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REVIEW ARTICLE

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Where are you at? Re-engaging bioregional ideas and what they offer geography

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Abstract

Bioregionalism was popularised in the 1970s back to the land movement. It is distinguished from other forms of environmentalism through the spatial imaginary of a bioregion as the scale for environmental action and regenerative living. Bioregional thought has been widely critiqued by geographers for its potentially deterministic understanding of the relationship between place and culture. This paper argues that bioregionalism is less of a homogenous movement and more of a discursive forum that houses a spectrum of perspectives. We identify three key tendencies within bioregional thought, an ontological tendency, a critical tendency and a processual tendency. Each tendency is rooted in different spatial imaginaries, and generates different axiologies and strategies of change. We argue that contemporary processual tendencies in bioregional thought are productive for geographers considering questions of (1) materiality, agency and place, (2) politics, ethics and place, and (3) acting in place for urgent and ethical change.

KEYWORDS
bioregionalism, bottom-up change, community environmentalism, eco-movements, environmental politics, place-based sustainability, socio-ecological systems

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1 | INTRODUCTION

Responding to global sustainability crises in ways that consider the ethics, rights and specificities of place is an inherently complex task, especially given the urgency of action needed. Geographers have long been concerned with efforts to understand and support expressions of deliberate change. This includes questions about how we organise society across scales, as well as the politics that arise from the recognition of the co-constitution of human and non-human worlds (Sharp et al., 2022; Whatmore, 2002). It is in this context that we, a group of globally distributed researchers concerned with questions about the role of scale and place in our response to global environmental emergency, sought to re-engage with bioregional concepts and ask what they offer to geographers today.

Bioregionalism is a social movement and eco-philosophy which asserts that 'natural ecosystems and cultural contexts should dictate, or at least influence, how humans organise their relationships with the environment' (Ankersen et al., 2006, p. 408). Over the past 5 decades, *Bioregions* and *Bioregionalism* have been promoted by a range of actors that have been interested in a global sustainability movement that cascades into local action. There have been many attempts to codify bioregionalism (for example Gilbert et al., 2009; McGinnis, 2005), so this paper will engage with the terms as 'fuzzy' concepts that have their own histories and geographies of use, and instead focus on drawing out the different tendencies within bioregional thought.

The first section of our paper will provide a brief interpretation of how *bioregions* and *bioregionalism* have been, and are being, pursued in ways that produce different politics and ethics. The second section then positions contemporary bioregional thought and practice in relation to key debates in geography, arguing that it offers useful interventions in geography.

Overall, we highlight how bioregional thought is shifting from a somewhat static 'ism' into a careful and active engagement with usefully fuzzy concepts that ask how best to live on Earth. In particular, the paper calls for geographers interested in questions of normative change to consider *bioregioning*. This emerging expression turns concepts about ecological boundaries, scales and socio-cultural re–inhabitation into deliberative discussions that engage with the complexities of belonging, the ethics of our engagement with more-than-human landscapes and the messiness of deliberate change.

2 | BIOREGIONALISM AND ITS (RE)INTERPRETATIONS

The roots of bioregionalism can be traced through a confluence of ideas including 1930s regionalism, 1950s conservation science, and DIY grassroots activism of the 1970s (Pfueller, 2008). Berg and Dasmann are largely credited with popularising the term through their essay *Reinhabiting California* (2015 [1977]). This essay conceptualised the bioregion as a spatial unit with ecological and cultural coherence rather than political boundaries. Bioregions are often defined through watersheds, but can be mapped through other significant geological or ecological features (Thayer, 2003).

As well as a way of seeing the Earth, bioregionalism has a normative dimension (Menser, 2013). The bioregion is understood as the scale at which we live our lives, and therefore the scale at which regenerative communities can 'take place' (Thayer, 2003, p. 3). The key strategy proposed by Berg to develop regenerative communities is *reinhabitation*. As Glotfelty and Quesnel (2015) write, 'to "inhabit" implies fitting into and being a part of a habitat, a living place composed of plants, animals, organisms, soil, water, landforms, and climate' (p. 2), and thus reinhabitation involves learning to 'live-in-place in an area that has been disrupted and injured through past exploitation. It involves becoming native to a place through becoming aware of the particular ecological relationships that operate within and around it' (Berg & Dasmann, 2015[1977], p. 36).

Reinhabitation begins with building bioregional knowledge. The bioregional quiz *Where you at?* (Charles et al., 1981) published in a special edition of Coevolution Quarterly edited by Berg and Mills, has become a foundational tool in bioregionalism. It asks questions such as 'where does your garbage go?… How long is the growing

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season?… What species have gone extinct?' (p. 1) as a way of beginning to live-in-place and making visible the degree of displacement embedded in many contemporary lifestyles.

As well as building bioregional knowledge, there is also strong focus on developing bioregional consciousness and what Wilson (1994) termed Biophilia, or a love for nature, by fostering an aesthetic appreciation of the bioregion (Ryan, 2012). This love for the particular nature of your bioregion, and sensitising to the aesthetic differences between bioregions, is thought to foster a sense of responsibility and stewardship (see for example Gilbert et al., 2009; Thackara, 2019).

Bioregionalism has been criticised in geography as 'analytically and politically misconceived in the context of global social and environmental problems and processes' (Whatmore, 2009, p. 49), due to its apparent neglect of the connections between places and the risk of environmental determinism (Olsen, 2000; Wiebe, 2021). However, in the following sections we unpack these critiques and show how they relate to one particular bioregional imaginary. We argue that *bioregions* and *bioregionalism* have long histories of reinterpretation as the movement has encountered specific locations and social movements, creating pluralities of meaning. As Lynch et al. (2012) write, 'there is no official bioregional program or ideology; rather, there is an evolving dialogue about a set of ideals and ideas continually tested by practice… and continually inflected by the particularities of diverse places and cultures' (p. 3).

In the following sections, we present some broad trends amongst these histories. Through this review, we identify three tendencies of bioregional thought in the literature: (1) an ontological tendency, (2) a critical tendency, and (3) a processual tendency. We describe these as tendencies to avoid falsely characterising sub-movements. Rather, we see them as fluid orientations of thought which thinkers move between in different times and places.

We close by arguing that contemporary expressions of bioregioning can be useful to geographers considering the role of place in our response to the need for urgent and ethical change. Equally, it speaks to the growing interest in more-than-human within the discipline (Dowling et al., 2017; Sharp et al., 2022; Whatmore, 2002), including Indigenous perspectives (Bawaka Country et al., 2015, 2016; Kimmerer, 2020).

2.1 | ONTOLOGICAL BOUNDARIES: BIOREGIONS AS A SPATIAL UNIT

The first tendency within bioregional thought is what we have termed an ontological tendency. This tendency can be unpacked through Peter Berg's conceptualisation of bioregions. He writes that the term bioregion 'refers both to a geographical terrain and a terrain of consciousness to a place and the ideas that have developed about how to live in that place' (Berg & Dasmann, 2015[1977], p. 36), and later: 'Bioregions are geographic areas having common characteristics of soil, watersheds, climate, and native plants and animals that exist within the whole planetary biosphere as unique and intrinsic contributive parts' (Berg, 2015[1983], p. 62).

In these definitions, bioregions are understood as an ontological category. This means that they are considered to be 'naturally occurring', ecologically coherent units that can be, at least to some extent, objectively spatially mapped. Alongside ecological boundaries, there is an implicit assumption that human communities are also differentiated along bioregional lines. For example, Berg and Dasmann (2015[1977]) write, 'native communities were developed expressly around local water supplies and tribal boundaries were often set by the limits of watersheds' (p. 38), and that 'Nobody would confuse the Mojave Desert with the fertile valley of Central California, nor the Great Basin semi-arid land with the California coast. Between the major bioregions the differences are sufficiently marked that people do not usually attempt to practice the Sonoran desert way of life in the Oregonian coastal area' (p. 37).

This understanding of the bioregion sets out an ontological agenda that has had a strong influence in bioregional visions and axiologies. It positions the bioregion as the primary scale at which sustainable communities should be organised (Menser, 2013). If Earth can be interpreted as a patchwork of interconnected bioregions, by re–fitting our society into the biophysical limits of these regions (through reinhabitation) we can address the challenges of sustainability from local to global scales. Whilst interconnectivity between bioregions is acknowledged in theory, practical expressions of this discourse have tended to advocate for autonomous and self-sufficient eco-locales that question the legitimacy of centralised governance (Gilbert et al., 2009), and are opposed to globalised lifestyles.

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Following this, an ontological approach to bioregionalism tends to support a strong eco-centric discourse in which there is radical equality between species, drawing on ideas from Deep Ecology (Gilbert et al., 2009). This decentres humans by proposing 'that human identity may be constituted by our residence in a larger community of natural beings—our local bioregion—rather than, or at least supplementary to "more common bases of identity"' (Lynch et al., 2012, p. 4). In practice, the ontological tendency is often expressed through an imaginary of a normative future of autonomous communities that live within limits of local resource constraints. To realise this future, the focus is placed on creating self-sufficient communities wherein consumption is limited to local material conditions, rather than relying on trade and material flows through the global economy. This is evident in projects such as the bioregional regeneration project in Barichara, Colombia, in which there are efforts to restore the watershed and build autonomous governance of the bioregion (Brewer, 2021). As Xue (2014) notes, this form of bioregional localisation also underpins many eco-village visions of future sustainability.

The ontological tendency has often become an influence that serves to 'pull' bioregional movements toward a vision of contemporary societies that conform to pre-modern landscapes, patterned across the globe at regional scales. In other ways, this has been used to establish the bioregion as the political arena for post-capitalism, in which 'the principles of bioregionalism—biocentricity, subsidiarity and extended self-reliance—form a triple lock on the accumulation of capital' (James & Cato, 2017, p. 35). In this strand of thought, generating localised bioregional economies is a way of reshaping the relationship between capital, humans and nature (Cato, 2012; James & Cato, 2017).

Much geographical criticism of bioregionalism centres around this particular bioregional imaginary. Firstly, geography has shifted from a fixed and bounded understanding of place to relational understandings (Massey, 1994; Robertson, 2018). In contrast, the ontological framing of bioregions, and the eco-local imaginary it supports, emphasises specific spatio-temporalities in which there is an ideal state of human-nature relationships that can be recovered. As Massey (1994) argues, such claims amount to a claim to power, because it can only reflect one moment in time and therefore one understanding of who and what belongs. Exclusionary discourses about belonging can be naive given ongoing and complex histories of human and non-human mobilities. At worst, this provides fodder for ethno-nationalists and fascists that take relationships between culture and place as inspiration for policies of exclusion and racial injustice (Olsen, 2000).

Secondly, where bioregionalism becomes solely focused on local reinhabitation, it risks ignoring the interactions between places which are bound up in ecological and economic systems at different scales. As Plumwood (2008) argues, encouraging a love of a singular home-place can mean that we neglect the 'shadow places' that 'provide our material and ecological support, most of which… are likely to elude our knowledge and responsibility' (p. 139). This is especially true when the particular home place happens to be beautiful, and questions of 'whose place is made better, whose worse, and what patterns can be discerned?' are avoided (ibid, p. 141).

Most importantly, through notions of reinhabitation bioregionalism has explicitly evoked a political process of 'becoming native' (Berg & Dasmann, 2015[1977]; McGinnis, 2005), which has troubling similarities to colonial histories of geography. It is a tendency that not only overlooks ethical and racial injustices involved in Indigenous and non-Indigenous claims to a place, but can result in bioregionalism itself becoming a colonising discourse that assumes settler futurity (Tuck & Yang, 2012) and erases Indigenous presence. Wiebe (2021) steps through the problems in this narrative, noting the appropriation inherent to its development: 'Indigenous people provide the paradigm for local adaptation but are relegated to forerunners rather than contemporary agents, thereby leaving it up to the current possessors of the land to reinstitute their paradigm' (p. 139). In short, there remain some strands of naivety in bioregionalisms' engagement with power that can invite people into personally fulfilling and ecologically well-intentioned attachments to a place, but that ignore the (unjust) politics and social histories of the location, and (social) ethics in the process of change.

Despite these critiques, this ontological tendency does set an agenda that seeks outcomes 'in the real world', embodying the 'think global, act local' mindset that can motivate action in a way that deliberately centres non-human outcomes. Taken positively, ontological tendencies in bioregionalism can offer useful imaginaries to consider biophysical histories and the context of the present amidst evolutionary time scales, drawing attention to more-than-human

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constituents and their rights to future landscapes. However, as outlined above, this understanding may avoid, rather than resolve, the problems of how to shift toward sustainable lifestyles if one cannot completely disconnect from the realities of complex economic and social networks that underpin modern life (Plumwood, 2008). As a result a second tendency has emerged in bioregionalism, a critical tendency which captures a series of progressive stances as social science has influenced the movement.

2.2 | CRITICAL BIOREGIONALISM: FLOWS, HUMAN CONSTRUCTS AND THE POLITICS OF BELONGING

In critical bioregionalism, strategies of reinhabitation are transformed from learning to live within your bioregion, to 'develop[ing] forms of life and production where the land of the economy (production, consumption, and service provision) and the land of attachment, including care and responsibility, are one and the same' (Plumwood, 2008, p. 148). In other words, the core strategy of critical bioregionalism is to recognise the multiplicity and spatiality of our responsibilities to the places that support our lives (Massey, 2004).

Critical bioregionalism hinges around the concept 'false consciousness of place' proposed by Australian philosopher Plumwood (2008). False consciousness occurs when people become increasingly out of touch with the material conditions that support their lives and diversity of places impacted by their consumption. Critical bioregionalism notes that in the context of global supply chains, well-meaning efforts to develop emotional attachments to our 'home place' can be naïve. The place that we live rarely coincides with the places that provide the materials for our lives. Feelings of care and responsibility to one 'home place' unwittingly driving the dematerialisation of modern life by evading the knowledge of and responsibility to the other places (Plumwood, 2008).

This critical tendency therefore has a different understanding of the bioregion. It calls for a focus on 'the ground that grows you' (Plumwood, 2008, citing Neidjie, 'Story', p. 166), rather than a singular watershed or landscape. This dissolves the bioregion as an ontological unit, but reinstates it as an epistemological one that allows us to account for all of the places and ecosystems that support our lives.

Moving away from shadows of determinism in the treatment of specific scales and regions, critical bioregionalism instead turns to the 'possibilism' that comes from engaging communities and individuals as agents who can choose whether they participate in a process of reinhabitation, opening the possible outcomes to a variety of different cultural ends and practices (Ryan, 2012, p. 84). Drawing attention to contestations and plurality that are present in socio-cultural change relates to the broad project in geography that seeks to make power visible, including challenging the separation between humans and nature that Whatmore (2002) suggests still underpins bioregionalism.

This reinterpretation of bioregional thought poses new challenges. Expanding the bioregion to all of the places that 'grow us' evokes the ideal space for action as something akin to ecological footprints. Emphasising this mode of action has strong ethical and rational justifications but raises tactical and philosophical critiques. First, these approaches have been critiqued for encouraging 'lifestyle environmentalism' which shifts responsibilities to individuals in managing consumption rather than engaging with issues of class (Huber, 2022). In doing so, it risks channelling environmental action through contemporary global economic systems rather than offering an alternative. Second, while critical bioregionalism responds to important trans-spatial issues of power across geographies, its transcendent approach to space can minimise the important psychological and cultural dynamics that situated modalities engage. For example, localising global environmental discourses and developing strong shared connections to a place have helped to empower social networks that in turn influence environmental governance (Manzo & Perkins, 2006; Newman et al., 2017). Emotional attachments to specific ecological features along with embodied experiences in place appear to be key factors in the development of pro-environmental attitudes and the transformation of environmental values (Gifford, 2011; Gifford & Nilsson, 2014; Gillard et al., 2016; Grenni et al., 2020).

Finally, while critical bioregionalism seeks to hold on to the materialism of place, the move away from physical bioregions tends to recentre human definitions of place. This posture can raise its own dilemmas given the complexity

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of socio-cultural influences in contemporary sustainability challenges. For example, it can loosen ecological specificity in the form of change being pursued. At worst this could unwittingly empower processes such as 'Shifting Baseline Syndrome' wherein pollution and degradation are normalised as communities 'forget' the long-term ecological identity of their places (Papworth et al., 2009).

The critical tendency in bioregional thought introduces its own opportunities and axiologies for change by offering valuable critiques into the dynamics of power, however it also risks losing the materiality of place that it seeks to maintain. Building on critical tendencies, a third perspective is emerging—bioregioning as a process.

2.3 | *BIOREGIONING* AS A PROCESS: WORKING WITH CARE TOWARD SOCIO-CULTURAL CHANGE TO FIND COMPROMISE, CONTESTATION, AND PROGRESS

A final tendency we identify within contemporary bioregional thought is the newest, with the first references appearing in the mid-2010s (Thackara, 2019; Tyler, n.d.). Adopting the more-than-human concern of ontological tendencies, and thinking beyond a singular life place as prompted through critical tendencies, *Bioregioning* (as a verb) is being mobilised to emphasise the *process* of change and becoming (Bioregional Learning Centre, n.d.; Bioregioning Tayside, n.d.; Thackara, 2019). This tendency intersects with contemporary ideas in the field of socio-ecological systems research (Preiser et al., 2018) for sustainability transitions and transformations (Mancilla García et al., 2020; Moore et al., 2014). It also works to politicise bioregionalism by reducing what is predetermined and opening up more-than-human relationships to negotiation.

Bioregioning differs from previous interpretations of bioregional thought by its focus on the 'doing' of bioregional work and the complexities this raises, rather than pursuing a set pathway or vision for change. This shift comes in part due to the ways that practitioners are adopting systems thinking in their strategies for change. In systems thinking, change is considered within the context of general systems dynamics (Gunderson & Holling, 2002; Meadows, 2009; Sterman, 2001) with relationships of cause and effect appearing through unexpected and non-linear complex mechanisms. In drawing on these ideas, the imaginary of bioregions as static landscapes is rejected. Instead, bioregions become dynamic and subject to ongoing change—they are always in the process of becoming.

Equally, the significance of the bioregion is somewhat reduced. Drawing on concepts from socio-ecological systems research (Folke, 2006; Folke et al., 2011; Gunderson & Holling, 2002), the bioregion is repositioned as one level of a spatially-nested imaginary of Earth's complex and adaptive socio-ecological systems (Wahl, 2016). Instead of understanding bioregions as the only scale at which regenerative communities can organise (Thayer, 2003), the bioregion becomes a scale that offers strategic benefits for tackling environmental challenges, but one that exists amongst complex socio-cultural systems that operate on multiple spatial and temporal scales (Wahl, 2016, p. 229).

This reinterpretation also seeks to repoliticise the bioregion. As Tyler (n.d.) writes, bioregioning is the 'act of bringing your bioregion into existence'. Rather than treating boundaries of place and who and what belongs as settled matters, it opens up questions for negotiation. Bioregioning therefore draws on critical tendencies in unpicking power relations that shape representations of place and produce particular more-than-human relationships (Plumwood, 2008). However, it then invites a collective remaking of the bioregion, with humans nurturing systems and engaging in the ongoing process of 'co-becoming' with place. In an age of systemic climate change, this deliberative space for uncertainty becomes an importantly pragmatic starting point for discussing progress and future visions.

A processual tendency is accompanied by a growing ambivalence about whether proponents identify with bioregionalism by name, or by practice. Through the term bioregioning, more bioregionalists appear to be finding, supporting, and co-creating emergent and place-reflective movements specific to their geographies. This can mean an openness to indigenous ontologies that have similar relational understandings of place (ross, 2019), such as the Australian Aboriginal concept of Country (Bawaka Country et al., 2015) or the Scottish Gaelic term Dúthchas (Ní Mhathúna, 2021). Within this, there is the recognition that bioregional ideas and practices were never 'new', and that such understandings have been erased through various forms of oppression including colonialism and capitalism.

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The shift from bioregionalism to bioregioning is accompanied by a shift in strategies of reinhabitation. Reinhabitation becomes an active process of co-creating healthy bioregional systems. The influence of systems thinking produces new emphases, for example, the identification of 'leverage points' (Meadows, 2009) as ways to align ecological and social systems with sensitivity and care that are considerate of complex interactions over space, time and dynamics of change at individual and collective scales (Wahl, 2016, p. 229). Leverage points can influence everything from material flows and environmental governance to subjective experiences that shape worldviews.

Developing bioregional knowledge plays a central role in reinhabitation. For example, this is expressed is through bioregional 'learning journeys', which are processes of collective learning and civic participation taking inspiration from Indigenous-led learning journeys (Poelina et al., 2022; Wooltorton et al., 2020). This learning helps to bring the bioregion into existence in people's minds and supports them in conceptualising bioregional systems. Another example is the call for bioregional 'learning centres', which compile bioregional knowledge, and coordinate formal and informal learning networks (Bioregional Learning Centre, n.d.; Brewer, 2021).

Rather than a playbook, bioregioning emphasises an adaptive and open mindset in how change is pursued and what complexities are engaged. Wahl (2016), for example, promotes a mindset of active exploration of interdependencies between human and environmental systems as a way to enact productive change: 'In a continuously changing, complex system… "Living the Questions Together" and regionally focused design-based conversations about how to nurture systemic health can promote this constant learning' (2016, p. 154). Bioregioning tends to draw freely on tools and ties to both critical bioregionalism and ontological frames, using them to offer different perspectives for deliberative discussions about change across scales and within places. Ali-Khan and Mulvihill (2008) meanwhile, note the use of maps as discursive objects in an approach that reflects a bioregioning modality: 'a bioregional map, which conveys the story of a place, its history and present, communicated through a very collaborative process of community dialogues and experiences, is an excellent example of a tool that grounds the lofty principles of bioregionalism into a practical, well-recognised method' (p. 1984).

With its emphasis on the interconnectivity of systems and an appreciation of the unexpected and unintended outcomes that change often produces, a bioregioning tendency offers a promising bridge between strategic ideas and a deliberative engagement with the socio-ecological complexity and ethical dilemmas which pervade a response to sustainability challenges.

Bioregionalism, as we have shown, has continually shifted across time and space, often following broader trends in the social sciences. The following section argues that contemporary articulations of bioregionalism can make constructive interventions in geography.

3 | INTERVENTIONS IN GEOGRAPHY

Through presenting these different tendencies we have shown that geography's dismissal of bioregional ideas is based largely on the ontological tendency in bioregionalism. While these critiques are valid and important, we argue that the ways in which bioregional ideas have been reinterpreted, particularly through the processual tendency, now offer useful interventions in geography. Below, we outline three ways in which bioregional thought can contribute to geography.

3.1 | Materiality, agency and place

Studying human-environment relationships is geographers' raison d'être. This has become even more urgent with concepts such as the Anthropocene (Crutzen, 2006), which position humans as a geophysical force (Steffen et al., 2007) and pose the question of how best to live on Earth (Castree, 2014). Calls for more-than-human geographies (Dowling et al., 2017), hybrid geographies (Whatmore, 2002), and now critical physical geographies (Sharp

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et al., 2022) reflect the need for developing frameworks that can accommodate the agency of non-humans and bridge nature/culture dualisms. Relatedly, thinkers such as hooks (2009) have called attention to the ways in which places are both physical and social, and that place-making is not just human.

In its various expressions, bioregional thought encourages us to centre the material conditions that support our lives, offering new ways to understand how people have co-evolved with landscape and non-humans. It also engages with the sensuous experience of place and landscapes (Ryan, 2012). Whether it is to theorise the connection between 'a rich, deep connection with land and place' (Cameron, 2001, p. 18) and ecological outcomes, which as Robertson (2018) notes is currently unclear, or to understand non-human agency, bioregionalism provides a productive site for geographers interested in materiality, agency and place. Crucially, empirical research on contemporary bioregional thought and practice can also give geographers ways of understanding how people are conceptualising more-than-human worlds outside of academia, and across geographies.

3.2 | Politics, ethics and place

Following on from materiality and agency, bioregionalism offers opportunities for geographers concerned with questions of politics, ethics and place. Bioregionalism goes beyond recognising that our worlds are more-than-human, to asking the political question of what relationships are needed to respond to global and local challenges (see Kimmerer, 2020, for an Indigenous assessment of bioregionalism). Bioregioning, the processual reinterpretation of bioregionalism, provides new approaches to this by foregrounding the practices that co-create healthy socio-ecological systems. This inherently converges with calls within geography to 'shift relationships of power away from an (Anglo) human-centred dominance towards a reconceptualisation of a co-emergent world based on intimate more-than-human relationships of responsibility and care' (Bawaka Country et al., 2016).

This can also intervene more specifically into conversations about care within geography. Geographers are beginning to engage with care not just as a social practice, but through a 'feminist ethics of care', in which care is conceptualised as a mode of relating to others (Middleton & Samanani, 2021). For Tronto and Fisher (1990) care 'includes everything that we do to maintain, continue, and repair our "world" so that we can live in it as well as possible" (p. 40). Bioregioning explicitly draws attention to such actions, and its mode of more-than-human co-creation could provide new contexts for theorising an ethics of care.

Yet care is often equated with the local and familiar, and a fundamental question remains of how care can 'move beyond the interpersonal, the near and familiar, to care for distant others?' (Lawson, 2007, p. 6). This is a fundamental tension within bioregionalism that the processual tendency of bioregioning is beginning to unpack, making it a useful empirical case for geographers.

Lopez (2020) has drawn attention to opportunities for geography to draw together concepts of ecological stewardship and community geography, engaging with topics of scale in how psychologies of attachment engage with political movements and socio-ecological outcomes. More broadly, understanding how environmental movements navigate politics and ethics in their change strategies is becoming an increasingly salient question given the scale and urgency of change required to respond to global environmental crises and the ongoing change to social contexts from the impacts of global change. What makes bioregionalism particularly interesting for geographers is that the different spatial imaginaries of the bioregion refract the ontological, axiological and ethical dimensions of this politics, making them visible.

3.3 | Acting in place

Within all tendencies of bioregional thought, there is a call to action. Beyond just exploring how people and bioregions have co-become, bioregionalism emphasises the importance of generating tangible ecological outcomes. This

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often means acting within the messiness of place, experimenting with solutions, and opening up (rather than answering) difficult questions of ethics, equity and justice. For geographers, this provides a 'way in' to understand how grassroots community initiatives navigate problematic histories and tendencies within their own thought, as well as how they experiment with prefiguring regenerative futures (Pickerill, 2021).

Geographers have also recognised that social change happens in specific and concrete places (Gibson-Graham, 2006), and have asked what spatial concepts are required for economic, social and environmental transformation (Schmid, 2020). Bioregional thought also offers an entry point for understanding the spatiality of transformation as each tendency produces different spatial imaginaries and strategies. The processual tendency of bioregioning in particular engages with scale as a spatial imaginary that makes interlocking socio-ecological systems visible. Bioregionalism therefore provides fertile ground for geographers considering questions of how we act in place for urgent and ethical change.

4 | CONCLUDING REMARKS

This paper has resituated bioregionalism as a way of seeing the world and a set of values about how to act within it which is continually being reinterpreted. We have identified three key tendencies of bioregional thought based on a spectrum of imaginaries of the bioregion entangled with different axiologies. This first tendency, the ontological tendency, generates an eco-local approach that is oriented towards re-patterning of civilisation through autonomous, self-sufficient communities (Davidson, 2009). This provides useful engagements with the materiality of place and the context of non-human constituents but worrying colonial discourses persist. The second tendency, critical bioregionalism, calls for a greater consideration of power whilst maintaining the materiality of place. This offers new starting points for considering power in bioregionalism, but its capacious understanding of the bioregion risks shifting from collective action to individual action and decentring the agency of the non-human. The final tendency, the processual tendency that turns bioregionalism into bioregioning, refocuses attention on *doing*. Taking on new influences from systems thinking it leans into complexity rather than aiming to resolve it.

Through drawing attention to its heterogeneity, we have shown that geographers may have been premature in rejecting bioregionalism. We have highlighted three areas in which we see the potential for bioregionalism to contribute to geography: first, in conversations around materiality, agency and place; second, in relation to politics, ethics and place, and finally in questions of how we act in place to respond to the need to urgent and ethical change. In particular, we have highlighted that bioregioning, as a processual reinterpretation of bioregional ideas, is worthy of further empirical investigation and critique.

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