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Nature at the Heart of Ecological Transition: Five Ideas to Allow a Plural, Reflexive, Intercultural, Transnational, Ecological, and Dynamic Citizenship

Fátima Alves ^{1,2,3,*,†}, Diogo Guedes Vidal ^{1,2,*,†}, Giovanni Allegretti ⁴, Edmundo Gallo ^{2,5}, Hermano Albuquerque de Castro ³ and Helena Freitas ²

- Department of Social Sciences and Management, Universidade Aberta, 1250-100 Lisbon, Portugal
- Centre for Functional Ecology—Science for People and the Planet (CFE), TERRA Associate Laboratory, Department of Life Sciences (DCV), University of Coimbra (UC), 3000-456 Coimbra, Portugal; edmundo.gallo@fiocruz.br (E.G.); hfreitas@uc.pt (H.F.)
- Sergio Arouca National School of Public Health (ENSP), Oswaldo Cruz Foundation (FIOCRUZ), 21041-210 Rio de Janeiro, Brazil; castro@ensp.fiocruz.br
- ⁴ Centre for Social Studies, University of Coimbra, 3000-995 Coimbra, Portugal; giovanni.allegretti@ces.uc.pt
- ⁵ Observatory of Sustainable and Healthy Territories of Bocaina, 23970-000 Paraty, Brazil
- Correspondence: fatimaa@uab.pt (F.A.); diogo.vidal@uc.pt (D.G.V.)
- [†] Fátima Alves and Diogo Guedes Vidal equally contributed to this paper and, therefore, are both first authors.

Abstract: To change the course of traditional citizen participation towards ecological transition (ET) and to promote a sustainable transformation of social systems, it is necessary to implement a transformative policy that is based on a deep understanding of the territories in their biophysical, socioeconomic, and cultural dimensions. This policy should incorporate and articulate a plurality of knowledge, technologies, powers, and local positions. In this paper, we propose five ideas inspired by initiatives and examples from around the world to promote plural, reflexive, intercultural, transnational, ecological, and dynamic citizenship, which may foster a fair and inclusive ET. This scenario aims to envision alternative modes of social organization to anticipate ecologically and globally equitable futures.

Keywords: European Green Deal; nature agency; ecological transition; citizenship



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1. Introduction: A (Re)call for the Agency of Nature

There is something infinitely tranquillizing about the sheer agency of nature or even the guarantee—until when?—that "dawn comes after night, and spring after winter", as Rachel Carson stated in her book *Silent Spring* (Carson 2000). If taking as an example a storm, nature is a powerful force that modifies the landscape and shapes it for its purposes. Thus, nature is an active agent, constantly shaping and reshaping the world around us. Sometimes, this shaping is gentle and barely noticeable, as when a plant grows slowly over time (Roque et al. 2021). Other times, it is violent and destructive, as when a hurricane tears through a forest (Lawrence 2016). Nevertheless, through it all, nature is constantly working to create and maintain a balance in the world of relations (Goodall and Hudson 2015; Horn et al. 2021; Moore 2015).

Despite this recognition, nature has historically often been thought of as a passive entity (Alves and Vidal 2024; Lahl 2019), something that is acted upon by humans rather than something that takes action itself. Often, it is seen as something outside of society, external, that can be observed and appreciated but not necessarily interacted with (Aldeia and Alves 2019; Vidal et al. 2024). In other cases, the human perspective elaborates on ambiguous relations with nature as an agent, as happens in some mainstream definitions of "the concept of dwelling", imagined as something that—at the same time—"reveals" the outside world and offers a refuge that protects us from it, through the shaping of a space in

which natural phenomena are condensed and emphasized, visualized as "environmental forces" but made controllable (see Norberg-Schulz (1985)). These views seem to neglect the agency of nature and the fact that it is an active participant in shaping the world and its dynamics. The view of nature as a carrier of "agency" is not new. Since time immemorial, the world has been considered alive and purposeful even before the ancient Greeks. The forces of nature were often personified by giving them human characteristics and attributing them with the power to affect the course of events (Chemhuru 2017). This also happens in many Indigenous cultures and animist religious perspectives, where nature is not something to be conquered or exploited but something with an agency to be respected and to live in harmony with (Salmón 2000). More than that, for these cosmologies, nature is an inseparable part of life, the planet, individuals, and societies (Acosta 2019; Krenak 2019).

As described in the European Green Deal (European Commission 2019), ecological transition (ET) entails a transformation of the social, economic, and productive systems, as well as a drive for technological innovation and a variety of measures in several areas such as economy, industry, raw resources, water, waste, energy, and many others (Rotondo et al. 2022). However, why is recalling the agency of nature important in ET? First, the concept of "interdependence" between natural, economic, cultural, and social phenomena lies at the heart of ET, and it is critical to success in the path to sustainable development. Second, and in line with Nash (2005), we believe that human agency—as the capacity of an actor to act in a given environment—cannot be strictly separated from the "environments" in which that agency arises: the territories. Also, we are tempted to claim that human beings are not the only "engine of history". Instead, the interdependencies of all living beings, human and non-human, create the infinite possibilities of coexistence and are, therefore, the agents of history (Bragança 2023). Finally, as Mignolo (2003) points out, we are dealing with a pre-existing condition: the agency of non-humans, who have been subjected to a process of subtraction of their agency and the erasure of non-hegemonic cultures during modernity. However, they still resist.

Against this background, the need to reframe the relationship between humans and non-humans by reconceptualising the concept of nature, making it less exclusionary to include humans and going beyond the management of natural elements, is fundamental to understanding how societies interact with and understand the "natural world" and what underlies this separation and why it needs to be transformed. It is about the values, norms, and institutions that shape our relationship with non-humans in terms of agency and moral recognition and how these can be used to support more democratic and sustainable forms of development through a new way of being part of this world, a new citizenship, global citizenship. The idea of "new citizenship" has become a crucial paradigm for understanding how citizens contribute to ecological transformations. The idea of "new citizenship" places more emphasis on multi-level, participatory involvement in environmental governance than traditional models of citizenship, which tend to focus on the rights and responsibilities of individuals within national borders. This broadened definition of citizenship links grassroots initiatives with broader national and international governance frameworks and includes localised initiatives such as citizen assemblies and cooperative resource management. Ecological citizenship, which advocates for a fundamental change in the way people interact with their environment and participate in decision-making processes, is best represented by these actions (Alves et al. 2012; Dobson 2007). At the local and global levels, participatory governance—particularly through citizen-led assemblies and resource management programmes—is an essential tool for ensuring that ecological principles are incorporated into policy frameworks (Bussu et al. 2022). The promotion of global ecological citizenship, which aims to reinterpret the role of people in environmental governance as both citizens and local communities and guardians of the global commons, is based on this concept of new citizenship, which should also be applied to non-humans.

In this paper, we propose five ideas, inspired by initiatives and examples from around the world, to promote plural, reflexive, intercultural, transnational, ecological, and dynamic citizenship that can foster a just and inclusive ET. This scenario aims to envision alternative

modes of social organisation to anticipate an ecologically and globally just future. It also explores the central role of institutional frameworks—both formal and informal—in promoting participatory governance in the context of ecological transitions. Our aim is to understand the potential and challenges associated with incorporating ecological principles into local and global governance by analysing how these frameworks relate—or fail to relate—to the ideals of sustainability and interdependence.

2. The Global Dimensions of Ecological Transition and the Need for a New Citizenship

Addressing complex socio-ecological issues implies recognising that they transcend space, its artificial borders, time, and species. With this, we believe that any proposal of transformative policy aimed at addressing these challenges would benefit from adopting a transnational, but also a multi- and intercultural, perspective that also tends to be a plurinational one; this is significant when the concept of nation is declined in terms of "imagined political communities" (Anderson 1983, 1991; Mylonas and Tudor 2023), which also embeds a specific set of relations with nature and non-humans, and narratives, discourses and symbolisms that refer to them (Appadurai 1990, 1996, 2003; Bhabha 1990). Moreover, we can learn and apply the lessons from the territories at this scale.

Such a perspective does not hide the socio-cultural, economic, and environmental specificities of different territorial contexts but requires anchoring to the construction of an "ecology of knowledges", emphasising that the cross-boundary impacts of environmental degradation demand a shared responsibility and a collective effort to respond to them. The latter—as described by authors like Mignolo (2003) or de Sousa Santos (2007, 2009)represents a way to shift away from the dominance of Western-centric and hierarchical knowledge systems and epistemic totalitarianism (Shiva 1993) towards recognition and incorporation of diverse knowledges (including those generally marginalized or side-lined as subaltern systems) that emerge from different cultural, social, and geographical contexts. While acknowledging the intersubjective dimension, as the trans-scale and trans-temporal aspect of knowledge, this "ecology" is not only a pre-requirement for nurturing social justice (that cannot occur without a global cognitive justice) and generating forms of "inter-knowledge" or "solidarity knowledge", but can also generate a different way of conceiving harmony with nature and the recognition of its agency beyond the traditional power dynamics of anthropocentrism. The ecology of knowledges posits "a multiplicity of epistemic standpoints that together form a rich and diverse landscape of understanding" and constitutes "nodes in a complex web of interconnectedness". This approach has the opportunity to also value a series of knowledge systems that perceive the relations between nature and humankind in ways that are different from the traditional extractivist approaches that characterize the majority of mainstream socio-political and economic systems that have been dominating the Anthropocene.

Taking the Rights of Nature (RoN) and Climate Change (CC) as examples, it can be assumed that both operate on a global scale, and their impacts are felt by communities worldwide. Nature, as an active agent that transcends geographic and political boundaries, shapes our world on a global scale (Nash 2005); the consequences of CC, deforestation, and biodiversity loss are not confined to specific nations but reverberate across continents and affect communities worldwide (Alves et al. 2020). Therefore, if a fair and equitable ET is to be pursued, it cannot be achieved through isolated, nation-centred approaches alone, and tackling the overcoming of different planetary boundaries (Richardson et al. 2023) cannot even be imagined as a feasible mission of a single mainstream global perspective; rather, it requires dialogue (often tense dialogue!) between different epistemic and cultural standpoints.

If reaching a fair and equitable ET requires a transnational framework that recognises the interdependence of nations, socio-cultural visions, and diverse ecosystems, the need to recognise transnational citizenship emerges based on the principle that socio-ecological issues are global and require cooperation and solidarity across borders. This kind of citizenship involves the sharing of knowledges, best practices, and resources between

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nations (as well as an active interaction between supranational organisations and networks) to address common ecological challenges. However, it also requires abandoning what some authors have defined as liberal-democratic Westphalian (LDW) citizenship (Purcell 2003), which is linked to the idea that all political loyalties must be hierarchically subordinate to one's nation-state membership (Hettne 2000). As Purcell (2002) has put it, rescaling political community and membership in the direction of new forms that can be closer to a global-wide interpretation of the "Right-to-the-City" principle imagined by Henri Lefébvre (where "inhabitance" and the fact of being a producer of territorial space are the central factors for recognising people's right to citizenship) "may be more possible now than in the past": and this is not only because "the hegemony of national-scale political and economic organization is becoming unstable as a result of global political-economic change", but also because "identities are proliferating", especially in the Global North-Western core areas of the world economy, while "scalar instability" also dominates the changes in the natural environment, pushing new waves of internal and global displacements and migrations (Ferreira Fernandes et al. 2024). Furthermore, the increasing recognition that in present times the right to participation gains substantive centrality (in parallel to the growing crisis of perceived legitimacy and authoritativeness of many institutions of the representative democracy) strengthens the need to reinvent citizenship on different basesonce nation-state/Westphalian political membership and national identity are no longer a valid dominant frame for political life—and for delegation of individual and collective responsibilities to traditional hegemonic forms of governing.

Such a need for new forms of citizenship—based on the valorisation of the concepts of participation and "inhabitance"—undoubtedly implies a different view of other beings that populate the planet, in the direction of what can be defined as a "more than human turn" (Grusin 2015). This perspective is taking root in the social sciences but is practically absent from the economic debate; moreover, the concept is fragile and scattered in the political debate because the majority of our democracies still find it difficult to combine a challenge to anthropocentrism with the recognition that since the problems facing humanity today are intimately linked to the fate of more than human beings, they cannot continue to be structurally excluded from democratic horizons (Alves et al. 2023; Vidal and Alves 2024). To understand the intersection of ecological thinking and participatory governance, this paper draws on the work of Dryzek (2000), particularly his concept of discursive democracy, which emphasises the importance of public deliberation in environmental governance and provides a theoretical basis for integrating diverse knowledge systems. Ostrom's (1990) work on common pool resources highlights the potential of decentralised, community-driven governance models to promote ecological sustainability.

Indeed, today, there is an urgent need to recognise the combined climate and natural crises as a global health emergency, interconnected and inseparable, as the response to these crises is currently fragmented and they are treated as separate issues (Abbasi et al. 2023). Nevertheless, it is also essential to be open to new epistemic alternatives, expanded ways of living together, and new ways of doing and thinking about these issues. It requires a shift in how we perceive and relate to the whole web of species on Earth. This shift transcends the boundaries of individual nations and requires a transnational moral recognition of non-human entities (Donaldson et al. 2021).

3. Methodological Approach

The main objective of this research was to use the data already available as a starting point to formulate five ideas that attempt to rethink citizen participation in ET. These principles were derived from an analysis of various national and international projects that integrate plural ecological knowledge with the aim of promoting a more inclusive and sustainable transformation of social systems. These initiatives offered the basis for conceptualising new modes of ecological citizenship—plural, reflexive, intercultural, transnational, ecological, and dynamic—that can support a fairer and more equitable ET. Our involvement in the Horizon 2020 project "Phoenix: The Rise of Citizens' Voices for a Greener

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Europe" (PHOENIX 2022), which entails implementing 11 pilot projects throughout Europe to test democratic innovations in the framework of the European Green Deal, influenced our approach. Participation in the Phoenix project required re-evaluating socio-ecological participation models and identification of examples of initiatives in collaboration with local partners. These initiatives were selected not only for their relevance to ecological transition but also for their ability to provide illustrative examples that helped us explore and understand the behaviours, missions, and ideals presented in the context of citizen engagement in ET.

The methodology used in this study combines qualitative data analysis with a comparative case study approach. This approach is particularly effective for exploring complex, interdisciplinary issues such as ecological citizenship and ecological transitions, where understanding the practical application of theories in different settings is essential. It allows patterns to be identified across different case studies while taking into account the unique context of each initiative. Flick (2022) highlights that comparative case studies using publicly available data can be highly effective in social science research, particularly when the research aims to understand how theories are manifested in practice in different settings.

3.1. Initiative and Example Selection and Data Collection

The need to comprehend various ecological projects and how they support inclusive, sustainable ET guided the selection of initiatives and examples. As a practical and targeted approach to obtaining information, we looked to publicly accessible resources, particularly the official websites of essential programs. These websites serve as organisations' primary means of disseminating their missions, values, and actions to a worldwide audience. As such, they offer a wealth of information about the public goals they have for themselves, as well as the tactics they employ to include local and international communities in ET.

Using publicly accessible material and information disseminated via various platforms, we analysed how every initiative presents its perspective on sustainability, participation, and citizenship. This methodology allowed us to compare different initiatives in different geographical and cultural contexts, helping us to gain a deeper understanding of the practical application of plural, reflexive, transnational, ecological and dynamic concepts of citizenship. The analysis of these initiatives was based on the belief that ecological citizenship is a multidimensional concept, with each dimension providing critical insights into how communities can navigate and participate in ET. In addition, according to Bryman (2016) and Dias et al. (2021), the use of publicly available resources allows researchers to collect authentic, real-time data without the bias or limitations that can arise from selective sampling or private sources.

Several factors led to the choice to concentrate on these initiatives' websites, which are accessible to the general public. First, these websites offer comprehensive insights into the public narratives and self-representations of each endeavour, making them a trustworthy and readily available source of information. The web pages clearly show how these efforts seek to engage with wider societal and environmental issues, which is central to our research on how ecological citizenship is expressed and practised in the public sphere. In addition, the websites detail the strategic aims of the programmes, particularly in relation to communication, community engagement, and their compatibility with international frameworks such as the Green Deal. Secondly, due to the exploratory nature of this research, this method allowed us to effectively capture a wide range of projects in different settings and geographical areas. The use of websites provided a standardised format for data collection, which allowed us to methodically compare initiatives across regions. We developed a representative matrix to capture how these initiatives operationalise new forms of citizenship in response to ecological and socio-political concerns. This matrix was based on the five guiding principles of ecological citizenship that are central to our analysis.

Lastly, websites can link regional efforts with more extensive international movements. Numerous projects that we looked at participate in international discussions around ET and operating locally. Their web presence frequently showcases international partnerships,

which are crucial to comprehending how ecological citizenship transcends national borders. For instance, Transnational Ecological Citizenship closely aligns with the Transition Towns Movement's emphasis on low-carbon futures and grassroots organisation. Indigenous land management practices in Australia foster plural and reflexive citizenship by emphasising different knowledge systems. In addition, using publicly available data allows for transparency and reproducibility, two key components of scientific validity. By using publicly accessible websites, we ensure that the data and our analysis are open to scrutiny, allowing others to replicate or build on this study. This is in line with the principles of open science and data transparency, which are increasingly recognised as essential to ensuring the credibility and scientific value of social science research.

The initiatives we studied, such as the global Via Campesina network, the Transition Towns Movement in the UK, and Indigenous land management in Australia, were selected for their innovative democratic processes and their ability to communicate ecological goals. We recognised that the commitments and behaviours promoted by each initiative require an in-depth understanding of their public documentation, which we then mapped onto our analytical matrix. This matrix was designed to capture key aspects of each case, including location, a synopsis of key activities, and alignment with the five guiding principles of ecological citizenship central to our research.

3.2. Matrix Composition and Data Analysis

The data collected from the websites and the projects were synthesised and organised into a matrix based on the framework proposed by Dryzek (2000) and Alves et al. (2012). The matrix was designed to classify each initiative according to the following essential dimensions, which are in line with the principles of ecological citizenship:

- The initiative's example of geographic location aids in placing it in its socio-cultural and environmental context;
- Description: A succinct synopsis of the initiative's main objectives, activities, and ecological targets;
- New dimensions of citizenship: How each situation complies with the new ecological citizenship's five guiding principles, as shown in Table 1.

nature's rights.

Institutional frameworks: Mexico's

community-based forest management

that is responsive to local environmental changes.

Key Idea Institutional Framework Description Institutional frameworks: Brazil's Acknowledges multiple cultural and Intercultural citizenship environmental policies for Indigenous ecological perspectives in governance. and traditional communities. Institutional frameworks: Citizen Encourages self-awareness and critical assemblies in Ireland, integrating local Reflexive citizenship thinking in environmental engagement. ecological knowledge in national policymaking. Institutional frameworks: EU Green Deal Involves cross-border cooperation and Transnational citizenship and international climate agreements alignment of policies across nations. (e.g., Paris Agreement). Institutional frameworks: Bolivia and Focuses on the duty to protect the Ecological citizenship Ecuador's constitutional recognition of

environment and non-human entities.

Adapts governance structures to

changing ecological and social contexts.

Dynamic citizenship

Table 1. Summary of key ideas and institutional frameworks.

This matrix provides a framework for comprehending the conceptualisation and implementation of ecological citizenship in various initiatives. It also offers a methodical approach to examining the connections between national and local initiatives, emphasising varied communities' roles in advancing ecological transitions.

Our analysis of the data from these initiatives and examples enabled us to distil and put forth five main ideas that can direct transformative policy. In order to enable a long-lasting transformation of social systems, these theories address the necessity of articulating a multiplicity of knowledge, technologies, powers, and local viewpoints in a cohesive fashion. Our conceptualisation of plural, reflexive, intercultural, transnational, ecological, and dynamic citizenship was informed by the initiatives that provided real-world examples of how communities deal with ecological difficulties in their areas. In summary, examining these initiatives' examples served as a tool to create a set of guidelines that can support an equitable and welcoming ET rather than being an end in and of itself.

4. Results and Discussion: Five Pivotal Ideas

It is acknowledged that ET is a concept that has received several criticisms, such as the tensions underlying the need for a just transition (Bouzarovski 2022), the fact that it often risks exacerbating social and labour inequalities (Velicu and Barca 2020), and its fragility (Chiti 2022). Despite the importance of these criticisms, in this paper, we argue that the complexity of this transition implies the need to (re)imagine new models of deliberation and participation since the traditional ones are insufficient to address the current socio-ecological crisis. In this sense, we propose five ideas based on examples of initiatives from around the world, which should be understood as a catalogue of practices in progress that can serve as a source of inspiration (Table 2), illustrating the diverse ways in which local communities and territories are working to promote plural, reflexive, transnational, ecological, and dynamic citizenship. By empowering local communities, recognising diverse perspectives and knowledge systems, and promoting sustainable practices, these initiatives provide a valid starting point for imagining a more just, equitable, and sustainable future for all.

Table 2. Catalogue of practices in progress that can operate as a source of inspiration to illustrate the five principles to allow a plural, reflexive, transnational, ecological, and dynamic citizenship towards ecological transition.

Group	Case Study	Geographic Location	Brief Description	New Citizenship
Community-based ecological governance	FCT+10—Fórum das Comunidades Tradicionais	Brazil	Advocates for the preservation of traditional communities and natural resources, emphasizing the importance of cultural practices like artisanal fishing and agroforestry.	Plural, intercultural, reflexive, transnational, ecological, dynamic
	Community Forest Management	Mexico	Local communities manage forests in alignment with national conservation policies to reduce deforestation and promote sustainability.	Dynamic, intercultural, e ecological, plural
	Ecoaldea Atlántida	Uruguay	A sustainable community focused on ecological living, sustainability, community-building, and participatory decision-making to create a harmonious relationship between people and nature.	Plural, reflexive, ecological

Table 2. Cont.

Group	Case Study	Geographic Location	Brief Description	New Citizenship
	Transition Towns Movement	United Kingdom	A grassroots movement promoting low-carbon futures through local actions and transnational knowledge-sharing and collaboration with municipalities.	Transnational, dynamic
Transnational and collaborative movements	La Via Campesina	Global	The international movement for food sovereignty, social justice, and ecological sustainability, advocating for small-scale farming and the rights of marginalized communities.	Plural, reflexive, ecological
	Forest Stewardship Council	Global	A global certification system promoting sustainable forest management through collaboration between local communities, businesses, and governments.	Transnational, ecological
Indigenous and collaborative environmental stewardship	Indigenous land management	Australia	Indigenous land management practices that integrate ecological sustainability with Indigenous knowledge and encourage collaboration with non-Indigenous communities.	Plural, intercultural, ecological, transnational
Citizen participation in ecological governance	CPCCS (Council for Citizen Participation and Social Control)	Ecuador	A government body established to promote citizen participation, transparency, and social control, with a focus on environmental issues such as rural participatory budgeting.	Plural, ecological
Climate change and policy advocacy	Knoca (Knowledge Network on Climate Assemblies)	Global	A network focused on improving climate assemblies' design, implementation, and impact through knowledge exchange, aimed at strengthening climate policies globally.	Transnational, reflexive, ecological

These principles are interdependent and interconnected, and they can help to (re)design a new way of participating in ET (Wahl 2016), where no place and no one, human or non-human, is left behind, and where all forms of knowledge and power are seen as agents of change within a framework of plurality. These principles are based on Dryzek's (2000) idea of "discursive citizenship", where the author stresses the need for such citizenship and describes it as

"... pluralistic in embracing the necessity to communicate across difference without erasing difference, reflexive in its questioning orientation to established traditions (including the tradition of deliberative democracy itself), transnational in its capacity to extend across state boundaries into settings where there is no constitutional framework, ecological in terms of openness to communication with non-human nature, and dynamic in its openness to ever-changing constraints and opportunities for democratization". (Dryzek 2000, p. 3)

This citizenship is based on valuing multispecies and inter-species communication and plural knowledge (Tsing 2015). It represents an ecological shift in which the moral recognition of non-humans replaces the superiority of the human species.

4.1. Recognizing Nature and the Environment as Socio-Cultural Constructions

The first principle highlights the socio-culturally constructed dimensions of nature and the environment (Eder 1996) and political ecology (Escobar 1999), which contend that nations' attitudes towards and interactions with nature significantly impact the environment. It emphasises the need to consider this as a critical idea for promoting transformative socio-ecological change, especially in times of poly-crisis (Morin and Kern 1999) with socio-ecological, political, and economic dimensions. This means understanding the production of their different socio-cultural meanings, how societies deal with them, and the extent to which different understandings can influence the implementation of a profound socio-ecological change. This principle emerges from the data analysis, where we found that different communities have different socio-cultural interpretations of nature that influence their environmental governance strategies. For example, Indigenous and local communities that integrate cultural narratives into their environmental practices (e.g., the FCT+10—Fórum das Comunidades Tradicionais in Brazil) demonstrate the importance of recognising nature as a socio-cultural construct in addressing contemporary ecological crises. Analysis of these case studies shows that democratic processes become more inclusive and sustainable when such culturally specific views are incorporated into ET strategies, particularly those that value Indigenous knowledge systems and local environmental practices. The recognition of nature as a socio-cultural construct serves as both a conceptual basis and a guiding principle for institutional governance frameworks. FCT+10 in Brazil illustrates how participatory processes embedded in formal legal protections and informal community practices reinforce this principle. Brazil's constitutional framework for recognizing Indigenous and traditional community land rights creates legal mechanisms for participatory governance (Pereira 2021) that enable communities to assert their agency in ecological decision-making processes. Such institutional recognition underscores how local governance systems can operationalise participatory citizenship and promote democratic processes that reflect diverse human and non-human relationships with nature.

The contemporary world confronts us with unprecedented socio-ecological transformation processes that threaten life on Earth as we know it, hindering both humans and non-humans and making global societal and human collapse, and even extinction, a very likely and under-explored possibility. How can we design new participatory models that integrate the socio-cultural reality of each territory and its relationships with nature? How can ET be addressed without considering the web of relationships between humans and non-humans? These are the questions that help to identify the following principles. Democratic processes become more inclusive when these culturally specific views of the environment are incorporated into ET strategies because local and Indigenous voices can develop policies that align with their values (Agrawal 1995). This strategy also advances sustainability by guaranteeing that ET activities align with regional cultural customs, which typically encourage more equitable and reciprocal human-nature relations. Global ET frameworks that consider socio-cultural interpretations of nature encourage collaboration by acknowledging the diversity of knowledge systems. This corresponds with arguments for cognitive justice (de Sousa Santos 2007), which claim that non-Western and Indigenous knowledge systems should have equal standing in global environmental governance. Global collaboration is reinforced by integrating varied cultural perspectives on nature, such as Indigenous Australian ecological knowledge (Rose 2005) and Buen Vivir (Acosta 2019). This is because diverse epistemologies guide more inclusive and flexible ET policies. Geographically, nature can be adapted to the unique characteristics of each place according to the understanding of nature as a socio-cultural construct (Magnaghi 2005).

4.2. The Relationships of Interdependence and Inter-Influence Between Nature and Society/Culture

Our second principle is that the relationships of interdependence and mutual influence between nature and society/culture are undeniable (Latour 2004), a dynamic highlighted by the analysis of case studies such as La Via Campesina (global) and the Forest Stewardship Council (global). These cases demonstrated that human societies and non-human nature are intertwined, with mutual influences shaping environmental outcomes. Our matrix-based analysis highlighted how initiatives such as Indigenous land management in Australia embody the interconnectedness of people and nature, showing how traditional ecological knowledge supports sustainable practices by viewing the natural world not as a resource to be exploited but as a co-constituent of society. However, historically, the coexistence of humans and nature has not been peaceful. If the civilisational leap is measured by the greater or lesser distance from nature, its domain, and its use, the further we are from it, the more we would be seen and understood as less savage and more civilised (O'Brien 2002). Nature has been imagined as a reservoir of resources and raw materials at our disposal, ready to serve us. We have often imagined territories as "voids" and "unstructured terrain vague" instead of consolidated and fragile webs of relations with multiple historical layers (Magnaghi 2005). From the beginning, the natural world has been understood as a significant opposition to the civilised world regarding its social structures. This can only be carried out by reconciling nature with humans by showing how they interpenetrate in a single living organism, as few constitutions around the world have been able to point out (as in the case of the Bolivian and Ecuadorian Magna Cartas, which took advantage of the adoption of a pluri-national perspective that dialogues with the cosmogonies of native cultures and Indigenous nations). Because democratic ET solutions reflect the complex and dynamic dynamics of socio-ecological systems, they are more likely to produce sustainable outcomes since they recognise the co-constitution of human and non-human systems (Berkes 1999, 2009). Furthermore, Indigenous knowledge systems that see nature and society as intricately linked through shared responsibility and cooperation can be integrated into ET policies to address better global environmental concerns like climate change (Kimmerer 2015). The data analysis also illustrated how policies rooted in these perspectives tend to promote more sustainable outcomes, as they recognise the co-constitution of human and non-human systems. The Forest Stewardship Council, for instance, exemplifies how global environmental policy can be strengthened by recognising the interdependence of socio-ecological systems.

4.3. The Need to Integrate and Consider the Socio-Cultural Specificities of Each Territory and the Diversity of Visions of Human–Nature Relations in Ecological Transition

Recognising the need to integrate and consider each territory's socio-cultural specificities and the diversity of visions of the relationship between humans and nature is essential in our vision (Vidal et al. 2025). Data analysis revealed that global ET frameworks, such as the Magna Cartas of Ecuador and Bolivia, have successfully integrated local and Indigenous knowledge systems into governance models, providing important insights into how to integrate diverse cultural and environmental perspectives into ET. These constitutions, which grant rights to nature, institutionalise participatory mechanisms that empower local and Indigenous communities to shape policy decisions (Acosta 2019; Gudynas 2015). This institutional design demonstrates how formal governance systems can bridge the gap between national policy agendas and local knowledge systems, fostering transformative ecological transitions based on equity and sustainability.

The main challenge, however, is bringing it into dialogue with the different cultures of participation and deliberation that characterise different places and conjunctures. In the European Green Deal transition pathway context, the challenge is to respond to these contemporary socio-ecological challenges while integrating the disjointed nature and its movements, biophysical dynamics, and socio-cultural systems in an interconnected, interdependent, and articulated way. The general principle is that no one and no place should be left behind so everyone, together with the non-human elements of our typical

home, can build fully sustainable socio-ecological futures. Indeed, this diversity contributes to the equity of ET. This plural approach makes it easier for people to collaborate across national boundaries and knowledge systems since different communities provide contextspecific answers. However, there is a profound dilemma here: is it necessary for someone to be left behind and on purpose? For example, can those who defend the statu quo and the anthropocentric behaviours and practices of a purely extractivist nature that have led the planet to its current situation be left behind? Whether it is essential or justifiable for some to be left behind in ET offers a serious ethical and political quandary. The main focus is on those who actively uphold the *statu quo*, especially those people, organisations, or governments that have substantial stakes in anthropocentric, extractivist activities that have greatly exacerbated the ecological crisis facing the planet today. These players frequently oppose radical change, putting short-term financial gain ahead of long-term power systems that uphold social injustice and environmental destruction. Leaving these individuals "behind" in the context of ET could be viewed as a practical requirement to guarantee the quick development of inclusive and sustainable policies. However, this strategy brings up moral questions regarding the inclusion of democratic processes. By nature, democratic governance aims to include all interested parties in the decision-making process; nevertheless, the objectives of ET may not align with the interests of those who maintain extractivist tactics. The principles of participatory democracy and the pressing need for ecological sustainability become tense. Should we make allowances or negotiate with people who oppose change, possibly postponing essential decisions? Or should the shift unreservedly exclude those unwilling to change, putting the interests of the group's ecology and society ahead of those of individuals or corporations? Investigating channels that might promote communication, reward sustainable behaviour, and guide extractivist actors into new, regenerative roles in the economy and environment becomes imperative in this scenario. The analysis also highlighted how initiatives such as Community Forest Management (Mexico) are in line with the principle of incorporating participatory decisionmaking processes that respect local knowledge systems and ecological contexts. These findings demonstrate the interdependence of territorial cultural understandings with environmental strategies, leading to more inclusive policies that take into account the specific ecological and socio-cultural dynamics of each region.

Without resolving this challenge, ET risks becoming a battleground between those aspiring for systemic change and those entrenched in the old order, thus compromising the same principles of justice, equity, and sustainability that it tries to achieve.

4.4. The Need to Place Nature and Its Elements Alongside, and Sometimes Above, Other Elements

The growing interest in the role of democratic innovation mechanisms in building sustainable futures is based on the need to reframe the relationship between society and nature. This principle emerged from the case studies, particularly the Ecoaldea Altántida in Uruguay and the Slow Food movement (Italy), where the centrality of nature in governance decisions was paramount. We found that placing nature at the centre of decision-making processes ensures long-term ecological sustainability and supports democratic processes that are ecocentric rather than anthropocentric. This recognition is partly due to the importance of natural elements in sustaining social, cultural, environmental, and economic development. It is also necessary to overcome the limitations of assuming that natural elements are a subordinate part of the equation, especially when they come to the fore, such as during extreme events (Alves and Vidal 2024). The main idea is to place nature and its elements alongside and sometimes even above other elements. These other elements make up the socio-ecological scenario. As the relationship between society and nature is complex and constantly evolving, democratic innovation can help to manage this complexity by allowing us to experiment with new ways of making decisions and changing our relationship with the natural environment. Additionally, it promotes long-term ecological balance by strengthening democratic institutions' accountability to both human and non-human actors.

At the core of this idea is Earth System Governance (Steffen et al. 2018), which advocates for international collaboration in managing global ecological commons. This principle was further supported by the cases of Community Forestry (Nepal) and the Forest Stewardship Council, where nature was not subordinated to human interests, but rather ecological concerns shaped decision-making processes. This data-driven finding reinforced the principle that nature's role in governance must be recognised as central to achieving a sustainable ET. More comprehensive international ET policies that go beyond anthropocentric frameworks can be informed by other knowledge systems, such as Indigenous ecological practices that already prioritise the natural world.

4.5. New Participatory Processes Should Be Based on the Moral Recognition of the Whole Web of Species

The interdependence of all species, including humans, is undeniable, and biophysical and symbiotic interactions occur at multiple scales, supporting our fifth principle. By systematically analysing initiatives such as La Via Campesina and FCT+10, we found that democratic innovations should not be limited to human actors alone. Our data analysis showed how these initiatives recognised the intrinsic rights of non-human species, either directly or indirectly, by ensuring that their needs and interests were represented in decision-making processes. Therefore, democratic innovations towards an ET should not be limited to actors based solely on the species biology, which has been a condition of the Western democratic tradition, restricting human participation. Our vision is that new participatory processes should be based on the moral recognition of the whole web of many species (Moore 2015) and multispecies justice (Celermajer et al. 2021). Non-humans may not participate directly in deliberative processes, but their needs and interests can still be represented.

Direct participation in decision-making is a central process that includes all voices in the necessary social transformation. However, it cannot be a mere space for negotiating the interests and ideas of those with the opportunity (or the "privilege") to be at the table. Suppose participation is to adequately integrate the "unfulfilled promises" of representative democracy (Bobbio 1987). In that case, it must also advocate for those who cannot raise their voices at the table (as in the case of other-than-humans and future generations). The implementation of discursive citizenship implies that human citizens are responsible for representing the rights of non-humans. The case of Knoca (Knowledge Network on Climate Assemblies) exemplified how climate assemblies and other democratic innovations can incorporate the needs of non-human entities, thereby supporting multispecies justice. Data analysis showed that by extending participatory processes to include the non-human world, we can create more ethical, inclusive, and sustainable policies, as seen in Indigenous land management practices. This may be at the heart of the democratic innovation that ET needs. We have to be honest: advocating for those actors who cannot represent themselves at a negotiating table with humans can lead to errors and biased interpretations of their voice(s), but the effort of doing so can only increase the quality of deliberation and the diversity of inputs and viewpoints of any participatory space, constantly forcing all other participants to make an explicit effort to imagine and read all issues from a greater multiplicity of perspectives than usual. This principle fosters international cooperation by encouraging a joint ethical commitment to preserving biodiversity and ecosystems (Nussbaum 2006). Global ET frameworks are shaped by encouraging diverse knowledge systems to acknowledge the moral status of non-human entities, such as Indigenous beliefs that see all species as interconnected (Kimmerer 2015). This moral revolution has the potential to bring cultures and nations together in the fight to save the planet's sociobiodiversity.

4.6. Participatory Citizenship and Institutional Governance in Ecological Transition

In order to operationalise the concepts presented in this study, the interaction between institutional governance and citizen participation is essential. Formal and informal institutional frameworks influence how citizens participate in ecological governance by

redefining human—nature relationships and translating them into practical actions. Table 3 provides an overview of the key ideas of this proposal, highlighting the links between each concept and geographical considerations, global cooperation, democratic participation, and different knowledge systems.

Table 3. Summary of the five key ideas for fostering a new ecological citizenship within the framework of ecological transition.

Key Idea	Description	How It Enhances Democratic and Sustainable ET	Global Cooperation and Diverse Knowledge Systems	Geographical and Territorial Considerations
1. Nature as a socio-cultural construction	Different societies understand nature through cultural, social, and historical lenses.	Enables local voices to shape policies that reflect their culture and context.	Integrates local and Indigenous knowledge into global environmental governance.	Ensures policies respect cultural differences in how nature is viewed.
2. Interdependence between nature and society	Highlights the connection between human societies and ecosystems.	Promotes policies that balance human and environmental needs.	Encourages shared responsibility for ecological health, integrating diverse views on human–nature relationships.	Tailors policies to address local ecological issues based on regional needs.
3. Socio-cultural specificities	Recognizes diverse cultural perspectives on human–nature relationships.	Strengthens democracy by incorporating local traditions in shaping environmental policies.	Effective solutions account for diverse cultural and ecological contexts.	Ensures policies reflect the cultural and ecological reality of each region.
4. Nature at the centre of decision-making	Prioritizes ecological needs alongside human interests.	Embeds environmental sustainability into decision-making, promoting ecocentric governance.	Encourages diverse ecological perspectives, fostering collective environmental stewardship.	Policies prioritize nature's role in addressing regional ecological challenges.
5. Moral recognition of species	Expands participation to include the needs of non-human species.	Promotes inclusive governance that considers the well-being of all species.	Builds global commitment to biodiversity and ecosystem health, incorporating diverse ecological ethics.	Ensures policies are sensitive to the local ecological context and species.

These ideas support a transformation that is profoundly democratic, culturally pluralistic, ecologically just, and sustainable. The idea that ET must be grounded in the socio-cultural realities of various communities is reflected in each of the principles, which acknowledge that local knowledge systems, territorial specificities, and varied interpretations of nature are necessary to implement global solutions to ecological crises effectively. This framework proposal promotes a move away from universalist, top-down environmental policies and towards strategies that consider the cultural meanings of nature ingrained in various communities by acknowledging nature as a socio-cultural creation. This creates opportunities for disadvantaged voices to be heard and to influence the laws governing their interactions with the environment, especially those of Indigenous people and local communities. Since these tactics speak to the values and lived experiences of people most impacted by ecological policies, their success is increased, and their democratic legitimacy is ensured. The European Union's Green Deal incorporates public consultation mechanisms and stakeholder engagement processes to align policies with diverse ecological and societal interests (European Commission 2019). However, the case studies analysed in this paper show that successful ET strategies require an approach that is both context-sensitive and inclusive. Initiatives such as Indigenous land management in Australia, the Transition Towns Movement in the UK, and La Via Campesina's advocacy for food sovereignty demonstrate the critical role of local knowledge in shaping policies that resonate with communities. These initiatives show that recognising the socio-cultural context in which they operate ensures that implemented ET strategies are both effective and legitimate and in line with the values and needs of local communities. This contextual relevance is crucial for ensuring the democratic legitimacy of ET policies, as it ensures that they are owned by the communities they affect. Doing this makes ET policies more relevant and acceptable, ensuring that people see them as co-constructed solutions that respect local customs and

traditions rather than as foreign impositions, enhancing ET initiatives' durability while fortifying their democratic underpinnings.

Another key issue is the challenge of integrating human and non-human agencies in ecological governance, which requires participatory frameworks that bridge local community practices with government decision-making processes. Participatory citizenship serves as a critical mechanism to operationalise this integration, ensuring that ecological principles are embedded within governance systems at all levels. However, the success of such initiatives depends on the willingness of government agencies to integrate ecological principles into their frameworks. This requires formal recognition of local knowledge and practices as legitimate contributions to decision-making processes. Several studies highlight examples where participatory budgeting mechanisms have successfully included environmental criteria in public resource allocation, fostering the integration of ecological principles into municipal governance (Pulkkinen et al. 2024; Salvador and Sancho 2021). Similarly, examples from Public Money and Management underscore the importance of cross-sectoral partnerships in achieving ecological goals, as demonstrated by urban green infrastructure projects in Europe (van der Jagt et al. 2020).

Our findings show that institutional frameworks often present challenges in promoting participatory governance, particularly when bureaucratic systems fail to integrate local ecological knowledge and community-led practices. However, there are significant opportunities to incorporate informal governance structures, such as community-led resource management and Indigenous knowledge systems, into formal policies. The examples of initiatives presented in this paper show that participatory governance structures not only empower local communities but also encourage government institutions to adopt more inclusive and sustainable decision-making frameworks. Initiatives such as La Via Campesina and FCT+10 also demonstrate how grassroots movements can influence formal governance structures by advocating for the inclusion of ecological principles in national and regional policies. The challenge is to ensure that these participatory frameworks are institutionalised, providing a consistent and durable mechanism for integrating human and non-human agencies. By transforming governance processes so that nature's agency is respected, ET can lead to a more balanced and equitable framework that prioritises longterm ecological health. In addition to changing the process by which policy is produced, these ideas promote democratic innovations that involve larger constituencies and ensure that environmental governance serves the interests of all parties involved, both human and non-human.

By embracing these principles, policymakers can develop strategies that foster democratic participation, strengthen global cooperation, and promote long-term ecological health. For example, integrating Indigenous ecological knowledge into global frameworks offers innovative solutions to climate change and biodiversity loss, while placing nature at the centre of decision-making ensures that ecological considerations are not subordinated to short-term economic interests. Similarly, the moral recognition of non-human species introduces a transformative dimension to environmental governance, challenging traditional assumptions about participation and representation.

This framework also highlights the importance of local–global synergies in ET. While the principles emphasise the importance of local knowledge and territorial specificities, they also show how these insights can inform global governance structures. Initiatives such as the Forest Stewardship Council and Knoca illustrate how local practices can be scaled up to shape international frameworks, creating a more integrated and coherent approach to global environmental challenges. This framework is not a prescriptive solution but a starting point for rethinking governance practices in the context of ET. It requires continuous reflection and adaptation to ensure that policies remain responsive to the evolving needs of communities and ecosystems.

5. A Few Final Remarks as an Open-Ended Conclusion

This paper proposes a framework for rethinking socio-environmental participation models to promote a fair and inclusive ET. As dominant scientific knowledge has not been able to respond in an integrated way to the contemporary socio-ecological challenges, there is an urgent need to integrate different rationales and a plurality of knowledge and powers. Based on five principles—plural, reflexive, transnational, ecological, and dynamic citizenship—this framework draws on empirical evidence from global initiatives that exemplify diverse approaches to ecological governance. These principles address the limitations of traditional models of democratic participation by integrating plural knowledge systems, valuing the agency of both human and non-human actors, and fostering global cooperation for a sustainable and equitable future.

The findings underscore the need for a systemic transformation in governance practices. The principles derived from this study show that effective ET policies require a shift from universalist, top-down approaches to participatory, context-sensitive strategies. Similarly, the challenge of integrating non-human perspectives goes hand in hand with the possibility of gradually transforming our human democracies into "multispecies democracies" (Donaldson et al. 2021). Various practices (including artistic struggles) have shown the potential to change the ontological and epistemological frameworks that configure the past and present prevalent exclusion of more than human beings in the Global North-Western world, particularly in Europe. However, the road to broadening the scope of politics according to a multispecies perspective still seems long and hard. Nevertheless, the scenario opened by the recent legislation approved in Spain in 2022 for the recognition of the legal personhood of the Mar Menor saltwater lagoon in the region of Murcia represents an "important first step". It "shows that granting legal personhood to an ecosystem in Europe is possible" (Legros 2022; Notre Affaire à Tous 2022), and maybe this will open new possibilities for other grassroots struggles to dialogue with the victories already conquered in two dozen other countries, from Bolivia, Ecuador, and Brazil, to New Zealand, Uganda, Canada, and some municipalities in the United States.

We know that achieving these goals will undoubtedly require an essential work of cultural cross-fertilisation, which is still underestimated. An interesting example is the "Integral Ecology" approach defended by Pope Jorge Mario Bergoglio in his encyclical *Laudato si'*, which is dedicated to the "care of our common home". Pope Francis' message, which focuses on the centrality of the participation of all human beings (especially of those marginalised actors who can enhance their dignity by proposing solutions to their own socioeconomic and cultural problems), is also crucial for many other reasons. For example, his message defends the rights of nature and other-than-humans and explains the importance of "art" as a provocation that (with its imaginative solid and prefigurative capacity) can push human thinking and sensitivity beyond its current limits (Allegretti 2024).

The challenges facing the global community—climate change, biodiversity loss, and escalating socio-ecological inequalities—require a new model of international cooperation. The direction of this change requires adopting a broader participatory approach inspired by a greater cultural and epistemic pluralism and a new vision of post-Westphalian citizenship, which could give rise to the five principles highlighted here, especially the one requiring transnational responsiveness. The principles articulated in this paper call for a broader participatory approach that transcends national boundaries and ensures that decisions made at the national or supranational level are informed by the knowledge and voices of those most affected. For example, why cannot decisions made by EU institutions that are likely to impact "third countries" externally be submitted to those countries' governments for review and reasoned feedback, which could then be discussed openly in a spirit of collaboration to identify better-adapted solutions? Could a cooperative platform be set up to discuss measures that may affect harmony with nature and the fairness of ET? Indeed, "climate change and the obvious incapacity of the global community to effectively address it" shows the urgent need for a more severe environmental and social impact assessment of political and economic measures, as well as for new forms of internationalisation of

national and supranational decision-making, which could facilitate a shift "from national egocentrism to international cooperativism" and a transition "from a hegemonic global order to a more participative one". Emphasising transnational citizenship could lead to the creation of cooperative platforms where decisions with global implications are deliberated inclusively, fostering accountability and shared responsibility across borders.

The findings of this study provide a basis for envisioning alternative forms of socioecological organisation that prioritise inclusivity, equity, and sustainability. The five principles are not fixed prescriptions but rather dynamic tools for guiding ET in ways that are adaptable to different contexts and challenges. They provide a framework for policymakers, practitioners, and communities to work together to build a more democratic and ecologically sound future. As the global community faces unprecedented ecological crises, this study highlights the urgency of adopting governance practices that respect the interdependence of all species and prioritise the long-term health of the planet. Articulating and integrating these principles of ecological citizenship into ET policies can create governance systems that are not only responsive to current challenges but also capable of fostering the systemic changes necessary for a just and sustainable future. Future research can build on these principles by exploring their application in different regions and governance systems and assessing their impact in promoting more democratic and sustainable outcomes. Similarly, policy innovations inspired by these principles can help institutions navigate the complexities of global ecological crises while remaining responsive to the specific needs of local communities and ecosystems.

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References

Abbasi, Kamran, Parveen Ali, Virginia Barbour, Thomas Benfield, Kirsten Bibbins-Domingo, Stephen Hancocks, Richard Horton, Laurie Laybourn-Langton, Robert Mash, Peush Sahni, and et al. 2023. Time to Treat the Climate and Nature Crisis as One Indivisible Global Health Emergency. *JAMA Ophthalmology* 141: 1107–9. [CrossRef]

Acosta, Alberto. 2019. O Bem Viver: Uma Oportunidade Para Imaginar Outros Mundos. São Paulo: Editora Elefante & Editora Autonomia Literária.

Agrawal, Arun. 1995. Dismantling the Divide Between Indigenous and Scientific Knowledge. *Development and Change* 26: 413–39. [CrossRef]

Aldeia, João, and Fátima Alves. 2019. Against the Environment. Problems in Society/Nature Relations. Frontiers in Sociology 4: 29. [CrossRef]

Allegretti, Giovanni. 2024. Uma Ponte, Duas Margens, Vários Destinos. In *Projeto Criar Com Escolas* 2021/2022. Edited by Serviço Educativo do Portugal dos Pequenitos. Coimbra: Fundação Bissaya Barreto, pp. 14–25.

Alves, Fátima, and Diogo Guedes Vidal. 2024. Plural Nature(s): An Overview of Their Sociocultural Construction. *Encyclopedia* 4: 1–12. [CrossRef]

Alves, Fátima, Diogo Guedes Vidal, Cristina Sá Valentim, Andrea Guazzini, Mirko Duradoni, Paulo Manuel Costa, Luca Novelli, and Spartaco Puttini. 2023. *Deliverable 2.3—Research Report on Society and Nature*. Bruxels: European Commission.

Alves, Fátima, Maria José Araújo, and Ulisses Azeiteiro. 2012. Cidadania Ambiental e Participação: O Diálogo e Articulação Entre Distintos Saberes-Poderes. *Saúde Em Debate* 36: 46–54. [CrossRef]

Alves, Fátima, Walter Leal Filho, Paula Casaleiro, Gustavo J. Nagy, Harry Diaz, Abul Quasem Al-Amin, José Baltazar Salgueirinho Osório de Andrade Guerra, Margot Hurlbert, Harith Farooq, Maris Klavins, and et al. 2020. Climate Change Policies and Agendas: Facing Implementation Challenges and Guiding Responses. *Environmental Science and Policy* 104: 190–98. [CrossRef] Anderson, Benedict. 1983. *Imagined Communities*. Lisboa: Verso Books.

Anderson, Benedict. 1991. Imagined Communities: Reflections on the Origin and Spread of Nationalism. Lisboa: Verso Books.

Appadurai, Arjun. 1990. Global Ethnoscapes: Notes and Queries for a Transnational Anthropology. In *Interventions: Anthropologies of the Present*. Edited by R. G. Fox. Santa Fe: School of American Research, pp. 337–49.

Appadurai, Arjun. 1996. Modernity At Large: Cultural Dimensions of Globalization. Minneapolis: University of Minnesota Press.

Appadurai, Arjun. 2003. Sovereignty without Territoriality: Notes for a Postnational Geography. In *The Anthropology of Space and Place:* Locating Culture. Edited by Setha M. Low and Denise Lawrence-Zuniga. Oxford: Blackwell, pp. 337–49.

Berkes, Fikret. 1999. Sacred Ecology: Traditional Ecological Knowledge and Resource Management. Philadelphia: Taylor and Francis.

Berkes, Fikret. 2009. Evolution of Co-Management: Role of Knowledge Generation, Bridging Organizations and Social Learning. *Journal of Environmental Management* 90: 1692–1702. [CrossRef]

Bhabha, Homi K. 1990. Nations and Narration. Abingdon: Routledge.

Bobbio, N. 1987. The Future of Democracy: A Defense of the Rules of the Game. Rio de Janeiro: Peace and Earth.

Bouzarovski, Stefan. 2022. Just Transitions: A Political Ecology Critique. Antipode 54: 1003–20. [CrossRef]

Bragança, Luciana Souza. 2023. Jardins Como Possibilidade. Rio de Janeiro: Paisagens Híbridas.

Bryman, Alan. 2016. Social Research Methods. Oxford: Oxford University Press.

Bussu, Sonia, Adrian Bua, Rikki Dean, and Graham Smith. 2022. Introduction: Embedding Participatory Governance. *Critical Policy Studies* 16: 133–45. [CrossRef]

Carson, Rachel. 2000. Silent Spring. Londres: Penguin Books Ltd.

Celermajer, Danielle, David Schlosberg, Lauren Rickards, Makere Stewart-Harawira, Mathias Thaler, Petra Tschakert, Blanche Verlie, and Christine Winter. 2021. Multispecies Justice: Theories, Challenges, and a Research Agenda for Environmental Politics. *Environmental Politics* 30: 119–40. [CrossRef]

Chemhuru, Munamato. 2017. Elements of Environmental Ethics in Ancient Greek Philosophy. Phronimon 18: 15–30. [CrossRef]

Chiti, Edoardo. 2022. Managing the Ecological Transition of the Eu: The European Green Dealasa Regulatory Process. *Common Market Law Review* 59: 19–48. [CrossRef]

de Sousa Santos, Boaventura. 2007. Para Além Do Pensamento Abissal: Das Linhas Globais a Uma Ecologia de Saberes. *Novos Estudos—CEBRAP* 79: 71–94. [CrossRef]

de Sousa Santos, Boaventura. 2009. A Non-Occidentalist West?: Learned Ignorance and Ecology of Knowledge. Edited by J. Paraskevaln. *Theory, Culture & Society* 26: 103–25. [CrossRef]

Dias, Ricardo Cunha, Diogo Guedes Vidal, Paulo Castro Seixas, and Rui Leandro Maia. 2021. Os Espaços Verdes e as Preocupações Com a Sustentabilidade Nos Planos Diretores Municipais de 3ª Geração: Análise Comparativa Das Áreas Metropolitanas Em Portugal. *Cidades* 41: 44–70. [CrossRef]

Dobson, Andrew. 2007. Environmental Citizenship: Towards Sustainable Development. *Sustainable Development* 15: 276–85. [CrossRef] Donaldson, Sue, Janneke Vink, and Jean Paul Gagnon. 2021. Realizing Interspecies Democracy; The Preconditions for an Egalitarian, Multispecies, World. *Democratic Theory* 8: 71–95. [CrossRef]

Dryzek, John. 2000. Deliberative Democracy and Beyond. New York: Oxford University Press.

Eder, Klaus. 1996. The Social Construction of Nature. London: Sage Publications Ltd.

Escobar, Arturo. 1999. Whose Knowledge, Whose Nature? Biodiversity, Conservation, and the Political Ecology of Social Movements. Berkeley: University of California Press.

European Commission. 2019. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions the European Green Deal-Com/2019/640 Final. Brussels: European Commission.

Ferreira Fernandes, Carla Sofia, Fátima Alves, and João Loureiro. 2024. Human Mobility and Environmental Degradation: Shaping Rural Morocco. *International Migration* 62: 78–93. [CrossRef]

Flick, Uwe. 2022. An Introduction to Qualitative Research. Newcastle upon Tyne: SAGE Publications Ltd.

Goodall, Jane, and Gail Hudson. 2015. Seeds of Hope: Wisdom and Wonder from the World of Plants. New York: Grand Central Publishing. Grusin, Richard. 2015. The Nonhuman Turn. Minneapolis: University of Minnesota Press.

Gudynas, Eduardo. 2015. Buen Vivir. In *Degrowth. A Vocabulary for a New Era*. Edited by Giacomo D'Alisa, Frederico Demaria and Giorgos Kallis. New York: Routledge, pp. 2001–4.

Hettne, Björn. 2000. The Fate of Citizenship in Post-Westphalia. Citizenship Studies 4: 35–46. [CrossRef]

Horn, Gavin Van, Robin Wall Kimmerer, and John Hausdoerffer. 2021. *Kinship: Belonging in a World of Relations*. Edited by Gavin Van Horn, Robin Wall Kimmerer and John Hausdoerffer. Libertyville: Center for Humans & Nature.

Kimmerer, Robin Wall. 2015. Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants. Minneapolis: Milkweed Editions.

Krenak, Ailton. 2019. Ideias Para Adiar o Fim Do Mundo. São Paulo: Companhia das Letras.

Lahl, K. 2019. Spatial narratives of fear and longing. representations of nature in video games. *Ars et Humanitas* 13: 285–99. [CrossRef] Latour, Bruno. 2004. *Politics of Nature. How to Bring the Sciences into Democracy*. Cambridge: Harvard University Press.

Lawrence, Michael. 2016. Nature and the Non-Human in Andrea Arnold's Wuthering Heights. *Journal of British Cinema and Television* 13: 177–94. [CrossRef]

Legros, Claire. 2022. Should Nature Have the Same Rights as Humans? A Legal Revolution That Could Change Our View of the World. Le Monde. Available online: https://www.lemonde.fr/en/opinion/article/2022/11/27/should-nature-have-the-same-rights-as-humans-a-legal-revolution-that-could-change-our-view-of-the-world_6005817_23.html (accessed on 13 February 2024).

Magnaghi, Alberto. 2005. The Urban Village: A Charter for Democracy and Local Self-Sustainable Development. London: Zed Books.

Mignolo, Walter. 2003. Os Esplendores e as Misérias Da 'Ciência': Colonialidade, Geopolítica Do Conhecimento e Pluri-Versalidade Epistémica. In *Conhecimento Prudente Para Uma Vida Decente: 'Um Discurso Sobre as Ciências' Revisitado*. Edited by Boaventura de Sousa Santos. Porto: Afrontamento, pp. 631–71.

Moore, Jason W. 2015. Capitalism in the Web of Life: Ecology and the Accumulation of Capital. London: Verso.

Morin, Edgar, and Anne Brigitte Kern. 1999. Homeland Earth: A Manifesto for the New Millenium. New York: Hampton Press.

Mylonas, Harris, and Maya Tudor. 2023. Varieties of Nationalism: Communities, Narratives, Identities. Cambridge: Cambridge University Press.

Nash, Linda. 2005. The Agency of Nature or the Nature of Agency? Environmental History 10: 67-69.

Norberg-Schulz, Christian. 1985. The Concept of Dwelling: On the Way to Figurative Architecture. New York: Rizzoli.

Notre Affaire à Tous. 2022. Les Droits de La Nature: Vers Un Nouveau Paradigme de Protection Du Vivant. Paris: Pommier.

Nussbaum, Martha C. 2006. Frontiers of Justice: Disability, Nationality, Species Membership. In *Frontiers of Justice*. Masschussetts: Harvard University Press. [CrossRef]

O'Brien, William E. 2002. The Nature of Shifting Cultivation: Stories of Harmony, Degradation, and Redemption. *Human Ecology* 30: 483–502. [CrossRef]

Ostrom, Elinor. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. New York: Cambridge University Press. Pereira, Ricardo. 2021. Public Participation, Indigenous Peoples' Land Rights and Major Infrastructure Projects in the Amazon: The Case for a Human Rights Assessment Framework. Review of European, Comparative and International Environmental Law 30: 184–96. [CrossRef]

PHOENIX. 2022. What is PHOENIX? Available online: https://phoenix-horizon.eu/project/ (accessed on 14 January 2024).

Pulkkinen, Meri, Lotta Maria Sinervo, and Kaisa Kurkela. 2024. Premises for Sustainability—Participatory Budgeting as a Way to Construct Collaborative Innovation Capacity in Local Government. *Journal of Public Budgeting, Accounting and Financial Management* 36: 40–59. [CrossRef]

Purcell, Mark. 2002. Excavating Lefebvre: The Right to the City and Its Urban Politics of the Inhabitant. *GeoJournal* 58: 99–108. [CrossRef]

Purcell, Mark. 2003. Citizenship and the Right to the Global City: Reimagining the Capitalist World Order. *International Journal of Urban and Regional Research* 27: 564–90. [CrossRef]

Richardson, Katherine, Will Steffen, Wolfgang Lucht, Jørgen Bendtsen, Sarah E. Cornell, Jonathan F. Donges, Markus Drüke, Ingo Fetzer, Govindasamy Bala, Werner von Bloh, and et al. 2023. Earth beyond Six of Nine Planetary Boundaries. *Science Advances* 9: eadh2458. [CrossRef] [PubMed]

Roque, Ana Cristina, Cecilia Veracini, and Cristina Brito. 2021. Shaping Landscapes: Thinking On the Interactions between People and Nature in Inter- and Postdisciplinary Narratives. *Humanities* 10: 75. [CrossRef]

Rose, Deborah. 2005. An Indigenous Philosophical Ecology: Situating the Human. *Australian Journal of Anthropology* 16: 294–305. [CrossRef]

Rotondo, Francesco, Paola Perchinunno, Samuela L'Abbate, and Lucia Mongelli. 2022. Ecological Transition and Sustainable Development: Integrated Statistical Indicators to Support Public Policies. *Scientific Reports* 12: 18513. [CrossRef] [PubMed]

Salmón, Enrique. 2000. Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship. *Ecological Applications* 10: 1327–32. [CrossRef]

- Salvador, Miquel, and David Sancho. 2021. The Role of Local Government in the Drive for Sustainable Development Public Policies. An Analytical Framework Based on Institutional Capacities. *Sustainability* 13: 5978. [CrossRef]
- Shiva, Vandana. 1993. Monocultures of the Mind: Perspectives on Biodiversity and Biotechnology. London: Palgrave Macmillan.
- Steffen, Will, Johan Rockström, Katherine Richardson, Timothy M. Lenton, Carl Folke, Diana Liverman, Colin P. Summerhayes, Anthony D. Barnosky, Sarah E. Cornell, Michel Crucifix, and et al. 2018. Trajectories of the Earth System in the Anthropocene. *Proceedings of the National Academy of Sciences* 115: 8252–59. [CrossRef]
- Tsing, Anna. 2015. Margens Indomáveis: Cogumelos Como Espécies Companheiras. *Ilha Revista de Antropologia* 17: 177. [CrossRef] van der Jagt, Alexander, Helen Toxopeus, Laura Tozer, Hade Dorst, Hens Runhaar, and Harriet Bulkeley. 2020. *Greening European Cities: Accelerating the Uptake of Urban Nature-Based Solutions*. NATURVATION Deliverable 5.8. Durham: Durham University.
- Velicu, Irina, and Stefania Barca. 2020. The Just Transition and Its Work of Inequality. Sustainability: Science, Practice, and Policy 16: 263–73. [CrossRef]
- Vidal, Diogo Guedes, and Fátima Alves. 2024. Voices of the absent: The agency of Nature and Future in climate regeneration. *PLoS Climate* 3: e0000420. [CrossRef]
- Vidal, Diogo Guedes, Fátima Alves, and Helena Freitas. 2025. Everything Everywhere All at Once": A Methodological Framework Proposal to Ensure No One Is Left Behind in the Ecological Transition Pathway. Lessons from the PHOENIX H2020 Project. In North American and European Perspectives on Sustainability in Higher Education. Edited by Walter Leal, Julie Newman, Amanda Lange Salvia and Laís Viera Trevisan. Cham: Springer, in press.
- Vidal, Diogo Guedes, Fátima Alves, Cristina Sá Valentim, and Helena Freitas. 2024. Natures Instead of Nature—Plural Perceptions and Representations of Nature and Its Challenges for Ecological Transition: A Systematic Review of the Scientific Production. *Environmental Sciences Europe* 36: 108. [CrossRef]
- Wahl, Daniel. 2016. Designing Regenerative Cultures. Dorset: Triarchy Press.

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