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Bioregionalism and Degrowth

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DOI
10.1080/14649357.2025.2524106
Publication date
2025
Document Version
Final published version
Published in
Planning Theory & Practice

License
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Link to publication

Citation for published version (APA):
Waldenberger, J., & Savini, F. (2025). Bioregionalism and Degrowth: Addressing the Urban-Other Divide. *Planning Theory & Practice*, *26*(3), 402-419. https://doi.org/10.1080/14649357.2025.2524106

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Download date:16 Jan 2026

PLANNING THEORY & PRACTICE
2025, VOL. 26, NO. 3, 402–419
https://doi.org/10.1080/14649357.2025.2524106

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Bioregionalism and Degrowth: Addressing the Urban-Other Divide

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ABSTRACT

Scale and spatial politics are central to degrowth research, yet scholars often overemphasise the (limited) potential of local practices. This paper proposes a bioregional spatial planning approach that addresses the 'urban-other' divide – the political process that defines a space as intrinsically alien and inferior to the city – without falling into localist biases. Building on bioregionalist thought, we propose five dimensions for degrowth spatial planning and identify their implications for planning theory and practice: the regional scale of socio-metabolic relations, socio-spatial organization for sufficiency, cooperative geopolitical relations through polycentric networks, a regenerative approach to ecology, and a post-humanist worldview in spatial planning.

ARTICLE HISTORY
Received 17 September 2024
Accepted 19 June 2025

KEYWORDS
Bioregion; scale; degrowth; spatial politics; localism

Introduction

Degrowth research has traditionally contested cities' dominant position in global economies and celebrated 'rural' areas and small urban agglomerations as more effective sites for post-growth living (Mocca, 2020; Trainer, 2012). In this view, 'localism' allows for socio-spatial relations of sufficiency in both production and consumption (Durand et al., 2023; Olsen & Bogadóttir, 2017). Degrowth thinkers understand sufficiency – in food, energy, waste and so forth – as a vehicle for political autonomy, enabled through direct and democratic control over socio-metabolic processes (Alexander & Shearer, 2023; Fuente-Carrasco et al., 2019; Schmelzer, 2022). Degrowth societies are often imagined as eco-villages (Trainer, 2012), community-supported agriculture (Spanier, 2021), back-to-lander movements, or suburbanisation (see also Alexander & Gleeson, 2020; Xue, 2014) – not large agglomerations of urbanisation.

However, the emerging field of spatial degrowth research has just begun to question the implications of this relocalisation imperative for planning (Krähmer, 2022; Savini, 2021; Xue, 2022). Authors in this field call on degrowth to problematise urbanisation as a process without falling into the localist trap (Krähmer, 2023). In response, they focus primarily on the performance of local urban degrowth initiatives and their day-to-day planning concerns such as citizens' participation, inclusivity, land-uses and democratic decision making. However, these urban degrowth related urban studies rarely consider if and how local practices – urban food

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sharing, repairing, housing co-ops, slow mobility practices, or composting – complement or disrupt the (inter)national or regional flows of food, energy, sand, water, and soil (Thompson & Nishat-Botero, 2025; Zapata Campos & Zapata, 2017). They do not critically examine degrowth planning practices in relation to the global flows of urbanisation and large-scale planning processes. This limitation makes it hard to envision the profile of and the pathway to a possible degrowth approach to spatial planning.

To address this gap, it is necessary to problematise the material and social relations (both conflicts and complementarities) that urban degrowth practices have with other territories. Degrowth envisions a territorial organisation that fosters a symbiotic and regenerative relationship between cities and hinterlands; between areas of consumption and production; between agri-food systems and logistics – to name a few (Sanzana Calvet & Castán Broto, 2020; Savini, 2021; Schmid, 2024). Such efforts blur established geo-political and administrative boundaries, such as core-periphery, urban-rural, and national-regional-municipal. These boundaries are essential for sustaining a growth-led form of urbanisation that relies on the exploitation of and imposition over other spaces.

To contribute to the emerging field of degrowth spatial planning, this article argues that a socially just and ecologically sustainable form of planning must address the process of 'Othering' in planning. We define this as the (re)production of an 'urban-other divide' as a political process that defines some spaces as intrinsically alien and inferior to the city. Urban political ecology has problematised this process at a global scale; however, we argue that the city-regional scale analysis is also crucial. At this level, it is possible to both analyse the socio-environmental land use conflicts required by urban growth (e.g., industry, food) and rethink them for a more balanced approach to planning.

This article develops a degrowth understanding of the concept of bioregionalism for spatial planning, both as a critical and propositional concept. We understand bioregionalism in a relational way, and regions as geopolitical entities that are re-constructed through context-dependent processes (see Graham & Healey, 1999; Healey, 2006). As we shall explain, the bioregion is a socio-political construct that begins with care for soil and the ecological characteristics of place rather than a predetermined territorial schema rooted in rigid natural boundaries. In doing so, bioregionalism can help planners challenge the (re)production of urban-other dichotomies in city-regions while sketching out a sufficiency-based form of urbanisation that overcomes the localist trap. We offer five examples of how bioregionalism coalesces with degrowth thinking to reframe and surpass the urban-other divide and provide an indication of their implications for planning.

The Urban-Other Divide in Growth-Dependent Urbanisation

In modern capitalism, urban growth relies on the control and exploitation of less-urbanised, natural, rural, and peripheral areas for labour and material extraction (Arboleda, 2016). Urban areas' dependence on the less (or non-) urban – what we understand as 'other' – is driven by a system of socioeconomic reproduction and material production (see, for example, Harvey, 1993; Keil & Wu, 2022; Mészáros, 2014). Urban political ecology scholars have long demonstrated that cities, the "natural home base of capitalism" (Harris, 2022, p. 116), arise from a metabolic transformation of nature by means of human labour and infrastructures (Kaika, 2004; Kaika & Swyngedouw, 2000; Nishat-Botero & Thompson, 2025).

Lefebvre's (2011) 'planetary urbanism' theory situates the process of urbanisation in the emergence of centre-periphery relations. He understood urbanisation as a process that constantly produces asymmetric power relations between spaces – cities exercise political power over areas of extraction that bear the human and environmental costs. Urban economic and material success is built at the socioecological expense of extractive zones. Such zones are considered peripheral (in geopolitical terms) but fundamentally interdependent with the centres of power (Brenner, 2016; Lawhon et al., 2014; Tzaninis et al., 2021). Importantly, urbanisation is 'extended'; cities' apparent density masks a global network of unequal power relations between centres of wealth and areas of extraction and exploitation (Arboleda, 2016; Keil, 2018). In other words, the 'other' experiences a "process of urbanisation that simultaneously becomes submission to the city" (Biagi, 2020, p. 224).

Sensitising planners to the urban-other dichotomy helps shift the focus of planning to the political and ecological inequalities between territories. The 'other' is a planning construct that emerges when mainstream and institutionalised planning processes frame zones as peripheries – 'operational landscapes' (Brenner & Katsikis, 2020) for wealthy urban centres. The other is instead a complex landscape of productive spaces where communities and ecological qualities are deemed secondary to the functioning of the city by dominant planning frameworks. Nightingale (2024) profiles these spaces in four different ways: infrastructural spaces essential for urban functioning, such as incinerators and logistical hubs; less urbanised areas, like towns and small villages that depend on larger cities for commuting, work, or tourism; spaces visibly transformed by urbanisation, such as mines, deforested zones, or polluted soils; and the modified ecologies at the periphery of urbanisation that host non-indigenous species, livestock for food, rats and bats and so forth. What these spaces have in common is their submission to urban cores. Without urban growth, their whole socioeconomic profile would undergo significant transformation.

Urban-other dichotomies reveal spatial hierarchies: urban centres of power over integrated non-urban spaces. As Arboleda (2023) argues, the other – with its extractive landscapes – is not merely an operational result but functional to capitalist urbanisation. This unequal global metabolic exchange is supported by a multiscalar planetary logistical infrastructure, spatially configured in a globalised capitalism dominated by the urban Global North (Thompson & Nishat-Botero, 2025). Extended urbanisation is the consequence of a never-ending metabolic rift between human settlements and ecosystems (Foster, 1999). As Saito (2022) argues, the capitalist (urbanised) economy must constantly push negative consequences (e.g., future environmental costs) forward in time and outward in space, towards marginalised communities. Designating an other allows for the creation of economic sacrifice zones, spaces deemed expendable in favour of urban economic growth. This process of submission persists under mainstream sustainability strategies, which shift the costs of 'green energy' transitions onto mining areas or regional peripheries (Conde et al., 2022; Zografos & Robbins, 2020). The underlying discursive process produces binary relationships of domination between two realities: urban vs rural; North vs South, urban vs suburban, clean/smart cities vs wastelands. Such binaries discursively elevate everyday urban geopolitics over the natural world: urban think tanks, urban coalitions, national urban agendas are all clearly separated from governmental bodies concerned with nature conservation, biodiversity, water quality, or food production. The urban-other divide is most investigated at the global scale (see for example Andreucci & Zografos, 2022), but it also manifests at local and regional levels. For instance, circular practices, greening strategies and renewable energy (integral to most cities' agendas) transform the other

into yet another 'green sacrifice zone' (Conde et al., 2022). 'Greening the city' is presented as an opportunity to develop 'unproductive' and 'underdeveloped' peripheries characterised by agriculture and declining industry (García-Lamarca et al., 2022). Othering concentrates capital (and public) investments (in sustainability) within urban areas, thereby producing secondary zones where sustainability is not prioritised. Examples include wind turbines that consume habitat in peripheral land, the sealing of fertile soil for urban infrastructures, sand and gravel extraction for urban construction, and nitrogen pollution around highways that connect major urban centres.

The waste management sector is another prime example. In a growth-dependent economy, the dumping of waste – the "political other of capitalist value" (Gidwani & Reddy, 2011, p. 1625) – requires 'wastescapes' (Amenta & Van Timmeren, 2018). These spaces lack political autonomy; their future depends on the performance of urban economies, even as they bear the major socioecological costs of urbanisation. Such dependency makes urban economic growth an undisputable element of regional politics (Gandy, 2013; Yates, 2011).

Degrowth critiques of the urban-other divide question existing uneven geographies of urbanisation and propose an alternative approach (conceptually and practically) for spatial change. The following sections explain why degrowth contests these relations and introduce the useful notion of bioregion.

Beyond the Urban-Other Divide: Degrowth Research and Regional Spaces

To recentre the other of urbanisation, degrowth research can start by examining regional spaces because it is there that the actual fracture between the urban centre and the other are dealt with through everyday land management practices. This happens in in-between areas – interfaces where the urban and the other collide. While the other is necessary for urban economic success, it can also be fertile ground for a degrowth urban politics that challenge the divide. This scale is also where new types of regional cooperation based on sufficiency principles can be enacted. Physical manifestations of the growth economy's globally oriented infrastructures collide with alternative ideas of land management in the other. Contrary to the notion of a "placeless world shaped by the global logistics network" (Cidell, 2011, p. 832), global trade infrastructures primarily reside in urban peripheries, profoundly influencing resource utilisation, landscapes, and the economic and social geography of these areas (Savini, 2023). The heterogeneity of such 'peripheral centralities' is conducive to political actions that seek to (re-) negotiate these processes (Keil, 2018; Phelps et al., 2023).

The transformative potential of the other for a degrowth oriented approach to planning rests both on its ecological and cultural dependency to cities. This allows such areas to "re-mold the urban form itself and support… new metabolic relationships with the urban domain" (Fanfani & Duží, 2019, p. 5). As examples of oppositional movements show, other spaces are far from powerless zones of exploitation. While they are considered empty by incumbent urban political groups, they are, in fact, full of social life and biodiversity and can turn into spaces that contest growth-led developments.

In degrowth research, the concern with the non-urban spaces has been a core issue of two strands of studies: degrowth research on agri-food systems and urban research on degrowth. The former focuses on agri-food systems and 'rural' spaces. The latter explicitly looks to urban spaces from a regional planning perspective.

For instance, research on agri-food systems has shown the potential of peri-urban areas for degrowth (Gerber, 2020; Nelson & Edwards, 2021). Spanier and Feola (2022) explain how regions pursue sufficiency and autonomy through an analysis of rural regional agricultural systems. However, with its focus on food production, agri-food research in degrowth "has largely disengaged with other sections of food supply chains, such as food consumption, processing, distribution and retail" (Guerrero Lara et al., 2023, p. 1581). While the rural has potential as a seedbed for the postgrowth economy (starting from care for the soil, its heritage and cultures (Spanier, 2021)), scholars often overlook how spaces characterised by agri-food systems exist in metabolic (and thus geopolitical) relations with urban areas and peri-urban industrial processes where food is consumed, processed, and wasted. Moreover, they rarely elucidate the type of political organisation that would favour urban-other connections.

Paradoxically, urban research on degrowth suffers the same limitation. It celebrates the potential of urban struggles, but it does not consider how such struggles depend, connect, and cooperate with those beyond dense built environments (Krähmer, 2022; Schmid, 2022; Xue, 2022). Scholars have raised concern about this weakness but did not move further.

New guiding principles are needed to disentangle the growth-dependency of contemporary planning. As such, Savini (2021) urges scholars to consider ecosystemic relations that produce regional 'habitats', particularly those that build on Indigenous planning epistemologies through polycentric autonomism and a paradigm of finity in development. Similarly, Xue (2022) questions the hyper-localism of degrowth-led planning that ignores potential externalization mechanisms. However, her critique does not encompass an understanding of other spaces. Kaika and colleagues (2023) address the need to differentiate between degrowth agendas and practices in the Global South and the Global North and problematise the effect degrowth may have on marginalised communities. They also argue that forging alliances between urban and regional spaces is necessary to upscale degrowth politics (but they do not provide concepts for doing so). Durrant et al. (2023) discuss the role of the planning profession in post-growth futures. They highlight the importance of the local, national and regional scale in post-growth planning, however, they do not offer a conclusive analysis on the issue of scale. Finally, Schmid (2024) disputes the dichotomous understanding of urban-rural relations in degrowth research but ultimately offers an urban-centric analysis of municipal degrowth transitions.

While many works question the dichotomous understanding of the urban and the rural and call for more regionally integrated planning practices, few offer a conceptual toolkit to overcome this dichotomy. Furthermore, scholars rarely move beyond the concepts of 'urban' and 'rural' and, therefore, struggle to articulate the potential of spaces that are neither properly urban (densely populated areas) nor rural (agri-food related), such as industrial corridors, suburbs, townships, and extractive areas. Therefore, this article offers the notion of 'bioregion' to help analyse the asymmetric relations between the urban and the other and envision an approach to urbanisation that surpasses the urban-other divide. Bioregionalism, we argue, can offer a planning perspective to address the metabolic rift and its underlying cultural and ecological consequences; it seeks to integrate the urban into its surroundings and into questions of social justice.

Defining Bioregionalism for a Degrowth Approach to Planning

Bioregional thinking has long offered designers, urban scholars, architects and policymakers an approach to urbanisation that centres on care for ecosystems and socio-territorial networks.

It is already regularly used in certain areas to question mainstream definitions of regions. Its early contributions to environmental philosophy came from North American thinkers like Bookchin (1962), Berg and Dasmann's (1978) concept of a Californian bioregion, and Sale's (1985) Bioregional Vision – all of which critiqued eco-modernist planning for prioritising economic performance, fearing its destructive effects on ecology and human wellbeing. An Italian variant, the territorialist approach to bioregionalism, has also been developed (Magnaghi, 2011).

Bioregionalism is today rarely used in degrowth research, even though some praise its potential to spatialise degrowth principles of territorial organisation and incorporate a posthuman perspective of territory in planning (Savini, 2023). Its key value for degrowth lies in its concern with the more-than-local scale and its focus on care for soil and human wellbeing. Ultimately, it redefines the role of regions in planning. As a relational entity, bioregionalism invites planning to contest the power dynamics that define the boundaries and features of regional systems and spatialise a different, more ecological, type of politics. Above all, it places 'peripheral centralities' at the heart of planning (Tornaghi & Dehaene, 2020). This is in stark contrast to neoclassical regional economics, where a region is defined as the territorial system shaped for and by economic activities, as urban agglomeration (Fanfani & Matarán-Ruiz, 2020). In this understanding, ecological and social elements are clearly subordinated to urbanisation as a process of wealth accumulation. Bioregionalism rejects these econometric and anthropocentric understandings of regions that treat them as competitive entities in global marketplaces. Instead, it invites to seek interdependencies between humans and the natural environment and explores care for place and sufficiency, following the principle of 'living in place' (Thayer, 2003). It also engages with the posthumanist notion of biocentricity, which considers nature to have inherent worth (Fenton, 1987).

Given this perspective, the bioregional critique also rejects the global scale of governance, which has been essential to planning approaches that promote inter-regional competition to increase capital flows (Storper, 2010). Instead, the governance scale that produces bioregions is rooted in ecological qualities, such as watersheds (Thayer, 2003) or foodsheds (Peters et al., 2012), which are geographical scales that could potentially supply a population centre with food and water.

Urban bioregionalists have further developed the issue of scale, proposing a discursively constructed bioregion, focusing on the role of urban centres and their connections to their surroundings (Fanfani, 2018). Urban bioregionalism seeks answers to how urbanised areas might establish regenerative relationships with their surrounding landscapes (Atkinson, 1992; Church, 2014) and explores planning approaches that integrate biophysical cycles with the built and unbuilt environment (Church, 2014). This includes approaches that promote regenerative resource use, regional ecosystem compatibility, and sustainable waste processing (James & Scott Cato, 2017). Philosophically, bioregionalism has been linked to concepts of sufficiency, emphasising the biophysical limits of regional capacity and the unique ecological qualities of place (James & Scott Cato, 2017; Thackara, 2019).

Urban bioregionalists such as Church (2014), Thackara (2019), and Fanfani & Matarán-Ruiz (2020) discuss place-based planning as an approach to urban transformation that considers interactions between ecological processes and people's everyday lives, centred on human interactions with ecology rather than the economy (Church, 2014). This place-based planning approach foregrounds the lived experience of ecology – the processing of energy, materials, food, waste, water – and its impact on space. Like urban degrowth research, bioregionalism celebrates grassroots initiatives that disrupt the growth-led social metabolism (Cappuccio, 2009), but it expands the perspective to extra-urban scales. Examples include networks of

community-supported agriculture (Raj et al., 2024) or regional agroecology, which connect the production, consumption, processing and storage of food with attention to soil and existing cultural artefacts (Cappuccio, 2009; Cato, 2011; Fanfani & Rovai, 2022). Other examples include short chain grain and fibre networks, regional composting schemes, and the digital sharing networks that support them (James & Scott Cato, 2017; Thackara, 2019). In such practices, care for soil and ecosystems is considered as the driver of urban justice endeavours, making this approach distinct from urban degrowth scholarship that centres exclusively on social justice.

Rejecting the global scale of governance does not mean hyper-localism, micro-scale self-sufficiency or isolationism. The bioregion should be understood as a system of communities coordinated by networks, territorialised as polycentric settlements that organise planning processes to co-manage essential social and ecological services (Cato, 2011).

Politically, bioregionalism has drawn from the anarchist critique of modernist planning. It stemmed from Bookchin's critique of the hierarchical relationships of city over countryside and humans over nature (Bookchin, 1980). This critique has translated into a networked approach to politics that promotes federalist relations between municipalities rather than centralist relations between single cities and national governments (Magnaghi, 2020). This federalist system values micro-scale participatory democracy while recognising that essential ecological services require discussions at the macro-regional scale.

Nevertheless, bioregionalist thought has some important limitations in relation to planning. Firstly, while care for the soil is the central tenet of the bioregional view, it has engaged less with other material streams such as critical raw materials, sand and gravel, and (non-organic) waste. These globalised material streams are essential for the production of critical infrastructure such as housing and mobility systems. As we explain later, a metabolic perspective on flows can help address this challenge. Secondly, bioregional thought is not immune to exclusionary tendencies. As with any form of regionalism – including those driven by economic performance – bioregionalism can create new boundaries. Delineating the bioregion along geological borders can produce new lines of exclusion based on ecological rather than socio-cultural boundaries (Hubbard et al., 2023; Meek, 2022). Bioregionalism must carefully address the discursive politics that frame these geomorphological borders. Lastly, its focus on identity and soil risks fostering neo-communitarianism, traditionalism, and identitarianism. For this reason, it is important to focus on the discursive construction of bioregions through the re-organisation of (spatial) planning governance rather than treating it as a purely geo-technical exercise.

A Planning Framework to Overcome the Urban-Other Divide

Bioregionalism offers both analytical and propositional interventions for urban degrowth studies. Analytically, it sheds light on the key social, spatial, and economic features of the urban-other divide. It critiques the ecological, social, political, economic, and spatial dimensions of subjugation that sustain a growth economy. In propositional terms, it can guide urban degrowth research and practice by identifying the key tenets of a degrowth spatial politics.

Table 1 presents the key dimensions of bioregionalism for urban degrowth research and planning. We draw heavily on Sale's (1985) *Dwellers in the Land*, which distinguishes four dimensions: scale, economy, polity and society (p. 50). We update this analysis with a political-ecological critique to identify five constitutive scales of the urban-other divide. After describing each intervention, we offer an 'in practice' example from the agriculture and food provision sector. We then identify key planning implications of this framework.

Table 1. Summary of conceptual framework.

Dimension	Critique of the urban-other divide	Dimensions of bioregionalism for degrowth	Planning implications
Scale of metabolic relations	Planetary	Regional	Inter-municipal collaboration
Socio-spatial organisation	Extended urbanisation	Regional sufficiency	Limiting excess by redistributing land uses
Geopolitical relations	Submission, mono centrism	Cooperation of territorial networks, polycentrism	Enlarged international/ interregional networks of collaboration
Approach to ecology	Extractivist	Regenerative	Focus on soil and provision of essential services
Worldview	Anthropocentrism	Post-humanism	Place-based planning

Scale of Metabolic Relations: From Planetary to Regional

Bioregionalism's first and most obvious proposition is its rescaling of socio-metabolic relations to centre the geography of flows through which materials, food, water, and energy are organised in society. It attends to smaller-scale value chains while appreciating their embeddedness in larger flows and relations. Sale (1985) argues that the question of scale should be a question of practicality, not morality. Ecological consciousness can only develop if citizens recognise their role in environmental effects. Therefore, the most relevant scale for socio-spatial relations is assumed to be the bioregional, where "all ecological questions are taken out of the moral and into the immediate and personal" (Sale, 1985, p. 54), allowing eco-social capital to thrive (Carr, 2004). Bioregionalising metabolic relations may expose urban material demands and, as environmental psychologists argue, improve people's capacity to understand the consequences of their own behaviour and overcome group-related biases (Engler et al., 2019; Sörqvist, 2016). Therefore, bioregional planning should acknowledge that the scale of a degrowth transition cannot transcend the cultural and identity bonds humans share with their environment or the biophysical characteristics of place.

This process is most exemplified in the planning of food provision. The contemporary, globalised food system is dominated by a few large producers of seeds and machinery (Bronson, 2015). This food system thrives within a food governance approach that defines areas of food production, distribution, and processing, treating them as separate from urban areas of food consumption. The larger the scale of this system, the more it seeks efficiency gains, and the more it ignores the specificities of territories' ecological qualities for food production. By ignoring those specificities, it destroys existing cultures of care for soil and perpetuates a disconnect between food consumption and production.

In this case, bioregionalism envisions a planning approach that is oriented towards a regenerative agroecological relationship between consumption and production, establishes political symmetries between consumers and producers (often through cooperatives or CSAs), and closes organic waste flows. This approach requires the establishment of inter-municipal planning frameworks that ensure both food availability and the protection of agricultural soil against large-scale industrial farming, and the capitals that gain from it. This planning approach defines bioregions based on a careful understanding of food-flows and soil characteristics, harnessing the potential of local knowledge within and against larger supply chains (see, for example, Krähmer, 2025). In so doing, it can build on existing 'virtuous' practices, stimulate new investment across municipalities, and create bioregional food networks. A similar planning approach can also be applied in the provision of other essential resources, such as water, heat, and

organic matter. Planning these flows effectively requires serious engagement with bioregional value chains and strong inter-municipal cooperation.

Socio-Spatial Organization: From Extended Urbanisation to Regional Sufficiency

From a degrowth perspective, bioregionalising socio-metabolic relations may engender sufficiency, understood as 'frugal abundance' (Alexander, 2017). This means organising production with care for the limits and carrying capacity of the bioregions where this production takes place and reducing consumption to a "low but biophysically sufficient material standard of living" (Alexander, 2017, p. 159). This shift in production demands a new attention to a politics of ecology and soil regeneration, which explicitly addresses the metabolic rifts.

However, sufficiency extends beyond the realm of basic needs to encompass broader aspects of regional autonomy and decision-making. A region that sufficiently provides for its inhabitants is less vulnerable to imports and price fluctuations. At the micro-scale, such as of an urban bioregion, self-reliance rather than sufficiency may be a more appropriate way to think about socio-spatial organisation, given the limits of material flows.

A bioregional degrowth approach to planning seeks mutually supportive relations between human land-use patterns and ecosystemic qualities of places (Church, 2014). By limiting material flows, the bioregion allows for a potential territorial politics of sufficiency in both consumption and production. The geophysical limits of expansion (of consumption and production) become essential. For example, imported synthetic fertilizers allow the modern food industry to exceed the geophysical limits of a territory. An agricultural system based on sufficiency closes the metabolic rift of nutrients between the urban and the other. Recovering nutrients like phosphorus and nitrogen from urban sewage for agricultural production is one way to localise the food system.

A sufficiency-based approach to planning requires a reorganisation of an entire repertoire of planning tools that are already used in practice to achieve socio-ecological justice. The primary concern of bioregional planning is the redistribution of land, resources, and wealth across territories. This can be pursued through policies that foster polycentric networks of relatively compact environments with distinct productive and ecological qualities – such as supporting diversified food production, interconnectivity, and reducing wealth inequalities between urban areas and the other. The key ambition of this approach is to increase the economic resilience of different sub-territories of the region while preserving their specificity. In sum, planning bioregions requires serious engagement with polycentrism. As we discuss below, this process would require enlarged regional planning competences.

Geopolitical Relations: From Submission to Cooperation

Sufficiency under bioregionalism should not be understood as an 'absolute' threshold but rather as a destination guided by the ambition to address the bioregional scale of socio-metabolic relations. Under conditions of mass urbanisation, the provision of essential services cannot be detached from cooperation across localities (Thackara, 2019). Therefore, bioregionalism encourages polycentrism and cooperation to overcome the submission of the other to the city. Territorial networks should cooperate by leveraging their available resources and biophysical capacities(Fanfani & Duží, 2019). Rather than subordinating the other, the focus shifts towards co-evolutionary relationships between urban and other domains. The redistribution of power

from urban centres to other communities is both a precondition and a demand for bioregionalism (Cato, 2011).

From this perspective, inter-urban trade serves as a means of essential service provision rather than a strategy for global inter-regional competition. Resources that cannot be produced, recycled, or reused by localities can be sourced from other territories (Cato, 2011; Sale, 1985). Cooperation within territorial networks will be crucial for redistributing fertilisers for agriculture, whether through composting or nutrient recovery from sewage. Urbanised territories will likely have an oversupply of nutrients (e.g., phosphorus, nitrogen, potassium), so a redistribution system based on equal exchange and social justice could enable a more sufficient availability of organic fertilisers (Walsh et al., 2023). An important caveat is that urban sewage biosolids are often heavily contaminated with heavy metals and persistent organic chemicals. The feasibility of redistribution thus depends not only on technologies for cleaning sewage, but also on addressing what enters the sewage stream in the first place. Bioregionalism targets the socio-ecological relations between territories, not single urban centres.

It is commonly believed that degrowth favours the small scale. Instead, we argue that bioregionalism entails an upscaling of planning competences, rather than a downscaling. In the contemporary urbanised world, it is impossible to imagine a small-scale, self-sufficient bioregion capable of ensuring high standards of living for all. A focus on sufficiency across both urban and other territories necessitates large-scale inter-bioregional cooperation to plan for macro value chains of essential goods provision. In fact, most examples of existing bioregional perspectives are large scale, inter-regional, and even trans-national. They overcome existing administrative boundaries. The enlargement of inter-regional planning frameworks is, in our view, necessary to ensuring that the management of food, water, and energy enhances the liveability of remote areas and small villages (Rydin, 2022).

Approach to Ecology: From Extractivist to Regenerative

Regenerative relations between localities are central to both degrowth and bioregionalism. Bioregionalism advances a circular metabolism approach centred on the regenerative imperative of soil and communities. This regional approach requires a new production system and a new ethic of consumption (Cato, 2011; Savini, 2023).

Regeneration is a socio-political and material process that equalises power relations between localities. In the food sector, the availability of global agro-industrial markets, cheap labour, and cheap energy has made agricultural areas reliant on external nutrient inputs. High organic fertiliser input has made the internal recycling of nutrients in agroecosystems almost irrelevant for sustaining yields – reuse is replaced with easy imports (Yacamán-Ochoa, 2024). This leads to nutrient pollution in water bodies, global food insecurity, soil degradation, and, in turn, the need for more fertilisers. Such a cycle thrives on a clear political and spatial separation between decaying areas of food production and enriched (urban) areas of food demand.

Regeneration is needed to halt and reverse this process. It starts by minimising nutrient inputs in agricultural production, reducing (environmentally harmful) food typologies in high-demand areas (cities), and maximising nutrient recovery from organic residues to be placed back into areas of food production. Regeneration requires sufficiency. Harder et al. (2021) demonstrate that the Okanagan bioregion in Canada can sufficiently meet its nutrient needs through agriculture, especially when redistribution strategies make cities equal partners with food-producing areas.

This regenerative approach to ecology can also be applied to other economic sectors that depend on the transformation of nature. Tourism, for example, remains a highly extractive and consumer-driven industry, especially in central urban locations. Bioregioning can recentre rural and depopulated areas, shifting visitors' mental maps and encouraging them to contribute to the ecological and cultural vitality of these areas (Dezio, 2020; Murray et al., 2025). As explained above, such a regenerative approach to tourism planning would require inter-municipal governance capable of addressing the unequal powers (and property regimes) driving mass touristification. This includes constraining short stays in dense cities while promoting vernacular cultures, agriculture, non-urban landscapes, and wildlife. This approach to planning can build on the many inter-municipal networks that already promote their territories in this vein (e.g. national parks), which often struggle to divert investments and attention from major urban centres.

The potential of planning centred on soil is also remarkably evident in the organisation of renewable energy infrastructures. Planning frameworks for green energy are still primarily concerned with efficient green energy production because they focus on (ever-increasing) energy demand. They rely on a clear subdivision between areas of energy production and the urban areas of energy consumption. As a recent joint report by IPCC and IPBS explains, this planning approach largely ignores the negative effects of renewable energy on the ecological qualities of places and the related costs that arise from the loss of fertile soil and biodiversity (Pörtner et al., 2021). Approaching sustainability from a soil health perspective would significantly reduce these effects.

Worldview: From Anthropocentrism to Post-Humanism

All the changes outlined thus far envision a radical epistemological shift in how socio-spatial relations are conceptualised. This is because both bioregionalism and a degrowth social imaginary require non-anthropocentric worldviews (Dalziel, 2022; Hubbard et al., 2023). A regional identity based on such worldviews connects humans with a place, a (bio)region, a community – a 'Life Place' (Thayer, 2003).

Critical bioregioning literature has highlighted how Indigenous epistemologies inform bioregional thinking, as Indigenous communities' lifeways and land management strategies (practised for millennia) are closely aligned with nature's cycles (Hubbard et al., 2023; Thackara, 2019). Taking Indigenous epistemologies seriously in planning means recognising the co-dependent relationship between the spatial dimension of planning and processes of identity formation, while also questioning colonial mechanisms of property acquisition (Anthias, 2021). Identity can become a matter of planning insofar as it is connected to the ways in which existing communities care for and use land – not through consumption patterns. It is collectively and ecologically constructed by individuals who understand themselves within a larger community of humans and more-than-humans, sharing responsibilities and mutual support (Thackara, 2019). The cultivation and production of historically embedded crops or foods is one common example of collective identity formation (Sale, 1985). Bioregionalism also broadens this approach to other areas of production and consumption. It allows us to imagine urban identities built upon ways of caring for the matter that makes up the built environment.

These worldviews of place are performed through rituals, practices, and collective symbols, emphasising specific ecological qualities of bioregions. Centring place, identity and ecology in planning does not mean identitarianism. Conservative identitarian politics tends (and wants)

to homogenise and unify the cultural profile of regions, just as mono-cultural agro-industries do. With its focus on ecologies, bioregionalism appreciates diversified cultures (which are always reflected in the richness of bio*diversity*) and respect the multiplicity of knowledges in place. It also means valorising the existing ecological and cultural artefacts of place, starting from forests, trees, rivers or even ruins of both distant and near pasts. Planning can be a tool to reconstruct places' socio-ecological identity with a vision for the future when it employs innovative ways to appreciate a regions' ecology (see, for example, Stein, 2005). Overall, bioregionalism demands revaluing the non-human, recentring the role of soil, and paying attention to the material properties of the urban landscape (and its current extractivist derivatives).

A post-humanist epistemology has radical implications for planning, as has been argued for two decades already (Jon, 2020; Metzger, 2016; Rydin, 2014). It demands planning tools that limit soil sealing, protect and enhance landscapes, appreciate soil ecologies in their diversity, and invest in the regeneration of depleted soils – in cooperation with the communities directly active in those places. It also requires rethinking the temporality of planning, adapting frameworks to the slower processes of ecological regeneration and community building. As explained above, stronger cooperation between localities and the establishment of inter-regional planning frameworks can be a starting point for developing this repertoire of planning tools. While many of these tools are already in place and regularly used by planners, they remain secondary to policies fostering economic growth and are often reduced to a mere exercise of environmental impact assessment (Blanchart et al., 2019).

Conclusions

This paper developed a framework for degrowth planning research that (1) questions existing growth-dependent urbanisation and (2) delineates the profile of an alternative approach to planning beyond urban-other dichotomies. It advances degrowth research in both geography and planning research by questioning the current attributes of growth-dependent urbanisation while reflecting on the meaning and limits of localism. The field has not yet developed the necessary conceptual tools to offer a new spatial agenda for degrowth or to overcome its hyper-localist tendencies. Therefore, we proffer bioregionalist thinking to address these challenges.

The core of the degrowth critique of contemporary planning research and practice lies in the problematisation of the 'urban-other' divide. Capitalist urbanisation necessitates and reproduces unequal and asymmetric power relations between urban areas (the centres of wealth and consumption) and other zones (the areas of extraction, waste disposal and exploitation). The degrowth spatial proposition is founded upon this critique, as shown by degrowth research on agroecology and urban studies. Yet, alternatives to the urban-other divide are rarely offered, and these two areas of study remain largely separate.

Bioregionalist thought has the potential to overcome this conceptual–empirical divide. We reviewed the key pillars of bioregionalism, which, despite having a long history, has not yet been used or redefined for degrowth research. Bioregionalism can work as a planning approach to re-envision and regionalise socio-spatial organisation around the biophysical characteristics of a territory. While current forms of regionalism define regions based on their economic performance, bioregionalism focuses on socio-ecological relations between territories. It places the care for soil at the centre of planning. In so doing, it can accommodate degrowth principles such as sufficiency, care, well-being, and social equity in the socio-spatial organisation of a territory, emphasising the importance of deep connections to place, community, and

regional ecosystems. Integrating biophysical cycles with the built and unbuilt environment would reposition the urban into a more symmetric power relationship with its surroundings.

We explored five dimensions of bioregionalism's critical and propositional potential for degrowth and reflected on their implications for planning. First, bioregionalism proposes downscaling planetary metabolic flows to a regional scale, which demands sufficiency while avoiding the pitfalls of overly local approaches. This shift, we argued, revalues inter-municipal cooperation in regional planning processes. Second, the socio-spatial organisation of a bioregion is based on regional sufficiency. Here, the geophysical profile of the bioregional territory leads shifts in production and consumption and contests extended urbanisation that colonises land and resources for (over)consumption. A sufficiency approach to regional planning fosters the limitation of environmentally harmful activities while allocating land and resources to nurture and regenerate socio-ecological qualities. Third, geopolitical relations are based on cooperation between territorial networks and are needed to ensure the provision of essential services in all bioregions. For planning, this process would require an upscaling of regional politics to reach a polycentric approach that can shift political power from urban centres to less urbanised territories. Fourth, bioregionalism poses a fundamental critique of the extractivist logic of extended urbanisation and capitalist expansion. The challenge for bioregional planning is to build regenerative relationships between localities and between humans and nature. In our view, placing biodiversity at the core of planning processes could help achieve this goal. Finally, all these dimensions are based on a non-anthropocentric worldview that re-values and re-centres the more-than-human and the role of soil in planning. Bioregional planning is place-based but it is embedded in expansive inter-municipal networks.

This paper invites further research on how bioregional planning practices contest the extractivist power structures that sustain the urban-other divide. Bioregionalist thought can critically and prefiguratively enhance the emerging field of degrowth planning research on non-extractivist forms of socio-spatial organisation. It starts from a critique of the degenerative relationship that cities have with their environments in a growth-dependent economy. It recentres the bioregion within a theory and practice of degrowth spatial planning. It also appreciates the relations between spaces within territories (both human and non-human, built and unbuilt) as constitutive of a new bioregional space.

Acknowledgements

We thank Prof. Dr. Maria Kaika for her comments on an earlier draft. We are also grateful to Prof. Dr. David Fanfani for his insights on bioregionalism and for organizing the Florence workshop at which this paper was presented and discussed. We further thank the reviewers and editors for their close reading and valuable insights.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the European Research Council under Grant 101039545.

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References

Alexander, S. (2017). Frugal abundance in an age of limits: Envisioning a degrowth economy. In E. Garcia, M. Martinez-Iglesias, & P. Kirby (Eds.), *Transitioning to a post-carbon society* (pp. 159–179). Palgrave.

Alexander, S., & Gleeson, B. (2020). Urban social movements and the degrowth transition: Towards a grassroots theory of change. *The Journal of Australian Political Economy*, *86*, 355–378.

Alexander, S., & Shearer, H. (2023). Tiny houses and the economics of sufficiency: How 'shrinking domesticities' fit within the degrowth paradigm. In *The growing trend of living small*. Routledge.

Amenta, L., & Van Timmeren, A. (2018). Addressing the spatial dimension of circularity through the regeneration of wastescapes. *Sustainability*, *10*(12), 4740. https://doi.org/10.3390/su10124740

Andreucci, D., & Zografos, C. (2022). Between improvement and sacrifice: Othering and the (bio)political ecology of climate change. *Political Geography*, *92*, 102512. https://doi.org/10.1016/j.polgeo.2021.102512

Anthias, P. (2021). Rethinking territory and property in indigenous land claims. *Geoforum*, *119*, 268–278. https://doi.org/10.1016/j.geoforum.2019.09.008

Arboleda, M. (2016). In the nature of the non-city: Expanded infrastructural networks and the political ecology of planetary urbanisation. *Antipode*, *48*(2), 233–251. https://doi.org/10.1111/anti.12175

Arboleda, M. (2023). Circuits of extraction and the metabolism of urbanisation. In M. Kaika, R. Keil, T. Mandler, & Y. Tzaninis (Eds.), *Turning up the heat*. Manchester University Press.

Atkinson, A. (1992). The urban bioregion as 'sustainable development' paradigm. *Third World Planning Review*, *14*(4), 327–354.

Berg, P., & Dasmann, R. (1978). Reinhabiting California. In *Reinhabiting a separate country: A bioregional anthology of Northern California* (pp. 217–220). Planet Drum Foundation.

Biagi, F. (2020). Henri lefebvre's urban critical theory: Rethinking the city against capitalism. *International Critical Thought*, *10*(2), 214–231. https://doi.org/10.1080/21598282.2020.1783693

Blanchart, A., Consalès, J. N., Séré, G., & Schwartz, C. (2019). Consideration of soil in urban planning documents—A french case study. *Journal of Soils and Sediments*, *19*(8), 3235–3244. https://doi.org/10.1007/s11368-018–2028-x

Bookchin, M. (1962). *Our synthetic environment*. Harper Colophon.

Bookchin, M. (1980). *Toward an ecological society*. Black Rose Books Ltd.

Brenner, N. (2016). The hinterland urbanised? *Architectural Design*, *86*(4), 118–127. https://doi.org/10.1002/ad.2077

Brenner, N., & Katsikis, N. (2020). Operational landscapes: Hinterlands of the capitalocene. *Architectural Design*, *90*(1), 22–31. https://doi.org/10.1002/ad.2521

Bronson, K. (2015). Responsible to whom? Seed innovations and the corporatization of agriculture. *Journal of Responsible Innovation*, *2*(1), 62–77. https://doi.org/10.1080/23299460.2015.1010769

Cappuccio, S. M. (2009). *Bioregionalism as a new development paradigm*. Italy.

Carr, M. (2004). *Bioregionalism and civil society: Democratic challenges to corporate globalism*. UBC Press.

Cato, M. S. (2011). Home economics: Planting the seeds of a research agenda for the bioregional economy. *Environmental Values*, *20*(4), 481–501. https://doi.org/10.3197/096327111X13150367351258

Church, S. P. (2014). Exploring urban bioregionalism: A synthesis of literature on urban nature and sustainable patterns of urban living. *Sapiens*, *7*(1), 1–11.

Cidell, J. (2011). Distribution centers among the rooftops: The global logistics network meets the suburban spatial imaginary. *International Journal of Urban and Regional Research*, *35*(4), 832–851. https://doi.org/10.1111/j.1468–2427.2010.00973.x

Conde, M., D'Alisa, G., & Sekulova, F. (2022). When greening is not degrowth. In F. Savini, A. Ferreira, & K. C. Von Schönfeld (Eds.), *Post-growth planning* (1st ed., pp. 19–31). Routledge.

Dalziel, M. (2022). Towards a posthuman practice for architecture and urbanism? *Nordic Journal of Urban Studies*, *2*(1), 90–96. https://doi.org/10.18261/njus.2.1.6

Dezio, C. (2020). A bioregional reading of the rural landscapes of the Italian inner areas and the regenerative potential of rural tourism. *Ciudades*, *23*(23), 49–69. https://doi.org/10.24197/ciudades.23.2020.49–69

Durand, C., Hofferberth, E., & Schmelzer, M. (2023). Planning beyond growth: the case for economic democracy within ecological limits. *SSRN*.

Durrant, D., Lamker, C., & Rydin, Y. (2023). The potential of post-growth planning: Re-tooling the planning profession for moving beyond growth. *Planning Theory & Practice*, *24*(2), 287–295. https://doi.org/10.1080/14649357.2023.2198876

Engler, J.-O., Abson, D. J., & Von Wehrden, H. (2019). Navigating cognition biases in the search of sustainability. *Ambio*, *48*(6), 605–618. https://doi.org/10.1007/s13280-018–1100-5

Fanfani, D., & Matarán Ruiz, A. (Eds.). (2020). *Bioregional planning and design: Volume 1: Perspectives on a transitional century*. Springer.

Fanfani, D., & Rovai, M (2022). The role of sense of place in the recovery of local food systems in bioregional contexts. Challenges and opportunities. In O.-R. Ilovan & I. Markuszewska (Eds.), *Preserving and constructing place attachment in Europe* (Vol. *131*, pp. 201–217). Springer International Publishing.

Fanfani, D. (2018). The urban bioregion as form and project of the co-evolution between urban and rural domain. The case of the florence metropolitan area. *International Journal of Engineering & Technology*, *7*(1.4), 61. https://doi.org/10.14419/ijet.v7i1.4.9264

Fanfani, D., & Duží, B. (2019). Urban bioregion concept: From theoretical roots to development of an operational framework in the European context. In *Proceedings of the National Conference SIU/XXI/ – Italian Society of Urban Planners Borders, Florence, Italy*.

Fenton, J. (1987). The ecology of environmentalism: Some ideas for discussion. *ECOS: A Review of Conservation*, *8*(4), 28–33.

Foster, J. B. (1999). Marx's theory of metabolic rift: Classical foundations for environmental sociology. *American Journal of Sociology*, *105*(2), 366–405. https://doi.org/10.1086/210315

Fuente-Carrasco, M. E., Barkin, D., & Clark-Tapia, R. (2019). Governance from below and environmental justice: Community water management from the perspective of social metabolism. *Ecological Economics*, *160*, 52–61. https://doi.org/10.1016/j.ecolecon.2019.01.022

Gandy, M. (2013). Marginalia: Aesthetics, ecology, and urban wastelands. *Annals of the Association of American Geographers*, *103*(6), 1301–1316. https://doi.org/10.1080/00045608.2013.832105

García-Lamarca, M., Anguelovski, I., & Venner, K. (2022). Challenging the financial capture of urban greening. *Nature Communications*, *13*(1), 7132. https://doi.org/10.1038/s41467-022–34942-x

Gerber, J.-F. (2020). Degrowth and critical agrarian studies. *The Journal of Peasant Studies*, *47*(2), 235–264. https://doi.org/10.1080/03066150.2019.1695601

Gidwani, V., & Reddy, R. N. (2011). The afterlives of 'waste': Notes from India for a minor history of capitalist surplus. *Antipode*, *43*(5), 1625–1658. https://doi.org/10.1111/j.1467–8330.2011.00902.x

Graham, S., & Healey, P. (1999). Relational concepts of space and place: Issues for planning theory and practice. *European Planning Studies*, *7*(5), 623–646. https://doi.org/10.1080/09654319908720542

Guerrero Lara, L., Van Oers, L., Smessaert, J., Spanier, J., Raj, G., & Feola, G. (2023). Degrowth and Agri-food systems: A research agenda for the critical social sciences. *Sustainability Science*, *18*(4), 1579–1594. https://doi.org/10.1007/s11625-022–01276-y

Harder, R., Giampietro, M., Mullinix, K., & Smukler, S. (2021). Assessing the circularity of nutrient flows related to the food system in the okanagan bioregion, BC Canada. *Resources, Conservation and Recycling*, *174*, 105842. https://doi.org/10.1016/j.resconrec.2021.105842

Harris, R. (2022). A dose of density: The urban counter-revolution. In R. Keil & F. Wu (Eds.), *After suburbia: Urbanization in the twenty-first century* (pp. 109–126). University of Toronto Press.

Harvey, D. (1993). The nature of environment: Dialectics of social and environmental change. *Socialist Register*, *29*(29), 1–51.

Healey, P. (2006). *Urban complexity and spatial strategies* (0th ed.). Routledge.
Hubbard, E., Wearne, S., Jónás, K., Norton, J., & Wilke, M. (2023). Where are you at? Re-engaging bioregional ideas and what they offer geography. *Geography Compass*, *17*(10), e12722. https://doi.org/10.1111/gec3.12722
James, R. F., & Scott Cato, M. (2017). A green post-capitalist alternative to a system of accumulation: A bioregional economy. *Capitalism Nature Socialism*, *28*(4), 24–42. https://doi.org/10.1080/10455752.2017.1393093
Jon, I. (2020). Deciphering posthumanism: Why and how it matters to urban planning in the anthropocene. *Planning Theory*, *19*(4), 392–420. https://doi.org/10.1177/1473095220912770
Kaika, M. (2004). *City of flows: Modernity, nature, and the city*. Routledge.
Kaika, M., & Swyngedouw, E. (2000). Fetishizing the modern city: The phantasmagoria of urban technological networks. *International Journal of Urban and Regional Research*, *24*(1), 120–138. https://doi.org/10.1111/1468–2427.00239
Kaika, M., Varvarousis, A., Demaria, F., & March, H. (2023). Urbanizing degrowth: Five steps towards a radical spatial degrowth agenda for planning in the face of climate emergency. *Urban Studies*, *60*(7), 1191–1211. https://doi.org/10.1177/00420980231162234
Keil, R. (2018). *Suburban planet: Making the world urban from the outside in*. Polity Press.
Keil, R., & Wu, F. (Eds.). (2022). *After suburbia: Urbanization in the twenty-first century*. University of Toronto Press.
Krähmer, K. (2022). Degrowth and the city: Multiscalar strategies for the socio-ecological transformation of space and place. *City*, *26*(2–3), 316–345. https://doi.org/10.1080/13604813.2022.2035969
Krähmer, K. (2023). How to research something that doesn't exist? Reflections on the methodologies adopted in the literature on the spatialities of degrowth. *Tracce Urbane. Rivista Italiana Transdisciplinare Di Studi Urbani*, *10*(14).
Krähmer, K. (2025). Degrowth in global spaces: Extractivism and practices of socio-ecological transformation in the geography of chile's global fruit trade. *Geoforum*, *160*, 1–13. https://doi.org/10.1016/j.geoforum.2025.104230
Lawhon, M., Ernstson, H., & Silver, J. (2014). Provincializing urban political ecology: Towards a situated UPE through african urbanism. *Antipode*, *46*(2), 497–516. https://doi.org/10.1111/anti.12051
Lefebvre, H. (2011). *The urban revolution* (5th ed.). University of Minnesota Press.
Magnaghi, A. (2011). *Draft of the territorialists' society manifesto*. Società dei Territorialisti.
Magnaghi, A. (2020). The territorialist approach to urban bioregions. In D. Fanfani & A. Matarán Ruiz (Eds.), *Bioregional planning and design: Volume I* (pp. 33–61). Springer International Publishing.
Meek, D. (2022). From marginalized to miracle: Critical bioregionalism, jungle farming and the move to millets in Karnataka, India. *Agriculture and Human Values*, *39*(3), 871–883. https://doi.org/10.1007/s10460-021–10287-x
Mészáros, I. (2014). *Marx's theory of alienation (original work published 1972)*. Merlin Press.
Metzger, J. (2016). Cultivating torment: The cosmopolitics of more-than-human urban planning. *City*, *20*(4), 581–601. https://doi.org/10.1080/13604813.2016.1193997
Mocca, E. (2020). The local dimension in the degrowth literature: A critical discussion. *Journal of Political Ideologies*, *25*(1), 78–93. https://doi.org/10.1080/13569317.2019.1696926
Murray, I., Fletcher, R., Blázquez-Salom, M., Blanco-Romero, A., Cañada, E., & Sekulova, F. (2025). Tourism and degrowth. *Tourism Geographies*, *27*(3–4), 547–557. https://doi.org/10.1080/14616688.2023.2293956
Nelson, A., & Edwards, F. (Eds.). (2021). *Food for degrowth: Perspectives and practices*. Routledge.
Nightingale, C. (2024). *Our urban planet in theory and history* (1st ed.). Cambridge University Press.
Nishat-Botero, Y., & Thompson, M. (2025). The land question and postcapitalist countrysides: Towards a town–country synthesis. In *Postcapitalist countrysides: From commoning to community wealth building* (pp. 393–416). UCL Press.
Olsen, E. S., & Bogadóttir, R. (2017). Making degrowth locally meaningful: The case of the faroese grindadráp. *Journal of Political Ecology*, *24*(1), 504–518. https://doi.org/10.2458/v24i1.20888
Peters, C. J., Bills, N. L., Lembo, A. J., Wilkins, J. L., & Fick, G. W. (2012). Mapping potential foodsheds in New York state by food group: An approach for prioritizing which foods to grow locally. *Renewable Agriculture and Food Systems*, *27*(2), 125–137. https://doi.org/10.1017/S1742170511000196

Phelps, N. A., Maginn, P. J., & Keil, R. (2023). Centring the periphery in urban studies: Notes towards a research agenda on peripheral centralities. *Urban Studies*, *60*(6), 1158–1176. https://doi.org/10.1177/00420980221135418

Pörtner, H.-O., Scholes, R. J., Agard, J., Archer, E., Bai, X., Barnes, D., Burrows, M., Chan, L., Cheung, W. L. (., Diamond, S., Donatti, C., Duarte, C., Eisenhauer, N., Foden, W., Gasalla, M. A., Handa, C., Hickler, T., Hoegh-Guldberg, O., Ichii, K., … Ngo, H. (2021). *IPBES-IPCC co-sponsored workshop report on biodiversity and climate change* (Version 2). Zenodo.

Raj, G., Feola, G., & Runhaar, H. (2024). Work in progress: Power in transformation to postcapitalist work relations in community-supported agriculture. *Agriculture and Human Values*, *41*(1), 269–291. https://doi.org/10.1007/s10460-023–10486-8

Rydin, Y. (2014). The challenges of the "material turn" for planning studies. *Planning Theory & Practice*, *15*(4), 590–595. https://doi.org/10.1080/14649357.2014.968007

Rydin, Y. (2022). Planning beyond the backwash of a growth node. In F. Savini, A. Ferreira, & K. C. Von Schönfeld (Eds.), *Post-growth planning* (1st ed., pp. 129–142). Routledge.

Saito, K. (2022). *Marx in the anthropocene: Towards the idea of degrowth communism*. Cambridge University Press.

Sale, K. (1985). *Dwellers in the land: The bioregional vision*. University of Georgia Press.

Sanzana Calvet, M., & Castán Broto, V. (2020). Sacrifice zones and the construction of urban energy landscapes in concepción, Chile. *Journal of Political Ecology*, *27*(1), 279–299. https://doi.org/10.2458/v27i1.23059

Savini, F. (2021). Towards an urban degrowth: Habitability, finity, and polycentric autonomism. *Environment and Planning A: Economy and Space*, *53*(5), 1076–1095. https://doi.org/10.1177/0308518X20981391

Savini, F. (2023). Futures of the social metabolism: Degrowth, circular economy and the value of waste. *Futures*, *150*, 103180. https://doi.org/10.1016/j.futures.2023.103180

Schmelzer, M. (2022). *The future is degrowth: A guide to a world beyond capitalism*. Verso.

Schmid, B. (2022). What about the city? Towards an urban post-growth research agenda. *Sustainability*, *14*(19), 11926. https://doi.org/10.3390/su141911926

Schmid, B. (2024). *Urban degrowth. In de gruyter handbook of degrowth*. De Gruyter.

Sörqvist, P. (2016). Grand challenges in environmental psychology. *Frontiers in Psychology*, *7*, 583. https://doi.org/10.3389/fpsyg.2016.00583

Spanier, J. (2021). Rural futurism: Assembling the future in the countryside. *ACME: An International Journal for Critical Geographies*, *20*(1), 120–141.

Spanier, J., & Feola, G. (2022). Nurturing the post-growth city. In F. Savini, A. Ferreira, & K. C. Von Schönfeld (Eds.), *Post-growth planning* (1st ed., pp. 159–172). Routledge.

Stein, U. (2005). Planning with all your senses—learning to cooperate on a regional scale. *disP - The Planning Review*, *41*(162), 62–69. https://doi.org/10.1080/02513625.2005.10556933

Storper, M. (2010). *The regional world: Territorial development in a global economy* (2. [print.]). Guilford Press.

Thackara, J. (2019). Bioregioning: Pathways to urban-rural reconnection. *She Ji: The Journal of Design, Economics, and Innovation*, *5*(1), 15–28. https://doi.org/10.1016/j.sheji.2019.01.002

Thayer, R. L. (2003). *LifePlace: Bioregional thought and practice*. University of California Press.

Thompson, M., & Nishat-Botero, Y. (2025). Postcapitalist planning and urban revolution. *Competition & Change*, *29*(1), 101–120. https://doi.org/10.1177/10245294231210980

Tornaghi, C., & Dehaene, M. (2020). The prefigurative power of urban political agroecology: Rethinking the urbanisms of agroecological transitions for food system transformation. *Agroecology and Sustainable Food Systems*, *44*(5), 594–610. https://doi.org/10.1080/21683565.2019.1680593

Trainer, T. (2012). De-growth: Do you realise what it means? *Futures*, *44*(6), 590–599. https://doi.org/10.1016/j.futures.2012.03.020

Tzaninis, Y., Mandler, T., Kaika, M., & Keil, R. (2021). Moving urban political ecology beyond the 'urbanization of nature. *Progress in Human Geography*, *45*(2), 229–252. https://doi.org/10.1177/0309132520903350

Walsh, M., Schenk, G., & Schmidt, S. (2023). Realising the circular phosphorus economy delivers for sustainable development goals. *Npj Sustainable Agriculture*, *1*(1), 1–15. https://doi.org/10.1038/s44264-023–00002-0

Xue, J. (2014). Is eco-village/urban village the future of a degrowth society? An urban planner's perspective. *Ecological Economics*, *105*, 130–138. https://doi.org/10.1016/j.ecolecon.2014.06.003

Xue, J. (2022). Urban planning and degrowth: A missing dialogue. *Local Environment*, *27*(4), 404–422. https://doi.org/10.1080/13549839.2020.1867840

Yacamán-Ochoa, C. (2024). Bioregional agroecological planning: Keys to building territorialized and multifunctional agrifood systems. In J. M. Feria-Toribio, R. Iglesias-Pascual, & F. Benassi (Eds.), *Socio-spatial dynamics in mediterranean Europe* (pp. 105–119). Springer Nature Switzerland.

Yates, M. (2011). The human-as-waste, the labor theory of value and disposability in contemporary capitalism. *Antipode*, *43*(5), 1679–1695. https://doi.org/10.1111/j.1467–8330.2011.00900.x

Zapata Campos, M. J., & Zapata, P. (2017). Infiltrating citizen-driven initiatives for sustainability. *Environmental Politics*, *26*(6), 1055–1078. https://doi.org/10.1080/09644016.2017.1352592

Zografos, C., & Robbins, P. (2020). Green sacrifice zones, or why a green new deal cannot ignore the cost shifts of just transitions. *One Earth*, *3*(5), 543–546. https://doi.org/10.1016/j.oneear.2020.10.012