Nature is (not) democratic
Notes for a community-based approach to "natural resources"

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Abstract
The paper demonstrates how different understanding of what nature is and what socio-natural assemblages it forms can lead to strikingly contrasting environmental strategies and planning approaches, and argues for a reframing of nature and natural resources governance in the context of planning practices if a truly earthcaring model is to be achieved. Considerations and reflections developed on the current mainstream environmental policies and their understanding of nature, as well as on alternative framings of nature and politics of nature, aim at outlining a frame of reference for the co-management of nature in the perspective of the urban bioregion approach, by defining the conceptual basis and identifying research and practice gaps.

Keywords
natural resources, politics, local communities, urban bioregion

Full text

1. Setting the scene: the eco-crisis we are dwelling in

Sixty-two years ago, when Rachel Carson published her book *Silent Spring* (Carson, 1962), the environment was not a matter of public and political concern, and the outbreak of environmental awareness she started at the peak of the modern economic growth narrative was fiercely opposed. Since then, one could argue, environmentalism has come a long way: the green paradigm has now become an essential requirement and often a driving force for politics and policies all over the world. Nevertheless, unprecedented ecological disruption is harming territories more seriously than ever, with limitless soil consumption, chemical pollution, alteration of hydrological cycles, annihilation of ecosystems, irreparable loss of biodiversity, and so on. It seems the strategies adopted at a global level have failed to address the problem. It might even be that relocalising the global has ultimately become a necessity precisely because this excessive acting of nature makes it impossible to grab the Earth globally (Latour, 2015). Or that the practice of thinking globally, i.e. globalism, rides contrary to the interests of "people, polity and nature" (Olwig, 2011: 401).
This paper demonstrates how different understanding of what nature is and what socio-natural assemblages it forms can lead to strikingly contrasting environmental strategies and planning approaches, and argues for a reframing of nature and natural resources governance in the context of planning practices if a truly earthcaring model is to be achieved. The topic is of extreme relevance in times of uncontested consensus over environmental issues parallel to mounting ambivalence of institutional and corporate statements over nature and environmental policies. The following sections of the text outline the argument, first, by analysing the conceptual frame of reference for the

current mainstream environmental policies and their understanding of nature, based on an apocalyptic imaginary coupled with an ecological modernisation promise of redemption. Second, alternative framings of nature and politics of nature are explored, from the new materialist tradition to post-human perspectives and more recent critical approaches. Having uncovered the de-politicising/re-politicising gestures inherent to these dominant and alternative views of nature, the argument moves to consider how they influence current planning practices, outlining an articulation of anthropocentric, ecocentric, and relational attitudes in nature management and design. The final section argues that a bioregional approach could provide an alternative promising answer to the environmental problem in planning practice. It therefore identifies research trajectories and gaps to address for the development and implementation of appropriate bioregional planning tools for the community-based management of natural resources.

2. Diving into key concepts: nature as a resource

The ecological modernization theory has emerged since the Nineties as a mainstream response to the ecological crisis. The theory's supporters argue that no system shift is necessary in the economic model, as the best way to solve the current environmental problems lies in further advancing technological progress and industrialization. Fisher and Freudenburg (2001) explain the dual argument supporting such expectations.

> "First, the theory explicitly describes environmental improvements as being *economically feasible*; indeed, entrepreneurial agents and economic/market dynamics are seen as playing leading roles in bringing about needed ecological changes. Second, in the context of the expectation for continued economic development, ecological modernization depicts political actors as building new and different coalitions to make environmental protection *politically feasible*" (*ibidem*: 702).

The roots of such a perspective can be traced back to the "sustainable development" formula introduced by the Brundtland Commission (WCED, 1987), with its belief that ongoing economic growth could be achieved by better managing technology and society within the planet's ecological limits. Sustainability therefore results from the combination of a technological and a market fix, on one side decreasing the energy and material flows required by the economic growth, while on the other accounting for nature's contribution in the current economic system. By these means, the ecological modernisation paradigm ultimately promises to fix the unbalances and disruptions brought up by the limitless growth paradigm by decoupling wealth production and the use of natural resources.

Within this system of thought the notion of nature as a resource to be properly managed has even intensified the centuries-long process of objectification and de-politicisation of nature, in particular with the introduction and mainstreaming of concepts and frameworks such as the Natural Capital and the Ecosystem Services.

Born as an attempt to bridge ecology and economics, the concept of "natural capital", which emerged in the mid-Nineties, is presented as a move from traditional economics view of nature as a resource to be used in production to nature as capital to be preserved and renewed (Fenech et al., 2003). However, the idea that placing a market

value on nature is the right strategy to preserve its intrinsic value is highly contestable, for a number of reasons. As Monbiot (2018) points out, first, the name itself is misleading, since financial capital and nature are neither comparable nor interchangeable; second, it is meaningless to price something unless it is for sale; and third, it is even counterproductive. Indeed, it suggests that an intensification of the same logic that destroys nature will be able to save it, and that the existence of a market value is more effective to stir a desire to protect nature than its intrinsic value – an idea which has already been proven wrong (Crompton, 2010). On the contrary, "markets change the meaning of the things we discuss, replacing moral obligations with commercial relationships" (Monbiot, 2018).

The concept of "ecosystem services" was first formulated in the Seventies, but became popular in the same years when the ecological modernisation and the Natural Capital were gaining consensus. It was in the following decade, with the turn of the Millenium, that institutional mainstreaming projects were initiated: the Millenium Ecosystem Assessment (MEA), the Natural Capital Project, The Economics of Ecosystem Services (TEEB). Despite growing popularity, the framework is not exempt from criticism. Among other observations, Ernstson and Sörlin (2012) interpret the Ecosystem Services approach as a technology of globalisation which, by applying a set od standardised practices and procedures, achieves objectives of abstraction, universality and comparability, virtually disconnecting the benefits bestowed by the ecosystem from the place, the social realm, and the possibility of conflict – as well as from the ecosystem itself. The result is a de-politicising gesture, to be interpreted within a wider technomanagerial turn, since "what once was political is through the [Ecosystem Services] approach translated into a scripted set of non-political acts of management" (*ibidem*, p. 282).

Overall, the concepts and frameworks proposed within the ecological modernisation paradigm operate towards a general de-politicisation by means of invisibilisation and backgrounding. For Barca (2020) what is overshadowed in the dominant environmentalist narrative is the relevance of the "forces of reproduction", those subjects that reproduce humanity by taking care of the biophysical environment and that represent potential alternatives to the current order. For Ernstson and Sörlin (2012), from the specific standpoint of the ecological modernisation frameworks and procedures, alternative ways of knowing and valuing nature are silenced and delegitimised. For Swyngedouw and Ernstson (2018), on a more general level, the invisibilised is the "intra-human exteriority" or, in other words, the heterogeneity of humanity which provides the space of the political. The resulting post-political condition, in the end, further reproduces logics of hierarchy and domination, well represented by the city-countryside power balance or more general neocolonial attitudes, which are the root of the current extractive relation with nature.

No wonder that the ecological modernisation theory has been easily integrated in the framework of the Planetary Boundaries and the Sustainable Development Goals (Barca, 2020), with an emphasis on the concept of resilience. As observed by MacGregor (2017), 'the valorisation of climate resilience over human vulnerability removes expectations of citizen resistance to the root causes of ecological crisis, thereby casting it as an inevitable and therefore non-political *fait accompli*'.

Serving to frame the emerging environmental problems and the solutions put forward by the élites as respectively unquestionable and indispensable, the dominant

environmental imaginaries and policies are in fact seen by philosopher Alain Badiou as the "contemporary form of the opium for the people" (Badiou, 2008: 139).

3. Framing the alternatives: nature, the human, and liberation

Alternative conceptualisation of nature and the nature-society nexus may help shift from domination to cooperation logics. Much of the critical thought concerning nature and the ecology is indebted to the materialist tradition.

The ecoanarchist perspective of Murray Bookchin (2017 [1982]) builds on a multifaceted ecology-freedom nexus, starting from the premise that human domination of nature derives from human domination of human by human, and is therefore necessary to liberate the latter through a deconstruction of hierarchy and domination structures in order to emancipate the former. The quest for a free ecological society model involves a reflection on an appropriate, human-sized technology and the management of natural resources by de-centralised local communities, resulting in an argument in favour of direct democracy, municipal autonomy, and community self-determination.

Despite reciprocal criticism, almost contemporary ecoanarchist and ecofeminist perspectives share the idea of a nexus between the domination of nature and the domination of human subjects, and between the achievement of a truly ecological society and a project of double emancipation. The ecofeminist thought provides refined instruments to uncover the technoscientific governing apparatus which stands as the protagonist of ecomodernist thought, since its emergence in the Eighties from the women's movements' contestation of the relationship between science, female bodies, and nature. Carolyn Merchant in *The Death of Nature* (1980) first demonstrated how modern science, degrading the natural world from a living organism to a functional machine, realised its domination on nature and women. In the same decade, from the South of the world Vandana Shiva (1989) reproposed Gandhi's critique of modern science as a form of power, which causes "*male*development" through the imposition of violence, inequalities, domination.

Starting from these premises, ecofeminist thinkers then and now have been promoting an alternative perspective on the economy, where the idea of sufficiency replaces "wellbeing" as emerging from continuous growth. This shift is meant as an act of liberation of all the values denied by the market, including self-sufficiency, cooperation, an ethics of care, and results in a renewed interpretation of politics, which re-centres everyday needs and the living world, valuing - for instance - food sovereignty and the commons, and non-hierarchical practices (Bianchi, 2012). For Salleh (2009), for example, a principle of eco-sufficiency must replace the eco-efficiency endorsed by ecomodernist theories to address the ecological crisis from the perspective of life reproduction, where nature provides for human needs rather than profit.

Such a perspective implies a reconsideration of the non-human – as well as the sub-human – focused on multispecies entanglements and aimed at cooperation and commoning. Views on this point are evolving and are definitely not homogeneous. Perspectives focused on difference and relationality are complemented by a growing body of literature drawing on posthuman views (see Haraway, 2016). Barca (2020) discusses the tension between posthuman new materialist thought and traditional materialist ecofeminism in terms of a different vision of technology.

> "A major point of tension is provided by the different visions of agency (whether this should be extended to objects) and, related to this, of technology in general. New materialism tends to see human agency as inherently incorporating technology, which cannot be separated from it, but rather should be embraced in the more-than-human understanding of subjectivity. Materialist ecofeminism, however, tends to see technology as a dangerous and often violent social *dispositif* of control over human and nonhuman life" (*ibidem*: 39).

Pellizzoni (2017, 2023) develops an analysis of the intrinsic ambivalence of posthuman thought, and critiques in particular the assumption that the suppression of dualisms should automatically have emancipatory effects. Rather, he registers "evidence of a burgeoning governmentality of science and technology which builds precisely on nondualist standpoints" (Pellizzoni, 2017: 71): the conceptualisation of the world as inherently fluid, indeed, removes any boundary to the (human or non-human) agent's action and eradicates responsibility, making space for a radical experimentalism of the kind expressed in eco-pragmatist programs such as the *Ecomodernist Manifesto* (Asafu-Adjaye et al., 2015). A fundamental point he makes is the need to aknowledge that "runaway capitalism" employs new domination patterns and techniques, taking advantage of indeterminacy and chaos as governing instruments (Pellizzoni, 2023). Drawing on his reflections, Swyngedouw and Ernstson (2018) have clearly described the new ecomodernist argument.

> "The excessiveness or supernumerary acting of 'nature' becomes enfolded within capitalism itself. To save the world and ourselves, we need not less capitalism, but a deeper, more intense and radically reflexive form of capitalism, one that revolves around reconstructing DNA and genetic material, forces gas out of shale formations so it can be 'carbon-stored' elsewhere, mobilizes the power of the nuclear to drive the economy, and works to terraform earth in a mutually benign co-constitution.
> Much of this perspective is indebted to the consolidation of non-linear ecological complexity theory that cherishes 'emergence', 'resilience', continuous experimentation, the 'indeterminacy' of nature, and radical openness, but without explicit attention to capital, culture, and politics" (*ibidem*: 13).

4. Investigating planning practices: from dualisms to relationality

In the fields of planning and management of nature, practices and policies have been described as oscillating between two opposite poles: a dominant anthropocentric dissipative attitude, updated in its green version to a "sustainable management" model, and an ecocentric conservative attitude, rooted in radical deep ecologies, which aspires to the restoration of an ideal pristine nature (Luciani, 2022; Ventura, Ribas and Saurí, 2002; Magnaghi, 2001).
As an example, in the context of river management Ventura, Ribas and Saurí (2002) identify two opposite models, anthropocentric and ecocentric, to which they refer practical and theoretical approaches. From an anthropocentric standpoint, the river is a source of natural resources, and the aim of river management is to increase the material well-being of society. From the ecocentric perspective, the goal is to reach an ecological balance, with reference to an ideal natural status of the river, before any human interference. The different disciplines involved in the two management models

represent the river, on the one hand, as a de-contextualised object of control, and on the other, as the subject to a return to an original – though hypothetical – place and time. When conflicts arise – such as disruption caused by extreme weather events – each discourse attributes the responsibility to the opposite view, and propose to radicalise their own principles as a solution. According to the authors, it is the inflexible opposition between the two that prevents the resolution of conflicts. The way out, for them, is to adopt what they call an 'environmental' model, based on a dialogue between an 'anthropic view' and a complementary 'ecosystemic view'.
On a more general level, Alberto Magnaghi (2001) has described three different attitudes towards the territory: dissipative, typical of industrial modernity, of which ecomodernism is just the most up-to-date version; conservative, mostly typical of the ecological culture; and finally, a third attitude for which development results from the enhancement of the territorial heritage, through coevolutionary interaction between environmental, territorial and urban systems, society and local cultures.
The search for a third way, an alternative to the dominant polarisation, indicates the insufficiency of both extremes in that they are still based on a centre, while a relational focus, as suggested by the ecofeminist contribution to the environmental ethics (Proctor, 1998), would allow for a more balanced approach (Table 1).

Discourse	Anthropocentric	Ecocentric	Relational
Society-nature relationship	Demand/ consumption	Preservation and restoration	Democratic care and enhancement
Aim	Increase of material wellbeing	Natural balance	Natural and human coevolutionary balance
Reference	Fluxes	Pristine nature	Human environment
Scientific discipline(s)	Water regulation (quality and quantity forecast and control)	River ecology (natural values preservation and enhancement)	Territory / landscape sciences (human and natural values enhancement)
Time	Linear progress	Retrospective	Longue durée
Space	Anonymous	A (new) previous place	Identitarian, historical, relational place
Social aspects of the river	Economic-rational	Identitarian-emotional	Relational/ dialogical
Management model	Managerial (expert-led)	Impact minimisation / contemplation (expert-led)	Integrated, cooperative (expert and local knowledge)
Origin of conflicts	Ecocentric discourse	Anthropocentric discourse	Disconnection of the two realms

Table 1: The table summarises and confronts the main characteristics of the anthropocentric and ecocentric discourses, adapted from Ventura, Ribas and Saurí (2002), and those of a third discourse, named relational and derived from the territorialist approach that Magnaghi (2001) indicates as a neither dissipative nor conservative attitude towards the territory.

The three families of approaches are ideal-typical, but examples can be found in current planning and design practices that can be traced back to one or more of these categories.

Dominant planning practices tend to adopt a resource-based, techno-centred, and even technocratic approach that results in a radicalisation of the anthropocentric and ecocentric polarities. On the anthropocentric side, under the formula of sustainable management, which embraces the institutional and globalised view of 'the Anthropocene' (Barca, 2020; Swyngedouw and Ernstson, 2018), one can find the majority of the global-level approaches to address the environmental crisis, which follow development and progress objectives and consider nature as an asset to be handled wisely with the best available technology, on which they rely to turn the tide of environmental deterioration. They make wide reference to the Natural Capital and the Ecosystem Services frameworks, and point to the need of a global expert governance to address the environmental issues. Geoengineering is one of the technological strategies envisaged to "manage" the climate, which would require large-scale international research, governance and policy frameworks (The Royal Society, 2009).
On the ecocentric side, regenerative and biophilic approaches to the built environment, alongside with a conservationist paradigm, tend to dominate in planning practices. Emerging from a shift from a mechanistic understanding of the world to an ecological worldview (Mang and Reed, 2012), regenerative approaches target self-sustaining ecological design and make extensive use of nature-based solutions, 'letting nature do the work' (Lyle, 1994), while biophilic perspectives assume nature and its processes as the main reference to design the built environment as a human biological need. Regenerative design, however, can be understood in very different terms. Biomimicry, for instance, meant as "the emulation of strategies seen in the living world as a basis for design and innovation, […] the emulation of an organism, organism behavior, or an entire ecosystem, in terms of its form, material, construction method, process strategies, or function" (Pedersen Zari and Hecht, 2020: 3), is understood by its supporters as contributing to a regenerative framework. However, the practice of mimicking nature in the built environment on the premise that "humans are an indivisible aspect of multiple interacting ecologies" (*ibidem*: 2) seems to embody the warning (see the previous paragraph) that the indeterminacy of the human and the natural subsumed in the technological can result in ambivalent approaches. Indeed, biomimicry can be seen as aiming on one side to do without nature, since its services can be provided by an artificial environment, on the other to replace nature with a cyborg ecology, whereby the natural processes become themselves dependent on technological inputs.
Alternative views, however, can be envisaged by focusing on the intricated coevolutionary relationship between diverse ecological subjects, including humans and non-human entities, without dismissing the separation, foundation of the relational - therefore political - dimension. Otherwise, post-human cyborg hybridisation could reinforce the destruction of nature by riding the simultaneity and indeterminacy of ecocentric and anthropocentric attitudes.
One of the key points of a relational attitude, which at the operational level could well employ some kinds of regenerative methodologies, is the recentring of the political in nature stewardship. Table 1 shows how both anthropocentric and ecocentric approaches, despite opposite premises and aims, tend to see the principles of their respective disciplines as normative, and therefore adopt expert-led post-political management models. The third discourse, instead, acknowledges science, technology, and even culture, as political. The management of local "natural resources", in a

cooperative coevolutionary perspective, is not driven by top-down impositions of either sustainable-exploitation, conservation-without-use or indistinct hybridisation models, but is performed by self-organised communities whereby expert and local contributions complement each other as equally relevant.
Some grassroots initiatives can be observed that seem to point to this direction. For instance, they can be identified in the everyday practices of some environmental movement groups that focus on sustainable food, renewable energy, and making to restructure the fluxes that support their basic needs on a local rather than global basis, through re-localised, self-organised and non-hierarchical networks recognised as fully immersed in the natural systems (Schlosberg and Coles, 2016). Similarly, other examples may include the permaculture movement's practices which are inspired by principles of earth care, people care, and fair share, interpreted by Centemeri (2018) as pericapitalist experiences aimed at subsistence objectives and based on "multispecies comoning".

5. Outlining research trajectories: bioregional planning

The urban bioregion approach as developed by Alberto Magnaghi (2014) translates into a territorial planning framework his definition of a third attitude, neither dissipative nor conservative, towards the territory (2001). Drawing upon the regionalist and bioregional planning tradition, the urban bioregion is, in his view,

> "the appropriate conceptual reference for a territorial project which is designed to integrate the economic (referred to the local territorial system), political (self-government of inhabited areas and work places), environmental (territorial ecosystem) and living (functional and inhabited areas of a group of cities, towns and villages) components of a socio-territorial system that pursues a coevolutionary balance between human settlement and the environment, reestablishing new forms of the long-term relationships between city and countryside that tend "towards territorial fairness" (Madec 2012)" (Magnaghi, 2020: 35).

His concept of urban bioregion describes a local territorial system whose main elements are (a) a reticular settlement system characterised by synergistic rather than centre-periphery relations, (b) hydrogeomorphological and environmental systems that coevolve with the settlement and the agro-forestry systems, and (c) forms of self-government of the living environment by the local community, aimed at assuring the self-sustainability of the territorial ecosystem and the wellbeing of the inhabitants. Such wellbeing does not derive from the extraction of resources and profit but rather from a wealth-producing enhancement of territorial heritage and a tendency to the closure of the territorial metabolic cycles.
The natural environment, described as comprising hydrogeomorphological and environmental systems, plays the role of material precondition for the very existence of the urban bioregion, and is deeply tied to the third component, the participation institutions which guarantee the local community's active involvement in the reproduction of the life-producing matrices. Such an active involvement is not limited to common forms of participation, but takes the form of social co-production, a

precondition for the reactivation of a territorialising relationality between the settled community and the natural matrices.
It is worth stressing that the bioregional project of anchoring the settlements within the ecological networks to overcome a defensive attitude that frames nature as *a priori* threatened by the urban doesn't mean that the built environment should mimic or emulate the ecosystems to merge with them - as in the indeterminacy produced by biomimicry. Rather, it implies a *care*ful study of the reproducibility rules of the natural matrices; such rules become the foundational element of the territorial project, according to relationships of mutual acknowledgement, respect, and active care.
Self-government is also necessary to collectively outline and sustain local socio-economic systems. Contrary to the widespread model of hetero-directed territories that pursue exogenous economic objectives, the self-governed urban bioregion enhances its long-lasting heritage structures – including the coevolved natural environment – to achieve endogenous forms of development.
Nature is therefore understood within the wide notion of heritage proposed by the urban bioregion frame of reference, as precondition of the settlement and long-lasting heritage to preserve and enhance for durable local development. Centemeri (2018) provides a clue to the role of intentionality and actions in transforming something into good, resource, capital, or heritage, when she specifies that "goods and resources - be they private, public or common – do not exist as mere things. It is what we do with mere things, or through mere things, that accounts for their becoming «goods» or «resources»" (*ibidem*: 3). Or again:

> "Commodification is oriented not towards creating commonwealth but towards monetary surplus through selling the commodity on the market. Capitalisation can be defined as a value practice in which the monetary return on investment is the guiding principle (Muniesa *et al.* 2017). Capitalising on something entails either considering it to be an asset, or turning it into one so as to guarantee the production of monetary economic value in the future. Commonwealth can also be considered an asset but, unlike capital, the flows it generates possess different goals" (*ibidem*: 4).

Contrary to the ecomodernist view that interprets nature as a resource or as capital, therefore implying actions involving nature are meant to produce monetary value, within the bioregional approach nature can be framed as both heritage and common good, having intrinsic and relational value. Indeed, actions involving this heritage and common good are oriented towards the reactivation of care actions, a valorisation aimed at growing durable wealth (distinct from profit) and sustaining the conditions of life reproduction. Thus, the shift of meaning from resource and capital to heritage and common good recentres the local communities' role as protagonists in the management and design of nature. Local levels of governance, at the scale of the municipality, develop coherent actions of preservation, enhancement and valorisation through agreement tools that involve a plurality of actors gathered together by the existence of a common interest in the local territorial development project.

6. To conclude: future research/action challenges

The implementation and realisation of the bioregional project still poses considerable challenges, particularly related to economic and political aspects. For what concerns the topic of nature and democracy, a constellation of exemplary grassroots initiatives can be identified, mapped, and valued (Società dei Territorialisti, n.d.). However, a necessary further step is to effectively federate a network of initiatives – the network of networks – able to represent a more powerful collective actor in the dialogue and/or conflict with the institutions and the multiple corporate and particular interest groups that aspire to grab, extract, capitalise on the territorial and natural resources to the detriment of local communities and the resource itself. Addressing such powerful interests not only requires the existence of a strong – though not hierarchical - federated network, but also points to the need to develop effective counterbalancing strategies to be incorporated in the agreement governance tools and procedures, to prevent them from turning into instruments that further reproduce de-politicising, expropriating environments that operate beyond and below the State.

At the same time, it is important to assess, articulate, and improve the convergence of bottom-up and top-down processes, accounting for the reception of such emerging bioregional, self-organised practices at the institutional level.

Tracing a pattern is a difficult job, especially in times of cultural turmoil, with a growing variety of interpretations of the environmental crisis and openings of ambivalent scenarios of meaning. Overall, the urban bioregion project provides a powerful conceptual reference and operational framework to tackle the destruction of both nature and democracy prefigured by current tendencies in hegemonic environmental policies and practices, a project which explicitly links nature stewardship and direct democracy, that values relationality without ceding to morally annihilating non-dualisms. The challenge to embrace in the present and near future action/research is to define a governance model that departs from managerial attitudes and ultimately results in a bottom-up re-politicisation of nature and environmental stewardship.

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