Dirzo 2017; Hallmann et al. 2017).

In 2016, the International Geological Union confirmed that we live in the era of the Anthropocene. The greatest revolution caused

by the conceptualization of this epoch is therefore the admission of our co-participation and thus the socio-natural creation of a geological epoch. This implies that if climate is the result of human activities, it is itself the result of a particular political-economic system that has produced and distributed (very unequally, in this case) benefits and disasters in many of the nodes of the 'global metabolic chain', i.e. the world network that supplies raw materials, goods and waste in uneven socio-ecological configurations (e.g. e-waste).

One of the mis-conceptualisation to be debunked is that economic growth unrelated to the consumption of 'nature' can be possible. As a matter of fact the mantra of ecological modernization is revealing its flaws and contradictions, as already described by Jevons' paradox and by the impossibility of technology alone to reduce the world consumption of materials and thus an economic system decoupled from CO₂ emissions (Chu 2017). The best way to improve the world ecology, therefore, would seem to acknowledge the fact that nature, in itself, is not right, beautiful or good and that the constant depoliticization of socio-natures represents the problem of its 'sustainability'. Current policies which neutralize the political value of nature and its use – such as those aimed at its protection or salvation – mislead from a true concern of ecological sustainability. That is why, despite the great scientific knowledge accumulated about the environmental impact of mankind, the situation still does not seem to be improving: carbon dioxide continues to increase year after year (<https://www.co2.earth/>) and many of the nodes of the world's metabolic chain are already in a serious socio-ecological crisis. The decision to open the world market to quinoa or avocado, the use of cars or

low-cost airplanes, the infinite purchase and discard of smartphones/computers or the acquisition of real estate of land are issues that must be confronted in order to discuss ecology in a serious and committed way.

Urbanities without nature

A fundamental point is that the environmental issue remains in its core related to urbanization. It is not hazardous to say, in fact, that the world's ecology depends largely on how people live in cities and on how they decide to manage *nature flows* inside/outside of the city. Nevertheless, within the debate related to Urban Studies, it is quite impressive that for a long time we have ignored what is at the bottom of the metabolic processes that allow the basis of life in the city: nature. Some scholars and researchers have made it a separate branch of the discipline that in the '80s took the name of Political Ecology, known as Urban Political Ecology (UPE). Its exponents denounce the absence of nature within theorizations on the urban, as well as a lack of discussion on the process of urbanization. The urban - in this paradigm - is not understood as a mere container of objects and people, but as a continuous metabolic process, as a 'factory' of goods and services (immaterial) of high socio-cultural value, at the expense of a high production of socio-environmental externalities along the global metabolic chain (production-transportation-consumption of products). From the urban scale to the global one, in fact, each new metabolic configuration of production-consumption-disposal re-creates varied socio-ecological assemblages that exclude/include different social actors in the global production of goods and services. The continuous processing of matter is part of the 'urbanization of nature' (Kaika and Swyngeoduw 2012), a process of 'domestication of nature' (Kaika 2005), i.e. the process of keeping nature (and its flows that pass through the city) under control thanks to technological means (viaducts, pipelines, etc.).

In a nutshell, what is missing in modern theorizations of urban sustainability is the materiality of the productive and metabolic processes that underlie life in the city; these have been naturalized, given the technological progress that has allowed us to achieve high levels of engineering and urban efficiency. Despite this, the continuous exchanges of nature-flows represent the basis of life in the city, i.e. the process of transformation of non-human matter. Then - as Lefebvre first intuited - the whole planet can be said to be urbanized since the whole economy-world is based on the use and re-use of *natural matter* transformed and made available in urban centers. These resources, although they are counted among the free *gifts of nature*, are not really free, or rather, the processes that allow their use are often conflicting, at high socio-environmental cost and becoming intrinsically political.

The supply chain of a smartphone, for example (minerals, politics, energy, human labor, transport, recycling) takes place between human and non-human elements, between market rules, imaginary and political choices that form a scenario at the same time social and natural, which is blurred between human and non-human (what the scholars of UPE call precisely socio-nature). In this sense, cities represent the final node of the metabolic chain, i.e. the end point of a complex web that absorbs a great deal at the environmental level and returns immaterial (and material) goods and services to urban dwellers. The non-urban world population is thus subjected to the production (material and immaterial) of those who live in cities. The bitter irony of climate change's burdens and responsibilities represents a clear example: the historically urbanized nations responsible for the actual CO₂ excesses will be (and currently are) the least affected by climatic disorders, whereas the world economic peripheries, e-waste dumps and microstates in the oceans already live socio-ecological nightmares or bear the blunt of annihilation.

Concluding remarks: moving towards an ecology of urbanization

Taking today's environmental crisis seriously, then, implies a twofold process. Firstly, the re-centring

of nature within the political discourse, accepting it (nature) as a field of dispute, in which factions, partisanships, compromises are continually agonistically reshaped and confronted. Secondly, the environmental issue must be interpreted as genuinely connected to how nature enters/exits world urbanities, or, better said, how cities 'consume' nature, moving towards a recognition of the urban process as the most disruptive metabolic engine ever invented by societies. We basically need to ask ourselves what can be considered negotiable and what cannot in our urban western lifestyles, in front of the socio-ecological consequences which each choice entails. This approach radically evokes the processes that shape the urbanization of nature, e.g. physical and social limits to cities, the reuse of the built environment or the access (or prohibition) to common goods (natural and otherwise). This paradigm shift could be fundamental in order to critically investigate the materiality of the socio-ecological processes which remain at the basis of any kind of environmental sustainability that seriously considers the problem of what world and what Nature we want to inhabit and re-create today. In the era of techno-optimism and of the 'dictatorship of growth', this seems like a good place to start.

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