

**Thesis submitted to meet the requirements of a PhD  
(Sustainable Futures).**

## Dynamics of Place & Discourse

Empirical, methodological, and theoretical  
research into socio-cultural transformations  
toward sustainability.

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**CERTIFICATE OF ORIGINAL AUTHORSHIP**

I, Samuel Claude Wearne, declare that this thesis is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Institute for Sustainable Futures at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

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## STATEMENT ON THESIS FORMAT

This document is presented as a Thesis by Compilation.

## LIST OF PAPERS/PUBLICATIONS

Papers and publications related to this thesis are listed in the table below, noting where they will be referenced in this document. Four papers will be included in the main text. This includes three pieces of original research and a discussion paper. A review paper was published during the doctoral research. It is included as an appendix as the pertinent findings from that paper have been incorporated into the main text.

No.	List of papers/publications	Section
1	Wearne, S. & Riedy, C. (in press). Whose “place” is it? Using corpus-based techniques to sketch place-based sustainability discourses in public and academic forums. <i>Sustainability Science</i> , 19, 883-904. <a href="https://doi.org/10.1007/s11625-024-01466-w">https://doi.org/10.1007/s11625-024-01466-w</a>	Part B (Original Research)
2	Wearne, S., Hubbard, E., Jónás, K., & Wilke, M. (2023). A Learning Journey into Contemporary Bioregionalism. <i>People &amp; Nature</i> , 5(6), 2-24-2140. <a href="https://doi.org/https://doi.org/10.1002/pan3.10548">https://doi.org/https://doi.org/10.1002/pan3.10548</a>	Part B (Original Research)
3	Wearne, S. (not published). Co-producing place: a systems view on the discourses, practices, and planning used to shape sustainability pathways in the Blue Mountains. <i>Ecology &amp; Society</i> <sup>^</sup>	Part B (Original Research)
4	Wearne, S. (2023). Are we practicing what we preach? Scaling out knowledge system infrastructure for sustainability transformations. Place-based publications: a provocation and proposal. <i>Social Innovations Journal</i> . 22. <a href="https://socialinnovationsjournal.com/index.php/sij/article/view/6972">https://socialinnovationsjournal.com/index.php/sij/article/view/6972</a>	Part C (Discussion)
5	Hubbard, E., Wearne, S., Jónás, K., Norton, J., & Wilke, M. (2023). Where are you at? Re-engaging bioregional ideas and what they offer geography. <i>Geography Compass</i> , e12722. <a href="https://doi.org/10.1111/gec3.12722">doi:https://doi.org/10.1111/gec3.12722</a>	Appendix B

<sup>^</sup>The abstract for this paper has been accepted for inclusion in a special feature publication titled: “The Coproduction of Conflicts in Environmental Sustainability: Concepts, Methods, and Ethics”. The paper is due for submission in June 2024. In this thesis, the content is presented in an extended format– the content will be adapted into a paper after the submission of this thesis.



## Statement of Contribution by publications with co-authors

In line with thesis requirements by the University of Technology Sydney, statements of contribution on co-authored publications are provided below.

### Publication in Viewpoint 1

Wearne, S. & Riedy, C. (in press). Whose “place” is it? Using corpus-based techniques to sketch place-based sustainability discourses in public and academic forums. *Sustainability Science*.

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Samuel Wearne	Lead author, data analysis	50	Production Note: Signature removed prior to publication.	5/12/23
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Jonny	Contributor	5	Production Note: Signature removed prior to publication.	5/12/23

## PREFACE

There are two considerations that I hope provide useful context as to who I am, and why I've undertaken this research.

The first consideration is a rational reflection about this moment in Earth's history. Like countless others, I remain deeply concerned about the scale and depth of the global sustainability crises that we face as a society, as a planet, and what this says about our species. Our global connections and influences on one another continue to expand and alongside this, our scientific and technological capabilities present ever larger impacts and risks to all known life in the universe. It was already clear, before starting my PhD, that our increasingly global civilisation appears to be lacking the systems, processes and the maturity to manage the risks of our own ambitions. While chipping away at these dilemmas through a career working with businesses, governments, and civil society, it was clear to me that a wholesale shift was required.

After more than a decade of 'doing' sustainability, I found that tactical and strategic responses to these issues were already well underway, with many competent and passionate people committed to making change. The quantity and competency of this growing network of people gave me much hope and agency, and the freedom to follow my interests. A mid-career detour to pursue a PhD was intended to provide me with the resources, time, and structure to reflect on the undercurrents of experiences I'd encountered in my work, and to create the space to step back in awe, intrigue, and perhaps some horror, while attempting to more deeply fathom the niche that humanity now fills. On the one hand, I was interested in the resistant influences and the cultural and philosophical undercurrents that led us to our predicaments, and on the other, I was curious to think more deeply about the opportunities and hopeful optimism I'd found. I felt, and continue to feel, that in response to the salience of our issues, we are also amidst a wholesale re-awakening that sustainability and nature are fundamental to concerns in business, governance, society and how we live good lives. The conversations that I'm interested in through the lens of academia were not, are not, about how we make a case for action, because I'd done this successfully for many years. Instead, I was, and remain interested in understanding the politics of sustainability— which kinds of change we pursue, why, and for whose ends. This brings me to the second consideration to surface in this preface.

The second consideration is to acknowledge that I've found within any argumentative claim to reason there are underlying subjective and emotional experiences that sit beneath, shaping the direction of one's reason and apparent rationalism. Box 1 provides a description of my

positionality, with a focus on the context from which it emerges. As my thesis will explain, doing so is not for my own indulgence, but for epistemological consistency with the Critical Realism that sits across my research, balancing each piece of research as a perspective that can complement ideas from another, and respecting the need and value of researcher reflexivity as part of responsible, and honest, research practice.

**Statement of Positionality: the ethics of belonging in the context of colonial Australia**

Simone Weil (1987/1952, p. 41) regarded a rootedness in place as perhaps the “most important and least recognised need of the human soul”. I encountered these words at the start of my research, and they spoke deeply to the motivations that drove me from industry to academia; from work at the material and the macro to work on the abstract and the inner.

As a white Australian of Anglo-European heritage, a history of colonisation and dispossession underpins my existence in Australia, and while this history haunts my sense of belonging in ways that are different to those who were dispossessed, I still ‘belong’ to Australia. I’ve grappled with how to deal ethically with the reality of being born into systemic privileges awarded to me by the injustices of colonisation that continue and persist. Given the themes of my research, and my role in doing it, I have tried to approach this PhD with an awareness of the ethical and moral complexity of undertaking research that might strengthen cultural connections to ‘place’ and feelings of ‘belonging’ in Australia amongst non-Indigenous Australians.

Equally though, it would be disingenuous to disclaim the importance of belonging. It is important to acknowledge, I think, my vested interest in finding pathways to respond to the history of colonial arrival so that a semblance of ethical inhabitation can be lived in the place that I call home and which I have come to love. This situation, I think, needs to be dealt with delicately. Not being indigenous, I won’t seek to claim or communicate indigenous wisdom, stories, or relationships to the land. But I also won’t ‘other’ indigenous viewpoints, erasing them from the conversation and the influences they have had on me, the research, and the people and places that I encounter.

My research focuses on the part of the picture that I see and that I’m capable to talk to. I’ll seek to uncover how agents in Australia, and beyond, are talking about “place” and discuss the politics of their narratives about place-based approaches to socio-cultural change and sustainable futures. While I am not well positioned to undertake research that centres Indigenous Australia, there is an inspiring body of literature and expertise that can offer such perspectives, and which I reference in my writing. I position my research with an aim to provide some clarity and exploration of the perspectives that (mostly non-indigenous) academics, civil sector and government initiatives are currently promoting to

describe how society might find productive ways to relate to place and think of socially and ecologically considerate ways to pursue sustainable futures.

In positioning my own view, I would note that I began this research with a wonderful partner, the Australian Earth Laws Alliance (AELA), who have developed their approach to place-based change and nature reconnection in deep collaboration and partnership with Aboriginal Australian leaders, academics and knowledge holders. AELA's ambitions of decolonising Australian cultural relationships with the country alongside fostering greater connections to place amongst all Australians fit with my personal ethical ambitions and position on how this topic should be addressed. During the course of my research, I found it more appropriate to surface AELA's work not by directly researching their programs (which I did explore and consider), but by including perspectives from their leadership position on topics of place and ethics. This led to the leadership of AELA's participation in the discussion of Viewpoint 2.

Finally, I cannot but note the deeply disappointing context that comes with the final stage of writing. My thesis suggests that overall, there is increasing interest, potential and progress in how society might find ways for both democratic and place-literate approaches to change, especially amongst sustainability researchers and professionals. In Australia, my country, the final stages of writing these ideas have coincided with the resoundingly popular rejection of a remarkably generous offer to acknowledge First Nations history in Australia's constitution. I offer this not as 'virtue signalling' but as a challenge. Hearing First Nations leaders that I admire, along with family, friends and strangers, ask "Why doesn't my country love me?" has solidified critical and challenging questions about the role of academic knowledge and research, its connection to broader sentiments in society, and our practical ability to support place-based change and discursive agents in society. These questions are discussed in Part C of the thesis.

**Box 1.** Statement of Positionality

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## LIST OF ABBREVIATIONS

<b>ADA</b>	Argumentative Discourse Analysis
<b>BMCC</b>	Blue Mountains City Council
<b>CADS</b>	Corpus Assisted Discourse Study
<b>DA</b>	Discourse Analysis
<b>DAA</b>	Discursive Agency Approach
<b>HNC</b>	Human Nature Connection
<b>MLP</b>	Multi-level Perspective
<b>PBSER</b>	Place-Based Social Ecological System Research
<b>SES</b>	Social Ecological System
<b>STT</b>	Sustainability Transitions and Transformations
<b>TL</b>	Transformative Learning

## THESIS ABSTRACT

Amidst concerns for more-than-human outcomes and emancipatory approaches to systemic change, sustainability is experiencing a resurgent interest in topics of place— conceptually and in practice. My thesis uses discursive research methods to sample and analyse how topics of place are influencing the pursuit of sustainability from three perspectives: (i) a global perspective, offered by a corpus-assisted study of academic and public texts on sustainability, place and change; (ii) a trans-place perspective, offered by research into the global bioregioning movement; and (iii) a situated perspective, exploring discourses and discursive agency influencing the work of a local government in the Blue Mountains region of Australia. The findings present new insights into the tensions, opportunities, and politics that a focus on place presents to concepts and practices in sustainability. In its analysis and approach, the thesis also makes conceptual and methodological contributions to the study of sustainability discourses in society, extending established approaches to consider inter-scalar connections, the role of materials, and the contextuality of social-ecological systems. Thematically, I found that while a focus on place often carries a vision of socially and ecologically literate citizens taking control of their fate toward a diverse, globally connected and normatively transformed society, the pursuit of this agenda can carry tensions that elide those core objectives in practical and conceptual ways. Looking across the themes and findings of my research led me to highlight a need for reflexive questions and conversations about the interface of sustainability research, knowledge, and practice with the aspirations of a place-based approach to change. What kind of ‘knowledge’ is useful if we view sustainability through a place-based lens? What is the role of sustainability research in those dynamics? How do the emerging concerns about relationality, place, and power intersect? I complement empirical studies with reflexive and conceptual discussions to ask these questions and explore opportunities for progress. I point to opportunities for place-based publications to complement knowledge systems for society, and for practices in local government to be re-interpreted and valued as their own knowledge co-production process. In addition to its empirical contributions, the thesis will aid researchers interested in (i) tracing environmental discourses across space or time, (ii) considering the role of practices and materials in social change, and (iii) conceptualising discursive change and agency within complex, nested social-ecological systems. Most broadly, it provides another source of enquiry and experimentation to probe and extend relational paradigms in social science and sustainability.

## OUTLINE AND OVERVIEW

Places have long shaped the way we live and experience the world, patterning our cultural relationships to nature and attaching meanings to sites and spaces (Tuan, 1977; Cresswell 2004/2015). MacGillivray & Franklin (2015: 5) described a longstanding lineage of ‘place-based’ approaches to sustainability as one where research and practice is driven by a “relentless focus on context”. In an increasingly connected world, however, places, and our relationships to them, are not isolated phenomena. Moreover, planetary dimensions of society’s sustainability challenges have become increasingly urgent and apparent (Crutzen & Stoermer, 2000; Steffen et al. 2015; Rockström et al., 2023). In response, a significant priority in sustainability science has focused on exploring how society might undergo deep and systemic change in order to pursue sustainable futures. In the broad field of Sustainability Transitions and Transformations (STT) research an important focus has been placed on the socio-cultural dynamics of (un)sustainability, exploring how issues like values, stories and meaning influence the pursuit of sustainable futures. It has brought attention back to the importance of place and specific contexts, noting the emotive, ethical and substantive nuance that a place-based frame can bring. Re-framing global issues into how they impact specific places, for example, is widely seen to help make insurmountably large or abstract issues like climate change more meaningful, tangible, and emotionally resonant in society (e.g. Geoghegan et al., 2019; Jones et al., 2017; Hajer et al. 2020).

My thesis contributes to the field of STT studies and its increasing overlap and engagement with human-nature connection (HNC) studies and social-ecological systems (SES) research as each of these fields share interests in how topics of place intersect with the theory and practice of pursuing socio-cultural transformations to enable sustainable futures. My arguments are informed by a series of research projects into the way place-related topics and priorities are being discussed and pursued in sustainability. While ‘place’ draws attention to the specificities of context, the design of my research also recognises the increasing interconnectedness of society and the socio-cultural exchanges of meaning that transcend spatial and temporal scales. To account for this, my research will approach topics of sustainability, place, and meaning through discursive research that considers dynamics of change via concepts of complex and nested social-ecological systems (SES). While these terms will be explained and contextualised in greater detail, a plain language summary is that my thesis will explore how a concern with place appears to interact with deep and underlying storylines that narrate the way actors in

research and broader society describe the world, its problems, and how we should respond<sup>1</sup>. It will examine the politics that different discourses in sustainability carry in relation to topics of place and it will discuss the implications of these findings for sustainability science, practice, and processes of socio-cultural change. Two overarching research questions capture these interests and serve to drive my thesis:

- I. how are place-based approaches to sustainability transitions and transformations being pursued and discussed? and
- II. how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit?

To address these questions, I undertook original research that used three vantage points to sample the way that place is being integrated into different forums of sustainability research and practice. Consistent with their respective agendas, each perspective (or viewpoint) draws on defined sets of data, methodologies, and analytical tools and techniques. Individually, they offer empirical, methodological, and theoretical contributions to sustainability science, extending the study of sustainability discourses in relation to STT research and related fields of SES and HNC studies. Collectively, the three viewpoints provide complementary insights and enable the thesis to sample, interpret, and discuss some of the activities, dilemmas, and politics that are being encountered by agents seeking to enact socio-cultural change across complex webs of meaning, material contexts, and situated practices.

In the first perspective, I explore how place-based approaches to sustainability transitions and transformations are being discussed in forums that occur on a global, abstract level. It serves to sketch the discursive landscape that I encountered from a sample of public and academic texts collected in 2019-2020. The research uses a corpus-assisted approach and the dataset was built from scanning the English internet and sampling prominent sustainability science scholarship advocating for place-based practices and concepts to be adopted in STT practice and research. The findings are communicated in a peer-reviewed paper that identifies a core storyline about what a place-based approach to STT entails and what it has to offer. The paper then discusses unresolved tensions, opportunities, and uncertainties that the pursuit of place-based approaches might encounter and suggests areas for future research. Methodologically, the

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<sup>1</sup> While theoretical concepts of 'discourse' will be discussed in detail later, it is important to understand that in my research, discourse is a term that refers to an 'ensemble of notions, ideas, concepts, and categories through which meaning is given' (Hajer, 2009, p60).

research introduces new opportunities for studying sustainability discourses, applying systematic data sampling and corpus linguistic tools alongside interpretive discourse analysis.

In the second perspective, I explore contemporary expressions of bioregional thought and practice, a discourse in sustainability that has a long history of deliberately considering at which scale place-based change ought to be pursued. Referred to as “bioregioning”, this discourse aligns with the core/general narrative about place that was identified in the first perspective. The study involved interviews with contemporary global leaders in bioregional thought and practice. This perspective adds nuance and depth to issues that were identified in Viewpoint 1, such as topics of scale, trans-place exchange and the implications that a place-based agenda holds for research practices and theory in STT. Building on 40 years of bioregional thought and practice, proponents of contemporary bioregioning shared some central ideas, motivations and axiological ambitions. There were also signs of nuanced differences in emphases when defining why places matter, on what scale they should be defined, and how change should be pursued. The research findings from this viewpoint are communicated in a peer-reviewed paper that has been published in the journal *People and Nature*. The viewpoint provides insights into a place-based sustainability discourse that expressed a “trans-place” dynamic wherein ideas and agendas were continuously shaped and reshaped in response to contextual influences of local areas and social exchange amongst global networks of bioregional agents and advocates. The findings of this analysis are situated in the context of ongoing debates and discussions about a turn toward relational epistemology and ethics in sustainability.

The third perspective is highly contextual. This viewpoint observes a suite of different discourses about sustainability and acts of discursive agency influencing a local government’s efforts to govern and plan for sustainable futures in the Blue Mountains, an area west of Sydney in New South Wales (NSW), Australia. The Blue Mountains City Council (BMCC) is a progressively minded institution operating in Australia’s system of representative democracy. It was chosen due to its explicit endorsement of many of the ideals that I identified (in the first perspective) as exemplifying a place-based approach to STT. It also contained references to concepts in bioregioning (the focus of viewpoint 2). Through viewpoint 3, the thesis explores how contextual dynamics and discursive exchange interact. In the BMCC, global sustainability discourses interacted with locally specific storylines about the Mountains, and characteristics of the local social-ecological system. The research entailed interpretive discourse analysis that incorporated considerations of SES theory (Biggs et al., 2022), discursive agency (Leipold & Winkel, 2017), and concepts of social practice (Shove et al., 2012). The study shows how the BMCC held multiple storylines (discourses) about sustainability and examines how these were co-produced from the agency of

Council staff and their interaction with institutional and material factors, and daily activities of the Blue Mountains community.

The thesis is structured to present each of these studies independently and then draws together the insights that they collectively suggest, including a reflexive discussion about their implications for sustainability research and practice. I argue the following: (1) social connectivity in the modern age is complex, and the place-based discourses I encountered were influenced by complex webs of meaning that transcended spatial boundaries, as well as reflecting material and contextual influences. (2) Undertaking sustainability discourse analyses with the assistance of a range of systems-oriented theoretical abstractions, frameworks and digital tools, provided insights into how socio-cultural change appears to be influenced by agents acting within those complex patterns of social connections, as well as materially situated contexts. (3) By using a suite of different perspectives and associated methodologies, my research offers observations of discursive dynamics that are present in the way place is discussed in relation to STT, and reflects on the dilemmas, hopes and tensions that they carry. Doing so provides an insight into the politics of place in sustainability as well as a range of methodological and theoretical contributions to how that transformations literature might explore sociological perspectives on change. (4) The conceptual and practical interest in place that is occurring in sustainability science, and in the pursuit of sustainability transformations in society, is bound up with deeper shifts in the epistemology, axiology and ontology that sustainability rests upon. Across the thesis, I discuss the edges of these considerations, exploring the conceptual, practical and research implications and opportunities that they present. In doing so, the thesis contributes to ongoing efforts to integrate studies of discourse and sense of place topics into the increasingly important fields of STT, HNC and SES research in sustainability science.

Each perspective in the thesis is comprised of a paper that has been published (or accepted for publication) in a reputable, peer-reviewed journal. These papers each outline the specific context, methodology, findings, and discussion pertinent to their content. To complement these components, the structure of my thesis includes a general and overarching introduction that surfaces the context of the research and key themes, theories and concepts that inform it, surveying the landscape of ideas to which it adds. To link each viewpoint, I offer introductory text and reflexive summaries that contextualise each paper in the broader arguments of the thesis. Finally, I offer an overarching discussion section that looks back across the viewpoints and considers overall findings from my research, connecting them to the research questions and discussing their implications for the field. In that discussion, I draw attention to a series of 'turns' in sustainability science that are deeply related to my research topic and which have been

developing in the literature concurrent to my PhD. While the viewpoints collectively outline how place-based approaches to STT are being discussed and pursued (my first research question) and each makes some contribution to demonstrating and discussing the role of research (my second research question), the discussion section draws forth a more detailed and reflexive discussion about the role of research and its potential to support place-based approaches to STT, noting areas of opportunity alongside unresolved tensions and uncertainties. I capture these reflections and offer some propositions in a discussion paper, drawing on ideas that were presented to the STT community during my final year of candidature. This paper was also published in a peer-reviewed journal.

I hope that readers ‘filter’ this thesis for insights and opportunities that suit their own goals and interests. Some may find practical insights from the methods I used and see an opportunity to extend these approaches to trace new narratives and discourses across time or space. Others may find value in the thematic arguments and empirical observations, perhaps finding insights or opportunities that can help nudge Australia’s socio-ecological relations and expressions toward normative directions. Others again might find cause for critical reflexivity about those acts of agency and ambition, or seek to take up my proposition for place-based publishing as a way to shift the interface of research and society in ways that empower contextual knowledge. Alongside this utility, I hope the work is thought-provoking and that it serves the ethical, epistemological and ontological ideals that are attracting people, like me, toward place-specific dynamics in our global crises of sustainability.

The thesis is presented as follows:

- **Part A** provides an *Introduction & Background* for the thesis. This section outlines why place and discourse matter in sustainability research and it contextualises the thematic, theoretical, and methodological focus of the thesis, providing an introduction to key ideas and concepts in the literature. It summarises how cultural change and social transformations were being approached in transformations literature when the research was designed, and it identifies where my research contributes to this landscape. It serves to provide a general background on topics of place, socio-cultural change and discourse in relation to sustainability transitions and transformations. In doing so, it establishes the overall context and research paradigm that underpins the claims made in the thesis.
- **Part B** contains three pieces of *original research*, presented as different viewpoints.
  - **Viewpoint 1** Provides the first perspective into place-based discourses about STT. It entails an original research paper that has been accepted for publishing

in the peer-reviewed journal Sustainability Science, and draws upon a Corpus-Assisted Discourse Study to sample, understand, and discuss the global discursive landscape addressing place-based change, and sustainability.

- **Viewpoint 2** Includes an original research paper published in the peer-reviewed journal People & Nature. It studies the politics, practices and imaginaries being mobilised in “Bioregioning”, a global sustainability discourse that is focused on a place-based approach to STT. It involved collaborative research using reflexive thematic analysis and it explores spatial, narrative, and relational themes in its approach and its content.
  - **Viewpoint 3** Provides a long-format case-study of the sustainability discourses influencing the work of the Blue Mountains City Council, a local government in New South Wales, Australia. The content is presented as an extended draft of an original research paper. The abstract for the study is accepted for inclusion in a special feature of the peer-reviewed journal Ecology & Society and paper will be developed after the submission of this thesis.
- **Part C** surfaces overall *discussion and conclusions* from the thesis. It includes a synthesis and reflection of insights and findings across the viewpoints. It includes a peer-reviewed paper published in Social Innovations Journal. This paper asks how research and researchers can empower a place-based approach to STT through the process of research and publication. The thesis ends with a succinct conclusion.
- **Appendices are included to provide additional evidence and records from the findings from each perspective, namely:**
- Appendix A contains a set of supporting data and analysis that relate to Viewpoint 1.
  - Appendix B contains supporting information and a literature review paper that informed the research undertaken in Viewpoint 2.
  - Appendix C contains a set of supporting documentation that relates to Viewpoint 3.



**PART A.**  
**INTRODUCTION & BACKGROUND**

Through the things we do, use and say, we reproduce structures of meaning in society. In doing so, we knowingly or unknowingly influence how the world is framed. These engagements with meaning add up and circulate in society. Storylines are created which influence how we consider and discuss sustainability issues or opportunities. By interpreting and analysing underlying structures of meanings present in our words and actions, discursive research can identify storylines (or discourses) that are present or emerging in society. Doing so can help us to be more deliberate, reflexive and critical about the stories we choose to bring into existence through our actions and our culture.

As my research will show, place is connected to sustainability through storylines that occur at different scales. Some policy discourses about place exist as at a general or abstract level. One such discourse sees place as synonymous with community. It carries assumptions about the central importance of human perspectives and might assert a story such as this: "Places are made by the human communities that live there." This is a storyline that's long been popular in social justice and urban planning and it is reflected in calls for acts of 'Place-Making' whereby shaping one's physical environment is seen as a positive way to enhance feelings of belonging. Here places only matter for what they do for humans. A different discourse about place starts with a 'more-than-human' frame of reference. This might assume a storyline that says something like: "Places belong to Nature, and humans need to become responsible members of those ecologies." This storyline is popular amongst eco-justice perspectives and in many indigenous cultures. In Australia, the word place, for example, might be replaced with the First Nations concept of Country. As I'll outline in Viewpoint 3, both of these hypothetical examples are present in Australia's planning system. I'll also show how various other discourses also intersect issues of sustainability and place—like calls for cities to become Nature Positive or to introduce Green Buildings and Natural Living Infrastructure. These position the constituents of places, and our responsibilities to nature, somewhere in the middle of the two hypothetical discourses above. They imply that there are tensions between human aspirations and the rights of non-human constituent and present responses to manage those tensions. Discourses about places and the politics that they carry get even more detailed and diverse when places are discussed as specific locations. Here, local features carry meanings which play important roles. A peach tree in one person's backyard, for example, may feature in a myriad of stories about family, food and belonging. To their neighbour, the same tree may merely be a worthless, geometric barrier that stops their lawn from receiving adequate sun. In a colonised landscape like Australia, each place, and the features within it can carry multiple meanings. A single site or feature within the landscape might hold important roles in overlapping stories about spirituality (connected to concepts of Country), recreation, nuisance, or wealth.

The intent of the hypothetical examples above is simply show that discourses about place matter when discussing topics of sustainability and that they quickly become embedded in complex arrangements of meaning that carry politics and implications for society.

Part A of this thesis will introduce various themes and concepts from academic literature that address the topics and dynamics that this box draws upon. It will identify how places play a rich role in our socio-cultural life and influence our relationships with nature; it will reflect how a place-based approach to change is gaining prominence in sustainability science; and it will discuss the benefit and perspective that discursive studies can offer and contribute. In STT research, where calls for a place-based approach to change are becoming mainstream, important questions emerge, like - what do the discourse(s) that call for this approach look like, and what implications might these discourse(s) carry for society? Part A will thus recount how the research questions of my thesis reflect knowledge gaps in the literature and outlines how my research is designed to answer them.

[Why Place-Related Discourse Matters: A plain language introduction to Part A of thesis.](#)

# Introduction & Background

As has been outlined, there are two overarching research questions that drive my thesis:

- (i) how are place-based approaches to sustainability transitions and transformations being pursued and discussed, and
- (ii) how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit?

This part of the thesis will provide an overarching context as to why these questions matter.

Section 1 starts by reviewing the literature, explaining why systemic transformations are required to address sustainability issues, and why topics of place and discourse are of interest and importance in sustainability transitions and transformations research. Based on this survey of the literature, Section 2 identifies where my contributions will be made to complement and extend the existing research landscape. Part A will conclude by outlining how my research is designed to contribute to the field, signalling where and how my research questions will be addressed in later sections of the thesis. Specific sections are as follows:

- **Section 1: Thematic, theoretical & methodological context of the thesis.** Section 1.1 will introduce the lineage, relevance, and resurgence of place-based approaches to sustainability and contextual nuance that it priorities. Section 1.2 will then outline theoretical perspectives on culture and discourse, providing conceptual context for the analytical approach of my research. Section 1.3 identifies how topics of place and the use of discourse analysis can help to find important insights into the politics of sustainability and patterns of change in complex systems, situating how my research contributes to key priorities, perspectives and trends in contemporary STT research.
- **Section 2: Overarching research design.** Section 2.1 summarises how and why my thesis will use three viewpoints to addresses the research gaps that and priorities that were outlined. Section 2.2 discusses the overarching methodological context, implications and considerations for the thesis. Section 2.3 addresses ethical aspects of the research and Section 2.4 recounts the key implications from Part A, providing a summary for the reader.

# 1. THEMATIC, THEORETICAL AND METHODOLOGICAL CONTEXT OF THE THESIS

## 1.1 Why study place and the politics of socio-cultural change in the context of sustainable futures?

Sustainability science has become increasingly aware of the complex socio-cultural dimensions to the causes and responses of sustainability, and the crises that face our world. Figure 1 highlights one way to express the level of transformation that is required, suggesting that to reach sustainable futures, humanity needs to reposition our economies and institutions within the interests of society; and reposition society's ambitions and activities into coherence with the health –and limits– of the Earth's biosphere (SRC, 2020).

Narrating sustainability in this way implies a need for deep recalibration in the ways that broad swaths of humanity have come to see our relationship with the natural world. It is a viewpoint now widely held seen in sustainability literature. For example, work in environmental philosophy and worldviews research has long diagnosed core tendencies in Western Modernity as presenting issues for contemporary sustainability, problematising (Modern) assertions like an expectation that our access to science and technology can free humanity from the shackles of nature and support aspirations for endless growth (White et al. 2018; Hedlund de Witt, 2012; Dunlap 2008). Reflecting on the unsustainability that the industrial era has produced, popular counterviews in environmental literature instead (re)assert that humanity never in fact reached those Modern ideals of separation (Latour, 1991) and that we remain embedded in, and entangled with, nature and a more-than-human world (Berzonsky & Moser, 2017; White et al., 2018). Extrapolating from this viewpoint, a 'humans-in-nature' perspective, which is implied in Figure 1, is often itself bound up with ethical, ontological, and axiological perspectives about what we consider right, how we view reality, and which futures we see as normative. A humans-in-nature viewpoint often accompanies, for example, an acknowledgement that climate change presents a challenge for humanity to not just reduce carbon emissions, but to better understand our place as one of many species on Earth, and to find ways better ways to manage our newfound position as a key influence on all known life in the universe (Capra & Luisi, 2014; Orr, 2004, 2011; White et al., 2018).

**Figure 1.** Reconnecting society to nature to address global sustainability issues. Deep changes in values and behaviours are implied if we are to reposition the economy so it serves society, and society to act in coherence with the biosphere. This vision for the future thus carries with it implications for what we value, how we perceive nature and on what terms we engage with the non-human constituents of the Earth.



Source: SRC 2020. Icons reflect the UN Sustainable Development Goals

There are many dimensions and much scholarly work that is interested in this large and ambitious agenda, tracing if and how socio-cultural transformation might be occurring or finding ways to facilitate its progression. My research focuses on the intersection of place and discourse, and while reasons for this focus will become clear, my reason for focusing on these issues relies on two well-established premises about sustainability and its politics.

First, in order to achieve the breadth and depth of changes implied by Figure 1, there are complexities that arise from specific histories and perspectives, as well as from broader values and dynamics that are connected in increasingly global networks in society. Discursive study is a well-established lineage of social science that seeks to trace discourses (broad socio-cultural meaning structures) in society and explore how these are used by different actors. Understanding the presence and dynamics of different discourses can uncover insights into the politics of sustainability, surfacing which (and whose) futures are being pursued (White et al. 2018; Leipold et al., 2019).

Second, in the broad discipline of sustainability, the socio-cultural relationships that we hold with specific places can uncover insights into our broader relationships with nature (e.g. MacGillivray, 2015; Wilbanks, 2015). Moreover, the meanings that places carry, and the socio-cultural dynamics that maintain them, can present compelling opportunities for engaging people about the need, process and opportunity for change (e.g. Masterson et al., 2019; Horlings et al., 2020; Chapin & Knapp, 2015). This is because conversations about sustainability

that address specific places can carry cultural, emotive and personal resonance that conversations about sustainability at larger scales often fail to evoke.

Section 1.2, below, elaborates on these points, introducing how research can approach concepts of culture, place, and discourse and further describing why these themes matter for contemporary sustainability research and practice.

## **1.2 Culture, Place and Discourse: a general introduction**

### **Situating “culture”, “place”, and “discourse” in sustainability transformations research.**

The previous section introduced some socio-cultural dimensions of sustainability and noted that many scholars see a need for transformative change in society. This section outlines how culture can be considered as a set of meanings or beliefs that are continually constructed and re-produced. Conceptualising culture in this way helps illustrate how research might trace patterns in these meaning-making processes, contextualising why I use discursive research and what it can contribute.

“Culture” is a term with broad uses and many definitions. Watson (2018, p. 24) introduces culture as the “mutually reinforcing system of ideas, rules, values, and practices adopted by a community- and there can be many overlapping cultures and communities”. Similar sentiments are presented by Adger et al. (2013) who explore cultural and socio-cultural dynamics in relation to sustainability. They define culture as the “symbols that express meaning, including beliefs, rituals, art and stories that create collective outlooks and behaviours, and from which strategies to respond to problems are devised and implemented”. Both definitions emphasise the fluid nature of culture, its construction, and its connection to topics of meanings and social values. Table 1 goes deeper into elements of culture to introduce broad ideas in the literature and to provide a general understanding of the concept and how it can be studied. When it comes to sustainability issues, Geoghegan et al. (2019) summarised how these dimensions relate to issues in sustainability, describing that culture is often seen as a cause, a victim, and a means for society to adapt.

**Definitions and concepts of ‘culture’ in relation to discourse and their relevance to my research**

<p><b>Culture as a 'fuzzy' concept</b></p>	<p>Culture, as a concept, also carries with it many definitions and connotations from its use in daily life, making it a broad and 'fuzzy' concept. For the purpose of my research, the collective "baggage" from such common applications is useful. Common uses hint at various elements I'll address in more specificity and language throughout my thesis. This includes the ideas, aesthetic practices, and stories that we encode into materials or share in collective narratives and discourses that identify who we are, how we act, and what we have in common. It raises attention to what Halverson (1985) distinguished as "little c" components of culture: our values, worldviews and beliefs, as well as the "big C" institutions of culture that enshrine some combinations of values into social systems: our galleries, languages, and artistic movements. Referring to culture intuitively reminds us of the emotive and expressive parts of our selves- the dynamic agency we claim in shaping our identities and stories through creative practices – the processes of reflection, expression, and creation, and the impressions this leaves on others. Each of these elements will be raised in my discussion of the literature and proposed research, and although my language will be more specific than the trope of "culture", the baggage will hold some relevance.</p>
<p><b>Discourse, the structuration of culture, and socio-cultural change</b></p>	<p>My research will engage with concepts that disaggregate processes of socio-cultural change into more specific concepts and terms. In the literature, terms like 'narratives' and 'discourses' are sometimes used interchangeably. My research will take up more recent efforts (e.g. Riedy 2020) to disaggregate these ideas. It will consider:</p> <ul style="list-style-type: none"> <li>- <b>the communicative (or 'discursive') elements of culture</b>, wherein sets of ideas, values and beliefs are embedded in various communicable packages such as linguistic terms and phrases, art, images, patterns of behaviour, and rituals (Adger et al., 2013; Waddock, 2018). Lakoff (2010) argues that sustainability projects - like the project of 'reconnecting to nature'- require popularly recognised and repeated discursive elements in order for our brains to consistently make sense of the issue and come to agreed conclusions. Identifying the spread and emergence of discursive elements and their prevalence in different groups of society is a focal issue for some discursive research (e.g. Feola &amp; Jaworska, 2019; Waddock, 2016; Waddock, 2018; Chabay et al., 2019).</li> <li>- <b>the use of these elements by different groups</b>. The process of creating, selecting and combining these elements highlights some aspects of reality over others. Dawkins and Blackmore suggest that the smallest 'blocks' of culture can be thought of as (socio-cultural) memes, and their selection and</li> </ul>

	<p>reproduction processes reflect what occurs in genes. Studying how different groups in society use discursive elements (like memes, stories, and narratives) provides an insight into different values, beliefs and visions they hold, and the qualitative direction of social change that they are promoting. Understanding this contested, political space of cultural change is a common focus for studies of sustainability discourses.</p>
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**Table 1.** Definitions and concepts of 'culture' in relation to discourse and their relevance to my research

Understanding culture as a product of selected and reproduced meanings, values and ways of seeing the world (as outlined in Table 1) is a means to preface why discursive research into sustainability matters and how it can help to examine systemic changes in the values and worldviews that influence sustainability.

While discourses have been broadly introduced already, my research is particularly aligned with socio-cultural lineages (Leipold et al. 2019) and Hajer and Versteeg's (2005) definition, which has had a seminal influence on the study of environmental policy discourses. This describes discourses as "an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices" (Hajer & Versteeg, 2005: 175).

Discursive research and its intersection with the related fields of HNC, SES, and STT studies is enabling research to explore how the exchange of ideas in academic, policy, and popular forums is framing sustainable futures and influencing socio-cultural change. These are big questions and looking at sustainability discourses in relation to the cultures that they come from, opens one up to questions of how we see reality (ontology), how we rationalise and identify truth and knowledge (epistemology) and what kind of world we aspire to live in and create (axiology). I will manage the scope of my thesis by focusing on the way place is being represented and by sampling specific examples of that phenomena. Doing so will enable me to progressively deepen the discussion from observing patterns of exchange in meaning, and then discussing what those patterns might imply.

### **Introducing "place" as a concept and a forum for meanings and experiences that connect society to the natural world**

To complement concepts of culture, this section will introduce how research is engaging concepts of place and how doing so can generate socio-cultural insights into the changes required for a sustainable society.



Places are a key influence on the diversity of cultures in the world. Seminal ideas by geographers Yi Fu Tuan (1977) and Tim Cresswell reflect that “place is the central concept which most perfectly expresses how humans create centers of meaning and fields of care in order to feel at home in the world” (Cresswell, 2004/2015, p198).

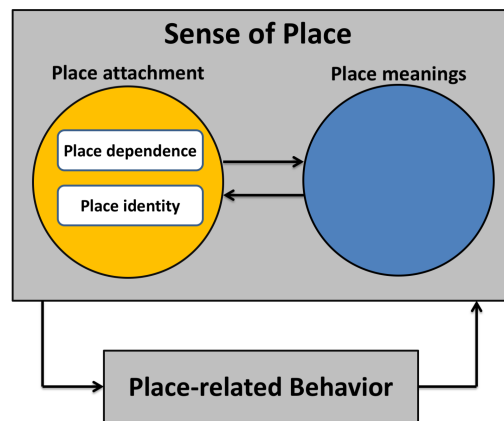
These ideas cross over into the way topics of place, culture and meaning are being considered in sustainability. Adger et al (2013, p112) are explicit in connecting cultural considerations to questions and themes of place, noting: “culture and community are frequently rooted in place—from metropolitan areas through to marginal rural settlements” and suggest that through its impact on specific places, climate change might “change cultures and communities, often in ways that that people find undesirable”.

As has been outlined, a major concern in STT research is the need for socio-cultural transformation to address global sustainability issues. STT engagements with topics of place often go beyond human-centric concerns with places and the meanings that they carry, conceptualising places as more-than-human spaces. My research began by noticing that place-oriented approaches to sustainability appeared highly effective in supporting ‘reconnection’ with nature at an individual and cultural level. They were, and continue, to be widely used and promoted in research programs and civic-led sustainability movements (e.g Horlings et al. 2020; IUCN, 2019; AELA n.d.) and the connection between place, meaning and culture have become central themes in the emerging field of human-nature connection (HNC) studies (Ives et al., 2017; Ives et al. 2023; Riechers et al., 2021).

Figure 2 identifies some key concepts in Sense of Place literature, highlighting how the meanings and emotional attachments that we attribute to a place are related to one another, and can influence our behaviours. These concepts are further outlined in Table 2, discussing their relationship with STT literature and the priorities of my research. The intention of this table is to provide the reader with a general and succinct theoretical grounding in place-related literature and theory. As with concepts of culture and discourse, I’ll return to concepts of place throughout specific parts of the thesis.

**Figure 2.** Key concepts in Sense of Place literature and their relationship to one another.

Source: Masterson et al. (2017, p. 2).



Definitions and concepts relating to 'place' that are relevant to my research	
Place-based approaches to sustainability	<p>MacGillivray &amp; Franklin (2015) distinguish two lineages in sustainability; a macro-scale lineage that approaches sustainability as a relatively abstract, universal, and translocatable task and a localist lineage which is often “(self) described as place-based”. They suggest this place-based approach differs through its “relentless focus on context”.</p> <p>Feola and Jaworska (2019) similarly identified place as a key way to understand different perspectives on transformations. While some initiatives are likely to adopt processes that have been translocated, others might put more emphasis on generating new models and approaches from local, ground-up processes. Stirling (2015), for example, sees grass-roots movements as the most democratic process for transformation that avoids (and transforms) the ills of a social system dominated by single cultural agendas.</p>
Sense of place	<p>“<i>Sense of place</i>” is a concept and a field of research with more than 40 years of history. Tuan (1977) described sense of place in relation to the <i>meanings</i> and the emotive <i>attachments</i> that an individual or group attributes to a physical setting. Meanings and emotive attachment are interrelated but can be measured separately. Masterson et al. (2017) argued that sense of place research holds great relevance to transformations research and the integration of these fields is still ongoing. In general, sense of place literature explores the experiences, definitions, meanings and stories that we hold, share and adopt about specific places. Sustainability science engages these ideas to consider how they might help build understanding and insights into people’s environmental values and behaviours on sustainability issues.</p>

<b>Place attachment</b>	<p><b>“Place attachment”</b> refers to our emotional connection to place. It is sometimes understood as a product of our instrumental reliance on a place (<b>place dependence</b>) and the importance of a place (and elements therein) to our personal identity (<b>place identity</b>) (Masterson et al., 2017). Place attachment has been found to play an important role in how we perceive and respond to sustainability issues (Gifford, 2011; Gifford &amp; Nilsson, 2014; Grenni, 2020). Gifford (2011)’s work in environmental psychology, for example, has found that a lack of place attachment has been a barrier in individuals taking action on climate change- and noted that it was always environmental (not civic) place attachment that determined a person’s willingness to take sustainable actions.</p>
<b>Place meanings</b>	<p>In general, the study of place meanings is an area less addressed in sense of place literature. Place meaning relies on descriptive statements about what a place is, what it is like, and the kinds of messages it conveys. The meanings a place presents to us might be descriptive (ie polluted, warm, etc), or symbolic (ie home, wilderness, escape, etc). Masterson et al. (2017) highlighted how meanings can mediate place attachment, providing insights into which aspects or features of a place create positive place attachments, and which do not. Meanings can be explored from both individual perspectives and those shared in groups. The study of place meanings can help understand people’s attitudes towards specific types of change, and perhaps, connect which (or why) different stories and messages might connect with different parts of the community. My research will consider the way that place meanings influence sustainability policy and politics in the case of bioreigning, and in a case study focused on a local government area of the Blue Mountains, Australia.</p>

**Table 2.** Definitions and concepts relating to ‘place’ that are relevant to my research

In sum, this section has contextualised why my research seeks to find insights into the dynamics that occur when communicative components of culture come together on topics of place and sustainability.

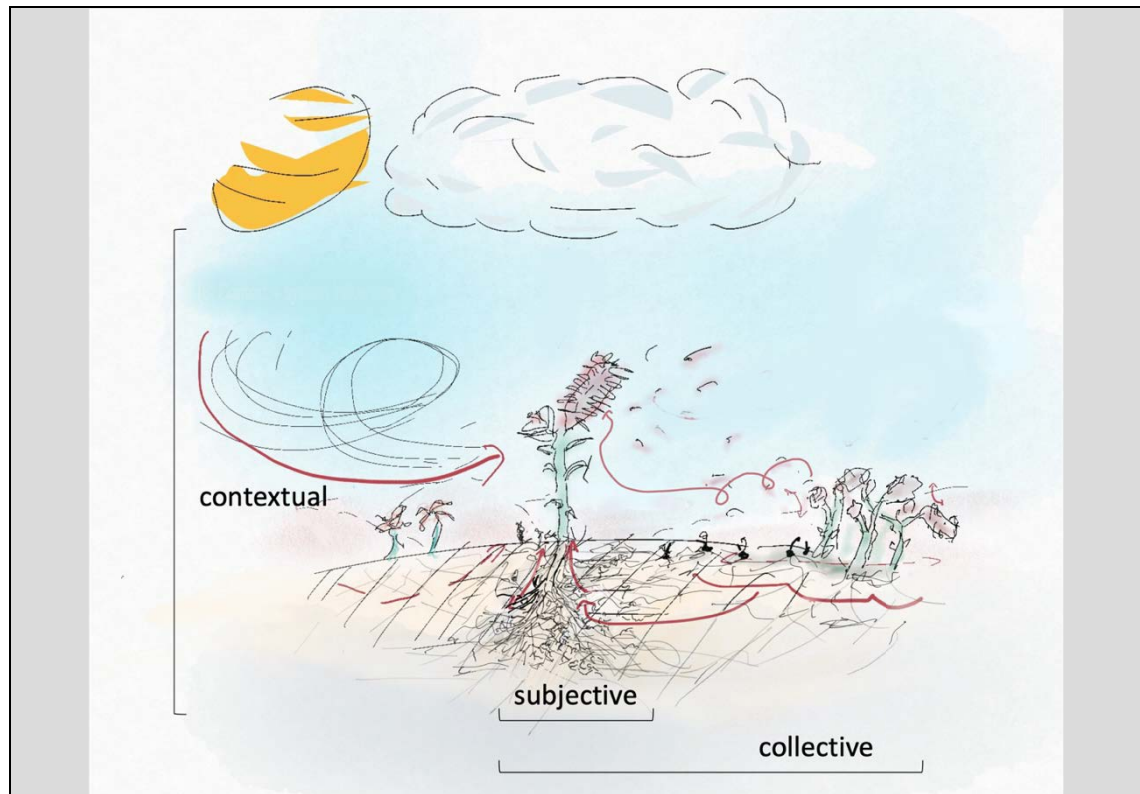
While an interest and consideration of place (conceptually, and as a call for contextual specificity) are becoming increasingly common in practice, questions remain about what kind of world “place-based” approaches to sustainability collectively draw forth in practice as well as aspiration, and how they look in specific examples. The nexus points to various questions of intent and expression: What are the hopes and aspirations of sustainability discourses about place? What kind of politics and power dynamics do they carry? How do place-based approaches to sustainability and discourses about place sit within broader socio-cultural dynamics of change?

Thematically, all these questions and concepts are pertinent for my research, however, a final set of concepts is required to understand how they will be pursued and discussed through my thesis. These relate to concepts of systems and deliberate change that are central to the field of STT. They are described below in order to orient the reader toward the way that researchers and theory within this evolving and transdisciplinary research field have been conceptualising and studying flows of discourse, meanings, practices, and power.

### **1.3 Systems and discursive change: a synthesis of STT priorities and perspectives.**

STT is a broad, transdisciplinary and conceptually complex field of literature. Its engagement with topics of place and discourse has progressed over the course of my doctoral study, making a synthesis of the literature an ever-evolving task. This section aims to surface some major conceptualisations in the field in order to make it clear where and how my thesis enters this landscape.

In Box 2 a simple metaphor is presented (Figure 3) to acknowledge that STT research has interests that span contextual, collective, and subjective dimensions of socio-cultural systems change, and the relations between these dimensions. The choice of metaphor aims to reflect that some of the priorities in the literature are reflective of common patterns in nature. This includes considerations that sociological change is influenced by incumbent or inherited structures that situate humanity in a material, more-than-human world where time, geography and history all exert their influence. Our experience of this world is mediated, and our reflexive capabilities as individuals, our contextual exposure to materials and events, and the communicative dynamics between us influence how we interpret and make meaning from our encounters. To complement the content in Box 2, sections below highlight key concepts in the literature, reflecting different lineages of work that seek to (i) describe and conceptualise dynamics with complex systems; (ii) identify opportunities for interior transformation; (iii) trace patterns of discursive exchange. Across these priorities, it discusses how STT literature is integrative and seeks to consider the role of relationships, contexts, and networks that connect these different emphases.



**Figure 3** Across a broad and interrelated body of STT literature, contextual, subjective and collective influences are recognised to play concurrent and interrelated roles in the socio-cultural dynamics of sustainability transitions and transformations.

The ecological basis for the design of Figure 3 is intended to serve as a tool to draw the reader toward an understanding that a rationalised matrix might not. By using ecological imagery, I hope to trigger associations with the dynamics that occur through habitats, functional groups, pollination processes and disturbances that support and enable processes of change within communities. The metaphor aims to reflect that there is a dynamic and shifting perspective to culture, as well as an inherited structural influence<sup>2</sup>. As described by Benhabib (2002), what we observe as a collective culture is constructed, contested, and constantly in play. When developing the figure, plants were chosen for the nuance they can offer when representing patterns of discursive and narrative exchange across scales, which are central topics in my thesis. Here, I hope the reader equates flowers releasing pollen, carried by the wind, birds and bugs, to the ideas and creations we share, carried through language, objects, and actions. For things to take hold and scale, the volumes sent matters, as does timing and compatibility with the audience and their context. There are parallels between all of these dynamics and

<sup>2</sup> The general premise of the metaphor is thus aligned with contemporary sociological theories (e.g. Giddens 1984) that balance the influence of structure and agency, describing a complex and ongoing process of structuration in society.

the way STT research is considering how meaning is exchanged during processes of socio-cultural change<sup>3</sup>. Its inclusion at this point in my thesis aims to reflect some key priorities in STT literature, which will be explained in this section. It also creates a visual precedent for metaphors that will continue to be used in the title pages of each perspective ('viewpoint') offered by my research. Respectively, those viewpoints will include: (i) the metaphor of digital pollen wherein online and academic forums house a decontextualised exchange of meanings (reflecting the global exchange of meanings studied in the thesis' first perspective) (ii) the metaphor of pollinators, wherein some ideas are taken up and carried across different places, helping their distribution through trans-place networks (akin to thought leaders interviewed in the second perspective of the thesis which studies the trans-local discourse of *bioregioning*); and (iii) the metaphor of a situated garden, wherein contestations between different discourses play out in relation to the complexities of a local context. Here, some narratives and discourses may be endemic, whilst others might have arrived from elsewhere and undergone various levels of adaptation to suit the local context (reflecting the third, contextual perspective).

Whilst primarily a tool for sense-making and organising the literature, the figure is thus intended to communicate some ideas discussed in the literature and foreshadow the perspectives that will be explored through original research and the discussion of my thesis.

**Box 2.** Summarising STT perspectives on socio-cultural change and place using a metaphor of plants and pollen.

### **1.3.1. Context and systems: overarching theories and systemic dynamics**

Two prominent lineages in STT literature derive from influential theories in transitions studies and resilience studies, respectively. Sense of place research has also explored contextual influences on individuals, and communities, from their social and ecological context. Across all three of these influences, there is a shared recognition that materiality and context play a critical role in change (e.g. Folke, 2006; Folke et al., 2010; Geels, 2002; Geels, 2011). Ecological, material, as well as social conditions, are important factors and influences for researchers to consider- they influence how dynamics can be studied and both lineages have created conceptual frameworks suggesting when, to whom, where and how deliberate changes in society might occur. My PhD

<sup>3</sup> Like all metaphors, Figure 3 has limits- the plants in my scene must be magic, for example, because humans, as will be discussed, can re-invent how we engage with our context and relations through the reflexive project of the self.

coincided with an increasing integration of research fields like sense of place and human-nature connection studies, with concepts of systems change in STT literature. While this section might be interpreted to suggest systems theories and perspectives are separate from collective and individual perspectives, this is not what I intend. A contextual, systems perspective is intrinsically related to the perspectives of change that centres individuals and communities – and the discussion will get to them in due course.

***Places are situated, with histories, that create context for where, when and to whom change might occur.***

Across diverse contexts, research has found that people's memories of past weather events and popular narratives about such experiences (whether we were there or not) can influence how we judge issues like climate change (Geoghegan, Arnall, & Feola, 2019, p. 10; Hall & Endfield, 2016; Jones et al., 2017). Place-based stories and narratives have also been used to consider what is possible via the emotional attachments we hold toward specific ecological features in the landscape where we live (e.g. Rebelo et al. 2020). Kim et al. (2017) found that popular reading of naturalist writing about a local area supported pro-environmental place attachment when it drew on a shared identity and a socio-ecological memory held across a community. Place meanings are thus influenced by subjective and also social dynamics; our sense of place is influenced by the place-meanings we adopt, and the emotional connections we develop for a place influences our collective decisions. Manzo and Perkins (2006) for example, found that communities with strong shared connections to place are more likely to respond to changes and engage in collective planning and governance. It is now widely accepted that localising discussions about sustainability and its pursuit can be a powerful tool to develop and activate social movements to engage in the transformation of governance systems to pursue sustainable futures (Manzo & Perkins, 2006; Newman et al., 2017).

While my research will encounter a range of different contexts, a specific case study will be centred on Australia, where attention has been paid to many of the above dynamics, including the value of communicative techniques about place-specific features (Jones et al. 2017); the potential for transformative socio-cultural change to be pursued in response to large events (Head, 2020; Baldwin et al., 2020); and the social contexts required to help facilitate and support structural change in society (Tonkin, 1995).

These selected examples from a diverse body of literature simply aim to reflect that ample evidence sits behind a rather simple concept: localised dynamics affect both individual and collective transformations, and our exposure to experiences and how they influence places we care

about can influence behaviours and beliefs in relation to sustainability topics. While practical or utilitarian arguments might thus be one way to rationalise why a place-based approach to STT, there are also ethical and axiological arguments, such as those outlined earlier. When I started my PhD, there was a lack of clarity about what different groups of advocates (including STT researchers) meant when they called for attention to place and/or place-based approaches to STT and socio-cultural change—systematic reviews or empirical studies that considered those emphases is a contribution that I personally would have found useful. My research provides such insights, starting off this thesis by surveying if there is a central story about what a place-based approach to STT is, and exploring why it matters (in viewpoint 1). It will then consider specific expressions of that storyline in viewpoints 2 and 3. In doing so, it explores if, how, and why different ways of discussing place-based change appear to resonate with different audiences (particularly in viewpoint 2). Throughout the work, (and especially in viewpoint 3), I also consider and discuss what practical insights might be found for people seeking to create change and pursue place-based approaches to STT.

***Two theoretical lineages have different preferences in exploring material influences and system dynamics***

The influence of resilience and transitions studies are both present in STT research. While they increasingly overlap and many scholars engage fluidly across their concepts overlap, each has been influential in contextualising how change occurs within concepts of nested systems and draw attention to different dynamics of change. In doing so, they present alternative ways in which discursive changes in society might be understood and pursued.

The **Resilience Studies lineage** is now better known as Socio-Ecological Systems (SES) research. It emphasises an understanding of systems and change that builds on ideas in “new ecology” (Gunderson & Holling, 2002; Zimmerer, 1994). A key concept in SES theories of change is based on a universal model of system dynamics proposed by the Adaptive Cycle (Gunderson & Holling, 2002) and concepts of nature-culture hybridity in coupled social-ecological systems (Berkes & Folke, 1998). The suggestion is that there are cyclical patterns to all systems and that doing the ‘right’ work at the ‘right’ time can influence the likelihood of transformation occurring, and shape key features that a new social-ecological system might take on. To this end, Westley et al. (2013) connected Dorado’s Theory of Effective Agency to identify different types of agency that might complement different stages of system stability and cycles. Moore et al. (2014) extended this to identify a strategic approach for deliberate transformational change in response to social-ecological systems dynamics. Research into sustainability transformations according to SES



theories help to link the dynamics of individual events and the timely work of effective agents (like those discussed as place-based contexts) into systemic cycles and patterns that respond to a deep understanding of social-ecological contexts.

A **Transitions Studies** lineage offers a different conceptualisation of systems and their nested relationships. Its preferences are indicated by its description of “socio-technical systems” as the key object of interest. The Multi-Level Perspective (MLP) (Geels, 2010) is an influential theory that is central to transitions conceptual understandings of how sustainability transformations might be studied and pursued (Loorbach et al., 2017). The MLP, and transitions literature more broadly, tend to emphasise technology and materials as drivers of social change and position innovation as the pathway to sustainable futures (Loorbach et al., 2017). Transitions scholarship offers useful insights into the emergence and spread of new ideas (including memes and narratives of discourses) within a landscape of influence shaped by incumbent actors and arrangements. My research hopes to explore material dimensions that connect and mobilise different discourses about sustainability. As a basis for understanding cultural dynamics of social change, systems-based perspectives that are popular in transitions research offer unique insights, but they also carry limitations and constraints (Cote & Nightingale, 2012; Gillard et al., 2016; Stone-Jovicich, 2015; Stone-Jovicich et al., 2018). Transitions approaches have, for example, been critiqued as overly hierarchical, underestimating the dynamics of cultural reproduction through a broader appreciation of social practices, rather than the materials being used (Shove, et al., 2012). Stone-Jovicich et al.’s (2018) review of social studies within Resilience literature found that important social dynamics like power and culture were understudied, and questions like “*transformation to what?*” and “*transformations for whom?*” require different research approaches to be introduced and explored.

SES and transitions perspectives are in dialogue and they are now highly interconnected. While there have been valuable contributions in both lineages that have emerged during my doctoral research, there remains a broad opportunity to more deliberately introduce sociological theories of change and empirical and methodological approaches to explore how the exchange of meanings, stories, and values interact in broader social, ecological, technological and material systems. My thesis draws more closely on SES concepts given its connection to place and nature, but it also considers the systemic dynamics of discourses, power, and complex socio-political forces that also influence social change (Gillard et al., 2016; Stone-Jovicich et al., 2018). As such it complements recent efforts, such as those by Simoens et al. (2022) to use the MLP heuristic in a way to introduce discursive studies to the field. It also complements an emerging ‘pathways’

approach to systems transformation that cuts across both lineages and is closely aligned with the more-than-human goals and contextual specificity that draw attention to place in STT research (Ely, 2022)<sup>4</sup>. Through original research into a contextual case study (viewpoint 3), the thesis will make a particular contribution to the integration of discursive concepts into SES research, helping to extend the way research might consider questions of context and inter-place connectivity in socio-cultural dynamics of change (Biggs et al., 2022).

### **1.3.2. ‘Transformations from within’: interior approaches to facilitate human-nature connections**

STT houses a body of practice-oriented research that is focused on the pursuit of systemic change through processes of individual learning and reflexivity. As the STT field has become increasingly interested in place, a focus on the interior has become increasingly connected to human nature connection (HNC) studies (Riechers et al., 2021). This is briefly recounted below.

Early in STT literature’s engagement with topics of socio-cultural change, the “Three Spheres Model” (O’Brien & Sygna, 2013) created an important influence on researchers and practitioners. The Model proposes that changes in “personal” spheres (i.e. beliefs, values, worldviews, and paradigms) impact the variety of options and actions available to broader (“political” and “practical”) spheres of behaviour. There is a strong ethical argument for this approach to deliberate social change, described by O’Brien (2018, p. 157) in relation to climate action as implying “less attention to altering or manipulating people’s behaviour, and more on creating the conditions that promote the development and expression of social consciousness and futures consciousness in all three spheres”.

In outlining the relevance of interior change for STT’s systemic priorities, O’Brien and Sygna (2018) drew on arguments presented in Donella Meadows’ (1990) widely cited list of ‘points to intervene in a system’; here, the hierarchy of influence reaches its zenith when the foundational paradigm of a system is transcended. The 3 Spheres Model argued that cultural change,

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<sup>4</sup> Integrative conceptualisations, like Waddock et al. (2020) and Waddell et al. (2015)’s work on Large Systems Change provide complementing alternatives to the major ideas focused on in this section. They also influence how I approached the work conceptually, and remain valuable sources to consider how sociological and discursive perspectives might be integrated with existing TS and RS insights on systems dynamics.

structural/governance improvements, and technical innovation are all required to address sustainability challenges. To enable deliberate transformations, it puts an emphasis on supporting interior changes within individuals. It rationalises that the way to achieve such change is via emancipatory experiences and a process of Transformative Learning (discussed below).

Over time, the leverage points perspective has evolved into a 'boundary' concept that invites reflexivity amongst researchers, and consideration of interventions across different types of interventions, noting the complexity of interconnections between things like practices and worldviews (Leventon et al. 2021). Alongside this, perspectives that emphasise interior change have started to be re-considered, as relational approaches have become a key consideration in STT theory and sustainability more broadly (West et al., 2020; Ives et al. 2023; Wamsler et al. 2021). These changes have seen a focus on interior dynamics of STT become more contextualised, connecting interior dynamics with HNC studies, which Ives et al. (2017) summarised as a field of research that is concentrated on individuals in local contexts, addressing topics of mind, experience, and place.

### ***Practicing interior change through Transformative Learning and nature-reconnection***

There is a long history of sustainability programs that actively try and support interior changes to occur through education and reflexivity. Momentum has recently been building in STT to consider this pursuit through topics of place and experience. Many efforts in interior change have drawn from Mezirow's theory of Transformative Learning (TL) for Adults (Mezirow, 1978, 1993, 2003), which assumes that deep and deliberate change can be supported following 'disorienting dilemmas' which cause us to question the validity of deeply held beliefs. Mehmood et al (2020, p466) summarise the intention, noting that "developing pathways to sustainability relies on adults first unpicking the myths of our current system and then developing new frames of reference to account for the ecological, social, and economic disasters we see unfolding before us."

Recent approaches to interior change are now combining theories of TL with aspirations and observations from HNC- creating educational programs that prioritise nature-reconnection often in combination with in-nature experiences and creative practices (Macintyre et al., 2020; Mehmood et al., 2020). Nature connection programs are also becoming popular outside the purview of research. Colahan and Chapple (2019) provided an initial insight into their prominence in Australia. In a six-week study, they engaged with 185 programs operating in

Australia that identified as ‘nature connection’ programs, with 69% serving adults or “all ages” and a range of organisations involved in the work.

The integration of place with TL concepts is theoretical as well as practical. Pisters et al. (2019) and Mehmood et al. (2020) argued that sense-of-place concepts offer a productive revision to TL theory. Pisters et al. (2019, p. 3) specified that an issue with traditional TL was its basis on a constructivist assumption that “everything is always socially constructed” and an over-reliance on individual autonomy which risks “TL theory becoming a theory of ‘personal development’ in the spirit of a neoliberal culture of self-development and wellbeing”. Instead, both Pisters et al. (2019) and Mehmood et al. (2020) suggest that TL, as it relates to sustainability transformations, requires greater awareness that individual transformations occur within social and material contexts. They argue that TL for sustainability is intrinsically linked to engagements in place and relies on not only rational processes for change, but also an experiential pedagogy, drawing on embodied knowledge, creative exploration, spirituality and non-Western forms of sense-making.

### ***Individual changes en masse***

Although focused on supporting individual change, the perspective of interior transformation is sometimes used in the design of initiatives that seek to shape collective social change. CommonCause (Crompton, 2010) uses psychological theories to propose how public communications might strengthen values that are consistent with sustainable futures. To do this, they provide resources and strategies for public campaigns to appeal to bigger-than-self motivations, rather than convincing people to take action out of self-interest. Recent work by O’Brien et al. (2019) started to extend the insights on interior change programs in their collective context by studying how participants discussed their experience with others. A key area that remains under-researched is whether there are any dynamics that can be observed at the collective social level when different social cohorts (i.e. identity groups) undergo interior transformations, whilst others do not. Put another way, research is yet to question whether programs supporting interior transformations might sometimes deepen the identity politics of sustainability and whether this helps or restricts the political progress on sustainability.

This brief review demonstrates that much progress has been made by considering interior factors of change and that relationships to places matter in this perspective of STT research. My research will consider the individual perspectives and dynamics through its interviews with change-makers and policy-markers in society. However it will also acknowledge that individuals occur in shared contexts and communities, and as such, my research aims to complement

individualistic approaches to STT by focusing on perspectives that decentralise the individual aim to examine and offer insights into contextual and social factors of cultural change and social transformations for sustainability.

### **1.3.3. Discursive and narrative exchange**

The sections below will conclude my general summary of STT literature and the conceptual landscape with which my thesis engages. It addresses how the broad tradition of discursive studies has and can complement the focus of STT research, a nexus that my research is focused on. The discussion dives more deeply into definitions and considerations of culture introduced in Section 1.1. In doing so, it draws attention to the power relations between meanings and agendas, spread through ‘memes’, ‘narratives’ and ‘discourses’, and the implications these present for the way sustainability is pursued.

#### ***Exchanging meaning with social consequences***

As introduced in in the first section of this paper, our communicative exchanges have an important cognitive and cultural function. When select and reproduce different sets of words, stories, rituals, or performances we take part in broader socio-cultural dynamics that categorise ideas, process decisions, and evaluate the world. Whilst the literature has yet to adopt consistent terminology, an introduction to a variety of elements in discursive theory that influence my research is summarised in Table 3, drawing on work by Riedy (2020):

<b>Definitions and concepts in discourse and narrative theory that are relevant to my research</b>	
<b>Mememes</b>	refers to a concept by Richard Dawkins (1976) and its use in social science is much broader than colloquial discussions of “internet memes”. Susan Blackmore (2000, p52) described memes as the smallest building blocks of culture, comprising “stories, songs, habits, skills, inventions and ways of doing things that we copy from person to person by imitation” She uses memes as a heuristic to consider processes of socio-cultural change over time, suggesting “human nature can be explained by evolutionary theory, but only when we consider evolving memes as well as genes”.
<b>Frames &amp; metaphors</b>	are sometimes discussed as types of memes, and other times discussed as intermediary concepts that are constructed by sets of memes. In the latter definition, frames and metaphors form and carry implicit conceptual arguments and perspectives on the world. Lakoff (2010) refers to framing as a process of sense-making that assigns definitions by

	highlighting some elements of reality over others- and as such, engages with our underlying values.
<b>Stories &amp; narratives</b>	are the organisation of memes, frames and metaphors into constructed arguments (or dialogues) with a certain structure and flow (i.e. a beginning, middle, and an end) (Lakoff, 2010). Stories can be present on any scale and topic. Narratives can be considered as oft-repeated, overarching stories about the world. Narratives, comprised of the stories, frames, metaphors, and memes they reference, thereby represent a deeper influence and reflection of our cultural values and beliefs. Narratives form bridges to 'deeper' and politically contested discourses (Linnér & Wibeck, 2019; Riedy, 2020).
<b>Discourses</b>	capture all of the discursive elements above to present a general perspective on the world and related sets of stories, memes, and frames. Hajer and Versteeg (2005) who have had a seminal influence on the study of environmental discourses, define discourses as "an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices". The diversity of these practices is further outlined by Bischooping and Gazso (2015, p. 129) who describe "a web of meanings, ideas, interactions and practices that are expressed or represented in texts (spoken and written language, gesture, and visual imagery), within institutional and everyday settings".
<b>Discourse coalitions</b>	describes how different groups of actors endorse and reproduce certain discourses (or end up with aligned sets of discourses) that can popularise fundamental beliefs and perspectives (Hajer, 2006). Discourse coalitions are important in connecting political and power contestations behind certain perspectives (Hajer, 2006). Discourse coalitions, Riedy (2020) notes are "the defenders and perpetuators of particular discourses, such as neoliberalism".
<b>Discursive agency</b>	Simoens et al. (2022) note that while transitions literature has explored some elements of discourse and discursive exchange (like the role of sustainability narratives), the role of discursive agency remains largely neglected. Leipold & Winkel's (2017) Discursive Agency Approach (DAA) provides a conceptual definition, describing discursive agency as "an actor's ability to make him/herself a relevant agent in a particular discourse by constantly making choices about whether, where, when and how to identify with a particular subject position in specific storylines [narratives] within this discourse (Leipold & Winkel, 2017, p524). They note that the "ability to be a strong discursive agent largely depends on positional characteristics... and individual characteristics". In describing DAA as a way to design discursive research that captures these dimensions, Leipold & Winkel (2017) also summarised a range of strategic practices that discursive agents have been found to use in existing empirical studies. This includes coalition building (derived from Hajer 1995), discursive practices such as rationalising or emotionalising the debate, excluding or

	delegitimizing some actors and their narratives, as well as governance and organisational strategic practices that target the distribution of power, influencing who is present in discussions and how decisions are made.
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**Table 3.** Definitions and concepts in discourse and narrative theory that are relevant to my research.

Applications of the concepts raised in Table 3 are still at a relatively early stage of integration into STT research, and a range of theoretical and methodological questions remain as to how they might be used in empirical studies (Leipold et al., 2019). Research contributions can be made, for example, by tracking and observing discursive elements in society, and exploring the values and worldview elements that are represented, (re)produced, and promoted in the processes and politics of sustainability transitions and transformations. My research will make a series of contributions to these broad ambitions and in the process, it will extend the reach of environmental discourse analysis, adapting it to new questions and theoretical contexts that are raised from the systems orientation of STT theory (Leipold et al. 2019; Simoens et al 2022; Audet, 2016). Sections below discuss how key concepts are being approached in STT literature, and how they relate to my research.

### ***Structuration: Memes, narratives, discourses, and change***

Given its interest in systems dynamics, STT literature has been drawing on system concepts like the Multi-Level Perspective Theory (e.g. Simeone et al. 2022) and concepts of nested social-ecological systems (e.g. Waddell et al., 2015) to conceptualise how discursive elements in society engage with socio-cultural structuration and sustainability transformations.

While discourse theory is rich with ideas about the way that social meanings, narration and politics (re)create processes of structuration of society (Laclau & Mouffe 1985; Foucault, 1973; Fairclough, 2003; Keller, 2011) STT research has begun to explore how those concepts interact with its own theoretical orientations and perspectives on systems and their dynamics. One example is demonstrated by Riedy (2020), who outlined the embedded relationship of memes, stories and narratives within discourses and described the process of structuration as the use of these discursive elements by groups in society. The implication is that understanding these elements and their combination can give clarity about the landscape of discourses and discourse coalitions recursively (re)producing influences on the cultural direction of (different parts of) society.

More recently, Simoens et al. (2022) have used the MLP, a framework from transitions studies (described above) that conceptualises how new innovations interact with contextual pressures and existing power structures in society (Geels & Schot, 2007). Simoens et al (2022) used the MLP to explore discursive dynamics, providing one conceptualisation of the way new discourses and narratives about sustainability face barriers from working against the pressure and power of incumbents. Here, challenges included the pressures from the dominant values and assumptions in society; the re-productive force of incumbent discourses in society to outcompete alternatives; and patterns of narrative co-optation wherein new ways to narrate and view sustainability are re-framed to fit the storylines and politics of the incumbent discourse.

### ***Discursive exchange, power, and agency***

Building on the ideas raised so far, three aspects of discourse and its relationship to STT are useful to explore in more detail: (i) how different formats of transmission might influence the scale and spread of discursive elements in society; (ii) how power is engaged with discourse and the use of discursive elements that support different visions of sustainability; and (iii) how we might study and pursue discursive agency to change these conditions and dynamics in the pursuit of sustainable futures.

#### **(i) Formats of transmission**

Digital communications in contemporary society add new dynamics to socio-cultural meaning-making processes, expanding opportunities for digitally mediated, vicarious engagements with nature and place (Kahn et al. 2009; York, 2014; Kellert, 2002). It also creates space for global dynamics in policy discourse about sustainability. For discursive research, these considerations create new practical and theoretical contexts, however they also bring new methodological opportunities in response.

Feola and Jaworska (2019), for example, applied a novel approach to integrate discursive studies with STT research by using corpus linguistics software to identify repeated phrases and keywords in a large corpus of material. By combining these quantitative insights with qualitative techniques, their study was able to compare and contrast how four global civil society movements were presenting and pursuing their approach to sustainable futures. Waddock (2018) has also used a quantitative keyword methodology, similar to Feola and Jaworska (2019), to review and compare discursive elements across 126 different sustainability programs, and to compare consistency in the memes, frames and narratives across progressive US think tanks versus conservative US think tanks. Both studies demonstrate that a quantitative approach to



meme identification provides insights that traditional discourse analysis does not, as it helps to identify and observe discursive elements that might be taking part in social structuration and collective change and reduces the bias of the researcher in identifying and justifying these dynamics (Feola & Jaworska, 2019).

More broadly, the context in which discourses are (re)produced matters for society. A large focus of environmental discourse analysis has focused on policy development, with a variety of considerations about the forums that influence the policy-making process. Linnér and Wibeck (2019), for example, have analysed narratives about transformation as expressed in global sustainability policy documents. There is also an intersection with discourse, environmental governance and institutional studies (e.g. Patterson & Beuen, 2018), where work such as Riedy et al. (2019) reviewed sustainability narratives were used by agents within the institutional context of an Australian local government.

My research will consider the different formats, materials and forums that carry and spread discourses about topics of place in sustainability. I will do this through the research design and data collection and in my discussion of the dynamics that are observed. While this is present in each of the papers, it is particularly reflected by including digital exchange and datasets considered in viewpoint 1, and in the discussion of trans-local networks that connect a global discourse of bioregioning (in viewpoint 2). Viewpoint 3 will touch on these topics by adapting techniques in environmental policy discourse analysis to the context of a specific social-ecological system.

### **(ii) Power: different visions, contested discourses and process in sustainability**

Considering how different discourses ‘compete’ for influence in the dynamics of structuration raises important questions for STT research: which discourses about sustainable futures are being reflected in STT research, in prominent social movements, and in local places? How are they received by different individuals and groups in the real world? Which discourses are gaining popularity, amongst which groups? My research hopes to test new ways to make such observations, as well as explore how discourses about place-based approaches to sustainability transformations appear in theory, and in practice.

Environmental and sustainability discourse analysis has seen many years of research. Dryzek (2022) highlighted four groups that typify common discourses in sustainability that present different stories about why sustainability matters and how change should be pursued. Here, the overall trends appear to reflect how people focus on sustainability as (i) a problem-solving project; (ii) a project for reforming (not transforming) economic development and continuing to

embrace technological advancement; (iii) a task requiring radical change in consciousness that must emerge from the inside; or (iv) a call for change to ensure humanity's survival. These discourses overlap, and because discourses engage with power and the structuration of culture, there is competition between these broad discourses, and their more specific expressions, to capture the hearts and minds of people in society, influencing (perhaps dictating) directions of our socio-cultural change in a society. In governance forums, the storylines of these discourses are used to justify and maintain a different array of policies, programs and ways of interacting with the environment. Power dynamics between discourses have consequences for how we govern the natural and social world.

My research considers the interaction of different discourses through its use of three viewpoints and through the findings in each of those individual studies. In particular, it will include a 'rich' exploration of a specific context (via viewpoint 3) that explores how a variety of discourses about sustainability are influencing the work of a local government in Australia. Across its findings, it will also consider how discourses about place and sustainability interact are occurring in conceptual ways and in ways that interact with contextual, place-specific factors.

### **(iii) Discursive agency and interventions**

This section has presented a dynamic view of socio-cultural change as something that is entwined and influenced by the discourses that gain prominence in society. The selection and reproduction processes that enable this to occur also create space for "discursive agency". As a competency, it highlights the role of creative expression, strategy, and the potential unevenness of agency to mobilise and maintain different agendas. Preceding sections have highlighted that through transformative learning, we all can benefit personally from creative exploration. In collective and contextual dynamics, it has also been suggested that we hold different levels of ability in creating memes, stories and narratives that have 'spreading power' (Blackmore, 2000b).

A common theme of interest in STT scholarship is the call for research and activities to support 'cultural tipping points' toward sustainable futures (Beddoe et al., 2009; O'Brien, Hochachka, et al., 2019; Westley et al., 2011; Xie et al., 2011). Despite a widespread interest in the concept, finding ways to achieve this and/or track progress toward it, are still emerging (Bentley et al., 2014).

Various scholars see great potential for discursive strands of STT research to serve a strategic function that supports socio-cultural change toward desirable futures. Others see the study of agency within discursive dynamics as a way to deepen our understanding of environmental politics. To explore these opportunities requires both more conceptual development, empirical research, and critical discussion. Westley et al. (2013) considered which kinds of agency might be useful during different stages of social-ecological system dynamics, pointing to “windows of opportunity” that might emerge for impactful acts and agency. Tongur and Engwall (2017) (in Linnér & Wibeck, 2019) emphasised this as an ‘empowerment process’ around the concept of windows of opportunity. Leipold and Winkel (2017) have helped to develop analytical avenues to study discursive agency, and suggest that effective acts of agency depend on a person’s positional characteristics and individual skills.

More broadly, it is of note that a large focus of environmental discourse analysis (often outside of STT research) has focused on discourses as they relate to policy development. Seminal work by Hajer (1995) helped define ways in which these environmental policy discourses might be studied and identified through Argumentative Discourse Analysis (ADA) while Leipold & Winkel’s (2017) Discursive Agency Approach (DAA) extended this to consider concepts of agency in socio-cultural development of environmental policies. While ADA and DAA are designed to consider socio-cultural dynamics and practices that influence the development of policy discourses in society, research has yet to consider how these frameworks might be used in an SES research context—something my research will seek to do.

Outside of analysis, there is an ongoing exploration by STT researchers—and in sustainability research more broadly—to explore their own agency in society. Various scholars have attempted to use creative expressions and narratives to facilitate change and build momentum. Tsing et al. (2017) re-tell the challenges of the Anthropocene in creative stories and art, and O'Brien et al. (2019) collate creative stories from contributors with aim of seeding ideas, metaphors and narratives to inspire individual, collective and systems transformations. In the Design for Sustainability community, research-practitioners like Zoë Sadokierski (2019) and theorists like Terry Irwin and Cameron Tonkinwise (2022) have been exploring how practices in design can engage social, scientific and fictional narratives about sustainability using compelling visual forms, and normative social impacts.

Other efforts have explored ways that research insights might support sustainability movements and programs to consider discursive dynamics in their design. Here, scholars have found that the use of discursive aids and creative narratives can be particularly influential in forums such

as scenario planning (Tyszczyk & Smith, 2018) and to support expert discussions about the future (Reitsma et al., 2017). Chabay (2020) found that playful use of objects and game-based explorations supported programs to co-develop effective narratives with participants. The EU-funded SUSPLACE research program, an initiative seeking to support the integration of Sense of Place research with STT research, consolidated a toolkit of “Arts-Based Methods for Transformative Engagement” (Pearson et al., 2018). Similarly, the academically-aligned Art for Adaptation (2020) program, based on the Three Spheres Model for transformative change, has used art-based approaches to support Transformative Learning in individuals and to produce creative, discursive outputs that might influence others (Bentz & O'Brien, 2019). In response to these normative efforts, a large focus of STT literature has been emphasising reflexivity in the process of research and practice, asking if and how research ought to engage with the power dynamics of sustainability discourses and socio-cultural change.

To conclude this review of literature interested in the intersection between discourse and STT, it is poignant to note that many of the above themes and points of interest are not only seen as opportunities aligned with STT perspectives and priorities but as important areas of interest in the broader field of environmental discourse scholarship. In their review of discourse analysis as it relates to environmental policy, Leipold et al. (2019) called attention to opportunities for environmental discourse analysis to take up interdisciplinary engagements on concepts of materiality, power, and agency, reflecting the themes above. They pointed to a need for empirical and conceptual contributions, like those presented in my thesis, which explore the dynamics of discursive stability and change, consider relations between different sustainability discourses, study the effects that discourses can carry, and critically contribute to the aspirations of research to not just to describe power dynamics in society but to change them.

#### **1.4 Summary and implications**

Overall, this section of the thesis has provided a thematic introduction that outlined how topics of place and socio-cultural change relate to our need for sustainability transformations. It described how STT and related fields of sustainability science are researching those dynamics, introducing key concepts and priorities, noting where my research interests lie. In doing so it focused on concepts of discourse and its role in both sustainability policy and practices, and socio-cultural transformation.

When I began my PhD, STT literature was still relatively new, and the integration with topics of place and discourse, newer still. There were important gaps that needed to be filled. The text above has presented an up-to-date review of the literature. Three broad observations summarise gaps that have persisted:

- First, despite there being a continual emergence of arguments and ideas about why place matters, there is a lack of clarity about what different groups of advocates (including STT researchers) mean when they call for attention to place and/or place-based approaches to STT and socio-cultural change.
- Second, there is a need for empirical studies that explore how topics and concepts of place influence the process of STT in practice, not just in theory and aspiration. Relatedly, there has been a lack of analysis and discussion about how sustainability discourses that do prioritise place compare to other discourses in sustainability.
- Finally, there remains a broad opportunity to integrate STT interests and concepts into the way we might sustainability discourses in society.

Across these gaps in knowledge, thematic topics of power, inter-scale connectivity, and questions about what a focus on place might imply for sustainability research and practice presented recurrent themes of interest. Table 4 provides a summary of key fields and concepts that have been raised, and their relevance to my thesis.

The next section will translate this context into a discussion of the overall design of my research, prefacing the specific approach in each piece of research, and the shared foundations that they rely upon.

FIELD	Concepts and topics raised	Relevance to the thesis
<b>Place-based approaches to sustainability</b>	Section 1.1 outlined the resurgence and relevance of this lineage in sustainability and the contextual nuance that it prioritises. Section 1.3 recounted how place coincides with an interest in complex systems and change at different scales.	My thesis uses three perspectives that each examine a different scale to explore how place-based approaches are being discussed and pursued in contemporary research and practice.
<b>Place studies and place theory</b>	Section 1.1 and Section 1.2 introduced established concepts including <i>sense of</i>	These concepts create precedents for the thesis overall and are especially relevant to the case study presented in Viewpoint 3.

	<i>place, place attachment, place-dependency, and place meanings.</i>	
<b>Discourse studies</b>	Section 1.2 introduced how <i>discourses</i> can be considered as patterns of socio-cultural meaning and provide insight into cultural and political change. Section 1.3 introduced discursive elements that can be researched through <i>discourse analysis</i> , including <i>memes, frames, metaphors, stories</i> and <i>narratives</i> .	These concepts create precedents for the thesis overall, and are especially relevant to the case study presented in Viewpoint 1.  Section 2 will elaborate on how I'll use qualitative and quantitative approaches in discursive research to study how place-based approaches to STT are being discussed and pursued in society.
<b>Sustainability transitions and transformations</b>	A field in sustainability science which is increasingly engaged with concepts of complex systems. It includes lineages of social ecological systems research, human-nature connection studies, transition studies.	My thesis helps to further integrate and extend how an emphasis on issues of discourse and place can offer insights for this interdisciplinary field of study.

**Table 4.** A summary of key fields and concepts that have been raised and their relevance to my thesis.

## 2. OVERARCHING RESEARCH DESIGN: RESEARCH QUESTIONS, METHODOLOGICAL APPROACH, AND SIGNPOSTING

The previous section has provided a thematic and conceptual introduction to my thesis, outlining how topics of place and socio-cultural change relate to our need for sustainability transformations. It then discussed how STT and related fields of sustainability science have been conceptualising and researching those dynamics. Abson et al. (2017) provided an overarching research agenda that captures key themes and issues that were raised in the discussion and summarises key priorities in the field when I set out to do my research:

*“We propose a research agenda inspired by systems thinking that focuses on transformational ‘sustainability interventions’, centred on three realms of leverage: re-connecting people to nature, restructuring institutions and rethinking how knowledge is created and used in pursuit of sustainability.”*

(Abson et al., 2017, p. 30)

My thesis takes up Abson et al.’s agenda through a specific focus on topics of place and discourse. To draw together the priorities, gaps and interests that have been shared. Two overarching research questions are used to drive my thesis:

- (i) how are place-based approaches to sustainability transitions and transformations being pursued and discussed, (RQ1) and
- (ii) how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit? (RQ2)

The first question is empirical and will be addressed through three pieces of original research that sample and analyse examples of place-based approaches to STT and discourses about place in STT and sustainability literature. The second question requires attention to the process and methodology of doing that research in the context of STT priorities, such as the dynamics of change that occur in complex and nested systems, and the need to ground and reflect on my findings in consideration of key themes and priorities of STT literature. My papers will individually and collectively address those goals, addressing a range of topics in the prior section. These themes include (i) power and the interaction between different discourses in sustainability, (ii) the role of discursive agency and change across spatial contexts and scales, and (iii) the role of

social (and materially mediated) networks that enable cultural perspectives about the environment to be maintained, spread, and changed over time.

Sections below outline how my thesis is designed to address RQ1 and RQ2 and make important contributions to the literature.

An important note for the reader is that while this section outlines the overarching research paradigm and design of the thesis, each paper will introduce methodological processes and decisions specific to those perspectives in greater detail.

## 2.1 A thesis through three viewpoints: an overview

To address my research questions in a strategic and feasible scope of work, my research presents three pieces of original research that offer different but complementing insights into the way topics of place engage sustainability discourses in society. The discussion below recounts what each viewpoint considers, and why they are important.

The first piece of research I present arose from the need to gain an initial understanding about whether there is a central storyline taking hold in the way place is being used (as a concept) in global forums discussing sustainability and socio-cultural transformations. I used academia and the English internet to study this dynamic ('viewpoint 1'). The second piece of research explores the contemporary discourse of *bioregoining*, an important expression of the global call for place-based approaches to sustainability and socio-cultural transformations ('viewpoint 2'). The third piece of research complements those perspectives and grounds the thesis in a contextual case study (viewpoint 3). This explores discursive dynamics influencing the pursuit of sustainable futures in a specific place, examining the socio-cultural dynamics that appear to be at play.

The scope and sequential order of these viewpoints moves from a sketch of broad priorities through to increasingly contextual specificities. The data sources move from a systematic review of documents, to sampling experiences across a series of locations, to a deeply contextual emphasis on the materials and strategic practices used to reproduce discourses and influence specific policy outcomes. This spectrum (roughly) reflects norms in environmental policy discourse analysis that suggest analysts start with desktop research and helicopter interviews before identifying specific cases, perspectives, and contexts to study in detail (Hajer 2006; Leipold & Winkel, 2017).



As indicated, Viewpoint 1 was adopted to sketch key trends in the global, often abstract exchange of meaning about place-based approaches to sustainability transitions and transformations in academia and online. Based on the analysis undertaken in viewpoint 1, the focus of viewpoint 2 (bioregioning) and viewpoint 3 (a local government in Australia) were confirmed as highly relevant focal points that would provide complementing perspectives, and collectively deepen the contributions of my thesis. In the analysis of the systematically collected data used in viewpoint 1, a global *bioregioning* discourse was identified as an important and resurgent expression of key ideas that place appears to present to STT processes. Meanwhile, the origin of prominent documents confirmed my suspicions that important socio-cultural dynamics were occurring in the way place and sustainability were being considered in local government planning processes in Australia. The desktop evidence for both these focal points was complemented by engagements with other researchers and practitioners interested in place and sustainability, and by ongoing observations of Australian contexts. Here, I observed that the Blue Mountains local government, in particular, could serve as a valuable case study for the research, as the Council repetitively demonstrated its leadership on a range of sustainability issues that reflect the core narrative about a place-based approach to STT which was identified in viewpoint 1. As such, understanding the overarching discursive landscape via viewpoint 1 provided a basis for more detailed and specific investigations in viewpoints 2 and 3. I corroborated those focal points through a series of initial interviews with place-based sustainability leaders in Australia, by paying attention to movements and case studies that were emerging as relevant and important.

By analysing the dynamics of each viewpoint, the thesis offers original insights into how contemporary sustainability discourse is addressing and interacting with topics of place. While this will help address the core aim of RQ 1, different methodologies will be used according to the nature of each viewpoint, and the specifics of its focus. RQ2 will be partially addressed by doing so, and further addressed by reflecting on the process of the research and by discussing the conceptual, thematic and practical implications from findings across the viewpoints.

An obvious limitation, and one which drove my use of viewpoints, is that places are by their nature, incredibly diverse. Rather than exploring sustainability discourses in three different places, I felt my thesis could offer a more systemic viewpoint into socio-cultural change and reflect priorities in STT literature by strategically considering dynamics that occur at different scales of meaning-making and exchange: abstract/global forums online and in academia; in a discourse where there is a sense that place-based approaches is a globally shared agenda, and in a contextual case study that can explore how considerations of place and sustainability occur in the context of a specific social-ecological system.

Table 4, at the end of this section, draws together the overarching research questions of the thesis, noting the specific research questions and thematic topics that each viewpoint will address, and how these will be synthesised in the discussion section of this document.

## 2.2 Methodological approach

Across each perspective, and as outlined below, my thesis will apply and iterate upon established socio-cultural traditions in discourse analysis, adapting these to the specific research questions and context that each viewpoint addresses.

While these iterations are required to adequately address their subject matter, doing so enables my thesis, as a whole, to help extend and discuss how analytical traditions in environmental discourse analysis can be integrated with established gaps and thematic priorities in STT studies (addressing methodological elements of RQ2).

An overview of analytical approaches that are used in my thesis are outlined below, noting the epistemological assumptions that sit across the thesis, and the specific considerations within each viewpoint.

### ***Discourse Analysis: a mixed-methods approach***

My research is centred on the use of discourse analytical approaches to study socio-cultural meanings in society, their implications, and the dynamics of their (re)production. Discourse Analysis is a broad field, but its various lineages share a fundamental assumption that “the relationships between human beings and the world are mediated by means of collectively created symbolic meaning systems or orders of knowledge” (Keller, 2012, p. 2). The term ‘discourse’, Keller notes (2012, p2) “occurs when theoretical perspectives and research questions relate to the constitution and construction of the world in the concrete use of signs and the underlying structural patterns or rules for the production of meaning”.

There are various lineages in discourse analysis including approaches that emphasise power (Fairclough, 2013), knowledge structures (Keller, 2011), policy narratives (Hajer, 1995), agency (Leipold & Winkel, 2017) and they can explore storylines that occur at broad, global scales (e.g. Dryzek, 2022; Linner & Wibeck, 2019, Riedy, 2020) or in place-specific contexts (e.g. Reidy et al., 2019; Benson & Jackson, 2012; Qian & Zhu, 2016). In discourse analysis on environmental and sustainability topics, Leipold et al. (2019) suggest most studies tend to draw on both the study

of language and social practices and adopt a socio-cultural approach to discourse. Here, discourses are commonly defined as “an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices” (Hajer & Versteeg, 2005: 175). Leipold et al. (2019) also note some trends within environmental discourse analysis, including its integration with STT interests, and an increasing engagement with analytical tools and techniques that have been developed in corpus linguistics, as these can enable research to consider trends and meanings within large bodies of text, new sources of data, and undertake analysis in new ways (Leipold et al. 2019; Baker 2006). My research will engage with the norms and recent trends in environmental discourse studies, viewing discourses as a socio-cultural phenomenon but also considering how new techniques like corpus-assisted approaches, might be used within that paradigm.

In order for my research to align with STT conceptualisations of systems dynamics, I previously outlined the benefits of taking three viewpoints, or vantage points, into how sustainability discourses are engaging with topics of place. Doing so, as outlined, enables the thesis to sample, interpret, and discuss some of the activities, dilemmas, and politics that are being encountered by agents seeking to enact socio-cultural change across complex webs of meaning, material contexts, and situated practices—an integrative view on change which reflects the systems orientations in STT research. Each viewpoint in my thesis carries its own context and research questions, and I found each piece of research was best designed when drawing on slightly different, but related, methodological approaches.

Viewpoint 1 uses a corpus-assisted approach that combines quantitative and qualitative approaches to understand how place-based approaches to sustainability are being discussed in a sample of texts from online sources and STT literature. Corpus-based approaches to sustainability discourse analysis have also been used by Waddock (2018), and by Feola and Jaworska (2019). And while many studies now are exploring linguistic tools and techniques in their approach, it is common that they are combined with qualitative and interpretive assumptions, requiring critical considerations of how texts are created and received, and reflexivity about the role of the researchers. My approach is in line with these norms. I study patterns of meaning within a set of texts whilst also considering the socio-cultural meaning structures that create those texts and interpretations, including potential biases held by the analyst (Baker, 2006; Baker, 2012; Mautner, 2019).

In viewpoint 2, I study the themes, meanings and implications that are carried by a specific sustainability discourse. The research uses relatively conventional approaches in its analysis, drawing on Braun & Clarke's (2006) influential concept of reflexive thematic analysis to generate latent and explicit meaning from recurrent cycles of coding and interpreting interview transcripts. Reflexive thematic analysis is a 'situated interpretive process' (Braun & Clarke, 2021, p334), drawing on researcher subjectivity as a resource. In our study, we found value in surfacing the influence of contextual experiences amongst participants, and collaborators, within the research process. In doing so, the research explores how reflexivity and relationality might be considered when engaging in collaborative research. Relationality is becoming a broad but important topic in STT literature that spans issues of epistemology and analytical process through to the power dynamics that occur at the interface of research and society (Fazey et al., 2020; Caniglia et al., 2021; Wyborn et al., 2020). The importance of reflexive research(ers) is a response to similar concerns and is a theme that has grown during the course of my studies. It is tightly linked to the politics that calls for place-based approaches entail (West et al. 2018). Viewpoint 2 thus includes a discussion of how relational ethics and contextual differences interact with the process of collaborative and reflexive data analysis.

In viewpoint 3, I seek to identify a set of discourses and the practices used by discursive agents to reproduce them. To do this, I draw on Leipold and Winkel's (2017) Discursive Agency Approach. DAA is often applied in studies that consider the storylines used by institutional agents to influence specific policy narratives in society (Leipold & Winkel 2016; Lang et al. 2019; Leipold, 2021). In my study, I use DAA to study the discourses and discursive agency occurring within the context of a social-ecological system to understand influences on the sustainability work of a local government. This involved an interpretive process of analysing socio-cultural meanings via document analysis, semi-structured interviews, and observations. Doing so adapts DAA from its usual application so that it fits the concepts and priorities of SES research. Here, specific processes in the community, like the use of public space, are taken as important influences on policy decisions about what is important in the area and how it is governed. In doing this work, concepts of social practice influenced, to a minor degree, some of the analytical choices in my research. Rather than seeking to further Practice Theory (e.g. Shove et al., 2012; Nicolini, 2013; Schatzki, 2012), I looked at ways in which a practice perspective might help attend to material considerations that are important in STT research, and in the context of social-ecological system dynamics. While the conceptual foundation of discursive research commonly considers social practices as important, I found a lack of clear guidance about how I might collect data on social practices and consider them in line with my specific research focus on

sustainability discourses. After considering various alternatives, I found Shove et al.'s (2012) conceptualisations provided empirical structure to how I might consider different elements of social practices, including the material influences of specific sites. This influenced how I structured questions to program leaders and participants and helped me gain clarity on how I might include site visits and observations as part of the analytical process (Appendix 3 documents these activities in detail). Boxes 3 and 4 below provide additional context and justification of the methodological decisions about materiality and practice that were factored into the study design of viewpoint 3. Adopting this approach helps to demonstrate how discursive SES research might engage with concepts of social practice to understand individual and collective dynamics of socio-cultural change, including acts of discursive agency, in the pursuit of transformations toward sustainable futures.

**How and why do materials, agency, and practices matter when exploring sustainability discourses in place-specific contexts?**

As Hajer and Versteeg (2005) note, discourses don't just float around. They are always expressed in certain places, practices, and things; they are mediated through a physical world. Discourses occur in forums that might be natural or made-made and the patterns of these exchanges are shaped by strategic practices, technological tools, and various norms, rules, and rituals.

Despite this, much empirical research into environmental discourse tends to emphasise the study of language as the primary, and sometimes only, source of data. While consistent with a socio-cultural perspective on discourse, I found that the influence of our experience or engagement with specific sites, materials and practices are often considered in passing, and in a way that lacks structure. Even the most rigorous practice theorists like Theodore Schatzki (Hui et al. 2017: p137) note the ontological alignment between (Maarten Hajer's) concepts of discourse with practice theory orientations, but there are also widely critiques about a tendency for empirical discourse studies to retreat into a form of textualism (Nicolini, 2013, p6). Both discourse and practice scholars suggest we ought to consider the role of 'sayings' and 'doings' when trying to understand the (re)production of meanings and the dynamics of socio-cultural change. While this critique is sometimes used to justify the use (and priority) of a practice theory lens, the same critiques have been made within discourse literature, asking for discourse theory and research to expand its remit and techniques. In Leipold et al.'s (2019) review of the challenges and opportunities facing empirical studies of environmental discourse and policy, for example, they noted persistent gaps in considering "the relations between discursive, institutional, and material dimensions of social order and practice", and suggested future empirical efforts might explore interdisciplinary approaches to consider how agency, power and materiality mobilise discourses and how discourses create in impacts on the world.

While the first two perspectives in my thesis will consider factors such as digital exchange (viewpoint 1) and trans-place social networks (viewpoint 2) in their design, the third viewpoint of my thesis discusses other material influences on sustainability discourses and their

(re)production. It will consider how specific sites and their use re-produce meanings and storylines about sustainability, alongside ideas and agendas that are carried through social and professional networks. Paying attention to the role of materials and practices is a particular point of interest not just because it is under-researched in empirical discourse studies, nor because it can avoid analyses falling into “textual reductionism” – it is particularly of interest in this study, and in my thesis, because of an (ontological) premise in STT literature that asks how social dynamics (like discourses) might occur in relation to material and ecological contexts that are nested across scales with complex system dynamics (through the concepts of SES, and STS, outlined earlier). As a result, viewpoint 3 will demonstrate one way that place-based SES research might be designed and pursued in a way that maintains discursive traditions but also starts to incorporate observations from site visits, materials, and practices observed in context—both from direct observation and interpretation, and by coding for these elements in language (i.e. incorporating a set of sayings and doings that attend to SES priorities when doing discourse analysis).

**Box 3.** Theoretical discussion of discourse analysis and materials in the context of my thesis.

#### **Why use Shove et al.’s take on Practice Theory, as opposed to other alternatives?**

Social Practice Theory is an unresolved perspective with various theoretical approaches (e.g. Loscher et al., 2019; Hui et al., 2018; Reckwitz, 2002; Schatzki, 2012; Shove et al., 2012). Despite these differences, a focus on social practices entails a general approach to conceptualising and studying social phenomena that “de-centres individuals from analyses, and turns attention instead towards the social and collective organization of practices- broad cultural entities that shape individuals’ perceptions, interpretations and actions within the world” (Hargreaves, 2011, p. 79). Practice Theory, more generally, is emerging as a distinct perspective from which to understand the construction of the social world, with implications on how one might study it. Schatzki (2012) is a key practice theorist and has previously suggested an opportunity to integrate discursive studies with social practice theory however his own efforts have been primarily in philosophy and his empirical suggestions have been critiqued as “so prescriptive and imprecise that they risk hampering, instead of facilitating the work of empirical social researchers” (Nicoloini, 2013, p179). There is, in short, an ongoing challenge and debate about how to mobilise practice theory (or incorporate some of its perspectives) into empirical research. Whilst various efforts are underway to explore practice theory in theoretically specific ways, neatly considering the role of discourses *and* practices in patterns of social structuration is not resolved. In my review of the literature, I concluded that discourses influence and contain everyday practices, and everyday practices influence and express discourses. In place studies, this integrative perspective is routinely adopted, without much theoretical discussion. I thus decided to approach this landscape pragmatically and felt that it was important that my research at least tried to afford attention to what was being done, as well as what was said. A caveat to this approach is to make it clear that my aim (and claim) is not to extend practice theory as the central mode of the enquiry, but rather to afford deliberate attention to ‘things’ and ‘doings’, alongside ‘sayings’, in the study of environmental discourse.

Concepts used by Shove et al. (2012) to outline the dynamics of social practices, I felt, provided a useful and promising resource to draw from. Elizabeth Shove has herself (2017) noted that her approach to practices is not intended to be a strict method-theory package, but

rather serve as a conceptual tool that orients researchers towards a different way of viewing the world. I found this “theory-weak” approach to empirical engagements with practices (as defined and supported by Nicolini (2013)) useful for my research and used it in my research design, hoping that doing so may provide a small contribution to considerations of the emergent and interrelated nature of individual, contextual and discursive dynamics of social transformations. Shove et al. (2012)’s approach was used in the design of interview questions, and the coding of data. I explored *meanings* associated with different statements, behaviours and perspectives about sustainability and change; *competences* of practitioners, the community, and other agents that supported or restricted changes to occur; and *materials* that packaged and distributed discursive elements and experiences, and opportunities for action<sup>5</sup>. Familiarity Shove’s conceptualisation also provided a framework to explore if and how activities by the Council might directly or indirectly engage with power and structure (in SPT parlance, for example, engagements with discourse coalitions could be explored through “bundles of practices” and/or the “localisation of practices”; Shove et al., 2012). This somewhat loose engagement with SPT was useful, and as outlined in that section, I suggest there may be opportunities to extend my approach, further centring SPT as a theoretical lens to study different discourses and interactions that organisations pursuing place-based transformations engage with. As organisations like local governments work with participants and citizens to (re)produce relationships to nature and visions of the future through their designed engagement activities and public communications, the way those organisations draw on elements of materials, competences, and meanings, create interactions with broader practices in society. While my focus has considered these qualitatively, future efforts might centre these dynamics to explore if and how doing so might enhance understandings about what is happening, and identify areas for programs to be more effective and productive in supporting diverse and sustainable social futures. Other research might, like I did, find it useful to use a more elementary approach that surfaces attention to SPT elements as a means to help bridge key concepts in interior (meanings), contextual (materials), and social (competences) and their patterns of interaction. Doing so aligns with key priorities in STT (see thesis introduction) and may help build practical and theoretical ways of understanding the dynamics of socio-cultural change in social transformations.

**Box 4.** Justification of why Shove et al.’s (2012) approach to practice was used in the research design of Viewpoint 3.

In sum, each piece of research will explore and discuss how STT research can engage with topics of place and discourse in new ways, addressing RQ2 and attending to specific points of interest that were raised in the prior section. This includes how digital formats of communication and social-ecological contexts might influence discourses about sustainability and patterns of discursive agency, and how these topics might be studied.

Despite using a variety of methods, tools and techniques, the approaches I’ve outlined and will detail throughout each respective section share important epistemological foundations and assumptions. One of these foundations is that they take socio-cultural approach to discourse analysis, as outlined, which sees a role for research to study how we exchange and perform patterns

<sup>5</sup> These three elements are central to how Shove et al. (2012) conceptualise social practices.

of meanings in language and social practice (Leipold et al, 2019). Moreover, Leipold et al. (2019: 448) note that in research practice, the adaptation of discourse analysis frameworks is common, and that concepts like DAA and ADA are often “either used as theoretical inspiration or heuristic and/or integrated into more established policy analysis concepts”. In my research, discourse analysis frameworks were adapted to align with STT concepts and priorities.

There is also a general assumption in social science, and discursive research, that tasks like discourse analysis are interpretive- and that the identification of discourses is somewhat subjective to the researcher. Various lineages suggest different means, however, to temper this subjective bias. ADA and DAA for example, suggest iterative engagement with others involved in the policy area that is being analysed (Hajer, 2006; Leipold & Winkel 2017), while CADS suggest linguistic software can complement qualitative research by identifying statistical patterns in language (Baker 2006). Each of my viewpoints takes up those considerations in ways most relevant to their focus.

In the broadest sense, my approach to each viewpoint extends discourse analysis in useful but uncontroversial ways, and combining them in the thesis helps me to address my research questions, comprising methodological and empirical contributions to the literature. The use of multiple viewpoints and the integration of approaches from CADS and DAA with conceptual foundations of SES reflects a Critical Realist epistemology and a pragmatic research paradigm in how the thesis is approached. This accepts the validity of different perspectives and the benefit of triangulating different methodological approaches to uncover insights into an underlying social and physical reality. Equally, it moves beyond post-positive claims to knowledge, accepting that subjectivity and bias influence all research and that various claims to truth can be held concurrently due to the use of different methods, and the interpretive nature of social research.

### **2.3 Statement on Research Ethics**

Ethics approval for the research was obtained from the University of Technology Sydney [HREC approval numbers: ETH19-4303; ETH2-5318; ETH21-6455] and a discussion of research ethics is detailed in each paper that is presented.

### **2. 4 Summary and signposting**

To finalise this section, Table 5 is provided as an outline of how my two overarching research questions will be addressed in subsequent sections of the thesis, noting key methodological approaches and contributions and a selection of themes that will be raised.



<b>Section</b>	<b><i>RQ1: How are place-based approaches to sustainability transitions and transformations being pursued and discussed?</i></b>	<b><i>RQ2: How might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit?</i></b>	<b><i>Additional topics and themes that will be addressed</i></b>
Part B Viewpoint 1	<p>Viewpoint 1 contributes to RQ1 through original research that addresses the following research goals and questions:</p> <ul style="list-style-type: none"> <li>• It samples prominent discussions of place-based sustainability on the English internet to see which groups of authors are present and what kinds of perspectives and priorities they promote about sustainability and its pursuit. In particular, it explores the changes that they seek.</li> <li>• Within a sample of texts from the STT field, it explores to what extent and in what ways are discourses about “place” similar, and how they differ.</li> <li>• Across these academic and public samples, the paper discusses what we might learn from the discursive landscape identified, exploring the similarities and differences in the discourses identified</li> <li>• It considers what researchers and practitioners might do to strengthen and/or critically discuss place-based approaches in STT.</li> </ul>	<p>In its research, VP1 will introduce and demonstrate how corpus-assisted discourse study can be used to uncover important meaning-making structures in sustainability. It argues CADS is an underutilised approach to study and trace the sustainability discourses and their politics. Specifically, it will:</p> <ul style="list-style-type: none"> <li>• Demonstrate how interpretive traditions in environmental DA might be combined with quantitative tools and techniques from corpus linguistic software.</li> <li>• Show how internet data might be used systematically to trace discourses about sustainability based on the results of search algorithms.</li> <li>• Reflect on its findings and the research process, discussing the challenges and opportunities that using CADS can entail, how research into place-based sustainability discourses might proceed, and what role CADS might play.</li> </ul>	<p>By discussing findings and outcomes against key interests in sustainability theory and practice, the paper also addresses themes related to emerging interests in more-than-human ethics, critical questions about power, representation and directionality within global and academic discourses about place and STT, and identifies an opportunity for fruitful dialogue between place-based sustainability education and STT literature.</p>
Part B Viewpoint 2	<p>Viewpoint 2 makes contributions to RQ1 through original research into bioregionalism, a global sustainability discourse about place-based approaches to STT. Specifically, it addresses the following research questions:</p> <ul style="list-style-type: none"> <li>• What does contemporary bioregional practice look like? And how relevant are its ideas as a contribution to sustainability?</li> </ul>	<p>Viewpoint 2 explores the contextuality of knowledge and how relational ethics might be used within the research process and collaborative approaches to reflexive thematic analysis.</p> <p>It identifies the need for critical reflexivity about the power dynamics that we, as academics, are engaged in both directly and via the discourses that we empower and mobilise in society.</p>	<p>In its discussion, viewpoint 2 reflects on key trends and interests in sustainability theory and practice. This includes a discussion about how concepts of place and change across scales can act as a boundary device in practices of STT, supporting deliberations and reflexivity amongst research and practitioners.</p>

	<ul style="list-style-type: none"> <li>• How are concepts of bioregions and bioregionalism being used in the discourse of bioregioning to describe the task and goals of sustainability?</li> <li>• What is the interaction of bioregioning with specific places and the exchange of meaning in global networks?</li> </ul>		<p>It updates topical understanding of the histories, risks and opportunities related to concepts of place-specific change, and the specific discourse of bioregioning.</p>
<p>Part B Viewpoint 3</p>	<p>Viewpoint 3 uses a social-ecological systems approach to outline discursive dynamics influencing the work of the Blue Mountains City Council, a local government of Australia.</p> <p>It uses environmental discourse analysis to identify different discourses that are present, and the strategic practices being used by council staff and the community in explicit and processual ways.</p> <p>Finally, it explores if and how concepts about systems change in STT literature might help to support 'normative' acts of discursive agency within the case study.</p> <p>It reflects on its findings to discuss the methodologies used and comments on the implications of the case study for STT research and practice.</p>	<p>In its approach to the analysis, the paper adapts the Discursive Agency Approach, exploring and demonstrating how sustainability discourses and discursive agency can be studied in ways that align with concepts and perspectives of SES research.</p> <p>Thematically, it surfaces the need for discursive research interested in the policies and politics of local government to consider the meanings that are explicitly expressed in language as well as the discourses performed in practice.</p>	<p>By discussing the outcomes of this case study amongst key interests in sustainability theory and practice, the paper comments on themes related to place-based knowledge and co-production processes for sustainability.</p> <p>This discussion surfaces the need for critical reflexivity about the power dynamics that we, as academics, are engaged in both directly and via the discourses that we empower and mobilise in society.</p>
<p>Part C Discussion</p>	<p>Part C of the thesis draws together findings from the Viewpoints to synthesise insights on RQ1. It offers a further contribution to RQ2 by discussing the implications of my findings for sustainability research and practice. Specifically, it builds on the themes above to ask and explore how sustainability research might need to shift to enable the plural, contextual, de-colonial and co-produced knowledge systems that are bound up in discussions about place and its importance for sustainability. It includes a discussion paper that asks how mainstream processes in academia, like publishing in international peer-reviewed journals, interact with the aspirations and ideals that are evoked in calls for a place-based approach to STT.</p> <p>Using the specific example of place-based publications, I explore what knowledge systems for place-based approaches to sustainability might look like, what incentives could support it, how it might influence power, and pathways that it might unlock for sustainability practitioners, local communities, and the landscapes that we live in.</p>		

**Table 5.** An outline showing how overarching research questions will be addressed in subsequent sections of the thesis and a selection of themes that will be raised.

**PART B.**  
**ORIGINAL RESEARCH**



## **Viewpoint 1.**

### **A global, abstract perspective**

*Sketching the discursive landscape.*

## Introduction to viewpoint 1.

My literature review outlined a need to consider socio-cultural dynamics of (un)sustainability and described how discursive research can help by examining the (re)production of meaning in society. Place, I argued, has become an important topic to researchers and practitioners interested in socio-cultural transformations toward sustainability. Places engage dynamics of individual and interior change, can present a strategic approach to change, and they are a forum for socio-cultural processes that enable us to narrate our experiences, stories and relationships with nature.

In this viewpoint, I share a paper that provides an overview of key themes and trends in the 'discursive landscape' addressing topics of place and place-based approaches to sustainability in important public and academic forums.

It enables my thesis to start by building clarity about what many people seem to mean when referring to place-based change in contemporary sustainability forums. Academia and the internet are both important sites where socio-cultural meanings about sustainability are produced. This paper focuses on those forums, and draws on opportunities that corpus tools and techniques offer, demonstrating novel methodologies that have seen very limited engagement in STT literature's integration with environmental discourse analysis.

During its development, the paper's methodology and emerging findings were shared at a Corpus Linguistics Summer Camp in 2022 and the paper has been through peer review and is accepted for publication in *Sustainability Science*.

Supporting information for the paper is provided in Appendix A. This includes extensive detail and a high level of transparency about the approach and the analysis.

Through its findings, the paper offers an initial and broad contribution to RQ 1 (*How are place-based approaches to sustainability transitions and transformations being pursued and discussed?*). By sampling prominent discourse about place in relation to sustainability it identifies a central storyline about place-based approaches to STT that is being used by advocates in academia, policy and education. It also identified a conflicting discourse that presents places as anthropocentric forums, ignoring more-than-human constituents and interests in a landscape. The paper then discusses the implications of its findings and the opportunities and uncertainties that it raises for STT research and practice.

The paper contributes to RQ2 (*how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their*

*pursuit?*) through those findings and through the methodology it uses. Methodologically, it demonstrates how digital tools like WebBootCat and SketchEngine can help trace meanings (via documents and patterns in language) in useful and currently underutilised ways. Specifically it (i) demonstrates how interpretive traditions in environmental DA might be combined with quantitative tools and techniques from corpus linguistic software and (ii) shows how internet data might be used systematically to trace discourses about sustainability based on the results of search algorithms. Reflecting on its findings and the research process, it discusses the challenges and opportunities that using CADS can entail, and discusses how research into place-based sustainability discourses might proceed, and what role CADS might play.

While much of the above summary is repeated in the abstract, the paper holds a few other important insights for the development of ideas that will be built upon in this thesis. First, while doing the study, it became clear that this viewpoint was useful but also limited. I looked forward to ‘diving deeper’ into nuances that might be gained from exploring specific expressions of the way place is being used in STT practices, and in specific contexts, and to explore my research questions using data sources like interviews with practitioners and observing the practices used in discursive agency.

Within the field of STT, there is an ongoing call for reflexivity in research. In this respect, it might be useful to acknowledge how using CADS to study sustainability discourses about place ‘felt’. While it was clear that corpus tools and techniques helped identify insights that traditional, qualitative approaches did not, there was a degree of ‘coldness’ that came with viewing discourses through the computational and disaggregated logic that CADS can emphasise in its identification of linguistic patterns. In a sense, the tools pulled the analysis toward (what felt like) a somewhat mechanical and detached perspective to identify patterns of meanings and politics in the data. While this was useful, it sits in contrast to the ‘feeling’ of other approaches in the field. Moreover, writing about my use of CADS was a relatively taxing experience. I chose to publish in Sustainability Science to communicate the findings and approach with a broad STT readership and while I gained useful insights from the tools in a matter of weeks, the paper took years to reach publication. There was a constant need to re-assert the interpretive nature of CADS and resist expectations that the presence of statistical tools prioritised a post-positivist approach to knowledge. I reflect on these dynamics in Section 6 of the paper.

As will be demonstrated in Viewpoint 2, I came away from this study confident that corpus-linguistic tools (like WebBootCat) could be useful to research but pragmatic about their use in research publications.

*Guide to chapters in the paper:*

- *Abstract*
- *Introduction*
- *Methodology*
- *Results: Sketching the discursive landscape of place-based sustainability*
- *Discussion and contextualisation of the findings*
- *Conclusions and pathways forward*

*Attachments for this viewpoint are included in Appendix A. It includes:*

- *A1) Electronic Supplementary Material submitted with the original research paper.*

## Whose “place” is it? Using corpus-based techniques to sketch place-based sustainability discourses in public and academic forums.

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### Abstract

Calls for a “place-based” approach to sustainability are increasingly common in the field of sustainability transitions & transformations (STT). To critically explore the agendas and politics a call toward place carries, we undertook a corpus-assisted discourse study (CADS) to examine a sample of public and academic texts from 2019–2020. Two distinct discourses about place were evident: an environmental discourse framing place as an assemblage of more-than-human constituents and an anthropocentric discourse framing place as a human community. These discourses present vastly different priorities about which species matter, what change entails, and what kind of future we should create. Our findings reflect the emergence of a discourse coalition that advocates for a place-based approach to STT, and we discuss how this viewpoint has continued to emerge since the compilation of our data. Our paper provides an overview of the discursive landscape we encountered, synthesises a central narrative about place-based STT based on what we observed, and provides a critical discussion of the tensions and opportunities that this narrative raises. In doing so, we suggest there remains an opportunity for fruitful dialogue amongst sustainability educators, sustainability practitioners, and researchers to refine what a place-based approach to STT looks like. By demonstrating an application of CADS, we hope to show how digital tools and techniques can be used to research discourses in sustainability. We outline specific opportunities to take this forward, including a broad opportunity to use web-derived corpora to help survey discursive landscapes, and a more specific application to explore discursive dynamics between communities, places, and at different spatial scales.

**Keywords:** Place-based, discourse analysis, corpus-assisted, sustainability transitions, environmental discourse, web corpora.



## 1. Introduction

References to a “place-based” approach to sustainability transitions & transformations (STT)<sup>1</sup> in public and academic forums focused on researching and pursuing productive social change have become increasingly common (Balvanera et al., 2017; Horlings, Nieto-Romero et al., 2020; Masterson, Enqvist et al., 2019). Despite mobilising “place” as a normative concept, the complex meanings and competing agendas that a reference to “place” can carry often lie unclarified; the term has a long history of fuzzy use, shaped by its different meanings in everyday language, its connection to different disciplinary interests and its different interpretations across geographies and policy-making contexts (Creswell, 2004; MacGillivray & Franklin, 2015; Tomaney, 2010).

As sustainability researchers and practitioners, we observed the emerging interest in “place” in 2019 and suspected that various agendas were converging (and potentially clashing) in the growing calls for “place-based” approaches to STT. We saw a need and an opportunity to critically analyse the similarities and differences in visions, agendas and perspectives held by proponents of “place-based” approaches and identified that a corpus-assisted research project would be a useful method to fill this gap whilst testing and introducing corpus tools and techniques for a broader audience of sustainability researchers. Our project involved sampling texts from public and academic forums where place-based sustainability was discussed and using computational tools and qualitative analysis to study the characteristics of the discourse(s) present.

Discursive research helps the pursuit of sustainability remain critically self-aware by surfacing insights into the politics, motivations, and socio-cultural imaginaries held by different sustainability advocates and practitioners. While methods vary, sustainability discourses are typically researched through a researcher-led process of interpreting a relatively small and carefully selected body of (mostly linguistic) data (Audet, 2016; Dryzek, 2013; Hajer, 1995; Kagan, 2019). Since the early 2000s, new analytical tools and techniques have become available. These approaches, known as Corpus-Assisted Discourse Studies (CADS) (Mautner, 2019; Partington, 2006), harness computational power and statistical processes from corpus linguistics alongside traditional qualitative techniques of discourse analysis. CADS lets researchers explore data in new ways, enables study of new (and larger) linguistic datasets, and can introduce more objectivity, reflexivity and rigour to qualitative arguments and

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<sup>1</sup> While this field is sometimes housed under a label sustainability transitions and sometimes under sustainability transformations, this paper uses STT to acknowledge their shared foundations, interests, and scholarship and reverts to the more common ‘transitions’ framing in the text.

observations about discourses (Baker et al., 2008). The value of integrating quantitative tools to the qualitative study of language is increasingly recognised (Baker et al., 2008, p. 297; Mautner, 2019) and the opportunity it presents for researching environmental discourse has been specifically recognised and encouraged (Leipold et al., 2019).

A small but useful set of studies have integrated CADS into sustainability literature and offer precedents for this paper. Methodological research indicates that corpora built from web-queries and online texts offer untapped potential datasets to study sustainability topics (Grundmann & Krishnamurthy, 2010; Wild et al., 2013). Meanwhile, research into contemporary sustainability discourses consistently suggests that “place” is a useful theme to investigate, offering insights into popular sustainability movements (Feola & Jaworska, 2019), progressive US environmentalism (Waddock, 2016), environmental conflicts (Horsbøl, 2020) and the overarching discourse of ‘sustainability transitions’ (Audet, 2016). Our research builds on these observations by centering discourses about “place-based sustainability”, and their relationship to STT priorities, as the focus of the investigation.

This paper serves two goals. First, it helps to fill a gap in understanding about contemporary discourse(s) in sustainability by exploring how “place-based” approaches to sustainability are framed in public forums and STT literature. We analyse the types of change advocated by different discourses and discuss what this means for sustainable futures. In doing so, we also pursue our second goal of demonstrating new methodological opportunities for sustainability science. Our results are based on a phased investigation using two datasets: (i) a corpus of documents from the public domain, constructed with an automated web-based corpus-building tool, and (ii) a corpus from academic publications, manually constructed to include academic publications that explore the connection of place-related concepts to STT literature. Our sample of STT texts is skewed toward environmental and social science contributions, as this is where we saw an interest in place most clearly emerging. Despite inherent limitations from the sample size and temporality of our data, the process and findings from our analysis, and the discussion that it enables, hold multiple points of value for sustainability researchers and practitioners with a contemporary interest in the dynamics of place, scale, and socio-cultural processes of change.

Specific questions the paper addresses are:

- What can CADS tell us about prominent discussions of place-based sustainability on the English internet: which groups of authors are present and what kinds of

perspectives and priorities do they promote about sustainability and its pursuit? In particular, what changes do they seek? (*Section 3.1*)

- Within our sample of texts from the STT field, to what extent and in what ways are discourses about “place” similar, and how do they differ? (*Section 3.2 and 3.3*)
- What can we learn from these similarities and differences to strengthen and/or critically discuss place-based approaches in STT? (*Section 4*)
- How might research into place-based sustainability discourses proceed, and what role can CADS play? (*Section 5*)

## 2. Methodology

Before outlining our methodology, it is important to preface what CADS looks like to the reader and what it requires from the researcher to understand its claims to knowledge. CADS enables researchers to interrogate large amounts of linguistic data for patterns and comparative difference. While this engagement with language is quantitative, the process requires countless decisions and judgements from the researcher- it appears quantitative in its evidence, but the broader task of discourse analysis remains an inherently qualitative and subjective process (Baker 2006; Mautner 2019). Our research is thus exploratory, and in the face of limited repeatability, CADS instead encourages transparency (Baker, 2006: 178-179; Baker & McEnery, 2015: 8-9).

This section will provide an overview of our approach, and our paper is accompanied by extensive information in the electronic supplementary material (ESM) for readers who wish to trace specific points of analysis, or deepen their understanding of CADS. A specific discussion of experience with CADS and its limitations and opportunities is discussed in Section 4.6.

To undertake our research, we combined data from an automatically built web-corpora with manually selected texts (Wild et al., 2013). To analyse this data, we integrated the quantitative capacity of corpus linguistic tools with qualitative analysis and interpretation (e.g. Grundmann & Krishnamurthy, 2010; Leedham et al., 2020). Managing the size of our dataset let us combine (and surface) insights that were visible from quantitative tools, and compare these to qualitative reading of the texts. In addition, using automatically collected web data helped to validate our choice of hand-selected texts. Despite these positives, there are inherent limitations to these choices and decisions, which are included in the text below.

## 2.1 Corpus Construction

Table 1 summarises the datasets used in our study. More detailed narrative descriptions of their construction and analysis are provided below.

Dataset	Description	Corpus size after cleaning (words)
<b>Reference corpus (RC)</b>	The enTenTen2018 corpus; a large and commonly used resource in lexical research. It provides a contemporary general reference of English on the internet.	21,926,740,748
<b>Public corpus (PC)</b>	A specialist corpus built using Sketch Engine's WebBootCaT tool based on the search terms: "place-based", "change" and "sustainability" (compilation date: 2021-01-14).	170,189
<b>Academic corpus (AC)</b>	A specialist corpus constructed from three academic publications (sub-corpora), namely:	461,787
(Sub-corpus: E&S)	Special Feature: Programme on Ecosystem Change and Society: Knowledge for sustainable stewardship of social-ecological systems. <i>Ecology and society</i> . 2017.	236,847
(Sub-corpus: SOP)	Special Collection: Sense of Place in SES. <i>Sustainability Science</i> . 2019.	109,593
(Sub-corpus: PS)	Special Edition: Exploring the Transformative Capacity of Place-Shaping Practices. <i>Sustainability Science</i> . 2020.	115,347

**Table 1.** Datasets used in the study.

*The Public Corpus (PC): an automatically compiled corpus to identify prominent users and usage of "place-based", "sustainability", and "change" on the English internet.*

The first phase of the research sought to sample prominent sites addressing the topic of place-based sustainability on the English internet. We used Sketch Engine's integrated WebBootCaT tool (Baroni, et al., 2006) as it is an established resource for automatically building web-derived corpora for corpus linguistic research. The internet has been described as a "cheerful anarchy" (Sinclair, 2005 in Gatto, 2014: 79) and one challenge from its use in research is that proprietary search algorithms influence and mediate our access, making the identification of "prominent" and "relevant" sites a vexed and unresolved issue for researchers (Gatto. 2014). WebBootCaT helps to (somewhat) overcome this by sending web queries to the search engine Bing from an independent server, reducing the influence of the researcher's location and search history on results.<sup>2</sup> The tool captures metadata, extracts text, and semantically tags that text to create files in a corpus ready for analysis with Sketch Engine's analytical software (Kilgarriff et al., 2004; Wild et al., 2013).

<sup>2</sup> How exactly Bing determines which sites are most relevant based on the search terms provided is not publicly available.

A design feature of WebBootCaT is that it sends all possible three-term combinations selected by the user to the search engine Bing. Choosing search terms is an inherently contestable decision that reflects the subjective judgement of the researcher. Through iterative testing, we selected the search terms *place-based*, *sustainability*, and *change*. We found “sustainability” and “change” were encompassing terms relating to the central goals of STT whilst “place-based” helped to narrow the results to relevant material. “Place-based” is also a term that we found consistently used in the various disciplines of interest, from sustainability to urban planning (e.g. MacGillivray & Franklin 2015; Chase, 2017; Norström et al., 2022; Tomaney, 2010). Using more than three terms was avoided as it would complicate the web-building process and reduce the specificity of the dataset to the research question (Wild et al., 2013). While other terms are clearly relevant, this specific set of three offered the closest alignment with the research questions.

WebBootCat’s default of extracting data from the top 30 web addresses (URLs) was used to manage the size of the corpus so that qualitative analysis of the resulting dataset remained feasible. In line with norms for this type of analysis, raw data was reviewed to remove duplicate material (three URLs removed), address failures in data retrieval (three URLs were unreadable), and to screen for ethical concerns (one URL removed) (see S1 in the ESM for a flow chart summarising exclusions). The final Public Corpus comprised 23 documents (170,189 words) containing the extracted text from web addresses that Bing identified as the most relevant online sites using the terms *place-based*, *change* and *sustainability*.

### *The Academic Corpus (AC): A manually constructed specialist corpus*

Analysis of the Public Corpus indicated that academics in the field of STT were the largest group of authors in the extracted documents, suggesting to us they are key proponents of *place-based sustainability*. While this finding reiterated the validity of undertaking this research, it also highlighted the opportunity for a second stage in the research process. This second stage sought to gain detailed insights into discourse(s) within the field of STT. To create the Academic Corpus (AC), we collated three special feature publications that were (in 2019) recent publications of prominent peer reviewed academic journals that promoted the discussion of *place-related concepts* in the STT field (Table 1) and cover a range of ways that *place* is being considered and framed in relation to STT. Doing so thus helped to complement what could be explored through the PC construction and analysis. The sample was identified through the researchers’ familiarity with the field and a narrative literature review conducted

in 2018-2019 as part of a doctoral research project studying sustainability transitions and transformations in relation to social and ecological dimensions of place. The data sample is focused on environmental and social science contributions within STT, where we saw an interest in place most clearly emerging at that time. A special feature from *Ecology and Society* (the E&S sub-corpus) communicated research from the Program on Ecosystem Change and Society (PECS), a large international research initiative focused on what it describes as Place-Based Social-Ecological Research (PBSER) (Balvanera et al., 2017). Some papers from this publication were also captured in the Public Corpus, further supporting its relevance. Two special feature publications from *Sustainability Science* were included: (i) a special feature that connected Sense of Place (SOP) studies to STT theory and research priorities (the SOP sub-corpus) (Masterson et al., 2019) and (ii) a special feature on Place-Shaping (the PS sub-corpus) which shared findings and perspectives from projects in the European SUSPLACE program (Horlings et al., 2020). While there are various ways this stage of the research could be done, our qualitative knowledge of the field influenced these decisions, and maintained the balance between a large dataset, and a qualitatively manageable one.

Moreover, part of the motivation for the research was that we suspected both obvious and subtle differences in how author groups amongst these publications were engaging with the topic of place, and its role in pursuing change. We sought to test the value of CADS methodology for identifying those differences. Combining an automatically constructed PC and manually selected AC allowed comparison of these two methods of sampling.

## 2.2 Data Analysis

We used Sketch Engine to analyse keyterms and collocates (defined in Table 2) to identify linguistic patterns. These analyses were complemented by qualitative reading of the text, inductive coding to identify thematic categories, and comparisons of the results. This process demonstrates the inherently qualitative nature of CADS research and analysis, despite drawing on a quantitatively informed view of language.

The combination of these approaches was iterative. For example, initial analysis of the Public Corpus explored authorship, keyterms, and concordance. As qualitative familiarity with texts grew, documents were grouped into thematic sub-corpora. Keyterm analyses were then repeated at the sub-corpora level and compared to test the validity of the thematic groupings. This iterative and cyclical approach is common in corpus-assisted sociological research (Baker,

2006), and reflects, more broadly, what Sanscartier (2018) described as the ‘craft’ of mixed-methods research.

Analytical technique or focus	General definition and use	Application in the research
<b>Keyterms</b>	<p>Keyterms are words or phrases identified as salient features of a corpus. Saliency is informed by calculating the relative frequency of a linguistic feature in a focus corpus compared to a reference corpus (Kilgarriff et al., 2014).</p> <p>Insights into the ‘aboutness’ of a corpus can often be identified by comparing a focus corpus to a general language reference corpus (the RC) to generate salient keyterms (Baker, 2006; Scott 1999).</p>	<p>Sketch Engine was used to generate lists of candidate keyterms with high saliency scores. These were reviewed to consider dispersal across documents, raw frequencies, and the context of their use in the text (i.e. their ‘concordance lines’).</p> <p>We scanned all candidate keyterms for themes and detail the review process in the results.</p> <p>The outputs of keyterm analysis are summarised in figures and tables in the main text with full details provided as ESM (S5, S6). Key insights and themes are detailed as results.</p>
<b>Collocates</b>	<p>Collocates are words used before or after (i.e. alongside) a focal term.</p> <p>Collocate analysis often uncovers patterns in how topics or concepts of interest are framed and discussed, providing qualitative insights into attitudes or perspectives in the text (Baker 2006; Stubbs 2001).</p>	<p>Sketch Engine’s ‘Wordsketch’ tool provided a snapshot of collocates for selected search terms. Wordsketch outlines how the term appears in various grammatical contexts (e.g. words that frequently appear as the search term’s subject or object, etc).</p> <p>‘Keyness’ measures of collocate relationships provide statistical context to observed patterns. Our paper highlights the most insightful outcomes; full results are available as ESM (S4, S8).</p>
<b>Comparisons</b>	<p>In general, comparison is a fundamental and ubiquitous element of corpus linguistic techniques (including keyterm and collocate analysis).</p>	<p>To complement insights about what texts highlighted (via keyterms), and how topics were framed (via collocates), two comparisons were used:</p> <ul style="list-style-type: none"> <li>• Direct comparisons between the PC &amp; AC produced keyterms lists that helped identify comparative differences in focus and attention.</li> <li>• To explore similarities, we compared keyterm lists (from comparisons to the RC) between corpora; shared keyterms provided linguistic evidence that certain themes and topics were shared by different groups of texts.</li> </ul>

**Table 2.** Analytical techniques used in the study. We drew on Baker (2006) across all aspects; Egbert & Biber (2019), Gabrielatos (2018), Kilgarriff et al. (2014) and Scott (1999) for pertinent discussion of keyterm analysis; Stubbs (2001) for a discussion of collocates; and Feola and Jaworska (2019) in our approach to shared keyterm analysis.

Corpus tools thus provided a quantitative understanding of language within texts which supported a qualitative process of interpreting the texts and their use of language; the results outline how patterns of meaning were identified at the level of specific terms, documents, and groups of documents, all of which are recorded, for transparency, in the ESM.

### *Explanation of statistical measures and reporting style*

This study used statistical tests built into the Sketch Engine tool; keyness analysis used Kilgarriff's (2009) Simple Maths technique, with an N score of 1. For collocate analysis, a logDice of 7 was used as a cut-off point to assess statistical significance, in line with norms and previous studies (Kilgarriff et al., 2014). All terms mentioned have a  $p$ -value  $<0.0001$ . Whilst an explanation of these decisions is beyond the scope of this paper, they represent very common standards for corpus-assisted research (e.g. Feola & Jaworska, 2019).

Whilst offering many methodological benefits for this study, Sketch Engine has known limitations in the statistics that can be used and reported. In addition, there is ongoing discussion in Corpus Linguistics about which statistical tests are best suited to assessing keyness (Gabrielatos, 2018). In recognition of this context, we undertook sensitivity tests to explore the results using alternative statistical measures and methodologies. The outcomes of these tests supported the statistical validity of keyterms found via Sketch Engine and test results are provided in the ESM for transparency and to support future methodological research on these topics (S4).

Finally, communicating analyses of keyterms, collocates and other comparisons can be jarring for unfamiliar audiences; extensive tables and statistics can become taxing to read whilst presenting an aesthetic that masks qualitative considerations in their production and the interpretive analysis they support (Mautner 2019; Baker & McEnery, 2015). In this paper, we approach our reporting conscious of a broad readership. The main text of our paper focuses on the most insightful findings from these various analytical techniques and we use illustrative figures to communicate our results. To ensure transparency, we have complemented our text with summary tables in the ESM and full results in an online repository (Baker, 2006: 178-179). Doing so lets us surface key insights through a narrative description in each section of the results, assisting the reader to understand the 'evidence' alongside our interpretations and findings.

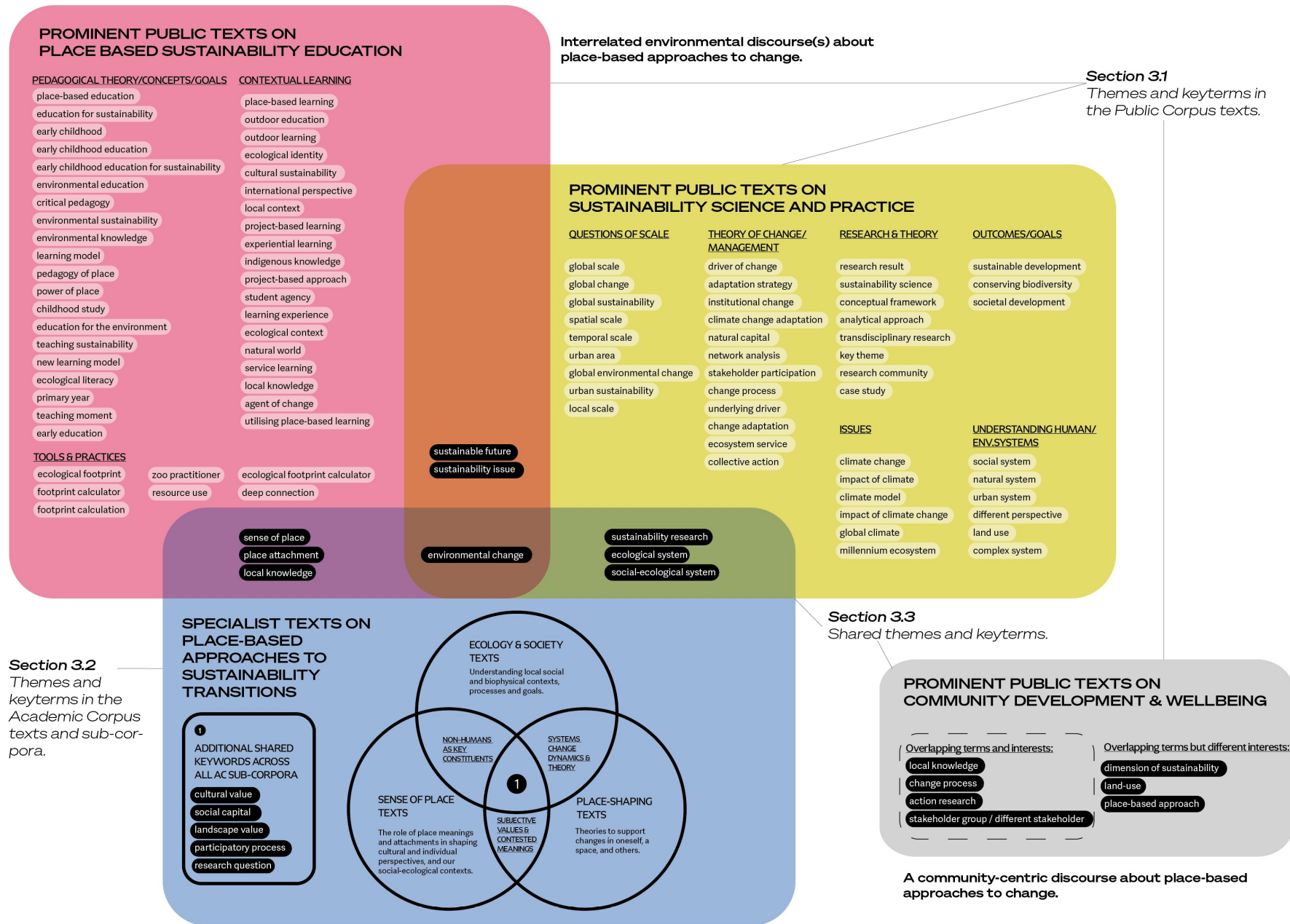
In line with methodological norms, terms from the corpus are presented in fixed-width font and excerpts (quotes) from the corpora are presented verbatim and numbered, with emphases retained where relevant. References to individual texts in the PC corpora are indicated with square parentheses and a table (S2) is provided in ESM listing those sources. Texts from the AC corpus are referenced in text and listed in the ESM (S3).



### 3. Results: Sketching the discursive landscape of place-based sustainability

Our results are presented in three parts. First, we describe the thematic groups identified in the Public Corpus (3.1) and Academic Corpus (3.2). The final section (3.3) discusses overlaps between thematic groups and provides qualitative synthesis of the discursive landscape.

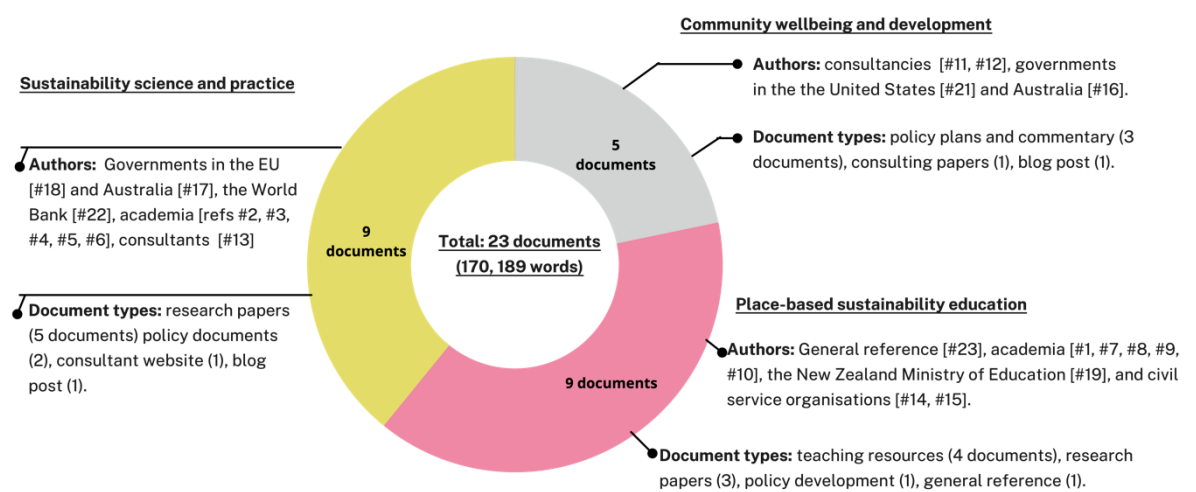
A summary of the discursive landscape, based on our analysis of keyterms, is presented in Figure 1 and referenced throughout the results.



**Figure 1.** An overview of the discursive landscape identified through keyterm and thematic analysis.  
Part B- Original Research (Viewpoint 1)

### 3.1 Prominent voices and perspectives about “place-based” + “change” + “sustainability” on the English Internet

The Public Corpus is a sample of websites discussing place-based, change, and sustainability on the English internet judged to be the most relevant at the time of research by the search engine Bing. The iterative exploration of its content culminated in manually coding each document based on dominant themes, information about its authors, and document type (Figure 2).



**Figure 2.** Prominent author groups and themes identified in the Public Corpus after data cleaning.

Three themes were identified: a place-based sustainability education theme, a community wellbeing and development theme, and a sustainability science and practice theme. These groups were analysed as sub-corpora and the results are outlined below.

No.	Place-based sustainability education	Sustainability science and practice <sup>^</sup>	Community development and wellbeing
1	place-based education	sustainability research	place based approach
2	place-based learning	social-ecological system	based approach
3	education for sustainability	sustainability science	neighbourhood renewal
4	ecological footprint	ecosystem service	theory of change
5	outdoor education	global sustainability	indicator system
6	early childhood	global environmental change	local stakeholder
7	early childhood education	environmental change	community change
8	outdoor learning	sustainable development	area-based initiative
9	early childhood education for sustainability	global change	place-based initiative
10	environmental education	conceptual framework	low-income community
11	ecological identity	urban sustainability	place based working
12	footprint calculator	analytical approach	strategy for neighbourhood renewal
13	critical pedagogy	collective action	strategy for neighbourhood
14	footprint calculation	urban system	community of color
15	environmental sustainability	institutional change	sustainability indicator
16	zoo practitioner	local scale	community engagement
17	resource use	millennium ecosystem	previous approach
18	environmental knowledge	transdisciplinary research	limitation of place based approaches
19	learning model	ecological system	demonstrating impact
20	pedagogy of place	land use	community development

**Table 3.** Top 20 keyterms from the PC texts, grouped by themes. <sup>^</sup>Keyterms in the sustainability science and practice texts have been filtered to only include texts in more than two documents. Full lists are available in S4 and S5 in the ESM.

### 3.1.1. Theme 1: Place-based sustainability education

**SUMMARY:** This group of documents presented place as a forum and a theme through which people can learn about sustainability dilemmas, develop biophilia, and pursue re-inhabitation.

A place-based sustainability education theme was identified in documents from general reference websites [#23], civil service organisations [#14, #15], the New Zealand Ministry of Education [#19] and academic papers discussing education pedagogy and practices globally as well as in specific contexts of North America and Australia [#1, #7, #8, #9, #10] (Figure 1). The most frequent and salient keyterms, `place-based education` and `place-based learning`, were often used as proper nouns and frequently as headings or categories under which more specific concepts were elaborated.

Keyterm lists (with illustrative results in Figure 1 and Table 3) pointed to specific educational contexts, movements, and practices that place-based education and learning engages with or entails. Detailed review showed that references to terms such as `education for sustainability` reflect the influence of Australian and New Zealand authorship in the

documents, where such terminology is locally preferred to what is elsewhere called Education for Sustainable Development (UNESCO, 2014). Other terms identify more specific pedagogical strategies and tools used in practice; *ecological footprint* is a popular tool to help individuals connect personal habits to global environmental impacts (GFN, 2022), which many educators see as a valuable pedagogical practice (UNESCO, 2016). Meanwhile, terms such as *outdoor education* and *outdoor learning* point to a preference for experiential learning approaches that directly engage with nature in outdoor settings; and *early childhood education*, *critical pedagogy* and *environmental sustainability* show that place-based education includes critical engagement with environmental issues, and suggests a focus on younger age groups in the PC.

Statistically salient but less frequent keyterms included references to specific and established concepts in environmental literature such as *sense of place* and *place attachment* (see Masterson et al., 2017) and *ecological literacy* (see Orr, 1992; 2004) alongside terms that might be considered as signposts of specific teaching practices and priorities for place-based sustainability education: *student agency*, *project-based approach*, *indigenous knowledge*, *local knowledge*, *teaching moment*, *deep connection*, and *experiential learning*. Topics of interest were also indicated by infrequent keyterms, including *cultural sustainability*, *environmental knowledge*, *ecological context*, and *sustainability issue*. Overall, these terms reiterate a pervasive focus that was identified from qualitative reading of the documents: a pedagogical strategy of contextualised engagement with a local socio-ecological setting and the sustainability dilemmas therein.

There appears to be a relatively coherent conceptual hierarchy in term use: a more frequent (and salient) use of general terms followed by more specific (but less frequent) topics, tools, and considerations in place-based sustainability education. This indicates that the authors of these texts have a shared understanding of what place-based education and learning comprise, and how such education contributes to sustainability (i.e. a shared sense of the curriculum). However, authors advocate diverse pedagogical strategies to deliver on this curriculum. More broadly, our analysis suggests that, amongst discussions of *place-based*, *sustainability*, and *change* on the English internet, there is a prominent discourse about the role of place in sustainability education that offers ideas and practices to support individual and societal change through learning.

### 3.1.2. Theme 2: Community Development and Wellbeing

**SUMMARY: In this group of documents “place-based change” appeared synonymous with community-based change and “place” was a means by which to group contemporary human communities.**

A smaller group of documents in the PC shared a thematic focus on public health and community development. These documents included consultant reports from the United States [#12] and United Kingdom [#11], and government documents from the United States [#20, #21] and Australia [#16, #17] (Figure 1).

The most salient keywords in this sub-corpus (Table 3) were about local human communities and issues of equity and wellbeing; neighbourhood renewal, local stakeholder, community change, area-based initiative, low-income community, and community engagement. This focus was made explicit in some document headings:

- (1) “8 policies that have contributed to place-based health disparities across generations” [#12]
- (2) “The Role of Place-Based Initiatives in Community Development” [#20].

In other documents [e.g. #16, #11, #12], detailed qualitative review was required to understand their inclusion. For example, one document [#12] made 11 references to sustainability and used terms like ecosystem, landscape and environment but all terms were used as metaphors for human systems and topics. Another document [#16] referenced the concept of place attachment but measured this as access to a community centre, an exclusively social interpretation of the concept (see Tuan (1977) and Cresswell (2004/2015)).

Overall, this group of documents indicated a discourse about place and change that is prominent on the English internet and largely unrelated to topics of environmental sustainability, despite using shared words.

### 3.1.3. Theme 3: Sustainability science and practice

**SUMMARY: This group of documents used “place” as a frame to discuss social-ecological systems. It was closely linked to the field of STT research and practice.**

The third group of documents included online reports, articles and webpages from private sector, government and academic authors (Figure 2) that discussed theories and practices in pursuit of transformative system change for sustainable futures. Some documents had a

central focus on place-related topics whilst others addressed a much broader agenda. For example, one large document [#18] compiled the views of prominent academics into a summary of the STT research field; *place* was prominent enough to prompt the document's inclusion in the corpus building process, but it was one of many conceptual perspectives raised. On the other hand, a smaller document [#17] from the Victorian Government in Australia, deliberately and specifically used *place* to frame topics in environmental sustainability. Other documents included material from consultancies and academic papers, including two documents from the Programme on Ecosystem Change and Society (PECS), a large international research project that was independently identified and manually selected for inclusion in the Academic Corpus.

The initial analysis of keyterm lists for this sub-corpus identified few insights that were specific to place-based sustainability. The most salient terms (Table 3) include general names for the discipline (*sustainability science*, *sustainability research*) and proper nouns that are prominent terms and concepts in STT scholarship. One document [#18] in particular contributed to this observation, as its frequent use of jargon introduced many distinct but non-place-specific terms.

To go deeper, keyterm analysis was repeated with results filtered to only include terms used in three or more documents. 51 keyterms met this criterion. Qualitative review of these terms identified six thematic categories, shown in Figure 1 (scores in S5). Taken as a group, the categories describe a discourse of sustainability wherein places are often considered as *social-ecological systems*<sup>3</sup>; spaces with more-than-human constituents that serve as forums for *place-based research to investigate complex, situated changes which occur in systems at various spatial and temporal scales*.

Overall, analysis of the PC indicated that prominent discussions of *place-based*, *change* and *sustainability* on the English internet include three types of discourse about place-based change. One focuses solely on community development and wellbeing and the other two incorporate environmental themes in different ways. Academic, policy, and civil society authors were the main authors of the material, and were present in each thematic group. While not the primary focus of our research, geographic analysis showed that Australia and North America appeared in each thematic group, suggesting they may be sites where these thematic discourses interact.

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<sup>3</sup> One text in this group of documents favoured the expression 'socio-ecological systems' but its usage appeared synonymous with the 'social-ecological systems' concept used in academia.

### 3.2 Academic discourses about place-based change in our sample of STT texts.

In analysis of the Academic Corpus, the most insightful results came from reviewing the contextualised use of the 100 most salient keyterms of each sub-corpora. Thematic coding of these terms identified the overarching points of focus in each publication (Figure 1). While collocate analysis was conducted for a variety of terms, *change* provided the most insightful results. Collocate analysis of the term *change* consistently drew forth deeper sentiments that we observed from qualitatively reading the texts; namely, whether change was presented as something that is good, bad, or complicated.<sup>4</sup>

The sections below describe the themes and perspectives in each sub-corpora drawing on keyterm, collocate, and qualitative analysis.

#### 3.2.1 Stewarding Ecology: An ecologically grounded viewpoint.

The E&S corpus comprises findings from a global research program (the Programme on Ecosystem Change and Society- PECS) that began more than a decade ago (Carpenter et al., 2012) and has become a prominent influence in SES research, and sustainability science more broadly (Norström et al., 2022). In our dataset, Norström et al.'s (2017) editorial gives an indication of PECS interaction with topics of place and change, recounting an agenda to support a network of contextual SES research that can enable learning within and across these experiences and scales. Hosted in the Stockholm Resilience Centre, PECS describes its vision for a “world wherein human actors are transformed to achieve sustainable stewardship of social-ecological systems” (Norström et al., 2017).

Corpus-assisted review helped to elaborate and explore the tendencies that sit within the texts. Analysis of keyterms, alongside qualitative review, showed that the E&S sub-corpus placed particular emphasis on efforts to understand *ecological* processes and dynamics in the natural world, alongside efforts to support the human management of these spaces, dynamics, and agendas. Some terms and concepts (*human wellbeing* and *ecosystem services*) highlight human needs and position humanity as the managers of other species. Other terms, like *stewardship*, reflected that this position isn't taken blindly; keyterm

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<sup>4</sup> Collocate analyses of the terms *place-based* and *sustainability* reiterated the 'aboutness' of the sub-corpora but keyterm analysis offered more depth. See S4 for those analyses. Visualisations of the wordsketches for collocates of 'change' are provided in S8.



analysis and qualitative review gave the overall impression that this sub-corpus frames place-based sustainability with a normative agenda to manage for the needs and wellbeing of non-humans, as well as humans. Pragmatic tools like concepts of *elasticity* and *ecosystem services* were frequently discussed constructs to help actualise these goals.

Collocate analysis of *place-based* showed that the texts often referred to places as *social-ecological systems*. In this framing, places are ontological realms with more-than-human material considerations and priorities; things like *erosion* and *landscape structure*, become important topics to be considered. Compared to the other *AC* sub-corpora, the E&S documents were less focused on interior (and abstract) values and meanings that are contested in communities and that influence dynamics of power, and the directionality of change.

Collocate analysis of *change* showed that texts in the E&S sub-corpus discussed *change* as *climate change*, *ecosystem change*, *land-use change*, and other terms describing humanity's major impacts on Earth. It also highlighted a pragmatic attitude: *changes were related, required, and they simply are part of reality. We can moderate change, manage it, address it, or undergo it. We can seek to study it, understand it, and use that knowledge to manage social-ecological systems.*

### *3.2.2. Sense of place: A contested viewpoint.*

The SOP sub-corpus presented a situated discussion of place by focusing on specific (and named) locations rather than abstract concepts. In this way, the SOP corpus understood place similarly to the E&S texts; place-based sustainability is a physical endeavour that occurs in specific *social-ecological systems*. Despite this situatedness, some of the salient terms in the SOP corpus suggest interest in studying local phenomena in connection with broader systems over space and time. For example, *biocultural diversity* refers to Maffi's (2001) systemic sensibility that acknowledges the pattern of interconnectivities between location, language and culture in shaping humanity's relationship to nature in *social-ecological systems*. Other terms, like *ecological grief*, reflect a temporal dynamic and the consideration of historical events, whilst *traditional authority* reflect an interest in comparative and coexisting cultural dynamics. The SOP sub-corpus included salient references to established concepts such as *place attachment*, *place-meaning*, and

place identity which all concern the contested and constructed meanings and values which mediate our relationship to local landscapes (Masterson et al., 2019; Masterson et al., 2017; Tuan, 1977). Collocate analysis of the term place-based reiterated this agenda, highlighting cognition as its most frequently modified noun. A suite of individually infrequent but thematically linked nouns showed place-based was often linked to discussions of risks, behaviours, experiences, and management, further reflecting the topical interest of SOP research.

The SOP editorial by Masterson et al. (2019) provides context to these patterns. Building on earlier efforts to connect concepts in place to the theories and priorities in STT (Masterson et al. 2017; Stedman 2016), publications in the corpus provide a set of case studies and case study comparisons (e.g. Verbrugge et al. 2019). Collectively, they draw attention to place politics, asking whose place meanings take hold, and with cases at different scales, they ask how complex and inter-scalar dynamics connect the social and the biophysical sides of place. To inform practitioners, papers touched on the (positive and negative) transformative potential held in place meanings and place attachment, with Masterson et al. (2019: 557) summarising the opportunity as “scaling up stewardship behaviour from the individual to the global”.

Collocate analysis of change reflected the nuance that an awareness of contested place meanings can surface. This identified a shared perspective in the documents that framed place-based sustainability as an engagement with dilemmas, rather than adopting a more normative or problem-solving stance. In the SOP sub-corpora, change was shown to have both ecological and self-perceived dimensions. It happens globally and in specific places and landscapes. Important dynamics of change included decision making, adaptation, and the role of participants, impacts, narratives, attitudes, and (contested) meanings. Across the SOP sub-corpus, change was presented as a complicated phenomenon; it is something we withstand, navigate, mitigate, plan, accept, undergo, arrest, witness, and/or make.

Overall, the SOP perspective identifies complex social-ecological dynamics that should be considered with reflexivity to the subjective human experiences and dilemmas that accompany specific changes in specific contexts. Whilst there is an interest and awareness of temporal, spatial and inter-cultural connections, it is a systems-conscious posture that appears to emphasise differences, rather than similarities, across those nested and interdependent

relationships. In this way, the SOP sub-corpus presents a sensibility toward place-based sustainability that envisions or suggests a diverse system of locally nuanced expressions, rather than the spread and localisation of a globally shared approach or agenda.

### *3.2.3 Place-shaping: An interior, pro-change viewpoint.*

The PS sub-corpus had prominent focus on agency and presented change as a force for good. Salient keywords like *regenerative*, *compassion*, *decentral\** and *transgressive*, describe how that change is (or ought to be) undertaken, and towards what ends.

Collocate analysis of the term *change* reiterates this perspective. *Change*, (as an object) is something to *drive*, *make*, *enforce*, *induce*, *affect*, *embrace*, and *require*. It is *done by change agents*, in ways that are *transformative*, *inner*, *societal*, *radical* and *tangible*.

Qualitative reading identified two different types of change in the publications; (i) a development view on how people can (physically) change spaces for *development* or *regeneration* and (ii) how people change themselves or each other through *transformative learning*, adapting Mezirow's (1993) theory about interior change in adults. Compared to the SOP and E&S sub-corpora, the PS corpora displayed a more positive stance on change and a more abstract framing of place. Place was framed as a general concept and place-based change was presented as a generalisable, translocatable process, rather than something situated in specific social and ecological features of specific locations. Similarly, keyterm lists indicated that specific environmental features were not salient topics of discussion and there was instead an emphasis on community participation and co-creation. For example, Soares da Silva and Horlings (2020: 364) defined sustainable place shaping as "the capacity of citizens to develop sustainable practices that shape their living environment according to their own ideas, needs, values, and demands" whilst Horlings et al.'s (2020) editorial synthesis of the PS publication summarised that places were framed as "virtual arenas", "a state of mind", "narrative", "imagined", and as "a stage" for Transformative Learning. In other words, place is a topic of interest due to its epistemological and social relevance to humans. Whilst this was the most salient and differentiating perspective identified in the sub-corpus texts, environmental concerns were also present, albeit discussed

in abstract and implicit terms like *regenerative action* and *ecological consciousness* (see Horlings, et al., 2020; Mehmood, et al, 2020; Pisters et al., 2019; Rebelo et al. , 2020). Compared to the PS & SOP sub-corpora, the PS discourse was more abstract and contained less critical discussion on where, how, and if the rights, interests, and conditions of non-human stakeholders specific to a location are considered in the process and axiology of change.

#### *3.2.4. Shared keyterms in the AC sub-corpora show overlapping priorities.*

Moving beyond the nuanced differences in the AC sub-corpora, the texts were also analysed for similarities. Twelve keyterms were shared across the sub-corpora (S7). The most obvious theme in the shared keyterms is an academic preference to describe places as hybrid social-ecological systems, reflecting a specific lineage in STT scholarship (e.g. Berkes & Folke, 1998; Folke 2006). Other shared keyterms signal that in a context of environmental change, priority topics include participation, local knowledge and the emotional and cultural ways we define, value, and relate to places and their non-human constituents.

Pairs of sub-corpora were also explored. A total of 100 keyterms were shared between different pairs of sub-corpora (listed in S7). Reviewing these shared keyterms showed (i) a shared emphasis on non-humans amongst the E&S & SOP sub-corpora, (ii) a shared emphasis on societal and systems change research amongst E&S & PS sub-corpora, and (iii) a shared emphasis on meaning amongst the SOP and PS sub-corpora. In sum, corpus-assisted analysis of the AC texts reveals diverse emphases, from an ontological focus on specific places and changes in socio-ecological contexts, through to a more epistemological focus on abstract conceptualisations of generalisable place-related theory applied to interior change in humans.

Considering the context of creation and authorship provides two insights that might explain why the SOP and E&S corpora both appear to emphasise place as a contested and more-than-human forum, whereas the PS corpus seemed more positive about the need for human agency. First, the SOP and E&S are connected through the global PECS program. Reflecting on PECS was the focus of the E&S publication, while a note in SOP's editorial voiced that the authors' experiences on case studies within the global PECS program inspired the creation of a special feature on SOP (Masterson et al. 2019 :557). The PECS program has a focus on generating scientific and policy-relevant knowledge of social-ecological dynamics needed to enable transformations. This positioning appears less focused on transformation *per se* and

more on providing empirical knowledge that can inform transformation. In contrast, the PS corpus is based on the EU-funded SUSPLACE collaborative programme that aimed to explore the transformative capacity of sustainable place-shaping practices. This programme is founded on an assumption that humans can be agents of transformative change and actively seek transformation, explaining the sentiments that came through in the analysis.

Second, both the SOP and E&S publications had ties to the Stockholm Resilience Centre (Masterson et al., 2019; Norström et al., 2017), a notable influence in SES research with a lineage of authors and terminology that have fed into the field of STT. Whilst we did not do a bibliometric analysis that could deepen these considerations (which would require its own research agenda, and a paper to discuss), we suggest that these contextual influences are likely to sit beneath the data and the patterns we've outlined— shaping networks of dialogue that produce similarities and differences in the terms, ideas, and authorship that were present.

### 3.3: Zooming out: comparing the public (PC) and academic (AC) discussions of place-based sustainability for similarities, synergies and productive differences

Prior sections outlined the groups of authors, themes and perspectives present in the PC and AC. This section compares those datasets, focusing on discourses that include an environmental dimension to place-based sustainability and change.

#### 3.3.1 Comparisons between corpora show shared terms but different agendas between community and environmental discourses, and nuances amongst proponents of an environmental place-based frame

Returning to Figure 1, our analysis also looked at shared keyterms between each thematic group of texts shown by the black shaded terms. Observing similarities in language helped to deepen and reinforce thematic observations made through qualitative reading. Texts from Sustainability Education texts, Sustainability Science and Practice texts and the specialist texts in the Academic Corpora all referred to an interrelated set of environmental discourses about place-based approaches to change. A separate discourse, meanwhile, was evident in public texts focusing on community development and wellbeing; these presented “place” and “place-based approaches” as a human-centric agenda.

Despite these differences, there were shared keyterms between the community and environmental discourses. Both groups paid attention to local knowledge, and recognised that within local contexts, there are different stakeholders to consider. Other shared references to land-use, dimension of sustainability and place-based approaches, reflect our previous observation that a community-oriented discourse about place within our PC dataset showed apparent ecological interest which, upon qualitative reading, proved to be misleading. Those engaged in a community-based discourse about place were not focused on what kinds of land-use might be best for local ecology but rather a discussion of community-centric change toward locally defined outcomes. The environmental discourse(s), meanwhile, include inherent attention and affordance to non-humans, including plants, animals and landscapes as constituents of place and agents in discussions about land-use and sustainable futures.

Amongst proponents of an environmental frame for place-based change, one keyterm is shared: *environmental change*. This shows clearly the core agenda of these texts. More interestingly, nuanced emphases become visible by considering the overlaps between pairs of texts: shared keyterms in educational and AC texts emphasise subjective relationships to place; shared keyterms between the public sustainability and educational texts pragmatically focus on issues and the future; and shared keyterms between the sustainability science texts and the AC corpora emphasise systems perspectives and research. Collectively, they are consistent with a focus in the STT literature on a hybrid interpretation of place as a social-ecological system, and address the contestations and dilemmas that our emotional and cultural relationship to a place and the context of contemporary sustainability challenges, bring forth.

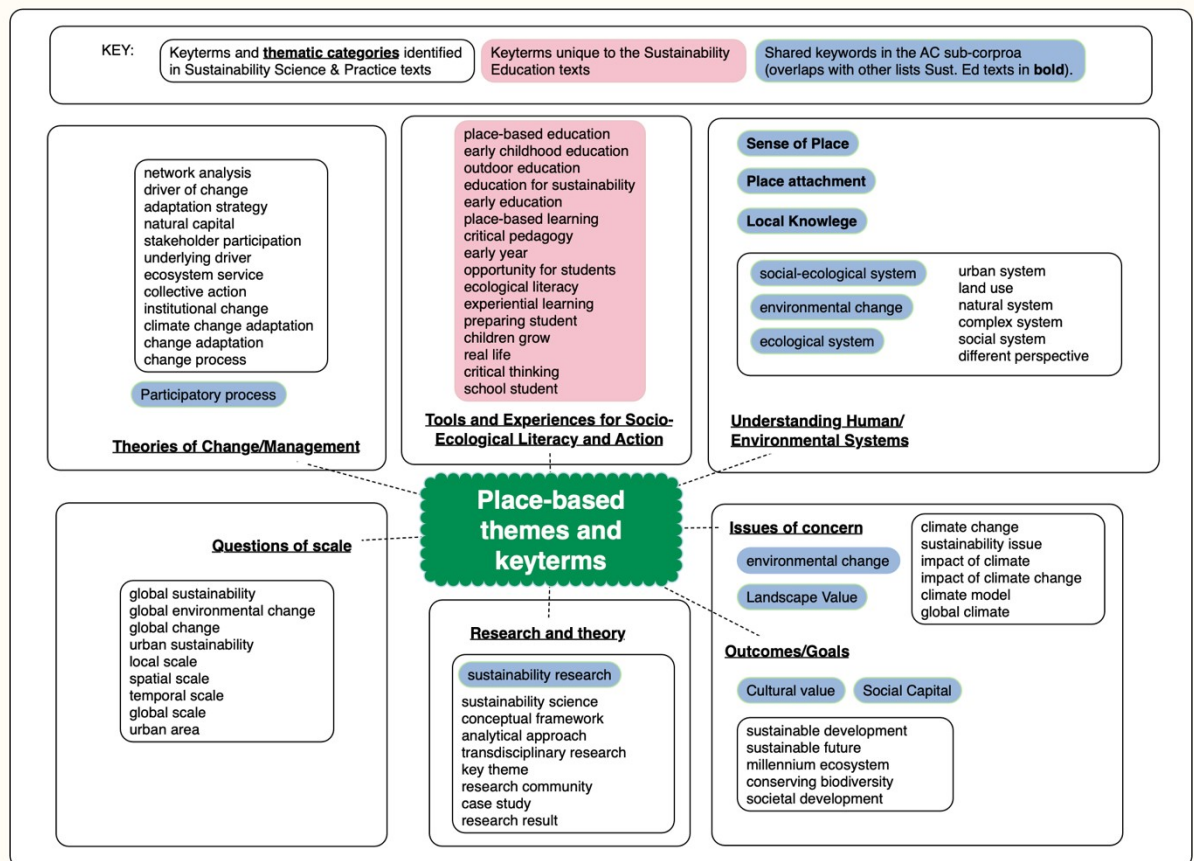
### *3.3.2 Qualitative synthesis: an opportunity for fruitful exchange about the use of educational tools and experiences*

Whilst quantitative analyses were useful, Figure 3 shows a final step in our analysis; a qualitative engagement with the findings to explore synergies and differences between the environmentally- focused approach to place in the PC and AC texts. As such, consideration of the Community Development and Wellbeing texts were omitted from this step.

First, we observed that the thematic groups identified in the PC's Sustainability Science and Practice texts (Figure 1) could provide a useful framework to house the priorities indicated by shared keyterms in the AC. This makes sense conceptually as the AC texts are manually selected publications specific to place-based STT; it is reasonable to expect that the AC texts should fit into the broader field of sustainability science and practice. We then considered if and how the ideas present in the texts about place-based sustainability education might also fit into this field conceptually. A keyterm comparison to identify (and confirm) which topics were uniquely prevalent in the PC's Sustainability Education texts in comparison to the AC corpus was useful for this process (see S4). It confirmed that in the (mostly non-academic) PC texts, a focus on experiences like *outdoor education* and concepts such as *ecological literacy* and *real life* reflected a more situated and experiential pedagogy. Meanwhile, the AC discourse on learning, which was most prominent in the PS sub-corpus, was thematically more abstract and focused on processes of interior change.

We found that the way place was approached in sustainability education, complements the focus in place-based STT literature based on our data sample of these sources. Namely, the public discourse about place-based sustainability education identifies practical tools and pathways to enact socio-cultural change in line with the theories and topics raised by the PC and AC sub-corpora. While public texts focused on children (Section 3.1.1) and the STT academic focus appears to be on adults (Section 3.2.3), we suggest that there is an opportunity for dialogue to reach more deliberately across age groups and activate situated place-based learning as a pathway for change.

The implications of this qualitative synthesis of the data are discussed in more detail in Section 4.2.



**Figure 3.** Central priorities in the environmental discourse about place-based sustainability based on themes identified in keyterms across the PC and AC corpora. Community Development and Wellbeing texts in the PC corpora are omitted in order to focus on environmentally-oriented perspectives.

## 4. Discussion and contextualisation of the findings

Our analysis indicated that multiple place-related discourses were present in the texts. However, it also identified shared themes of interest amongst sustainability educators, practitioners, and STT academics.

This section contextualises the findings and discusses what sustainability practitioners and researchers might learn from our study, including areas of uncertainty and caution in the interpretation that is offered. In doing so, it draws forth a discussion of the patterns in the data, and how things appear to have progressed between the time of sampling and publication— a period that has seen the STT field continue to expand, and references to place appear to have grown from a re-emerging interest into a common point of reference.



## 4.1 Competing “place-based” discourses have consequences for people and the places they reside in.

A general premise in discourse theory is that coexisting movements that use similar words for different ends are engaged in a discursive struggle to frame and represent the world (e.g. Jorgensen & Philips, 2002). This struggle persists whether we are conscious of it or not. Our study observed two very different discourses about “place-based” approaches to social change and sustainability. A community-focused dialogue talked about place-based change as something pursued for entirely human outcomes; place, here, was a synonym for community. Sustainability educators, practitioners and STT academics, meanwhile, discussed “place” as something much broader: a more-than-human assemblage of constituents with contested rights, identities and narratives that interact and co-exist. This discourse carries an interpretation of sustainability in which contemporary human aspirations are considered alongside affordances to other species, histories, and entangled assemblages of social-ecological systems.

What happens, then, when a person predisposed to using place as a synonym for community hears the call for ‘place-shaping’ in the context of a discussion about land-use and planning? Will attention to social-ecological hybridity and a concern for eco-justice be salient features of what’s produced- or might ‘place-shaping’ simply be (re)interpreted as an invitation for local people to express their agency and adapt their landscape to their own wishes and aspirations? In public planning contexts, ‘place-making’ for example, has been widely interpreted and acted on as a call for public art, public spaces, and community events. We come away from this study with clarity not just about the discourse present in the field, but about the stakes at hand and consequences that can be carried by competing place-based discourses. This is not to say that the discursive differences we observed have necessarily led to overt discursive struggles. Those who frame place as being about human communities may have no strong objection to inclusion of non-humans in place-based discourse. Indeed, since the time of our analysis, there are already signs emerging in Australia of a discursive shift from place-as-community to place as more-than-human. For example, in public discourse, Melbourne Design Week’s 2019 pronouncement of the need to consider “Landscape as Protagonist” (Donse, 2020) and the New South Wales Government Architect’s (2023) call for a shift from “human-centered to Country-centred” approach to planning reflect an ongoing shift in thinking about place in Australia’s design and built environment sector. Similarly, in academic discourse, recent

writing in STT calls for “prioritising, valuing, maintaining and embracing nature in cities in Australia” while also arguing that it is “paramount to empower communities” (Frantzeskaki et al., 2022). While new research and contemporary data sources would be required to explore such examples in sufficient detail, these examples hint that any potential discursive struggle may be on its way to resolution in favour of recognising the integrated social-ecological dimensions of place. The next section draws on our data to synthesise what that resolution may look like.

## 4.2 A shared storyline for a place-based approach to sustainability transitions and transformations

The publication of this paper is itself a contribution to the discursive landscape about what “place-based” change is, and what it means for sustainable futures. In this context, we want to explicitly describe an approach to place-based sustainability transitions based on what we encountered in the data. By doing so, we do not assert any ownership of the discourse, but draw out what is being pursued, surface its most salient features, and promote a conscious and deliberate engagement between (self-identifying) proponents of a place-based approach to sustainability. This calls for sustainability researchers and practitioners to (continue) an active participation in forming a discourse coalition; a group of actors that share storylines around an identified set of practices (Hajer, 2006), in this case, one that is centered on the case for a place-based approach to sustainability transitions and transformations.

The shared storyline for place-based approaches to STT that we identify in the data (drawing on the synthesis outlined in Figure 3) includes these key features:

1. Concern with environmental change, including climate change, and a vision for the future that includes biodiversity conservation and societal development.
2. Awareness of multi-scalar change, including interactions between local and global scales, as well as changes within individual people and broader communities.
3. Interest in the system dynamics of institutional, ecological, and social dimensions of change, and the management of this change.
4. Recognition that non-human rights and outcomes matter and that place-related values are contested. This requires consideration of how we develop and shift our emotional connections to nature, engage with locally specific ecological knowledge, and construct the meanings and attachments that shape our sense of place.

5. An approach to change that emphasises collaborative work by and with local communities, based on a foundation of cultural and ecological literacy about that local place. Such collaborative processes can draw on tools and concepts from environmental education and transformative learning, practical measures for assessing and managing local ecosystem services, and the co-creation and contestation of place-meanings.

Subsequent sections offer critical reflections about the ideas that are offered and invite proponents of place-based change to engage in reflexive debate and discussion.

### 4.3 Attention to place helps to put more-than-human ethics into practice— and the discourse has continued to emerge

A storyline like that outlined above is increasingly evident in contemporary sustainability literature published since the compilation of our data. First, more literature is identifying place as a forum to generate diverse knowledge and more ethics-driven approaches to change (West et al 2018, Abson et al., 2017, Harkenninen et al., 2022). Second, there has been a reinvigoration of concepts like biocultural diversity (Maffi 2005; Fernández-Llamazares, 2022) and bioregionalism (Hubbard et al., 2023; Wearne et al., 2023), and the expansion of human-nature connections research (HNC) (Ives et al. 2017; Riechers et al., 2021) that position human relationships to place as a central aspect of socio-cultural transformations toward sustainability. Third, and relatedly, place is present in some promising examples that ‘flip’ the directionality of power in sustainability governance from ‘top down’ planning to ‘bottom up’ emergence, evidenced by movements like the Seeds of a Good Anthropocene project (Bennett et al., 2021) and Nature Futures Framework used in the IPBES program (IPBES) (Pereira et al., 2020). Sitting across these shifts is a (re)centering of the role that values and relationships to nature play in STT and an attraction to see systems change as a plural, contextualised expressions rather the art of codifying and spreading change through top-down planning and best practice (Pereira et al., 2021; Chan et al., 2018; West et al., 2020).

Analysis of our data showed that there is a connection to concepts of stewardship (a shared keyterm, and explicit goal raised in the E&S and SOP sub-corpora) that ‘place’ seems to draw forth when pursuing STT, however the SOP texts nuanced this observation (e.g. Enquist et al., 2019) by showing that a community’s sense of place can enable stewardship, or work against it

(Chapin and Knapp, 2015; Stedman, 2015). In short, some practitioners have long felt that a simplistic localisation of democracy is inadequate to creating normative ecological outcomes but nonetheless remain committed to an ethical approach to change (MacGillivray & Franklin 2015). The ‘relational turn’ in sustainability is becoming an important feature in environmental literature beyond the STT field that helps to address these concerns and the dilemmas they raise (Stålhammar and Thorén 2019; Gow et al. 2002) by refocusing sustainability’s focus on navigating the process of change, not just delivering specific ends. The opportunities of a conscientious adoption of values such as duty, respect, and care toward a more-than-human world are becoming salient in contemporary discourses in many corners of sustainability science (West et al., 2018; Leventon et al., 2021; Drury et al., 2023), and the consequences, politics and trade-offs that this entails come sharply into focus through scales and processes of place-based STT. As we see it, a place-based approach to STT has become increasingly coupled with an eco-justice vision for sustainability. This dynamic is reflected in our data, and we suggest that it presents evidence that a focus on place has been- and can continue to be- a vehicle for these broader shifts in sustainability to enter into the STT field (e.g. West et al., 2020). With interest in ecological dimensions of sustainability emerging through ‘nature positive’ priorities in mainstream policy and commercial forums (e.g. TNFD, 2023; DPE, 2023; Cfs, 2023), we suspect place-based perspectives may become increasingly useful frames through which STT research and practice can engage.

Future discursive research can make use of CADS to investigate how more-than-human politics are being pursued in specific place-based contexts whilst creating datasets and approaches that can also be used to trace discursive shifts and linkages at larger scales and over time. This complements existing STT interests in global research networks (Norström et al., 2022); inter-place dependence and connectivity (Hull & Liu 2018) and the systemic influence that discourses and meanings play in socio-cultural change (Simoens et al., 2022; Riedy 2021). One specific opportunity might be to explore discursive references to plants, animals and landscapes as a way to gain insights into competing place meanings and environmental values (see Langer et al. 2022; Ladle et al., 2019) and to explore if these linguistic signals correlate with dynamics in politics and governance (see Hakkaraniene et al. 2022). We suggest that web-derived corpora and CADS provide useful techniques for this agenda.

#### 4.4 Critical reflections: questions about power and directionality.

CADS research adds opportunities for transparency and reflexivity for discursive research, but it doesn't escape bias altogether. Critical attention needs to be placed on the observations, and the research process. In terms of content, we note that indigenous cultures are often the 'textbook' examples of integrated social-ecological civilisations (Maffi, 2005) however our corpora did not contain a salient suite of terms relating to indigenous cultures and perspectives. From a critical perspective, it is important to consider the context of power in the creation of the documents that we studied (Baker, 2006): who is visible in discussions of place-based sustainability on the internet and in the academic community, who is not, and who ought to be? We argue that there is a need for greater deliberation and reflexivity amongst practitioners and researchers about who 'does' place-based change and who writes about it. Instead of asserting knowledge about place as an abstract concept, it is our belief that change-makers and researchers have a responsibility to be literate about the heritage of a place, its current constituents, and the contestations and power dynamics therein if they are pursuing deliberate change there. Emphasising cultural and ecological literacy as an important part of place-based sustainability may help to improve the practices undertaken by practitioners and researchers, as well as the programs they run with local communities. Outside of the corpus, nuanced examples of this approach being pursued are seen in civic movements (AELA, 2020) and academic place-based learning journeys (Wooltorton et al., 2020; Bawaka Country et al., 2015) wherein place becomes the forum for academics and practitioners in STT to learn more about where they are and develop relational mindsets. Sentiments for this kind of activity appear particularly mature in post-colonial contexts where there is a sensitivity to history and the complexities it brings.

It is also worth noting that the most place-based practices pursuing sustainability transitions may be 'so local' that they use place-specific nomenclature that would be overlooked in our analysis due to its very specificity. Our data revealed complex tensions in the way place-based approaches engage with inter-scalar priorities in STT. Some place-based approaches aligned with MacGillivray's (2015: 5) call for a 'relentless focus on context' while for others, the pursuit of place-based change was decontextualised, abstract, and conceptual. These polarities carry with them political, epistemic, and ethical dilemmas and consequences.

We identify similar dynamics in the STT literature about place, scale, and change. Where some discussions focus on synergistic dynamics of trans-place change via innovation networks and

translocal diffusion (Loorbach et al., 2020), other efforts in the STT field emphasise a vision for local emergence that enhances difference and plurality (e.g. Scoones et al., 2020; Bennet et al., 2021; Fazey et al., 2020). A focus on place, we argue, continues to hone attention to longstanding tensions in how sustainability researchers engage with questions of power, and relatedly, the topic of universal versus contextual knowledge, highlighting a need for productive and reflexive debate within the STT field about the politics of knowledge and how it is used in change. Many debates on these topics are being explored in STT (e.g. Fazey et al., 2020; Wyborn et al., 2020; Caniglia et al., 2021) but they also have long histories in disciplines like geography, where the politics of knowledge, action and belonging in an interconnected world have long been considered alongside questions of social justice (Massey 2004; Plumwood, 2008), and inter-species justice (Whatmore, 2002; Haraway 2016; Sharpe et al., 2022), and efforts are being made to see how research might “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: 470).

Discursive research can do much to investigate tensions about power and its interaction with place and scale, including through specific discourses associated with place-based sustainability transitions. Making use of the data analysis in this study, those efforts might focus on the movements associated with *bioregionalism* and *biocultural diversity* –terms that were present in the corpora of our study and deliberately engage with the tensions of inter-scalar connectivity. Both concepts have recently seen renewed interest and progressive discussions about their value to STT researchers and practitioners (Hanspach et al., 2020; Hubbard et al., 2023; Wearne et al., 2023). Alternatively, we suggest that a fruitful source of reflection and discussion might be found by discursive research into *imaginaries* of change; identifying whether proponents have an imaginary that is more akin to localisation or one more akin to a patchwork of emergent and divergent change initiatives appears to be a useful point of deliberation and discussion.

#### 4.5 Opportunities for fruitful dialogue between education and sustainability transitions literature.

Our final observation is that the analysis of our data surfaced an opportunity for the STT community to more explicitly engage and integrate ideas, concepts and practices used in place-based sustainability education (as indicated in Figure 3). Concepts like ecological literacy,

tools that help connect individual behaviours to global issues, and practices like experiential learning can all help to bridge gaps between action and theory, and between personal and collective change. Moreover, the debates that have shaped these educational pedagogies and practices are also pertinent for review. For example, Orr (1992, 2004) has had a seminal influence on environmental education with his writing about the role of place in sustainability education since the early 1990s, drawing on thinkers from John Dewey to Aldo Leopold. The discipline has also been shaped by debates about whether education should be outcome oriented or emancipatory, and how human aspirations should be positioned against inter-species ethics (see Jickling & Wals, 2008; Stevenson et al., 2012; UNESCO, 2016:24). These dilemmas and questions are equally relevant to place-based approaches to STT. More practically, while the PC documents had a focus on childhood education and school-age audiences, the need for similar learning processes have been noted across all age groups (Charles et al., 1981; Orr, 1992:137; UNESCO, 2016).

We suggest that exploring tools for place-based environmental learning and their applicability for adults and community contexts would complement existing efforts in STT to explore transformative learning theory and extend the practical opportunities to support change in place-based contexts (Pisters et al., 2019). Signs of progress on this front are also present in contemporary literature, with place and context central in emerging and ongoing discussions about how to transform knowledge systems in service of more plural forms and pathways towards sustainability (e.g. Fazey et al., 2020; Wyborn et al., 2020; Caniglia et al., 2021; Wearne, 2024).

#### 4.6 Critical reflections on CADS and its prospects for sustainability research

Our final point of discussion is a critical reflection on using of CADS in this study and what it might offer to discursive research. First, corpus tools and techniques approach offered many benefits, but the work involved a ‘messiness’ noted by others (e.g. Baker, 2006; Mautner, 2019). The quality of the corpora required careful attention, software presented limitations in processes and methodology, and the significance attributed to specific terms required detailed qualitative oversight.

Using the internet as a data source carried benefits, but also unresolved issues. This includes complexities and tensions from its fundamentally dynamic nature, the mediation that occurs by search engines algorithms, and the ethics of studying its content (Gatto, 2014).

We note that while corpus tools introduced opportunities to access new sources of data, and interrogate them in novel ways, we chose to limit the scope of our study to keep it qualitatively manageable; the data was limited to a selected body of work, in English, from a specific period of time. These all should be considered as limitations when interpreting our study, as the observations we offer are based on this (limited) sample of data. Despite this, we found CADS useful, and it complemented traditional discursive techniques.

Perhaps most critically, we found writing about CADS much more laborious than using it; useful insights were gained in a matter of weeks whilst writing this paper and carefully preparing the evidence grew into a multi-year project.

Our conclusion is pragmatic: we suggest that corpus tools and techniques offer useful additions to any researcher's belt. With time and awareness, publishing discursive research that adopts CADS as a central feature will become easier, and we identified a range of promising pathways for this research to explore. More broadly however, we suspect a pragmatic and useful opportunity for a much wider group of researchers is simply to experiment with digital tools (like WebBootCat and WordSketches) at the early stages of a project. Here, researchers might complement existing tools like bibliometric analysis, narrative literature reviews, and systematic searches of the academic databases with a (more) systematic approach to linguistic data on the internet, or in selected texts, and in doing so, expand, deepen and challenge their understanding of the discursive landscape and politics that relate to a topic or group of texts.

## 5. Conclusions and pathways forward

Returning to the questions raised in Section 1, we can make several concluding observations. First, in our limited sample of academic and public discourse at the intersection of *place*, *sustainability* and *change*, we found it dominated by institutional voices – those of academia, various levels of government, and consultancies. They showed an ambition to pursue sustainability through “a relentless focus on context” (MacGillivray, 2015: 5) but deeper analysis suggests that enacting this focus can sometimes lead to the abstraction of ‘context’ as a concept, drawing forth (a somewhat ironic) risk that discourses about place could still serve top-down priorities about where change comes from and for whom change is pursued.



Second, our discourse analysis revealed a schism between discourses that use place as a synonym for a human community, and those that refer to place as a more-than-human assemblage of constituents with (contested) rights, identities and narratives that interact and co-exist. The latter discourse included those focused mainly on sustainability transitions and those more interested in education for sustainability.

Third, we made the case that those using place in a more-than-human sense have strengthened a shared storyline by foregrounding a concern with environmental change, awareness of multi-scalar change, an interest in social-ecological system dynamics, recognition of non-human rights and an emphasis on collaborative work with communities to build local cultural and ecological literacy.

Finally, in an STT field that is increasingly laden with commitments to complex, holistic and transdisciplinary agendas, we found corpus linguistic tools valuable to identify underlying priorities and differences that are otherwise hard to ascertain. While we surfaced challenges that we faced when using corpus analysis, we see several ways that future research can use insights gained from this study and use CADS techniques to address priorities in environmental sustainability. Three examples that could assist place-based practitioners include:

- Expanding the integration of Environmental Education with STT literature to identify opportunities from integrating practices and theories for change. A focused corpus-based study, including sources from Environmental Education as well as STT literature, could help identify opportunities for such dialogue.
- CADS could explore place-based discourses in broader society by prioritising scale-linking concepts such as *bioregions* and *biocultural diversity*, conceptually central terms such as *ecological literacy*, or locally specific references such as terms from indigenous cultures. There are also rich opportunities to integrate themes of place, techniques in CADS and ‘culturomic’ perspectives by investigating how different place-based actors present taxa of local plants and animals in their language. This may help to identify and distinguish the types of “place-based change” being pursued in different contexts.
- Across these topics, there are opportunities for CADS to make use of web corpora to explore sustainability discourses across locations, specialist corpora to explore discourses in specific locations, and diachronic corpora to trace the shift in discourses over time.

We also see opportunities for discursive research to pursue methodological and theoretical opportunities identified in this research. They include:

- Broadening the data used in CADS to include interviews with researchers and practitioners participating in the discourses of interest.
- Exploring the terms that were useful markers of different postures. For example, this paper found the term “change” was useful to ascertain divergent attitudes amongst agents involved in pursuing and promoting sustainability.
- Most directly building on this study, CADS could be used to investigate the discourse of place-based sustainability in a larger sample of public data. The use of automated web-corpora was found to be insightful for this purpose.

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#### **Author Contributions**

S.W. conceived of the study; collected and analysed the data; and wrote the first draft of the manuscript. Both authors contributed critically to drafts and gave final approval for publication.

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The authors have no competing interests to declare that are relevant to the content of this article.

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#### **Electronic Supplementary Material**

The online version of this article contains supplementary material.

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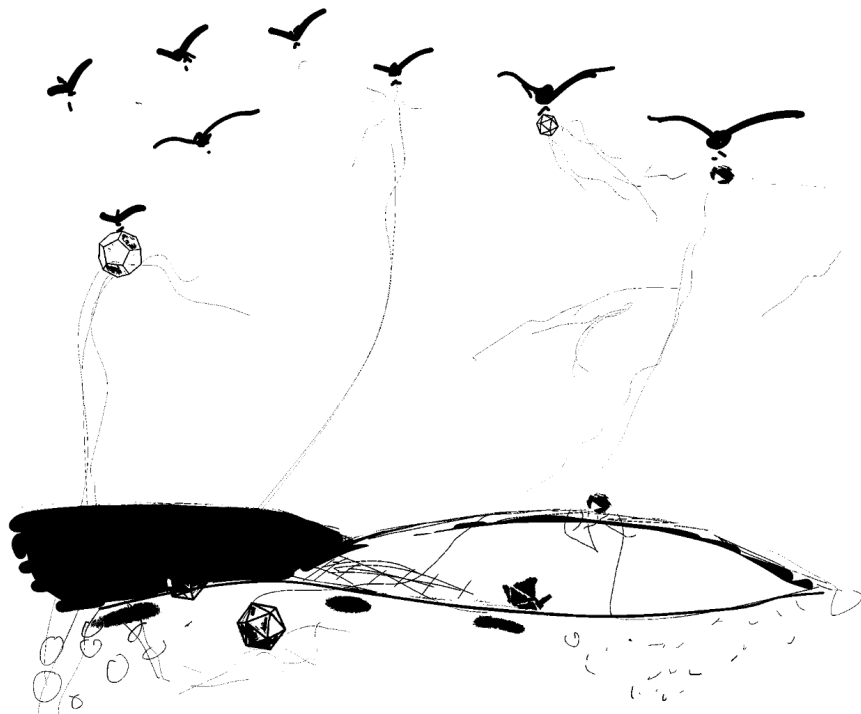
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## Viewpoint 2.

### A trans-place perspective

*Exploring contemporary expressions of a global sustainability discourse that deliberately engages with topics of place and scale.*

## Introduction to viewpoint 2.

This viewpoint studies contemporary bioregionalism (now framed as bioregioning), a global sustainability discourse that calls for socio-cultural transformations toward sustainability by deliberately engaging concepts of place, context, scale and trans-local connectivity.

Bioregions, for example, is a concept that is central to this discourse. I noted references to bioregions in the analysis of Viewpoint 1 and identified this as an interesting topic for further study. During the progression of my research, I also noticed that within my networks in STT research and practice, references to bioregional concepts appeared to demonstrate a reinvigorated interest in that discourse.

The paper I present is an original research paper that has been published in the journal *People and Nature*. It used semi-structured interviews with contemporary leaders in bioregional thought and practice and a collaborative approach to reflexive thematic analysis. The findings show how bioregional discourse has changed over time and explore the practices and perspectives in contemporary expressions across seven countries. The discussion identifies how key interests within STT and related fields might be associated with these changes. Moreover, we found that while a general and global discourse about bioregioning seems to share some core practices and attitudes toward change, there are also nuanced differences, and different emphases within bioregioning appear to be shaped by contextual and subjective factors.

The paper responds to RQ1 (*How are place-based approaches to sustainability transitions and transformations being pursued and discussed?*) by exploring the discourse and practices of an important global (or more aptly, a 'trans-place') sustainability discourse that is focused on place-based dynamics to pursue socio-cultural transformations toward sustainability. It contributes to RQ2 (*how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit?*) by extending a discussion into topics that were raised in Viewpoint 1. This includes an observation that while a focus on place carries much hope and normative aspiration in theory, in practice, a place-based agenda can come with tensions and uncertainties. This is seen in the histories of bioregional discourse and it was also evident in the contemporary practices and perspectives identified in our interviews—in both viewpoints 1 and 2, I found that topics of place can sometimes invite a focus on contextual nuance, but at other times it can lead to highly abstract and conceptual discussions, creating somewhat ironic vehicles for global (top-down) agendas and problematic power relations. Performing a bias toward abstract or universal ideas, for example, contradicts some key ambitions of emancipatory and contextually specific approaches to change that attract

people to bioregioning and concepts of place in sustainability. The paper reflects on these dynamics and considers the socio-cultural production of meaning that is observed within bioregional discourse as part of broader trends within sustainability and STT literature. Here, we suggested that bioregioning is influenced by nested SES dynamics; subjective engagements with context, concepts and knowledge sit alongside the influences of abstract and de-contextualised influences through bioregioning's global discourse and related social networks. We suggest that bioregioning is at its best when concepts like bioregions are used as 'boundary objects', inviting useful points for consideration but also driving participatory, critical, and reflexive dialogues about how change might be pursued, rather than offering a pre-determined strategy.

When undertaking this research, the 'feeling' that it carried sat in stark comparison to those in viewpoint 1. Here, the use of semi-structured interviews and the reflexive nature of the analysis drew me into empathetic and ethical awareness of the people and places discussed by the research. In doing so, my experience of the methodology supported opportunities to prioritise and perform relational values in the research. Methodologically, I also took up some of the pragmatic conclusions shared in viewpoint 1. This included undertaking a brief 'discursive scan' of the internet using WebBootCat at the very start of the project to sense-check our identification of key thought leaders in the discourse in ways that are more reliable than a typical use of search engines and broader than what is offered through academic databases.

While the paper outlines the study and its findings, Appendix B includes attachments that provide a fuller picture of work undertaken through this viewpoint. This includes documentation of findings from the WebBootCat scan and a review paper we developed from the desktop stage of the research. That paper is included as an Appendix as I am a secondary author and to avoid repetition—the pertinent details about bioregional history are reiterated in the introduction and background section of the original research paper below.

*Guide to chapters in the paper:*

- *Abstract*
- *Introduction*
- *Methodology*
- *Background & Research Questions*
- *The landscape of contemporary bioregioning*

- *Reflections and discussion*

*Attachments for this viewpoint are included in Appendix B. They include:*

- *B1) Documentation of WebBootCat Scan*
- *B2) Supporting paper developed during the desktop research and review process.*

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## RESEARCH ARTICLE

# A learning journey into contemporary bioregionalism

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Email: [samuel.wearne@uts.edu.au](mailto:samuel.wearne@uts.edu.au)**Handling Editor:** Maraja Riechers**Abstract**

1. *Bioregioning* is a new wave of bioregional discourse that appears to be attracting interest among sustainability researchers and practitioners.
2. Through interviews with contemporary leaders and a reflexive research process, we explored bioregioning experiences across seven countries. Our paper outlines the motivations, practices and narratives that we encountered and positions these observations against prior expressions of bioregional thought and broader themes in sustainability research.
3. We found that in bioregioning, the concept of a bioregion remains important and seems to attract people to the discourse in three ways: It inspires visions of the future that encompass more-than-human thriving, it creates a conceptual container that enables a strategic narrative for change that connects places to larger scales, and it justifies the importance of everyday people exercising their right to 'do' something.
4. The combination of these motivators shows bioregioning's relationship with earlier expressions of bioregional thought: Like early bioregional thinkers, regional scales carry cognitive and strategic appeal, and like critical bioregionalism, power and justice are foregrounded to ensure the process of change is ethical. We suggest that in the shift to bioregioning, the bioregion serves as a boundary device, justifying (for some) a focus on regional scale action which has made bioregional discourse unique, and for others, rationalising participatory or emotional priorities. This lets bioregioning enact a dialogic approach to change and enables practitioners to consider questions of scale in open dialogue with emotive place-based dynamics, bringing nature re-connection and social-ecological systems research into consideration and overlap with the practice of bioregioning.
5. We observed parallels between our research process and the central features in bioregioning; both respond to ambitions and calls within sustainability to enact relational values and surface contextualised knowledge while also valuing generalisations and abstraction. Our study, we suggest, provides one example of how research into human-nature relationships in Western sustainability might be pursued in line with these ambitions.

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## KEYWORDS

bioregionalism, environmental politics, place-based sustainability, relational research, social-ecological system research, sustainability transitions

## 1 | INTRODUCTION

In the interdisciplinary field of sustainability science, a large body of work is seeking to support contextually nuanced approaches to sustainability transformations, account for complex system dynamics and go beyond technocratic frames of sustainability to engage with values and worldviews (e.g. Bennett, Biggs, et al., 2021; Fischer & Riechers, 2019; Leventon et al., 2021; Pereira et al., 2020). In pursuing this difficult and complex agenda, the related and overlapping research fields of social-ecological systems (SES) research, human-nature connection (HNC) studies and sustainability transitions and transformations literature have helped re-energise sustainability as a place-based phenomenon and integrated humanities and social science perspectives into the questions asked, the methods used and the outcomes favoured (e.g. Biggs et al., 2021; Ives et al., 2017; Masterson et al., 2019; Riechers et al., 2021).

In doing so, efforts to approach sustainability through deliberative and bottom-up approaches have gone from compelling calls (MacGillivray, 2015; Stirling, 2015) to concrete action, with influential global programmes in research (Norström et al., 2022) and in policy (Pereira et al., 2021) deliberately adopting a contextual focus due to the ethical and qualitative nuance that it brings. These broad shifts can be partially understood by positioning them in what West et al. (2020, p. 304) described as a 'relational turn' occurring in sustainability science that is enabling 'more dynamic, holistic accounts of human-nature connectedness; more situated and diverse knowledges for decision-making; and new domains and methods of intervention that nurture relationships in place and practice'.

Despite these efforts and synergies, key challenges remain in navigating sustainability's shift towards place and in applying relational thinking in research and practice. Pursuing a commitment to place-specific responses without ignoring dynamics at larger scales is a salient concern given the state of planetary-scale health (Rockström et al., 2009; Steffen et al., 2011), and balancing calls to be both scale-conscious and context-specific is a longstanding challenge and tension that continues to be raised (Balvanera et al., 2017; Bennett, Morrison, et al., 2021; Hull & Liu, 2018; Loozbach et al., 2020; Norström et al., 2022). Furthermore, while a relational paradigm and its connection to a more contextual approach to sustainability science has been explored in conceptual manner (e.g. Chan et al., 2018; Walsh et al., 2021; West et al., 2018) and evidence has been built to demonstrate how relational perspectives can lead to practical shifts in policy (e.g. Chan et al., 2016), more work is required to understand what this paradigm looks like in empirical examples (Eyster et al., 2023); critically discuss its pragmatics, politics and challenges (Raymond et al., 2021);

and test how relational values and epistemology might influence the practice of sustainability research (Eyster et al., 2023; Fish et al., 2022).

Bioregional discourse has long sat at the intersection of many of these priorities and the challenges that they bring. Through its central concepts of the 'bioregion' (a spatial unit), and 'bioregionalism' (an environmental philosophy), bioregional theory has sought to offer solutions that balance a place-based environmental movement and a systematic engagement with scale. With visions of regionally scaled systems that re-design society into socio-ecological networks and an ambition to activate a sense of love, care and responsibility for the places we inhabit (Gray, 2007), the bioregionalists' pursuit of pathways to (re)establish normative relationships between humans and the environment carry obvious parallels to the questions and agendas that sit within in SES and related fields of research.

However, bioregional thought is not static and has seen various shifts in emphasis. In Hubbard et al. (2023), we outlined a summary of this history, describing three tendencies in bioregional thought. First, particularly in early bioregional writing, there was an 'ontological tendency' in which the bioregion was understood as a naturally defined unit, and the focus of the movement was to adopt regional scale governance systems (see Berg & Dasmann, 1977). Second, there has been a 'critical tendency' which responded to concerns about the interdependencies between places and the power relations embedded in those relationships (Plumwood, 2008). Finally, a more recent and emerging 'processual tendency' uses 'bioregioning' as a verb (Thackara, 2019). This draws on both ontological and critical perspectives and emphasises the process, rather than the ends, of change (Hubbard et al., 2023). With bioregional terms and concepts returning as visible features of major academic conferences (Transformations, 2023); popular books (Brewer, 2021; Kimmerer, 2020; Wahl, 2016); and in the language of various movements and networks of practitioners (AELA, n.d.; BFI, n.d.; Bioregional Learning Centre, n.d.; Bioregioning Tayside, n.d.; The Planet Drum Foundation, n.d.), we saw a need to re-investigate bioregionalism and critically discuss what it might have to offer sustainability research and practice.

This paper explores findings from a collaborative learning journey into contemporary bioregionalism, framed as 'bioregioning'. We structured our investigation around a series of research questions that were explored first through the literature, and then through interviews with a group of prominent thinkers and practitioners in North America, South America, Continental Europe, the United Kingdom and Australia. Our research provides an update as to what contemporary bioregional discourse and practice looks like. We explore how bioregioning balances its commitments to being a place-based environmental movement alongside its interest and approach to larger scales and systems



of change, discussing the opportunities, tensions and complexities this brings. In undertaking the research, we employed a collaborative and reflexive approach that let us explore patterns in the data alongside our subjective and place-specific experiences, which we found deepened our analysis. This paper summarises the outcomes of our investigation:

- *Section 2* outlines our methodology to gather and analyse the data, and our positionality in the research.
- *Section 3* provides additional background on bioregional practice and theory from our desktop review of the literature. It summarises how bioregional concepts have become theoretically fuzzy and identifies questions that our interviews with thought leaders sought to address.
- *Section 4* presents findings from interviews with leading thinkers and practitioners in bioregional action. It provides an updated understanding of contemporary expressions and viewpoints in bioregionalism, and shows the potential directions bioregioning might take.
- *Section 5* critically discusses insights from the research process. It explores why bioregional ideas appear to be garnering interest and positions the opportunities, tensions and contributions that contemporary bioregional perspectives might bring to sustainability research and practice.

Through our investigation, we argue that both the challenge and the appeal of bioregionalism lies in its open engagement with the politics and discontents of pursuing place-based environmentalism in ways that are conscious of larger-scale and inter-place interactions while remaining true to an emergent, dialogic process of change. There are parallels in the experiences of bioregioning and the journey within our research project. We propose that both are a metaphor for the epistemic tension that questions of scale continue to bring to SES research. The key lesson that bioregioning carries, we suggest, lies in a nuanced shift in emphasis that is enabled when (seemingly) universal concepts are accepted as capacious boundary devices, enabling the practice of sustainability to shift from an idea-driven approach to an ethic-driven approach. By sharing our findings, we hope our paper can deepen discussions about the challenge of balancing a commitment to large-scale change with a concern for contextual nuance, surface the value of critical reflexivity and provide another illustration of what the 'relational turn' might look like.

## 2 | METHODOLOGY

Our research project emerged after discussions between 14 researchers and practitioners, including the authors of this paper, who came together to discuss bioregional thoughts and concepts over a series of online discussions during 2021. We began by exploring how we each applied the concepts in our work and mapping our individual interests and collective understandings of 'bioregions' and 'bioregionalism'. The discussion led us to identify the literature,

institutions or individuals that had influenced our interest in bioregional concepts. The discussions led to further questions, uncertainties and areas where we sought deeper understanding, inspiring the co-authors to undertake a qualitative research project into contemporary bioregionalism over the course of 2021–2022.

The first stage of our research involved a collaborative literature review. We complemented a narrative literature review with a simple discursive scan to identify prominent uses and users of the terms bioregion and bioregionalism on the English internet and in academic literature. Combining the results of these methods gave us a grounding in the different ways that the terms are currently being used and have been used, who is using them, and which users/uses are most prominent. Results of this work are summarised in *Section 3* and elaborated upon in Hubbard et al. (2023).

Drawing on the findings from our literature review, we generated a list of key thinkers within the contemporary bioregional movement (*Table 1*). In the second phase of our research, we conducted semi-structured interviews with each of these individuals to explore how they saw contemporary bioregionalism being reinterpreted and practiced. Written and/or verbally informed consent was obtained from the interview participants, based on their preference, and research was conducted inline with ethics approval from the University of Sheffield (Ref. 042640). Findings from these interviews is the focus of *Section 4*.

The data generated across these methods were analysed using reflexive thematic analysis (Braun & Clarke, 2006), generating both latent and semantic meaning. Reflexive thematic analysis is a 'situated interpretive process' (Braun & Clarke, 2021, p. 334), drawing on researcher subjectivity as a resource. Doing this collaboratively, we found significant value in surfacing our own experiences while interpreting the interview data. Dedicated sections of our results will identify where we drew on our own experiences to deepen the analysis. Given our questions about how bioregions and bioregionalism are being interpreted in different contexts/geographies, the experiences of the authors within similar geographies to the interviewees provided particularly valuable contributions and opportunities for our analysis. This process, we observed, became a vehicle for us to practice how relational values might be employed within our research process. In addition to the content/focus of our study, such as the influence of 'bioregions' on human–nature relationships, we sought to ensure that good will, care and generosity were centred in the way we approached the creation of knowledge through engagements with each other, interview participants and via the presentation of our findings. As such, our research draws on relational ethics in our approach, and we also discuss relational ethics, ontologies and epistemologies due to the characteristics of our subject matter, bioregioning.

Our intention to respect and reciprocate the generosity of our respondents shapes how results are presented in this paper. We offer the context behind quotes and observations where it helps, and at other times, we anonymise quotations to avoid a reductionist approach to the stories of participants in an effort to represent them fairly.

TABLE 1 List of participants and descriptions, provided with consent.

Participant	Location	Context of engagement
Isabel Carlisle	UK	Isabel Carlisle is co-founder of the UK Bioregional Learning Centre in Devon. The Bioregional Learning Centre uses a design and action learning approach to run projects such as <i>Voices of the Dart</i> , a 'A river-long exploration combining local knowledge, climate science, data and the arts' ( <a href="#">UK Bioregional Learning Centre, 2021–22</a> ) and the 'Devon Doughnut' (2021), which is a co-produced adaptation of the doughnut economics model (Raworth, 2017) for Devon. Isabel's background is in archaeology and art, as a critic and curator
Glenn G. Page	Gulf of Maine Bioregion, USA	Glenn Page, founder of SustainaMetrix, also convenes COBALT (Collaborative for Bioregional Action Learning and Transformation) and Team Zosteria. Based in unseeded Wabanaki territory, currently Portland Maine, USA, his work focuses on adaptive bioregional governance/stewardship, applied ecological restoration, food–energy–water transitions in the Anthropocene, and adaptive learning by applying the principles of Blue Marble Evaluation which he co-developed with Michael Quinn Patton. Glenn and colleagues at COBALT are developing a prototype Bioregional Digital Twin for the Casco Bay Bioregion, Gulf of Maine and Tayside Bioregion in Scotland that could be models for the world
Joe Brewer	Colombia	Joe Brewer is the founder of Earth Regenerators, a collaborative learning platform for bioregional practitioners and global study group. Since 2019, Joe has been living in Barichara, Colombia, regenerating the landscape using bioregional principles. He has also published a book titled <i>The Design Pathway for Regenerating Earth</i> which details his approach. Joe's background is in complexity science
Michelle Maloney	Australia	Dr. Michelle Maloney (PhD) is recognised globally as a leading practitioner in the field of Earth-centred law and governance, and works on several programmes promoting bioregional ecological stewardship. Through organisations including the Australian Earth Laws Alliance (AELA); the New Economy Network Australia (NENA); Future Dreaming Australia; the Global Alliance for the Rights of Nature (GARN); and the Ecological Law and Governance Association (ELGA), she seeks to increase the understanding and practical implementation of Earth-centred governance—with a focus on law, economics, cross-cultural knowledge, ethics and the arts—in order to transition modern societies towards a more harmonious relationship with the natural world. Michelle lives in Brisbane, and her work is focused on Australia
John Thackara	France	John Thackara is a writer and organiser of place-based design events and courses. He is a visiting professor at Tongji University and Milan Polytechnic University, as senior fellow at the Royal College of Art. John draws on concepts of bioregioning and urban-to-rural connection in his work. John is British, now living in France
Daniel Christian-Wahl	Spain	Daniel Christian Wahl is the author of <i>Designing Regenerative Cultures</i> —so far translated into eight languages. He works as a consultant, educator and activist with NGOs, businesses, governments and global change agents. With degrees in biology and holistic science, and a PhD in Design for Human and Planetary Health, Daniel's work had a bioregional focus since 2002. Since 2011 Daniel has been weaving regional and international collaborations focussed on the island of Mallorca as a real-world lab for bioregional regeneration. Winner of the 2021 RSA Bicentenary Medal for applying design in service to society

### 3 | BACKGROUND AND RESEARCH QUESTIONS

#### 3.1 | What is bioregionalism?

Ankersen et al. (2006, p. 408) define bioregionalism as a social movement and ecophilosophy which asserts that 'natural ecosystems and cultural contexts should dictate, or at least influence, how humans organise their relationships with the environment'. Broadly, bioregionalism promotes human communities being organised within naturally defined units of bioregions, encouraging a shift towards ways of living that are enabled and constrained by the landscapes and ecologies that we inhabit.

Bioregionalism was first conceptualised in San Francisco in the 1970s (Whatmore, 2009), but its roots can be traced through a confluence of ideas including 1930s regionalism, the DIY and grassroots activism of the 1970s (Pfueller, 2008) and influences such as Schumacher's (1973) *Small is Beautiful*. Peter Berg is largely credited with popularising the term 'bioregionalism'

(Parsons, 2013) and shaping the movement (Wiebe, 2021), along with thinkers such as Gary Snyder and Kirkpatrick Sale. Berg's essay *Reinhabiting California* (1977), written with Raymond Dasmann, conceptualised both the bioregion as a spatial unit, and the idea of 'living in place' as a strategy for developing sustainable communities. Bioregionalism came to represent a way of understanding the world, an environmental philosophy and a strategy for sustainability which, over the decades, has been used and promoted by a range of actors.

#### 3.2 | What are bioregions?

Bioregions are a central concept in bioregional thought and have helped to mobilise different expressions of bioregionalism. Bioregions have been described along a continuum of interpretations, from those that emphasise their existence as 'natural' expressions of the land, to those that view them as culturally constructed 'landscapes of the mind' (Hubbard et al., 2023).

Peter Berg described bioregions in a way that implies they are large-scale areas that group smaller units for categorising spatial and ecological systems. Using examples of the Nile, the Amazon, the Gulf of Maine and Cascadia, his writings point towards ecological units that are large enough to describe regional patterns and dynamics that influence planetary-scale processes:

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, 1991, p. 6)

In line with Berg's biophysical description, bioregions have sometimes been defined in very specific and explicit terms. Maps of bioregions have been proposed across the globe, for example, One Earth delineates 185 global bioregions (Burkart, 2020) while some jurisdictions, like the Commonwealth of Australia, have institutionalised the practice of bioregional identification, specifying methodologies (Thackway & Cresswell, 1995) that divide the continent into 89 specific bioregions and 419 subregions from which to manage landscape-level environmental health (DCCEEW, 2023; Geology Australia, 2023).

Many civic bioregional movements around the world appear to interpret the scale of bioregions in a similarly larger-than-local way. To some practitioners, the regional scale of bioregions is central to the concept (e.g. Brewer, 2021; Wahl, 2006, 2016). Regional scales can help to 'bring coherence' to human-nature dynamics by finding points of near-closure in ecological systems and encouraging the re-design of social systems to align with these patterns. This approach to scale gives 'bioregions' a utility that differs from sustainability programmes pursuing collective action around spatial frames of individual, household, townships and other political demarcations (such as provincial, state or national boundaries).

Other thinkers have been more ambivalent about 'where to draw the lines', positioning bioregions not just as human interpretations of the land, but also as subjective and cultural constructs. In this frame, bioregions are, in part, defined by the identity of the human societies that inhabit the area, and the knowledge of the territory that they bring (Berg & Dasmann, 1977). This perspective is often paired with a normative assumption that local interpretations of the landscape mirror regional biophysical patterns. For example, when finalising bioregional boundaries, Berg and Dasmann (1977, p. 399) refer to considering 'terrains of consciousness', and more recently, Ryan (2012, p. 85) calls for bioregional proponents to consider 'the body of thoughts that have developed about how to live in that locale'. The implication is that human resources are guides to sustainable ways of being.

These considerations might appear clear-sighted; however, the inclusion of cultural norms and practices opens the door to a wide variety of perspectives about how a bioregion ought to be identified, and what life there ought to look like. For example, Bedouin traditions could be expected to offer markedly different

perspectives and spatial implications on how to live sustainably in the Arabian Desert when compared to the architects of Masdar City. Meanwhile, in a settler colonial context like Australia, European farming practices might define 'ways of living' in a locale that are seen as 'traditional' by some, an 'invasion' by others and be rated as enabling various degrees of sustainability; from feeding the world, through to destroying unique landscapes. There are a wide variety of movements pursuing local pathways to sustainable futures with sometimes starkly different visions, politics and theories of change.

### 3.3 | What does contemporary bioregional practice look like? And how relevant are its ideas as a contribution to sustainability?

This brief overview surfaces what we elaborate upon in Hubbard et al. (2023); a desktop review of the literature shows bioregionalism as a discourse that uses the concept of 'the bioregion' to engage questions of scale, governance and a collective sense of place in ways that are sometimes specific and sometimes fuzzy.

With more than 40 years of lineage, bioregional thought has seen various shifts in emphasis in the way it mobilises its concepts, and these expressions have attracted a range of important critiques. Early ontological tendencies (Hubbard et al., 2023) that call for regionally scaled action and acts of 'becoming native' (Berg & Dasmann, 1977) have been critiqued for taking indigenous concepts as inspiration but appropriating them into Western power structures and naturalising settler claims to place (Tuck & Yang, 2012; Wiebe, 2021). They have also been critiqued for their potential to foster deterministic perspectives about the connections between nature and culture that can be exclusionary and anti-cosmopolitan (Olsen, 2000). Meanwhile, critical tendencies that call for a focus on the power and flows between places (Hubbard et al., 2023; Plumwood, 2008) risk bioregional action becoming synonymous with an abstract and individualist 'lifestyle environmentalism' that overemphasises the role of individual consumption in systemic change and elides the importance of our emotional and material relationships with nature, and their potential role in supporting deep and transformative change (Hubbard et al., 2023; Huber, 2022).

A focus on place and context has also seen widespread attention in sustainability science, especially in the priorities of SES, sustainability transformations and HNC research. The integration of concepts and practices from sense of place, place shaping and futures studies have done much to explore individual places and social-ecological systems as 'niche' spaces for transformational interventions (e.g. Frantzeskaki et al., 2018; Horlings et al., 2020; Masterson et al., 2019) and place-based SES research, more broadly, has become an influential source for developing contextual insights for governance (Biggs et al., 2021; Norström et al., 2022).

SES research is rooted in transpatial ideas of nested systems (Gunderson & Holling, 2002) and concepts of telecoupling have invited

attention to flows between places, reflecting similar concerns to critical bioregionalists (Hull & Liu, 2018). Ontological bioregional tendencies are also reflected in recent calls in SES and HNC research to revisit the link between cultural and biological diversity, drawing on what Luisa Maffi (2005) termed 'biocultural diversity' to ask if (spatial) patterns in humanity's cultural and linguistic history might offer normative insights for deliberate initiatives in sociocultural change (Fernández-Llamazares, 2022; Hanspach et al., 2020). Despite this, practical efforts to consider regional scales while pursuing contextual nuance have surfaced difficulties and tensions in terms of ethics, epistemology and efficacy (Bennett, Morrison, et al., 2021; Norström et al., 2022).

In reviewing bioregional history, we identified the spatial unit of the 'bioregion' and its (sometimes) deliberate approach to regional scales as what made bioregional thought unique and sets it apart from place-based alternatives. It was puzzling to us that this conceptual foundation is being troubled and we wondered how bioregioning was engaging with this dynamic.

In order to explore these questions and to deepen our understanding of the politics, contestations and actions that define what bioregioning looks like in trans-place discourse, as well as our own local contexts, we sought to complement our desktop research by interviewing leading figures in the movement. The remainder of this paper documents our findings from these interviews. In doing so, we aim to provide an account of bioregioning, discuss its relationship to key issues and debates in sustainability and demonstrate how collaborative research projects might reflexively engage with an opaque discourse that transcends and includes the politics of specific places, experiences and histories.

## 4 | THE LANDSCAPE OF CONTEMPORARY BIOREGIONING

This section outlines the pertinent features of bioregioning that we identified about through reflexive analysis of interviews with contemporary bioregional thought leaders. Excerpts and quotes from interviews are integrated into the text. Our analysis (i) identifies three motivations that the concept of bioregions appears to serve, (ii) outlines how 'bioregioning' is engaging with scale in way that is fluid and cognisant of bioregional history and critiques and (iii) identifies a set of emerging strategies and practices that typify the movement.

After outlining these shared characteristics, we then discuss nuances in the discourse. Specifically, we identify bioregioning as a forum in which different voices emphasise different strategies and imaginaries, and discuss the influence of context in shaping these refractions.

### 4.1 | The bioregion as a tool for clarification and motivation

Bioregions are a really excellent way to remind people where they live and what the biophysical realities

of their world are...anything that gets us looking at the living world's capacity and loveliness first is okay by me.

We found that the concept of bioregions serves as an attractor to people, like us authors, who seek a rationale for change that addresses multiple dimensions of today's sustainability challenges. Respondents were consistent in presenting the bioregion as a concept that enables a biophysical categorisation of the landscape at regional scales. In this way, the bioregion remains relevant and connected to an argument for regional scales of environmental action. What we found more insightful, however, was the role which the concept of a bioregion plays in motivating action. Table 2 outlines three central motivators that we identified.

Here, rather than there being a singular motivator for drawing on the bioregion such as a belief that it is the only scale at which regenerative communities can 'take place' (Thayer, 2003), we found that contemporary perspectives find a mixture of pragmatic and ideological drivers from the concept of a bioregion. First, the concept serves to emphasise a discourse within sustainability that puts a focus on non-humans as important constituents in defining the goals of sustainable action; in short, a bioregional consciousness forms a basis for deep ecology politics. Second, conceptualising the Earth as a series of interdependent bioregional units persists in providing strategic clarity about how we might reimagine global patterns of consumption, trade and governance and the shifts required to get there. Third, and relatedly, the bioregion localises environmental agency and includes multiple modes of action. In doing so, it provides tangible opportunities for people to act and see themselves as meaningful agents of (regional) systems change in an era where much global discussion focuses on abstract concepts, overwhelming complexities and the need for leadership by a powerful elite.

### 4.2 | Bioregioning shifts bioregional thought towards engagement with its critiques

Despite clear and shared assertions about what bioregions were, and why they held utility, what immediately followed in conversation with contemporary leaders of bioregionalism was an agnosticism about how to use the frame of a bioregion in forums for collective action. This tendency points to the second clarification identified through the interviews; that the concept of bioregions sits separate to the practices of contemporary bioregional action. Supporting this clarification was a series of insights that point to an awareness and experience of tensions that have accompanied the politics of bioregionalism in the past.

First, there was a strong agnosticism towards bioregionalism being the appropriate label for the practices involved in what they considered as bioregional action. This reflected an awareness and open engagement with criticisms that bioregionalism has attracted in the past, particularly in regard to bioregionalism's relationship to non-Western ideas and settler colonial politics (Wiebe, 2021):

TABLE 2 How *bioregions* are conceived and the motivations the concept carries.

Motivator	Why do bioregions matter?	Exemplar quotations
A vision of the future that serves all species	Bioregions foreground nature. They inspire imaginaries of the future where humans and non-humans thrive in shared and locally resonant landscapes	<i>It really is mother nature's way of telling us about herself</i> <i>What if we flip it and think about, what if the river had voice and had perspective? What if the sky and the climate system and the water system, and the forest, so the voice of nature?</i> <i>And so for me, the core of the bioregional idea is what Gary Snyder called 'Reinhabitation', that process of us, as life, coming back home into the ecosystems that we are actually expressions of</i>
A narrative and rationale for change that feels strategic and logical across scales	Bioregions disaggregate complexity. The conceptual model of an interconnected patchwork of bioregions seems to help people grasp how change might occur across scales and complex systems	<i>It's about creating regenerative cultures that are mainly providing for themselves –plural, [and] that are mainly providing for themselves within bioregionally regenerative economies, but do so in a globally interlinked way</i> <i>The definition, for any species, is that it is the region in which the entire niche and all of its interdependent web is geographically located.... The human context includes biological evolution and cultural evolution. And so it adds this very interesting, like permeable aspect, that the material economy of that human bioregion includes whichever forms of cultural interchange</i> <i>For me, [a bioregion] gives the real biophysical context of a living system that is nested in other living systems</i>
An opportunity for tangible contributions and personal agency	Bioregions inspire agency. They justify a focus on local landscapes and in doing so, encourage local people to 'do things', creating space for participation that feels accessible and meaningful	<i>I think that bioregioning is not only a very human scale of organising ourselves, it also is a scale that gives us agency and agency is one of the things we really need right now. Because otherwise everyone kind of collapses into feeling helpless</i> <i>To think that we are in contact with the place, and with the people in a place, and the other species that inhabit that place gives you an understanding and an opportunity for thriving –thinking in a darkened room about the meaning of words does not</i> <i>Anything that gets us looking at the living world's capacity and loveliness first is okay by me</i>

...a lot of these white men, Northern European, Northern American...they think that what they've invented is brand new. Their lack of humility in the face of very ancient civilizations is quite strange.

I'd say bioregionalism is similar to the permaculture movement in that there were people who discovered an old way of doing things, but they didn't know that.

it's really important to just say, we've been bioregional all along, like, it's not a new idea. It's a return to the pattern that actually worked to enable our species' evolution.

let's find words that resonate ... if there was a different word for it, I'd be wide open. It's not as if that's the right word, or the only word.

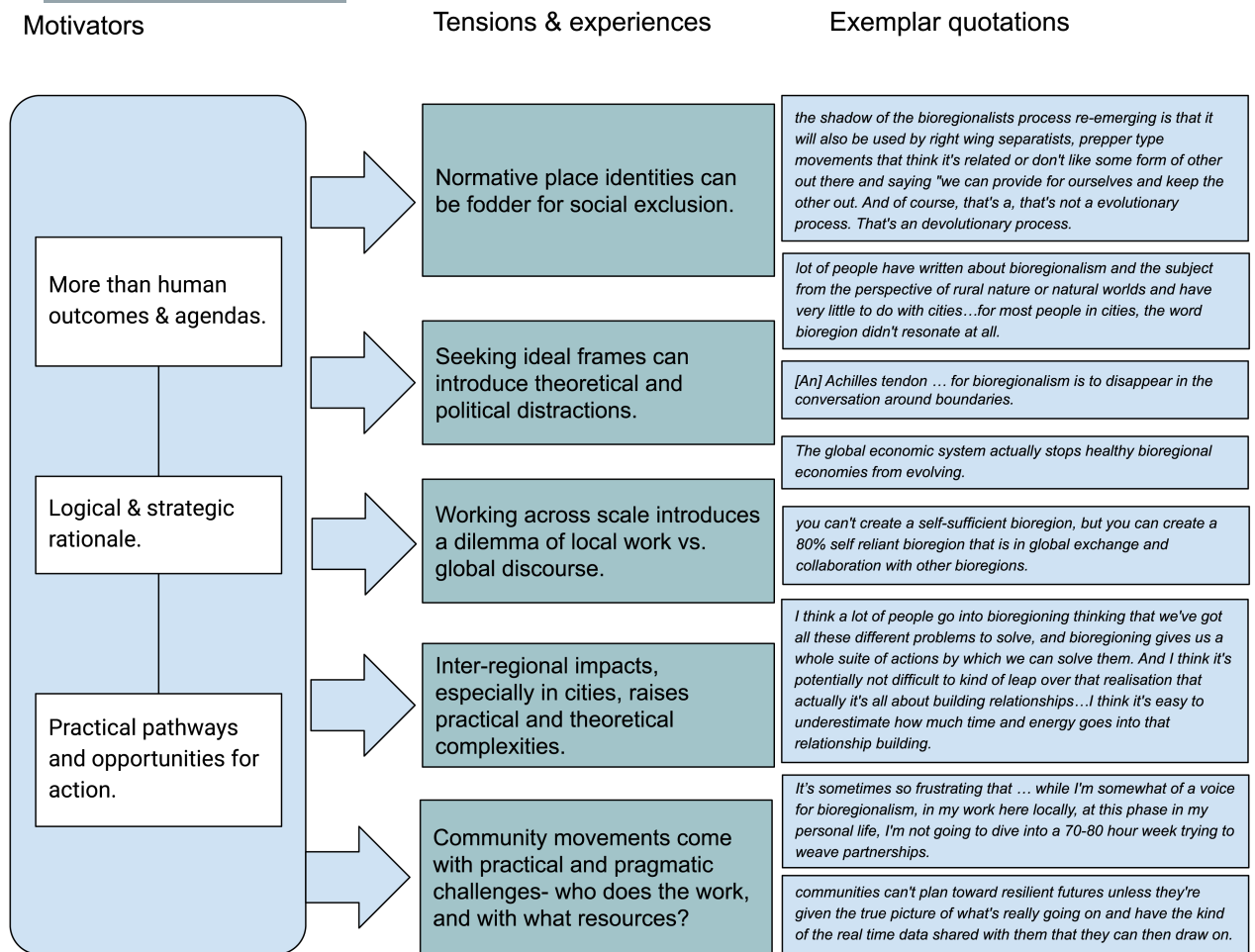
Second, interviewees noted a myriad of related difficulties from their experiences in pursuing change in practice. We found that when enacting a response to key motivators in the discourse, tensions and challenges arose in practice. Figure 1 illustrates our analysis of patterns and themes in the data; specific experiences (in exemplar quotations) often demonstrate multiple types of tension, and tensions often relate to more than one motivator for action.

### 4.3 | A global bioregioning movement shares some practices—and attitudes—towards change

While Figure 1 indicates tensions, it also provides some insights into how change is being pursued. First, contemporary bioregional action appears to share a focus on communities co-creating (or re-creating) clarity about their regional setting as part of a collective social learning process. Rather than accepting bioregions as predefined units, a process of agreeing on a bioregion's identity engages participants to learn about biophysical and human histories of the region and develop a sense of place. This leads to some communities defining their field of action around a waterway, and others a more 'textbook' biophysical region. It is here that the sentiments—and references—towards 'bioregioning' become explicit (Hubbard et al., 2023). One interviewee addressed this shift directly:

...[a] key transformation that I've seen is in terms of language – of 'bioregioning', rather than 'bioregionalism'. ...[isms] can have a long shelf life in the research ecosystem but... people are just exhausted by these definitional discourses.

'Bioregioning' as a deliberative and explorative mode of action highlights the importance of raising tensions and engaging with them, but without giving up on the original motivating goals of a more than human ethical agenda, a scientific rationale or



**FIGURE 1** Tensions that relate to practical experiences of pursuing more than human ethics, a strategic approach to change, and accessible forms of action that were raised by interviewees.

strategy behind initiatives, and enabling accessible forms of agency. Table 3 outlines some key ways in which we heard tensions are being tackled. Overall, there appears to be a softening of the logic that seeks regional scale change as an immediate priority, and an openness to experimental, contextually specific change. Biophysical regions appear to remain important; however, the field of potential practices that are useful spans sensitising people to nature (in general) through to a wide variety of environmental action. The practice of bioregioning thus creates space for, and shows signs of, much overlap and dialogue with various place-based processes and practices. This includes a range of work being explored in SES research, HNC studies and their integration with concepts such as sense of place (Masterson et al., 2019; Tuan, 1977), place shaping (Horlings et al., 2020) and transformative learning (Grenni et al., 2020); as well as a shift in sustainability science that identifies the value of contextualised knowledge co-creation as a key epistemic source for informing sustainability (Caniglia et al., 2021; Fazey et al., 2020; Wyborn et al., 2020).

#### 4.4 | A forum for diverse and different narratives

Thus far, our findings have focused on the features that define a shared discourse in contemporary bioregioning. This addresses our initial questions of understanding the landscape of contemporary bioregioning; however, it does little to address our questions of how bioregioning is being expressed differently across geographies and why.

Locating ourselves and the agents we spoke to in the context of space and time helped to understand a deeper and more subjective dimension to the positions that we observed in the data, and dive below the surface of what was said by whom.

#### 4.5 | 'What's needed here and now?' Different imaginaries of the present and narratives about the future

The most obvious differentiator between the narratives we observed arose from how people perceive today's socio-environmental



TABLE 3 Salient features of contemporary bioregional action (*bioregioning*) raised in interviews with leading practitioners and thinkers.

Emerging practice in bioregioning	Exemplar quotations
Pursuing a more than human ethical agenda while being pragmatic about entry point	<i>we do not care [about emphasising the bioregion as the site of action] we just want you to have a think about nature first</i>
A commitment to regional experiments, not a generalised theory of change	<i>we need to accept that this work is very, it's not a roadmap, it's not 'give me the recipe of how to do bioregionalism and then export it everywhere in the world'. It's a subtle dancing with the system</i>
Balancing the need for agency with action at (strategically) meaningful scales	<i>I think that bioregioning is not only a very human scale of organising ourselves, it also is a scale that gives us agency and agency is one of the things we really need right now. Because otherwise everyone kind of collapses into feeling helpless</i>  <i>I think it's more than anything else it's saying we have never been here before in terms of climate change, and how we exist on the earth. The most intelligent thing to do is to ask questions, ask good questions, ask better questions, find what the right thing is to us. And then say, well, we are all in the learning process</i>
Leaning towards action, instead of abstraction	<i>I would always add, if it drives action. If it's just something to think about, if it's just something to generate a good conversation, to me, that's not enough. Bioregionalism has to drive action, it has to drive some sort of 'do'</i>
Learning as part of the process	<i>if it's not about actually sitting down with your feet in the grass going, which little bees live here, what kind of soils do they need to live? What are we doing to this place? You know, then...then I'm not as interested</i>  <i>the learning journeys are so powerful as a tool to go in and see and learn how to experience a good learning journey, you are out there, spending a little time planting trees, and somewhere you are spending a little time at a soup kitchen, you are spending a little time working with a local soccer club that has indigenous and immigrant communities together. You're seeing into a system, you are asking questions that then can lead to action. That action really is about the kind of change that's comin</i>

crises. How respondents framed the present shaped their conclusions about what is possible, what is needed and what types of action should be prioritised. They drew forth the presence of different 'social imaginaries' within the data, which describe how people 'see, sense, think and dream about the world and, in the context of social change, how they envision making changes in that world' (Riedy & Waddock, 2022, p. 2).<sup>1</sup> Figure 2 reflects three generalised positions that we encountered.

The first imaginary identifies our position in time as still being within the Holocene. From this perspective, pursuing bioregioning was associated with practices that seek to restore Holocene conditions, focusing on 'native' species and regenerating 'traditional' socio-ecological systems. A second perspective drew on concepts like the Anthropocene and saw little hope for restoration, but fell short of resignation. From this viewpoint, the emphasis for action was placed on local adaptations and resilience in ways that drew more on systemic connections between locations and across scales. The final perspective described our present context as having already entered a state of socio-ecological collapse. In this framing, priorities in bioregioning become akin to establishing place-based experiments to support survival for an unknown future.

These perspectives surface how vastly different political and ethical implications arise from how we view the present, letting bioregioning justify very different narratives about how we should respond. If we tend towards resignation about the certainty of climate collapse, then the politics of the Anthropocene (and perhaps all of human history) become topics for a former chapter; specific

places, then, become the building blocks for experiments in future survival. In contrast, where agents believe that some degree of restoration is possible, the ethics and value of supporting socio-ecological heritage appear to be strengthened as a motivator, often to the point of obligation and a sense of duty.

While noticing these patterns in the data, we sought to contextualise and understand their origins. To do so, we found that reflexive discussion among the experiences of us authors helped to draw forth empathy for the interviewees, and the different perspectives that they presented. This aspect of our analysis highlighted a second influence that we identify—the spatially contextualised experience that we encounter as individuals.

For example, in the context of Australia, there was a shared view among local authors of this paper and respondents which emphasised that concerns for social justice, the ethics of an ongoing extinction crisis and the politics of place identity are often enmeshed and intractable issues. Here, a form of bioregioning that focuses on such salient and urgent local issues seems far more relevant and important than preparations for a future civilisation as raised by other respondents.

Uncovering these perspectives helped us to appreciate how bioregional concepts appear to 'travel' over space and time and are mediated by our perspectives. While ethical, strategic and agency-related motivators remain central to the overall appeal of bioregioning, there are a range of contextually specific and subjectively mediated expressions that are being pursued in practice. On reflection, we suggest that priorities in bioregioning tend to reflect the socio-ecological contexts of different places where it is being practiced, and the perceptions of the individual that resides there. Put simply, what is accessible, relevant and useful differs based on our experiences and contexts and how we process those exposures.

<sup>1</sup>See also Gabrys and Yusoff (2012) and Kagan (2019) for discussions of (social) imaginaries and sustainability.

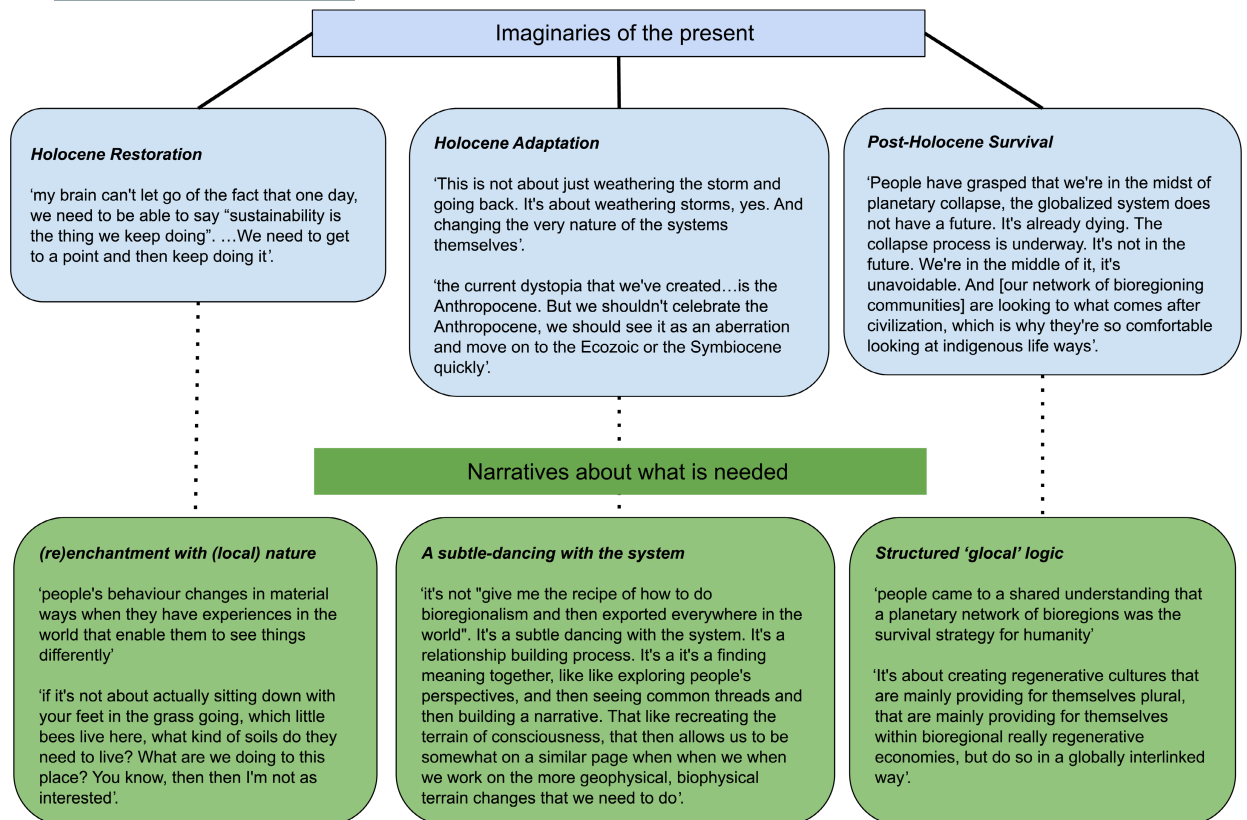


FIGURE 2 Excerpts from interviews showing how people framed their understanding of the present with coherent conclusions about the kinds of action that are needed. There were three general positions that were raised.

#### 4.6 | Summing up: A patterning of shared priorities defines contemporary bioregioning

Change agents, we suggest, inherently want to know 'what kind of work is needed, here, and now?' The answers that we arrive at appear to depend on how we see ourselves in the context of socio-ecological space and time. Across the cohort we talked to, bioregioning is an attractive discourse for people seeking a sustainable future that enables more-than-human flourishing, adopts a strategic approach to change and responds to the need for people to feel agency and 'do' something. We also observed that different perceptions and beliefs could be traced to temporal and spatial factors as well as subjective and deliberative processes of assessing what we face and rationalising our response. In other words, your imaginary of your particular bioregion seems to impact the bioregioning that you do.

Despite these differences, we found that bioregioning, as a trans-place discourse for deliberate change towards sustainable futures, tends to call for certain types of change, and brings a particular axiology to the politics of sustainability. It is the caveats that go with this central discourse, which are emphasised differently by different agents, that opens it up to its various directions and expressions. All agents engaged with the motivators that we have highlighted, but to

different extents that were patterned by the context and perspectives of the speaker:

- All referenced ideas of ecological literacy—but there were differences about what ecological stewardship looks like in the context of global change.
- All were attracted to a rationally structured and strategic approach to action—but there were different priorities when it came to facilitating global networks or pursuing locally emergent responses.
- All were attracted and committed to finding personally and locally resonant ways to experience emancipatory and deliberate change—but there were different levels of concern that the politics of bioregioning might attract unsavoury bedfellows who see bioregionalism as a pathway towards ethno-nationalism and exclusion.
- There were also different levels of concern about whether bioregionalism—as a trans-place movement—was useful or distracting, and whether any global movement might carry the politics of 'power over' rather than enabling the 'power to'.

Overall, where bioregionalism was once seen as a form of top-down localisation, bioregioning appears to pluralise the movement, tending towards endogenous and emergent processes. By focusing on the process, bioregioning seems to become more ethical,



surfacing a conscious engagement with tensions and critiques that bioregional thought has previously attracted in relation to power and social justice. In doing so, we identify it as a case study of contemporary social action that draws attention to relational hybrids of space–time, scale–action, logic–emotion and ontology–epistemology. It seems to mirror a range of questions, tensions and shifts that are occurring more broadly in sustainability.

## 5 | REFLECTIONS AND DISCUSSION

The final section of this paper reflects on our findings and the process of our research to explore and situate our findings within broader trends in sustainability. We then offer a short summary of the tensions, hopes and opportunities we see bioregioning offering to sustainability research and practice.

### 5.1 | A case for contextualised mindsets and productive misunderstandings

This paper stemmed from the initial challenge of speaking to each other as researchers and practitioners about bioregional thought. We found that each of us came with a different understanding of what bioregions and bioregionalism were, and each of us saw a different utility in this body of thought. We found, first hand, that trying to engage in discourses about concepts proved to be complex and somewhat fraught due to the contextualised position that had shaped our respective ways of thinking, politics and interpretation of the terms.

In the process of undertaking interviews, our discussions drew forth insights and reflections about the fears, hopes and concerns about the world that drive many change agents to do their work. We noted that while a semi-detached analysis of semantic patterns in the transcripts might produce an academically acceptable outcome, we felt a duty to show more care and reciprocity to the respondents and the nuance within their positions. We found ourselves drawing on relational values as a fulcrum in how we approached the research.

Collaborative and reflexive thematic analysis, we found, encouraged us to share our own experiences as we discussed patterns in the data. This engaged our empathy for respondents but also helped us to deepen our insights into the latent meanings in the interview data, creating space to triangulate our own experiences with those of our respondents and recognise points of departure. During this process, we made decisions about how to communicate our research and in doing so, evaluate which kinds of meaning were most valuable. For example, we found that linguistic frames were present in the definitions used by respondents that pointed to the motivations that we have discussed: a normative frame presented an imaginary of regional social-ecological systems as a goal to be pursued (example 1), a scientific frame emphasised the intent to categorise and logically interpret the Earth

as a series of containers (example 2) and an emotive frame focused on individual experiences and feelings that are generated from the landscape (example 3).

so it's kind of region within which human beings can meaningfully...integrate their patterns as living as part of nature, into the regenerative pattern that runs through evolution.

(example 1)

it's a biological region. So the definition for any species is that it is the region in which the entire niche and all of its interdependent web is geographically located.

(example 2)

if you're in it [the bioregion], you know that you're in it and you know you belong to it if you live there, and it has a kind of its own identity, which gives you an identity at the same time.

(example 3)

However, we decided that framing our observations solely through linguistic evidence masked the reflexive nature of our analysis. Decisions to anonymise the quotations, and transparently raise our own reflections made us more comfortable with the process of knowledge creation and more confident in the results.

There is a parallel in this experience with what we observed about bioregioning. In every interview, participants drew upon their own positionality as a way of explaining how they interpreted core concepts of the 'bioregion' and 'bioregionalism'. They pointed to the process of actively engaging questions about where we are and what work needs to be done as more important than universally coherent definitions and abstractions. While decontextualised ideas about what a bioregion is and how a boundary might be drawn were present and of interest, there was an acceptance that different understandings would be reinterpreted in place and context specific ways:

At least choose a boundary. But decide why you're choosing that boundary that has both, sort of, the opportunities of 'this was why it makes sense' but also the challenges of what you're giving up by selecting this boundary.

We're here to live in the region together. And we have to find a narrative that holds different perspectives, but finds the higher ground to allow us to basically get through the eye of the needle in the middle of an extinction emergency.

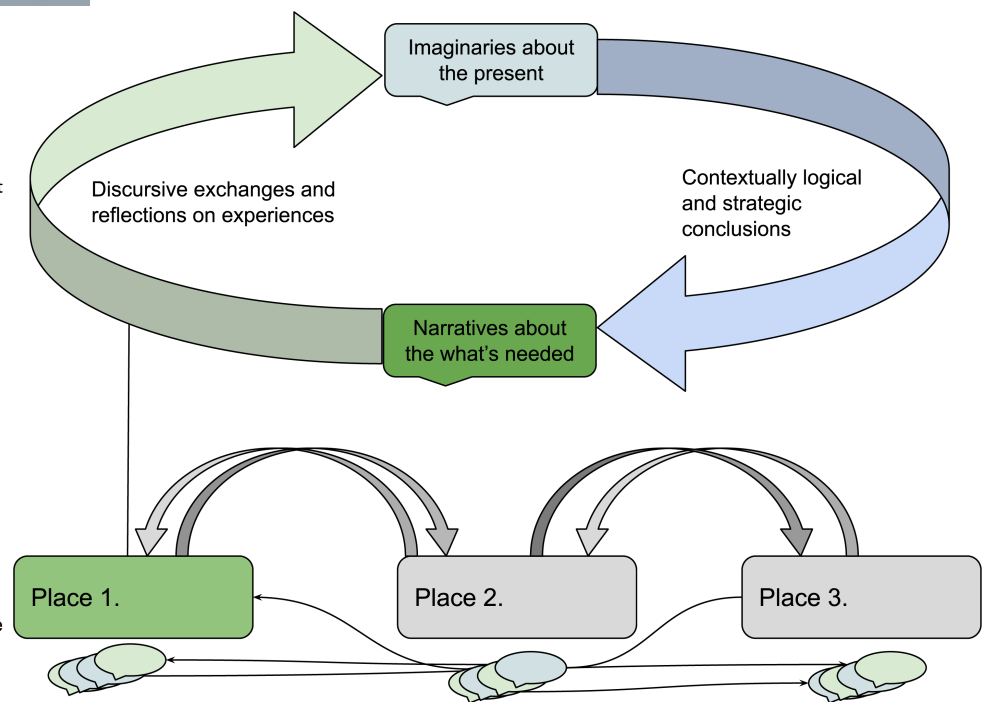
This dialogue between contextual and de-contextualised knowledge was present throughout the discourse about bioregioning we encountered (Figure 3). Ensuring that while pursuing global issues, the

**(i) Contextual and subjective exchange**

Sustainability challenges and solutions were contextually patterned – despite this, different individuals contextualise ideas and experiences differently, leading to productive deliberation and experimentation within place-based bioregioning communities.

**(ii) De-contextualised exchange across places**

As a global discourse, *bioregioning* also abstracts experiences through inter-place exchange on the assumption of shared foundations. We experienced that bioregional concepts were acting as 'boundary objects', inviting an exchange of subjective and contextualised experiences which were, in turn, re-interpreted and re-contextualised.



**FIGURE 3** Bioregioning today centres on the creation of forums for logical and contextual responses, as well as exchange and reflection. These forums exist within specific places, but also between them. Instead of these exchanges seeking a reductionistic process of knowledge creation, practitioners in bioregioning appear to adopt relational perspectives and facilitate diversity from contextualised exchanges.

contextual nature of knowledge, values and politics are not lost is more than a trivial endeavour. In its current form, bioregioning appears to traverse this tension and, in doing so, creates space for bioregional ideas to be (re)explored in ways that resist becoming synonymous with isolationist eco-local action on the one hand, or a localisation of 'global best practice' on the other.

Reflecting on these patterns, we suggest that in bioregioning, concepts such as the bioregion now act openly as boundary concepts (Star, 2010; Star & Griesemer, 1989). Doing so sees them facilitate deliberation within local areas and between them. Across these exchanges, plural (mis)understandings, we suggest, are useful by creating a shared space for people to work together, often without consensus, about how best to define a space for action and discuss strategies for change. The capacious nature of bioregional concepts allows people to move between broad ideas that can be translated across different contexts, to critical discussions of their suitability and form a basis for structured thinking about how change might be pursued.

Meanwhile, in the knowledge production process of our research project, we found that adopting relational values shaped research decisions in ways that went beyond standard academic ethics processes. This enabled an insightful learning process that helped us manage the tension of dissensus but also enabled us to uncover multiple forms of meaning—knowledge that emerged from the data, and

knowledge that emerged from the process of analysing it. A lesson for practitioners and researchers alike, we suggest, is that if relational values matter, success lies within the process, not just the specific outcomes of the research process.

The use of dialogue in bioregioning and reflexivity in the process of our research both identified value in maintaining an awareness of abstract concepts (like regional scales of action and reflexive thematic analysis) but also saw value in remaining open to how these general concepts might be used in adaptive and contextually appropriate ways. Drawing on knowledge in this way is, we think, similar to what Donella Meadows (2001) referred to as 'dancing with systems' and enacts a mode of action that is inherently relational but resists institutionalisation.

## 5.2 | A symptom of the times: Bioregioning and the 'relational turn'

There's a broader context to our research experience and the features of contemporary bioregioning that we outlined in this paper's introduction. Western sustainability discourse has, in the past, tended to participate in the epistemological and ontological hallmarks of modernity in how it approaches change: separating concepts from context, and employing a reductionist epistemology to

identify best practice, that can be translocated and applied en masse.<sup>2</sup> A large body of theoretical and diagnostic literature in sustainability science has argued that for sustainable futures to be realised, Western culture needs to overcome some core tendencies; moving from reductionism, dualism and anthropocentrism towards more than human ethics and ways of thinking that elevate our entangled interdependence with non-humans, and by exploring more pluralistic approaches to knowledge (Abson et al., 2017; Berzonsky & Moser, 2017; Kagan, 2019; O'Brien, 2018; White et al., 2018; Wyborn et al., 2020).

In response, place-specific approaches to sustainability are prominent in the emerging 'relational turn' in sustainability science (Hakkarainen et al., 2022; Stålhammar & Thorén, 2019; West et al., 2020) and the pursuit of a relational paradigm is unearthing a variety of new approaches in sustainability that respond to global issues through specific places and deliver sociocultural change as well as direct environmental outcomes (Chan et al., 2016; Masterson et al., 2019; Norström et al., 2022; Pereira et al., 2020, 2021; Wyborn et al., 2020).

Bioregioning, we believe, is itself an outcome of interested parties bringing relational perspectives to bioregionalism's core ideas.<sup>3</sup> In doing so, we suggest it exemplifies an interesting and emerging discourse in sustainability that seeks to maintain the core tendencies of Western scientific rationalism while creating spaces for recalibration in response to its critiques. There are three features to this endeavour. First, our investigation showed that a core priority in bioregioning is to decentre humans and enact more-than-human concerns as a key motivator for action. This engages relational values (like stewardship, duty and care) and relational mindsets in how we engage with both human and non-human co-inhabitants as constituents of change.

Second, bioregioning, as we encountered it, enacts a practice-based and dialogical mode of action. Through contextualised exchanges coupled with inter-place dialogue, bioregioning appears to encourage a fluid and emergent approach to knowledge that re-connects knowledge to context. Importantly however, it also appears to be balancing contextualised pathways to knowledge with knowledge that is derived from abstractions and de-contextualisation via inter-place exchange. This points to a form of knowledge creation that is both hybridising, and dualist, in how it relates ontology to epistemology. Further research might seek to distinguish the influence of contextual knowledge versus relational knowledge that both seem to be present in this dynamic (Eyster et al., 2023) and there are parallels in the way bioregional concepts appear to serve usefully as boundary objects to the way Fischer and Riechers (2019) see a 'leverage points' perspective (and other heuristics)

<sup>2</sup>While sustainability science has been typified as having both localising and generalising traditions (MacGillivray & Franklin, 2015), many have noted that power has tended towards the latter in recent decades (e.g. see Dryzek, 2022; Orr, 2002; or MacGillivray, 2015).

<sup>3</sup>This parallels the movement towards understanding the commons via the practices of commoning (Linebaugh, 2008) that constitute the commons, rather than the commons themselves.

as productive for the study and pursuit of sustainability transformations due to similarly capacious capacities.

Third, its emphasis on the bioregion is an ontologising tendency that tends to frame sustainability challenges and solutions in a way that enables the above positions, and invites a process of reflexive and productive dialogue about the appropriate action for 'here and now'. In doing so, we find that bioregioning generates approaches to sustainability that capture diverse imaginaries of the future, but which are rooted in a logical appreciation of one's position in time and space. This pluralises the possible expressions of sustainability across the diversity of socio-ecological landscapes on Earth. In doing so, it invites action on topics of culture and connection alongside politics and regenerative action.

Collectively, the features outlined above position contemporary bioregioning as one answer not just to sustainability issues but as a body of activities that show efforts are being made to enact the calls for a relational paradigm.

### 5.3 | Bioregioning and its prospects: Tensions, hopes and opportunities

Our research began after recognising we held plural (mis)understandings about a seemingly established concept. Our goal was not to find a single definition of 'bioregions' or 'bioregionalism'. Instead, we sought to understand how its use and interpretation varied across places. What we actually found was more interesting—contemporary bioregionalism (now expressed as bioregioning) can be refracted into spatial and temporal dimensions that are in an ongoing state of change through contextualised experimentation and decontextualised exchange.

By focusing on these refractions, we believe bioregioning is demonstrative that relational values and mindsets are being adopted 'in the wild' as part of an emerging discourse in sustainability that seeks to respond to long-established critiques in contemporary environmental literature. In doing so, it carries normative visions for the future, enacts the call for more than human ethics and prioritises opportunities for action. Taking our findings forward, there are several points of interest that present compelling opportunities for sustainability research and practitioners.

First, engaging with place and context in this research required us to adopt relational mindsets. Over the course of our study, we contextualised and recontextualised our individual understandings many times, moving continually between the specific and the abstract. It took significant labour to appreciate how and why we each interpreted ideas differently, demonstrating what it takes to speak across different places, disciplinary contexts and lived experiences. For us, the journey of unpacking bioregioning highlighted the vast benefits of reflexive, discursive and experiential forms of knowledge creation.

Second, the concept of a bioregion appears to be helping centre sustainability conversations on tangible contexts. Supporting communities to learn and discuss dilemmas about how to live in the areas

they inhabit generates a responsibility to include everyone (human and non-human), or at least become aware of absences and exclusions. Doing so can provide an opportunity to engage with questions of power, social and ecological justice, rather than elide them. Approached in this way, bioregioning might provide an entryway for democratic and just pathways to sustainability.

Third, as a discourse in sustainability, bioregionalism has long presented a case for the conscious re-ordering of humanity towards regionally governed social-ecological systems. We found that when expressed as 'bioregioning', contemporary bioregional discourse retains a connection and interest in the logic of regional scales, but it positions this as separate (and subservient) to an ethical and co-created process for change. This brings the practice of bioregioning into closer dialogue with a variety of place-based concepts and practices. In our view, the shift is a mature response to bioregional history and an attunement to the ethics that any political action carries when considered critically and in specific contexts.

Finally, while relational approaches to sustainability can carry much hope and interest for sustainability research, they are inevitably imbued with their own latent and explicit politics. Bioregioning is not the only, and definitely not the first, pathway to enact relational values, and pursuing social-ecological patterns in how humanity lives on Earth is far from new (e.g. Maffi, 2005). Indeed, our literature review highlighted that bioregionalism has a chequered history in its engagement with Indigenous worldviews and practices (Hubbard et al., 2023; Wiebe, 2021). As we see it, bioregioning will continue to carry risks. It might be used to disempower decolonial alternatives, overlooking social injustices in pursuit of environmental sustainability and its references to abstract systems theory can sometimes appear like vehicles to subtly (re)introduce spiritualism into science. While today's bioregioning appears able to confront such tensions more deliberately than earlier expressions, power dynamics between a Westernised discourse of bioregioning and similar decolonial alternatives remains an important topic for critical discussion and debate.

However, the same tendencies which raise risks also present opportunities. They can resensitise new communities of humanity to nature, make the Modern world feel larger, richer and intrinsically interdependent, and could extend the horizons of Western science. We feel there are important roles for research and practitioners to further engage with the philosophical foundations, narratives and imaginaries that make bioregioning (and similar 'systems') discourses appealing and the tensions this might surface.

This paper is not calling for one definition of bioregioning, nor does it offer a singular theory of change. As one respondent put it, instead of pursuing a playbook, bioregioning is a 'subtle dancing with the system' (referencing Meadows, 2001) and is best pursued by the process of open, brave and contextually nuanced discussions and experiments that are based on social-ecological literacy and robust, critical debate. In its current open, and potentially fragile, re-interpretation, we remain on the fence: Bioregioning could become an antidote, a doorway, a forum and a risk—depending on the context

and those involved. A tendency to ask questions and engage in debate, rather than present firm answers and solutions is a promising practice to maintain.

#### AUTHOR CONTRIBUTIONS

Samuel Wearne and Ella Hubbard led the conceptualisation and design of the study; collection and analysis of the data; and the writing of the manuscript. Krisztina Jónás and Maria Wilke assisted in the data collection and reflexive analysis process. All authors contributed critically to the drafts and gave final approval for publication.

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#### CONFLICT OF INTEREST STATEMENT

None.

#### DATA AVAILABILITY STATEMENT

Data sources for this study are not available due to ethical considerations for research participants.

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### **Viewpoint 3.**

#### **A contextual perspective.**

*A case study of the discourses and discursive agency influencing the work of a local government in Australia.*



### Introduction to viewpoint 3.

Before sharing the results of my final study, I return to the research questions that drive my thesis: (i) how are place-based approaches to sustainability transitions and transformations being pursued and discussed, and (ii) how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit?

My research explores these dynamics through a set of theoretical precedents and perspectives that contribute to the transdisciplinary field of STT, and related lineages such as HNC studies and SES research. As such, the thesis I've been developing needs to account for our existence in complex, adaptive, interdependent, and overlapping socio-ecological systems. In short, it draws our attention to the influence of scale and the complex social web that our modern world allows, as well as deeply contextual factors when considering the dynamics at hand.

This perspective of the thesis shares my findings from a highly contextual case study. It complements prior vantage points in its content and in its methodology. As a reminder, prior sections have outlined and investigated two perspectives:

- The first perspective explored how place-based approaches to sustainability transitions and transformations were being discussed, often as abstract concepts, in public and academic forums to establish the discursive landscape for the thesis. It identified a central storyline that a place-based discourse coalition about STT appears to revolve around, and it discussed the opportunities and tensions that it raised. To investigate this viewpoint, I used a corpus-assisted methodology to sample and sense the meanings and positionalities that were present at a given point in time, across a sample of public and academic texts. In my findings and reflections on that study, I noted the benefits and opportunities of these techniques, but also the 'coldness' that they entailed, and the pull toward a mechanical, detached perspective that I felt when viewing meanings, stories and socio-cultural change through the (corpus linguistics) tools used in the study.
- The second perspective explored 'bioregioning', a specific discourse about place-based approaches to STT. It has a deliberate approach that favours a regional scale of action and attempts to link global (or trans-spatial) interactions, through dialogue between bioregions, as well as emergent, deliberative models of change. The study used

traditional discursive research techniques and reflexive thematic analysis, and extended these by centring relational values in how the work was undertaken. Reflections on this work deepened and extended questions about how a place-based approach to sustainability interacts with ongoing turns in sustainability science related to relationality and epistemological diversity. It deepened the discussion of place-based approaches to STT between different locations and at different scales of social-ecological systems. Bioregioning appeared to be patterned by both subjective and contextual influences and led to a discussion about how sustainability knowledge systems might look if we approached knowledge as integrally associated with patterns of nested and interrelated, but spatially patterned social-ecological systems, rather than via the traditions of Modernity and universal truths.

As above, the discussion so far has leaned toward a view of trans-place dynamics. The CADS study provided a solid, but necessarily shallow, overview of discursive features of an abstract, global place-based discourse. The bioregioning study started to explore how this is expressed and situated, providing insights into how global trans-place discursive exchange appeared to be interacting with specific contexts. This was necessarily narrow, exploring a specific discourse about place-based change in relation to STT. Both studies pointed to a reality that place-based discourses about sustainability do not exist in isolation but rather they engage with other discourses and priorities to define what sustainability is and how change ought to be pursued. This context creates complexities, opportunities, benefits, and dilemmas that can support, or suppress, the emergent, contextual solutions that a place-based discourse prioritises.

The final viewpoint of the thesis will complement these studies by approaching the interaction between local and trans-local change in a situated case study, exploring discourses and meanings about STT in a specific place and context. It aims to provide a “bottom-up” perspective that considers how a place-based approach to STT engages with different discourses about sustainability and it explores how context and agency influence those dynamics. It draws more deeply on my own positionality as the context is one that I’m familiar with personally as an Australian and as a resident of the Sydney Basin who makes frequent visits to the bordering mountainous rim of the Blue Mountains. There is also an ability to be more explicit about the subjectivity and positionality that I brought to the process of discourse analysis, given the inclusion of material elements (including specific locations) in the study design.

**Summarising the approach:** drawing on environmental discourse analysis, SES scoping, and practice studies to consider the (re)production of sustainability discourses within a local context and broader socio-cultural connections.

The final viewpoint provides a methodological complement to the earlier perspectives. For the reader, key points are listed below for context and clarity:

- The overall design of the research has similarities to the framework provided by Leipold and Winkel (2017), incorporating Hajer's (2006) approach to identify discourses before/alongside exploring how they are mobilised through the concept of discursive agency. In doing so, it acknowledges the relevance of earlier work undertaken in the PhD as these understandings provided context to understand the different discourses encountered locally, nationally, and globally about how place is being discussed in relation to sustainability.
- The dataset used to understand sustainability discourses in the Mountains goes beyond language and linguistic analysis and seeks to consider a broader variety of ways that discourses are mobilised. While the main text summarises the analysis, a set of extended discussions and the evidence is provided in Appendices for transparency and context. This includes 'thick descriptions' of sites that were visited during the research, outlines of each discourse and the strategic practices used to re-produce them, and documentation of the process that I used when analysing and interpreting the data.
- As outlined, there is an ongoing gap in empirical discourse research in regards to how factors of materiality and agency are treated (Leipold et al., 2019). A specific section is included that follows the analysis (Section 6). It provides a discussion and reflection on the methodology used and the steps in the analysis. This section sits in the main text of this doctoral thesis to contribute and continue its discussions about place-based approaches to STT, socio-cultural changes, and how these might be studied<sup>6</sup>. It draws attention to the interface between discursive research(ers) and the dynamics that are observed, and the role of STT research and systems interventions/agency.
- The abstract for this case study has been accepted for inclusion in a special feature publication of the journal *Ecology and Society*. The abstract and title page is included in the main text. The content for that paper will draw on a condensed summary of the sections provided, and focus on the discussion of how Council agents appeared to be 'doing'

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<sup>6</sup> The empirical and theoretical contributions are less advertised in the abstract (which is provided as submitted to the editors) as that section is unlikely to be of interest to the audience for that paper.

knowledge co-production as part of local democratic processes. The methodological reflections on the study (and some of the thick descriptions) will likely be omitted from that publication, but are included in this document for the completeness and rigour of the thesis.

*Guide to chapters in this viewpoint of the thesis:*

- *Title page & Abstract.*
- *Section 1. Introduction & background*
- *Section 2 Methodology and research design*
- *Section 3 Contextual dynamics in the Social-Ecological System*
- *Section 4 Discourses and discursive agency*
- *Section 5: Synthesis and opportunities for intervention.*
- *Section 6. Methodological reflections.*
- *Section 7. Implications and conclusions.*

*Attachments for this viewpoint are included in Appendix C. They include:*

- *C1) Walking notes & site observations*
- *C2) Detailed analyses of discourses and their (re)production*
- *C3) Documentation of the reflexive and thematic discourse analysis process*

## **Co-producing place: a systems view on the discourses, practices, and planning used to shape sustainability pathways in the Blue Mountains City Council, NSW**

### **Abstract.**

This paper discusses findings from social-ecological systems (SES) research in the Blue Mountains area of New South Wales, Australia. Drawing on semi-structured interviews with local government staff, document review, and observational site visits, it outlines discursive dynamics shaping the work of the local government on environmental sustainability and discusses knowledge co-production and sustainable SES governance in democratic contexts.

The findings show that even in an environmentally progressive context, conflicting visions are present not only in the way a place is governed, but also in the way it is practiced and storied by those who visit and inhabit it. Collaboration and contestations among these agendas pattern pressures on the environment, influencing what it looks like and its prospects for the future. In the Mountains, despite the Council and community sharing admirable aspirations and achieving tangible progress in some regards, NIMBYism was also persistent and community practices in daily life re-produced a discourse that contradicted and eroded stated visions for sustainability. Within the Council, different visions of sustainability were present and vied for influence, with each carrying different implications and ethics.

Through its methodology and discussion, the paper demonstrates how environmental discourse analysis might be applied in ways that align with systems orientations and interests in SES research. It contributes to ongoing discussions in the literature about the role of research and democratic process in knowledge co-production processes to support SES governance and pursue sustainable futures. Thematically, the paper interprets knowledge co-production processes in their broad sense, pointing to community engagement and participatory processes, expert knowledge, and contestations about place-meanings as part of these dynamics. In the case of the Mountains, Council and its staff were actively seeking to empower critical and informed processes of knowledge co-production, such as enabling ecological and social literacy. Drawing on concepts in sustainability transformations, I explore potential interventions to build co-productive capacities that enhance democratic processes and SES governance. I then reflect on the case study in relation to the literature, discussing dynamics of power, agency, process and offer a critical discussion about the current tendencies in sustainability science to conceptualise knowledge co-production forums, who leads them, and the tensions that these postures carry.

## **1. Introduction & Background**

A significant body of empirical research continues to explore environmental discourses, outlining how stories about the environment are expressed at global scales, and in relation to specific contexts. Studying the content and (re)production of those storylines can help understand socio-cultural processes in policy making and unearth political dimensions of sustainability (Keller, 2012, Leipold et al. 2019; Hajer & Versteeg 2006). While many applications of discourse analysis have focused on specific environmental issues or sustainability policies, very little research has explored discursive dynamics through the conceptual frameworks and system-oriented priorities of social-ecological systems (SES) research and sustainability transitions and transformations (STT) studies, which have become major areas of focus in sustainability science and practice.

There are compelling propositions and precedents that point toward the value of helping address these gaps. Environmental discourse analysis, for example, has drawn attention to the need for more empirical studies to explore the role of agents and agency in supporting discursive change (Leipold & Winkel, 2017; Westley et al., 2011, 2013), and theoretical contributions have started to consider how concepts of complex system dynamics might help bring issues of power into view (e.g. Simoens et al., 2022). Relatedly, there are calls for empirical studies to explore how greater affordances might be made to factors of materiality and practice when considering how discourses are (re)produced and how specific discursive actions lead to changes in society (Leipold et al., 2019). Such efforts complement a significant body of work that has outlined and typified major discourses about sustainability as well as more specific case studies. Together, such work has traced how broad swaths of humanity relate to nature, the politics of these relations, and their influence on sustainability policy and governance (e.g. Hajer, 1995; Dryzek, 2005, 2022; Leipold et al, 2023; D'Amato, 2021; Eversberg, 2023). Sustainability issues seem destined to remain both highly important and inherently political. This creates an ongoing need for empirical research and conceptual development to trace discourses that are present in society and to explore how discourses move across space and evolve across time. More specifically, there is a valuable opportunity to ask how discursive dynamics might be influenced and understood when explored in awareness of social-ecological relations and through complex and nested systems of interaction.

SES research is theoretically suited to align with these opportunities in discursive research. Since influential work in the 1990s, like Berkes & Folke (1998), SES research has been premised on an

ontological view that the material ecological world is linked and intertwined with coupled social systems. Discursive research within an SES agenda, then, is a fitting context to avoid retreating into 'textual reductionism' that can sometimes occur when research seeks to explore which discourses are present and study their influence on the world (Nicoloni, 2013).

In this paper, I offer a contribution towards these gaps and opportunities. Drawing on a place-based research project carried out over three years in Australia, the analysis shows how discursive research techniques can help SES research find new ways to study socio-cultural dynamics in ways that account for interaction and exchange across spatial and temporal scales. The methodological approach immersed the researcher into the process of discourse analysis not only via textual and linguistic data but also through site visits and observations that account for the things we use and do in the places studied, as well as what we communicate. After analysing the discursive dynamics that are present, the paper discusses potentially fruitful interventions and reflects on its research approach and findings in the context of key debates in SES and STT research.

There are three contributions the paper hopes to serve. First, the empirical approach may serve as a reference point for others seeking to explore discourse in relation to concepts and perspectives in SES research. Second, the analysis may offer substantive insights for practitioners and researchers exploring discursive dynamics in Australian contexts, particularly in the Blue Mountains region. Third, when situating the outcomes of this case study amongst key interests in sustainability theory and practice, I suggest that local government agents appear to be facilitating many of the functions and skills that the literature calls for when referring to normative processes of knowledge co-production for sustainability (e.g. Caniglia et al., 2021, 2023; Chambers et al., 2022; Norström et al., 2022). I present a reflexive and critical discussion about this observation, asking if and how sustainability science might be deliberate in its engagement with democratic process, recognising that in some contexts. Doing so extends existing discussions about the tensions of co-production and problematises the risk of centering academic endeavour, rather than existing democratic systems, in the process sustainability, and reflects issues of expert power observed by other critical reflections (e.g. Orlove et al; 2023; Jasanoff, 2004). Overall, the discussion aims to encourage more critical reflexivity about the power dynamics we, as academics, are engaged in both directly and via the discourses that we empower and mobilise in society.

The case study, briefly introduced below, was researched from 2020-2023 during a period wherein different narratives and actions that a local government might mobilise in pursuit of sustainable futures were in contestation and consideration. It occurs in a context that has a highly salient socio-ecological identity and is centred on dynamics influencing the Blue Mountains City Council (BMCC, the Council), a local government in New South Wales (NSW) Australia that has a progressive outlook on sustainability.

The theoretical and contextual context of the research is elaborated upon below.

### **1.1. Positioning place & discourse in sustainability and sustainable transitions research**

A “place-based” perspective in sustainability has been described as a lineage that orients research and practice toward a “relentless focus on context” (MacGillivray and Franklin, 2015). With increasingly urgent global sustainability crises and an increasingly connected world, there is an ongoing ‘turn’ in sustainability calling for a focus on relationships in nested, complex systems and adopt a bottom-up view on systems change (Abson et al., 2017; Bennett et al., 2023; Wearne & Reidy, in press). In this literature, ‘place’ is becoming a normative frame of reference. One obvious driver of this revival is a commitment to maintaining the contextual nuance and ethical processes that place-based perspectives prioritise (West et al., 2018; MacGillivray, 2015; Wearne & Reidy, in press). A second driver relates to a more utilitarian view that place-based approaches might enable insights into the pressures, impacts and dynamics that shape dynamics not just in the specific context studied, but also in relationships that form connections across scales and between locations (Hull & Liu, 2018; Wilbanks, 2015; Wearne & Reidy, in press). The exploration of these dynamics is especially apparent in the way place is framed in the field of sustainability transitions and transformations (STT) which use various iterations of systems thinking to help respond to this agenda (Abson et al., 2017; Norström et al., 2022; Wearne & Reidy, in press).

Combining the specificity of context with concerns about inter-scalar connectivity and a systems view on change has long been attractive in theory (Willbanks, 2015), but holding these in balance has remained difficult in practical, policy, and empirical settings (Biggs et al. 2022; Bennett et al., 2022; Balvanera et al., 2017). Biggs et al. (2022) summarise a representative view from the field by drawing together insights from ten years of work by a global network of place-based social-ecological research (PBSER) programs. They found that significant barriers exist when seeking to explore complex contextual dynamics that consider social and environmental dynamics of change, and their interdependencies. Adding in questions of scale, they noted, makes this



even harder, as extracting regionally relevant or transferrable insights from highly contextual research carries epistemic and ethical challenges. As a result, most SES research has ended up focused on either mostly social, or mostly ecological perspectives, and to truly work in collaboration with the local community, research programs require large and interdisciplinary teams, long time frames and open agendas (Biggs et al., 2022). Given these dynamics, scholarship in this field has noted an ongoing need, and an opportunity, for SES researchers to find new ways to consider scale and inter-place dynamics in achievable and meaningful ways (Biggs et al., 2022; Bennett et al., 2022; Balvanera et al., 2017).

While interconnections between SES contexts and locations have been explored in material ways, this paper focuses on socio-cultural connections via the concepts of discourse. It views discourses as “an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices” (Hajer & Versteeg, 2005: 175). Studying discourses in this lineage is a way to consider the materials, doings and sayings that (re)produce important storylines in society.

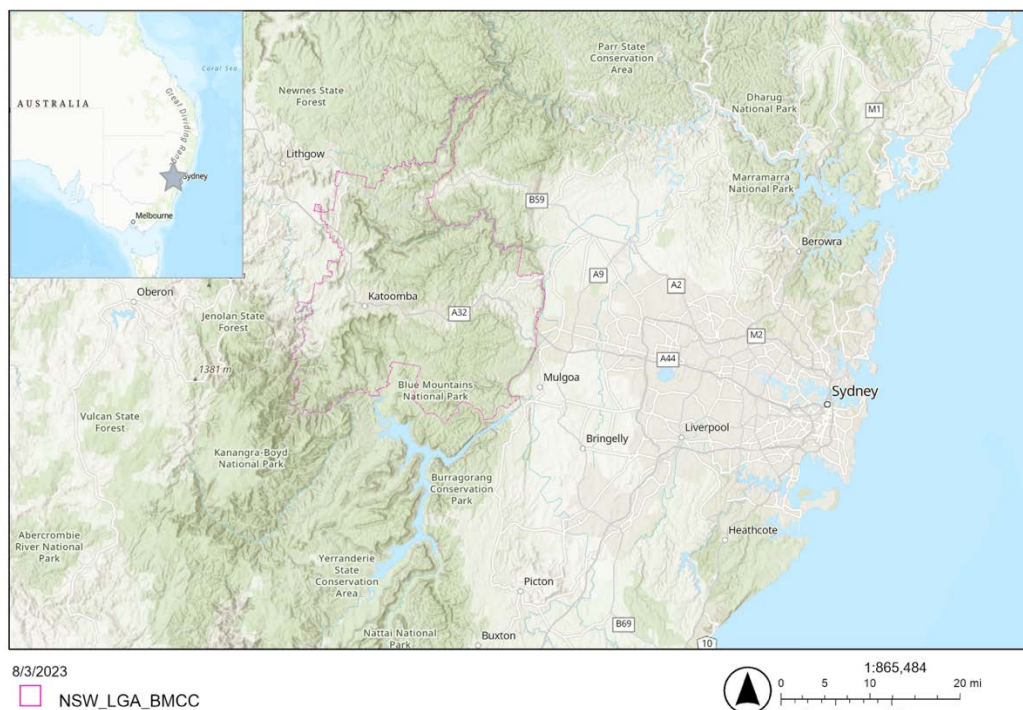
Topics of discourse, and the spread of meanings, narratives and agendas through socio-cultural dynamics of change, have long been conceptually relevant to the field of STT, which lies in close proximity and overlap to the contextualised foci of SES research (Waddell et al., 2015). Research efforts to explore the nexus of place, discourse, and scale, however, have been more limited. In this paper, we take cues from work by Wearne & Riedy (in press), who explored the overarching discourse about place-based approaches to change in STT literature; and Wearne et al (2023) who explored contemporary ‘bioregioning’, as a trans-local expression of global discourse about place-based approaches to STT. Both papers note issues of power that come with scale, and that engaging with these dilemmas brings STT interests into dialogue with priorities explored in fields such as geographies of knowledge and geographies of transitions. There are, it appears, inherent ethical, epistemological and conceptual tensions when trying to hold both bottom-up and top-down conceptualisations and expectations of place-based change. The dynamics of these tensions are complicated. The existence of a global and abstract ‘place-based’ sustainability discourse, for example, is supporting emergent explorations and (re)expressions (e.g. Bennet, Biggs et al., 2021; Pereira et al. 2020) and demonstrates the limits of convenient dualisms in how we talk about scale and directionality between the global and the local. Wearne et al. (2023) posited that some of these tensions and obscurities are productive, suggesting dialogues about scale can enable reflexive discussions about sustainability and power as topics to be constantly deliberated upon and contextualised in different forums of decision-making.

Outside of SES and STT studies, place studies and place theory have been extensively explored in conceptual and empirical terms, exploring relationships between people, space, and the feelings and meanings we attribute to different locations and features in the landscape. Seminal texts in geography, in particular, have explored the roles of experiences, stories, and practices that influence the meanings that places carry (Tuan 1977; Cresswell, 2004/2015). Others have explored the ethical implications that these meanings imply for contemporary societies, drawing attention to the politics of exclusion and belonging (Massey, 2004). Concepts such as sense of place, which Masterson et al. (2017) summarise as a feature of the meanings and emotional attachments we have for an area and its features, provide avenues for research to consider the affective importance of spaces, features within it, and the politics of those relations. In translating place studies to SES agendas, Masterson et al (2017) also describe how our attachments to a place can be further broken into how dependent we are on an area, and how closely it influences our own identity. In short, human-place relations influence, and are influenced by, patterns of meaning and behaviour. Place studies also provide a useful set of precedents about where those meanings and attachments come from. Qian & Zhu (2016) surmised their view that “place is a performance that coheres around constructed discourses and lived practices”, a sentiment mirrored by Benson and Jackson’s (2012) reflections that suggested that “ways of ‘doing neighbourhood’ must be understood within the context of circulating representations” which they explained as stories, narratives and discourses about the area. While much literature in place studies focus on how practices and discourses relate to human and social belonging, my study, and SES priorities, broaden this agenda, expanding the ethical context for a discussion about place meanings and attachments in relation to the plants, animals and landscapes that we live with and the decisions we make to govern them.

This paper engages with this interdisciplinary landscape by presenting and discussing the findings from an empirical study into discursive dynamics, driven by agents, practices, and connections that appear to influence the sustainability prospects of a local government in Australia, and the region that it governs. The analysis considers contextual patterns in relation to broader scales, exploring how meanings, language, and materials connect people and practices across time and space. After outlining the dynamics at play, the paper discusses what this understanding might offer to sustainability practitioners, including council staff, who seek to make deliberate interventions in the future of the region. It then offers a reflexive discussion about the case study in relation to concepts of knowledge co-production to enable just transitions and transformative pathways toward sustainability.

## 1.2 Contextual overview: planning for Rights of Nature and sustainable futures in the Blue Mountains City Council.

The Blue Mountains region starts approximately 50km west of Sydney, Australia (fig. 1). Two winding roads concentrate passage over a dramatic mountainous area, creating a narrow strip of 27 towns and villages that lie along these routes. The townships sit nestled amongst a landscape of heavily forested national parks that are listed as World Heritage Areas (WHA), both to the North and South. This setting typifies the Local Government Area (LGA) governed by the Blue Mountain City Council (BMCC, 'the Council') and situates the Council, alongside Banff as the only two local governments in the world that are located within nationally listed World Heritage Areas.



**Figure 1.** Overview of the Blue Mountains and surrounding area. The BMCC LGA boundaries are in red.

Ecologically, the area might be considered largely contained by landscape factors that correlate with the LGA boundaries; the Nepean River to the East, the transition from the higher altitudes and forests in the LGA to the farms and plains on its West, and longstanding barriers formed by rivers, cliffs and valleys to the LGA's North and South. Socially, however, the LGA's spatial boundary elides key influences and relations. Since the creation of colonial trade routes across the range, the socio-cultural identity of the Mountains has been heavily influenced by its connections and relationship to the population in Sydney, stretching social influences on the LGA

beyond its spatial footprint. The area's pre-colonial and colonial history and its identity to millions of tourists annually draw forth a rich confluence of activities and agendas that shape the social and ecological context encountered in the Mountains, feeding dilemmas that confront the BMCC when planning for sustainable futures. As such, the SES in question balances a defined biophysical area with a socio-cultural context that introduces influences from across the Sydney Basin (and far beyond).

Boxes 1 and 2 provide additional context into the ecological and social context of the Mountains and will be elaborated upon in later sections.

### Ecological Context

*"We often talk about the Blue Mountains as one of only two cities in the world that is actually in a nationally recognised World Heritage Area."*

Council staff (interview data)

*"For the planning that we do, nature and local ecology is actually the central theme around which a lot of other things revolve."*

Council staff (interview data)

The BMCC governs a Local Government Area (LGA) in Australia that starts on the shores of the Nepean River, approximately 1.5 hours drive west of Sydney (Figure 1) and ends as the Great Dividing Range gives way to its South West Slopes and Australia's "Great Interior". The LGA is home to 78,121 permanent residents, a figure dwarfed by the estimated 5 million people that visit the region annually (ABS 2023; BMCC 2021d).

As part of Australia's 'Great Dividing Range' - an ancient mountain rim that separates a coastal fringe of south-east Australia from vast inland plains and rivers, the Blue Mountains (the Mountains) have long served as a natural border to the plateaus and river of the Sydney Basin, an area now home to almost 6 million people that live in Greater Sydney.

The LGA thus covers a large area, with a relatively small permanent population, and is seen as an iconic national site for natural and cultural heritage. The population is focused in a series of small townships and villages that are strung out along two main arterial roads that serve as passes through the Mountains, sitting atop plateaus that overlook ancient river valleys in the National Parks to the North and South; areas of pristine forests that have remained protected since colonisation.

**Box 1.** An introduction to the ecological context of the Mountains and BMCC's work.

**Social Context**

Australia's Indigenous peoples are recognised as carrying on the oldest living cultures on Earth, and the Mountains retain an identity developed through an ancient system of socio-ecological relations carried through Aboriginal lore, traditions and culture. Contemporary communities include descendants of the Gundungurra and Dharug people, who are the Traditional Owners of the area. The impacts of colonisation, however, are also salient. With its proximity to Sydney, early colonists long sought a passage through the Mountains and found one, carving the way for the road on which the towns and villages of the BMCC still sit. The area is thus imprinted with sites, memories and stories of colonial 'exploration and discovery' that sit atop a landscape with thousands of years of Indigenous place-relations. In addition, there are ongoing impacts of colonisation that situate these sites within a broader context of frontier wars, forced displacement, ongoing disparities in socio-economic status, and a national call for recognition, treaty-making and/or self-determination to recalibrate the state's relationship to its First Peoples.

Since colonisation, the Mountains have attracted residents and visitors from Sydney as a site for recreation and environmental tourism. The national parks enclosing the LGA to the North and South are World Heritage Area listed and the heritage townships boast grand hotels and tourism practices passed down generations.

**Box 2.** An introduction to the social context of the Mountains and BMCC's work.

The temporal context of the study is also important to understand the data collected, and the conclusions that are reached. This study was initiated when the Council made a public commitment to recognise the Rights of Nature and to integrate this commitment throughout the Council's planning and operations (BMCC, 2021a). This paper explores the discourses and practices that interact with the BMCC's sustainability initiatives to plan for a sustainable future between 2021 and 2023. Whilst the discussion started with Rights of Nature (RON), it quickly led to a broader study of the discourses, practices and politics within sustainability-related activities across the strategy, planning and development, operational, and corporate functions in the Council. An overview of temporal and contextual factors relating to the study is provided in Appendix 2.

To engage with the above context, this study mobilises traditions and assumptions that are common in interpretative discourse analysis; it does not claim to offer an exhaustive, conclusive, or

objective representation, instead, it presents the author's interpretation and engagement with the data and context as I encountered it. As such, I acknowledge the constraints and limitations that are carried by my own positionality, the reality that there are data sources and perspectives that will inevitably have been missed and that there are simplifications and compromises required by any discursive study, and any investigation into a complex, dynamic system. To return benefits to the Council and SES that was studied, the final task of analysis was to identify potentially fruitful pathways that could assist socio-cultural change toward sustainability in the Mountains.

The remainder of the paper is structured as follows:

- *Section 2* outlines the study's methodology and research design.
- *Section 3* summarises the Social-Ecological System context that was identified.
- *Section 4* provides results from the discourse analysis, including the dynamics of discursive agency.
- *Section 5*: presents a synthesis and discussion of the dynamics that were observed, positioning the findings in line with the literature, and outlining potential opportunities for intervention.
- *Section 6*: provides methodological reflections on the research.
- *Section 7*: offers conclusions and implications from the study.

A set of Appendices complements the main text with additional information:

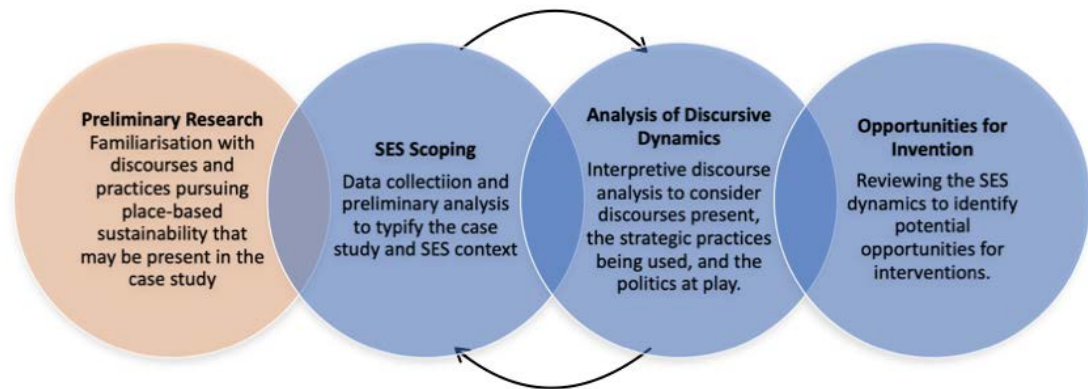
- *Appendix 1* documents notes from site visits in the area. This includes the sites of:
  - *1A) Echo Point*
  - *1B) Former Katoomba Golf Course*
  - *1C) Explorer's Tree & Pulpit Hill*
  - *1D) Blue Mountains Townships*
  - *1E) Garguree: The Gully & Catalina Park*
- *Appendix 2*: extends the main text with more detailed descriptions of the discourses identified in the data and the strategic practices used by agents to (re)produce them in the Mountains. The Appendix also includes a summary of temporal and contextual events that occurred during the study.

- *Appendix 3*: Elaborates on the reflexive and thematic discourse analysis process used in the research. It provides documentation and discussion of the process and lists data sources used in the research.

## **2. METHODOLOGY AND RESEARCH DESIGN**

Figure 2 outlines the overall research design, described below. The approach aims to test and demonstrate one way to study socio-cultural dynamics present in a local context whilst accounting for interaction and exchange of meanings (and politics) across broader spatial and temporal scales. It employs a Critical Realist orientation and draws on analytical techniques from discourse and practice theory. In doing so, it applies and extends established and emerging techniques in environmental discourse analysis toward the interests of STT and SES research. It also helps STT and SES research to account for socio-cultural dynamics that are currently underexplored in those fields.

The research design drew on Leipold and Winkel's (2017) Discursive Agency Approach (DAA), a framework for designing empirical environmental discourse research. DAA encourages research to consider which discourses are present by using socio-cultural techniques, like those outlined below, alongside an analysis of the strategic practices used by different agents to (re)produce (or 'mobilise') the discourses observed. DAA originates from a focus on socio-cultural dynamics that produce environmental policy. For my research, I adapted this framework so that social-ecological considerations (such as relationships with specific sites and places) were also adequately addressed. Specific techniques used in different phases or foci of the analysis are outlined below. As outlined below and in Figure 2 the process was recursive, using iterative revisions to progressively build, refine, and revisit the analysis and its interpretation of the SES context, discursive dynamics and opportunities for intervention.



**Figure 2.** Phases in the research design including: a preliminary research period and then overlapping processes to understand the SES context; analyse the discursive dynamics present; and consider opportunities for intervention. Arrows reflect recursive revision in the process which involved identifying and filling data gaps and testing or reconsidering interpretations.

### *Preliminary Research*

Researching the Blue Mountains case study was undertaken as part of multi-year doctoral research to engage with leaders and practitioners pursuing ‘place-based’ approaches to sustainability transitions and transformations. This provided a familiarity with a range of global sustainability discourses about place and strategic change. Activities in this stage of the research included desktop research, informal discussions with sustainability practitioners and researchers, and semi-structured interviews with leaders in place-based sustainability in Australia and abroad (n=18). The results from this work have been discussed in other papers (Wearne & Riedy, in press; Wearne et al., 2023; Hubbard et al. 2023). This preliminary research phase enabled the selection of the Blue Mountains as a case study and shaped the theoretical framework for the research.

### *Socio-Ecological System Scoping and Primary Data Collection*

Primary data for this paper includes semi-structured interviews undertaken with Council staff (n=7). The interviews were initially targeted at senior leaders tasked with the integration of Rights of Nature into council operations, and then snowballed into interviews with senior leaders in the planning team and then with people leading sustainability initiatives elsewhere in the Council. The interviews, alongside document analysis, provided a rich impression of the way sustainability was being interpreted and pursued in the institution.



Initial analysis of the interview data used concepts from Shove et al.'s (2012) Social Practice Theory to complement interpretive lineages in environmental discourse analysis (Hajer, 2005; Leipold & Winkel, 2017). Specifically, I used descriptive coding (Saldana, 2021 p133-137) to identify and categorise references to practices, meanings, competencies, materials, events, and agents/institutions in the data. Inductive coding using In Vivo techniques (Saldana, 2021: 137-143) was then used to identify patterns within these categories. Recursive cycles of analysis led to the identification of themes amongst the codes, including the discourses and strategic practices interpreted in the data.

Analysis of the interview data was not done in isolation. Rather, it was iteratively returned to and refined as interview findings were complemented with insights gained from document review and site visits. Overall, seeking to understand key actors, dynamics, histories and relationships present in the social-ecological system through interviews and other means reflects the broad task of systems scoping in SES research (Sitas et al., 2021; Biggs et al., 2021).

Key insights about the SES context are reflected in Section 3. Insights into the SES context are further detailed in the documentation of site visits in Appendix 1 and elaboration the data coding and analysis process, are elaborated upon in Appendix 3

#### *Analysis of Discursive Dynamics*

My approach to discourse analysis builds upon socio-cultural traditions of environmental policy discourse research. For example, the research process resembles the “10 steps” outlined by Hajer (2005) to identify broad storylines about sustainability from a mix of preliminary desktop research and helicopter interviews, the analysis of texts, cases and semi-structured interviews, and by observing the performance of these discourses in contextual settings<sup>1</sup>. For my study, relevant settings included the documentation of strategic policy, the engagement processes that the council undertakes with the community, and the use of specific sites and places by residents and visitors to the Mountains. The analysis thus involved immersive engagement with the SES context alongside recursive analysis of interview data, council policy and engagement practices.

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<sup>1</sup> For context, DAA explicitly incorporates ADA in its framework so there is deliberate overlap in Hajer's (2005) outline of how to do Argumentative Discourse Analysis (ADA) and Leipold & Winkel's guide on how to do DAA. Moreover, it should be noted that the task of analysing discourses, discursive dynamics, and discursive agency could easily be considered to include all of the steps in Figure 2– there is thus overlap between the described phases.

As the discourses were being identified, I returned to Leipold & Winkel's (2017) DAA, which includes a typology of strategic practices to aid the analysis of discursive agency. I used this typology to re-examine and consider the role of specific agents, materials, and sites to (re)produce the identified discourses in specific contexts. The findings of this phase are reflected in Section 4.

When reviewing the discourses present and discursive agency, I found it useful to draw on Dryzek's (2005/2022) work, which also sits within the socio-cultural lineage of environmental discourse analysis. Here, I adapted a simple heuristic presented by Dryzek (2022: p14-17) to classify sustainability discourses in relation to the systems and norms that have dominated societies, like Australia's, throughout the Industrial era. This helped identify central tendencies and differences between the discourses in my data and is discussed in Section 5.

Section 6 shares post-study reflections to discuss how my work coincides with trends and priorities in the literature. Appendix 3 provides templates used in interviews and documents supporting details of the analytical process.

#### *Assessing Opportunities for Intervention*

As a final layer of analysis, ideas from STT literature were drawn upon to consider and discuss the identified barriers to transformative change, and potential opportunities for intervention.

Based on the dynamics observed, Gunderson and Holling's Adaptive Cycle (2002) was used as a heuristic to support thinking about what actions might be productive. This heuristic was chosen as it has become widely used in SES research as a general theory to understand systems dynamics and change (Biggs et al., 2022) including conceptual and theoretical discussions about the potential agency of individuals within systems and institutions (Westley et al., 2013). The premise of the Adaptive Cycle also has many synergies to theories of transformative learning in adults (Mezirow, 1993; Kitchenham, 2008). This was attractive, as transformative learning has been attracting nascent interests in place-based STT research that explores how socio-cultural relationships with place and nature might be attended to via strategic and ethical processes (e.g. Mehmood et al., 2020). As will be demonstrated, my research identified that such work may benefit the region if applied in line with strategic and contextual considerations (i.e. via the Adaptive Cycle).

The findings of this phase are discussed in Section 5.

### *Recursive Revision and Review*

Throughout the project, 'zooming in' on specific themes and incidents led to iterative data collection and analysis, including a review of community perspectives via local media and digital forums (n=76), review of Council documents and policies (n=30), and the iterative use of observational site visits (n=10). Combining an immersive approach together with periods of distance and reflection supported a reflexive process of interpretation and thematic analysis to gain insights from the research process (Braun & Clarke 2022).

The process of analysis was thus recursive and immersive; coding interview data, visiting specific sites, and reviewing documentation were continued until I felt thematic patterns across these datasets and sources were adequately addressed and interpreted (Maltrud et al., 2015). Based on my interpretations of themes within the data, discourses were then described, and examples and evidence of these interpretations collected and collated during the writing process.

Observations of the discursive dynamics and the potential opportunities for leverage were shared back to council experts (alongside my typification of the case) for discussion and review. Comments from these experts were incorporated into the final analysis.

This recursive process reflects norms in discursive research that call for filling data gaps and testing/reconsidering interpretations (e.g. Leipold & Winkel, 2017, p19; Hajer, 2006).

### **Research Ethics and Consent**

Ethics approval for the study was granted by the University of Technology Sydney's Research Ethics Panel (ETH21-6455) and verbal or written consent was granted by each participant in the study. In line with the requests of participants to avoid their potential (re)identification in ways that would compromise the nature of their role and their views on specific sites, direct quotes and statements from interviewees have been anonymised. Participants included representatives from development assessments and planning functions, strategic planning functions, corporate strategy functions and corporate sustainability functions.

### **3. Contextual dynamics in the Social-Ecological System**

This section provides an overview of key features that, at the time of my engagement, were interpreted as important influences shaping the social-ecological system (SES) encountered by the Council in their work to plan and govern for its future. It is informed by interviews with Council staff, supplemented by desktop research and aims to provide a nuanced introduction to the context of the BMCC's work and the issues and dilemmas that it entails. The primary aim of the section is to provide a baseline understanding of the SES and its dynamics. A thorough review of these observations will be returned to in the later sections (Sections 4 and 5) to discuss discourses about sustainability, and how they are being mobilised.

While the introduction, including Box 1 and 2 has briefly outlined the area and its history, this section will deepen the reader's understanding of the social and ecological context of the Mountains, focusing on the issues, dilemmas and nuances that influenced the work of Council during the research period. Four themes are identified. They relate to areas demographics, the Mountains' socio-cultural proximity to Sydney, the spatial implications of the Mountains, and the institutional context and constraints on the BMCC to govern it. An emphasis is placed on the views from Council staff, using quotations from interviews to show how they interpret their context.

#### **3.1 Demographics, power & activism.**

At the 2021 national census, 78,121 people lived in the Blue Mountains LGA (ABS, 2023). The population has a lower proportion of the population identifying as indigenous (2.7%), lower than state (3.4%) and national (3.2%) figures, and a higher proportion of residents that were born in Australia (79.2%) than the state (67.6%) and national (66.9%) averages. 90% of residents speak only English at home, compared to 67.6% in NSW, and 72% nationally (ABS, 2023). The median age was 45 (39 in NSW, 38 nationally), and 32.7% of the population had attained a Bachelor's degree or higher levels of formal education (27.8% in NSW, 26.3% nationally) (ABS, 2023). Tourism is a major industry, and health and education are the largest employers.

Council staff translated this context by pointing to a politically active community in the region which skews to an older, educated cohort of Anglo-European descent. This influences the topics and agendas drawn forth when Council undertakes consultations and engagement with the community.

As one interview participant from the Council put it:

*“one of the markets that the mountains is increasingly attracting, attracting is retired people with very high education. Right. Which is creating a whole ‘nother subset of people who are willing to organize and rally and get passionate and generally be lovely, lovely, delightful pains in our backsides”*

Council staff (interview data)

This dynamic was seen, for example, in the active community participation and agency undertaken by groups such as the Blue Mountains Conservation Society (BMCS 2016; 2021), and also in Council-facilitated volunteer programs (BMCC 2023a; BMCC 2023b; BMCC 2023c).

### **3.2 “Part of Sydney’s Story”**

The connection of the Mountains to the community, lifestyle, and culture of Sydney dates (at least) back to the earliest use of the Mountain pass established by the now-famous early colonists Gregory Blaxland, William Wentworth, and William Lawson.

These connections are often anchored by specific sites and the cultural legacies they have had and continue to inspire, forging meaningful relationships between Sydney residents and the region. The way that people engage with these sites or artefacts and the memories that they leave, often carries politics, emphasising some values and viewpoints at the expense of others. They also seem influential as socio-cultural drivers behind demographic shifts and politics; specific sites, and the meanings and experiences they carry, are key features that attract new residents to the area, as well as large numbers of visitor populations from Sydney and beyond. These dynamics, and their expression over time, are illuminated by discussing specific examples, such as Echo Point, the Hydro-Majestic Hotel, Pulpit Hill, and Explorer’s Tree, which are briefly recounted in Vignettes 1 and 2 below. The descriptions are drawn from site visits, interview data, and document review. Extended descriptions of these sites, and others, are provided in Appendix 1.

### Accessible Grandeur—Echo Point and the Hydro Majestic



At sites like Echo Point, the Hydro Majestic Hotel, and in colonial-era buildings located throughout its villages, the Mountains carry long-held histories of accessible grandeur, fuelling nostalgia that continues to influence popular perceptions and relationships with the area. As one Council staff summarised during interviews:

*“there is a very nostalgic element to the Blue Mountains, particularly for Sydneyiders and that sense that, you know, everyone’s grandmother sort of has a Hydro Majestic story or something like that...it might not be as strong as it was a generation ago, but it’s definitely part of the Sydney story— ‘Cause we’re so close.”*

Echo Point, pictured on the left, is a lookout that has attracted Sydney residents and travellers to the Mountains for centuries and many make the trip a weekend getaway. Since 1901, for example, The Hydro Majestic hotel (referred to in the quote above, pictured on the right) has been one of many options available for visitors to taste colonial luxury, offering manicured gardens, afternoon high-tea, heritage rooms, and gourmet menus served in dining rooms with an open fireplace and views across the Megalong Valley (THM, 2023). With a history of visitation from local elites and foreign dignitaries, most of these establishments are now widely accessible to people from all socio-economic backgrounds.

Specific sites like these reflect that the Mountains is laden with romantic memories, inspiring further cultural artifacts like books, paintings and poems that continue to shape the meanings that these sites carry. Some of these dynamics are deliberately shaped by the agency and activity of the Council. For example, a major redevelopment of the Echo Point lookout led to the inclusion of stone monoliths that recount poetry about the lookout written by a range of figures- from Gundungurra woman Betty Murrundah (c1870) to the naturalist Charles Darwin (c1836). Elsewhere, placards mark visits from monarchs and Australian politicians, and information boards intertwine geological information, colonial history and Dreamtime stories about the landscape, providing a complex and nuanced experience for visitors to sample vastly different relationships and socio-cultural meanings carried by the place. As a free, open-air site, Echo Point attracts a constant string of busses and train travellers, making it one the most visited attractions in Australia and host to millions of annual visitors (BMCC, 2021d).

**Vignette 1.** *Accessible Grandeur: a description of histories and meanings in the Mountains using Echo Point and the Hydro-Majestic Hotel as examples. Photos: (Left, by the author; Right, by The Hydro Majestic, 2022).*

**Colonial Romance – Pulpit Hill & Explorer’s Tree**

Sites like Pulpit Hill and Explorer’s Tree (Appendix 1-C) lie a short drive from those in Vignette 1. They purportedly hark back to the first encounter of colonial explorers with the Mountains. Whilst celebrating European arrival, they also carry troubling links to colonial and racial injustice against the area’s Aboriginal people. The story these sights represent in society has changed throughout the years. Historically, they attracted explicit actions by institutions in NSW, including the Council, to empower a colonial perspective on the Mountains and its story. Pulpit Hill and Explorer’s Tree, for example, were for decades a sight visited by large numbers of tourists and formal day trips by students in the NSW public school system.

During interviews, Council staff recounted these dynamics in relation to sites that continue to mobilise romantic narratives of colonial arrival and exploration:

*“Another example would be Explorer’s Tree that was recently removed from the highway, you know, that’s about the most sort of colonial memorialization that you can get...[it is] a kind of sad example of how that history can be held onto for so long.”*

They also noted meanings and narratives about the Mountains that persist in contemporary society, shifting meanings and relationships with place, and Council’s role in these dynamics:

*“In terms of what was left, it was this sad stump on the side of the highway that was concreted in and [its] questionable whether the explorers ever marked it at all...But it’s been part of, sort of Sydney’s primary school education; kids would take bus tours to it—but it’s also very challenging for Traditional Owners and the, the notion that that was a contact point where a lot of horrible things happen to Aboriginal people. So this whole, yeah. I think there is a very strong nostalgic element to the Blue Mountains and that makes that full storytelling sometimes more challenging.”*

**Vignette 2.** A description of the histories and meanings carried by the sites of Pulpit Point and Explorer’s Tree. Photo sourced from NSW State Library (2019).

The proximity to Sydney seems to add a specific dynamic to sustainability in the Mountains that goes beyond history and tourism, shaping Council's relations with new arrivals. One interviewee summarised this as an issue of ill-fitted expectations about what life ought to look like in the Mountains, carried by new residents who move to the area from Sydney. There was an implication that while regular visitors from Sydney might 'love' the region (i.e. their experiences and memories have established their own sense of place, and an emotional attachment to it), they can also carry a sense of entitlement to use the area on their own terms.

*"we've got very strong controls around built form for very clear and obvious reasons supported by the community out of engagement. But people are coming up and wanting to replicate a product that they might see in new subdivision areas in Western Sydney".*

Council staff (interview data)

The 'product' of Western Sydney subdivisions, referenced in the quote above, describes the aesthetics of Sydney's urban sprawl wherein off-the-plan designs of large single-story residences ('McMansions') sit gutter-to-gutter across the landscape. The tension these aspirations create for Council staff undertaking planning functions is better appreciated when the (i) ecological significance of the areas is compared and (ii) the value that people, including Council staff, place on that ecology is considered. In short, there was a feeling that many newcomers seek changes that erode the reasons they moved there.

### **3.3 A landscape of ecological heritage, many places, and inherent values.**

The experience of Council staff who gather and analyse local perspectives during engagement and feedback processes pointed to nuances as to how 'place' is constructed in the Mountains. As below, the ecological context of the WHA is highly prominent, and it seems to draw forth generally shared values across the region. Equally, though, a variety of identities and place meanings in the region were visible through terms like "upper mountains" and "lower mountains", and in the character of specific towns, villages, and sites. When one drives up the Mountains, the road continuously climbs in elevation until you reach a plateau; each village along the way feels a little higher, a little cooler and a little more removed from Sydney. As one council staff noted, there is depth and nuance to the area that resists treating the Mountains as a single or ubiquitous "place".



These nuances have been known and grappled with in Council for more than two decades. Council has provided explicit recognition of the diversity of ways one could characterise the Mountains (fig. 3), noting that different sites, villages and issues raise different perspectives and narratives. Table 1 outlines two themes that this relates to with exemplar quotations from interviews with Council staff. First, it was clear from document review and interviews that the Mountains has some shared characteristics but it is also not a single 'place'. As one interviewee from Council put it:

*“the mountains is a difficult place to frame ‘place’ because it's very different from one end to the other. So what place means in terms of the overall picture of the mountains and then what place means to individual communities within the mountains are different.”*

Council staff (interview data)

A second observation is that the bush setting holds an “inherent value”, attracting people to visit and to live. Reflections by Council staff, and records from the past 20 years of engagement with the community (BMCC, 2004; BMCC 2013; BMCC 2020), consistently suggest that the local community values the natural environment highly, even if 'green mindedness' might not be ubiquitous:

*“based on certain pieces of data that we capture– community surveys and even responses to engagement on big strategic documents that we do [we know that] protection, an ongoing protection of the environment is, you know...it's always within sort of, the top two or three things that people raise. So I think there is a, in some ways, a, it underpins the reason why people live here or choose to live here... an important point to raise is that we talk about this quite a lot in our strategic work, but also even in things like a housing strategy– that many residents make a conscious choice to live here in the Blue Mountains... it's often a conscious choice and that's to do with proximity [to nature]”*

Council staff (interview data)

Table 1 extends on these themes with additional quotes from Council staff.



**Figure 3:** A satellite image overview of the forested landscape dissected by thin roads and villages, and descriptions of the BMCC context as interpreted by the Council. Source: BMCC (2004).

Theme	How the theme was communicated (exemplar quotations)
There are many 'places' in the Mountains	<p><i>[place] is not something that we as an organization try to define in terms of just one thing. We try to recognize when we talk about place, it varies right the way across right the way across the mountains.</i></p> <p><i>We all often talk about the unique character of our towns and villages...they all have individual characteristics.</i></p> <p><i>There are substantial numbers of people who believe that the mountains only starts at the top of Waddington Hill. So the upper mountains, Wentworth Falls, Leura, and further west – [these] are the actual</i></p>

*mountains and that the rest of it is pseudo mountains. There are others who hold, you know, the view that basically once you cross the [Nepean] River, you're in the mountains and Emu Plains is, like, kind of half there as well.*

There are inherent attributes that attract people to live here- particularly in relation to the natural environment

*[elsewhere in Australia] people would fight tooth and nail to keep something off the heritage register. Whereas here, you know, if you put that it's a heritage item in the, in the real estate pages, it's quite often a selling point.*

*[the ecological setting] also speaks to why the, what people value about being here. They've, they've perhaps sacrificed, I don't know, a higher paying job or accepted the need to commute into Sydney.*

*[the things] they move here for, which often is to do with the environment and, and sometimes the community and things like, you know, population being able to have space and all of that. Yeah, [the environment], it's probably a lot of the reasons why people live here and I think we see that a lot in the engagement work that we do.*

*[the Mountains has] a much higher proportion of environmentally minded people. But there is, particularly in the lower mountains, when you get more into the commuter belt-also amongst long-standing residents...they're probably less green-minded.*

*...the council is very environmentally minded, we put those messages out into the community.*

**Table 1.** Excerpts from interviews with Council staff reflecting that (i) the setting of the LGA encompasses many places and (ii) the area's unique ecological setting attracts people to the area and is highly valued by most of the community and by the Council.

### 3.4 Balancing the books at Council: "How do you deal with that?"

Drawing together the demographic, spatial, and socio-cultural themes above, Table 2 collates a short account of reflections shared by Council staff working at the interface and interconnections of those issues; they reflected on the added dilemmas that come with institutional considerations like limited budgets and resources.

A key observation relates to the spatial context of the LGA. While the ecological setting is unique and highly valued, it requires the Council to manage an area with high ecological value that is

exposed to potential risks and impacts from the way locals and tourists use it. This context is amplified by the Council facing pragmatic and financial constraints and a community that resists reductions in the service levels that they're used to.

<b>Theme</b>	<b>How the theme was communicated (exemplar quotations)</b>
A string of villages and a strung-out budget	<p><i>there's only one LGA that sort of that runs this 80 kilometer stretch</i></p> <p><i>Five aquatic centers for a population of around 70,000? Yeah. Most places would have one or two for 200,000. So those pools don't cost any less to maintain because three people use them...but trying to close them is a massive impact on people because all of a sudden it means that they're driving 20, 25, 30 minutes to a pool, whereas before they could drive 10 and they don't wanna drive 35, 40 minutes to a pool, they wanna drive 10.</i></p> <p><i>There's a lot of duplication of services because it is so spread out once you try and take [a service] away, even though you explain that it's because the financial situation of the organization is not great and we've got better things to spend their money on, that [the community] potentially value more, but local communities get very stressed out. How, how do you deal with that?</i></p> <p><i>I mean it's really coming to a head, particularly with the financial hit from Covid and also the impact of the storms on our roads and other infrastructure.</i></p>
Ecological ethics are needed where laws are lacking	<p><i>Well, but also, we have a lot of crown land in between [the National Park areas], so it's only the national park that's listed... [there's] not really [more regulatory constraints on how we govern ecological impacts due to our location]— only more ethical ones.</i></p> <p><i>the whole mountains is just fascinating because you've got that like...developed area that goes straight onto like some of the most pristine environments in the world. Yeah. And we have the landfill there that literally butts off to it.</i></p>
A small number of locals and a large number of visitors: who's place is it?	<p><i>[it is hard] trying to balance what [local residents] need and, you know, legitimately what their rates pay for and [do] all those things that's very local government...[it is] quite challenging to balance that against being one of the most, if not "the most", visited place in New South Wales. And having to try and transition that into a sustainable kind of</i></p>

Pragmatic decisions beckon	<p><i>tourism model, not just “tourism at all costs”, I think is probably one of the biggest challenges the council's facing at the moment.</i></p> <p><i>[recent weather events and economic conditions have] just highlighted a massive deficit between what we need to maintain our assets and what we've actually got</i></p> <p><i>that [pragmatic] conversation is going to become more and more, not apparent, but one that we're actually having.</i></p> <p><i>it's tricky politically, obviously, too. I mean the counsellors, they're intelligent people, they understand the numbers that sit behind it, but then you've also gotta convince them to go and put themselves on the line and have that unpopular conversation and, you know, it takes, it takes the right timing and the right political environment to be able to do that. It's tricky.</i></p>
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**Table 2.** Excerpts from interviews with Council staff showing tensions that face Council when dealing with its social and ecological context.

This section has served to surface the contextual challenges and dilemmas that shape Council’s work on sustainability. It provides context that will be iteratively returned to when discussing the findings from an analysis of sustainability discourses used by Council staff, alongside those observed in the community, and discursive practices used to (re)produce those discourses and mobilise them in society.

## **4. Discourses & Discursive Agency**

### **4.1 Seven discourses influencing Council's work on sustainability in the Mountains**

Through the process of discourse analysis, I identified a series of co-existing discourses being reproduced in the Mountains that influence Council's work on sustainability, telling different storylines about the region, and its future.

#### ***Five sustainability discourses were explicit about sustainability and its outcomes***

The most obvious discourses about sustainability were communicated in statements by interviewees, and in public documents by the Council. They presented explicit visions about what sustainability looks like and what outcomes it produces. Each held relatively clear, but different, conceptualisations of human-nature relations and priorities for change. I identified five such sustainability discourses. Table 3 provides a summary of these discourses, their narrative about sustainability, how they were (re)produced, and the key agents supporting their (re)production and mobilisation.

#### ***Two discourses were processual, (re)produced by the Council and by community actions.***

When coding the data, particular value was found by considering the materials that were observed or discussed as important, and the roles that materials played in the reproduction of different discourses (Appendix 3).

By looking at these materials, and the 'doings' that people used them for, as well as 'sayings' communicated in texts and interviews, I identified two discourses that I describe as processual. These discourses were often (re)produced by the actions of Council and the community, rather than being explicitly raised and put into words to describe normative visions for the area. These are described in Table 4. Like the explicit discourses about sustainability, the processual discourses were important, creating and continuing narratives about the Mountains, and influencing what the future there might look like. I refer to these as 'processual' because they tended to be embedded in the politics of observable, ongoing, practices that shaped the process and dynamics of change.

One of these discourses was '*Democratic Pragmatism*', and it will be returned to throughout the analysis. It captured an overarching narrative about the role of Council in creating change. It was a supporting, processual discourse that was compatible with the explicit discourses about what

kind of future was wanted (i.e. those in Table 3). The other processual discourse, '*Romantic Colonialism*', related to politics that were often performed, rather than explicitly or consciously voiced, by the community. This discourse often resisted change and progressive governance in the Mountains. It was encountered in various overlapping ways. This includes the re-production of place meanings which carry remnants of settler-colonial place relations and thus carry with them implicit values and politics about human relationships to nature. The narrative was also performed and reproduced in everyday practices during the use of public space. The politics and narrative of a *Romantic Colonial* discourse were particularly important during the community's engagement with the Council when it came to decisions that could impact specific sites (Table 4).

This section will offer a summary of these discourses, presenting examples of how they were identified in the data and (re)produced in the Mountains. Details of the processual discourses will be addressed separately in section 4.2, as the re-production of these discourses is tied to my analysis of discursive agency within Council, and in the Community.

A more detailed discussion of each specific discourse is provided in Appendix 2, repeating and elaborating on the examples in the main text.

Discourse	Primary concerns and indicative narrative	How was it (re)produced?	Key agents
<b>Caring for Country</b>	<i>Like elsewhere, social and ecological (in)justices in the Mountains are inherently interconnected to colonisation and its legacy. When it comes to managing the landscape and pursuing sustainable socio-ecological relations, Caring for Country ought to be our guide and ambition.</i>	<ul style="list-style-type: none"> <li>• Explicit goals and strategies raised by council staff and stated in Council documents.</li> <li>• Implicitly supported by community responses to council plans and socio-ecological goals.</li> </ul>	<ul style="list-style-type: none"> <li>• Councillors, Council and staff.</li> <li>• Community participants in planning processes.</li> <li>• First Nations Australians</li> </ul>
<b>Ecological Modernisation</b>	<i>To address the major environmental challenges that face us, industrial societies can respond by adjusting what we use and produce- the Mountains can introduce planning controls and institutional commitments that make practical reductions in the footprints of the built environment, modern lifestyles and the direct impacts they carry.</i>	<ul style="list-style-type: none"> <li>• Expressed through some specific Council positions and is systemically embedded in NSW law and planning process via the materials, norms and (legislated) frameworks that influence council decisions, and rationales used to make decisions.</li> </ul>	<ul style="list-style-type: none"> <li>• Local, state, and federal government and global institutions</li> </ul>
<b>Planetary Health</b>	<i>We need to meet global sustainability targets and live within planetary boundaries– and part of this change ought to see humanity recognise and respond to the fundamental interconnectedness between ecological and human health.</i>	<ul style="list-style-type: none"> <li>• Explicit goals and strategies raised by council staff and stated in Council documents.</li> </ul>	<ul style="list-style-type: none"> <li>• Councillors, PHI steering committee, Council, and staff.</li> <li>• Community participants in planning processes.</li> </ul>
<b>Stewarding the Blue Mountains</b>	<i>The Blue Mountains is a City within a World Heritage environment and a recognised leader in sustainable living and sustainable communities. We have distinct villages and towns and a diverse, creative community. To enable sustainable futures and support a good quality of life in the community, we need to manage the pressures that come with economic activity in our villages, our exposure to bushfires, transport routes, and large numbers of visitors. We must responsibly steward our natural and cultural heritage, look after the people who live here or visit, and support thriving, liveable and productive communities that retain characteristics that make this region beautiful and unique.</i>	<ul style="list-style-type: none"> <li>• An institutionally incumbent discourse about sustainability that is encoded into documents and its institutional culture.</li> <li>• References to concepts like stewardship were explicit in council documents and interviews with staff. It was implicit in the values and principles that underly Council positions relating to Rights of Nature.</li> </ul>	<ul style="list-style-type: none"> <li>• Council and staff.</li> <li>• Community participants in planning processes.</li> </ul>
<b>Rights of Nature*</b>	<i>Liberal, Western systems of governance need to make affordances for non-humans to enact a society that upholds ecological and inter-species justice alongside human concerns. Using legal systems, we can recognise other species, places and entities, and afford them rights in how we govern.</i>	<ul style="list-style-type: none"> <li>• RON is an established concept &amp; discourse globally. It was introduced/mobilised by a Councillor, endorsed by Council, and council staff considered how to operationalise it.</li> </ul>	<ul style="list-style-type: none"> <li>• Councillors, PHI steering committee members</li> <li>• Sustainability academics and advocates concerned with ecological justice through a universal, western lens.</li> </ul>

**Table 3.** A summary of sustainability discourses observed to be influencing the work of Council. Titles have been chosen to acknowledge that some discourses were connected to discourses that have been identified elsewhere. \*Over the course of this case study, RON, entered into the Mountains context from its influence as a global discourse however it became progressively used as a supporting concept to mobilise, narrate and/or justify Stewarding and PH discourses, as will be discussed.



Discourse	Indicative storyline that was observed	How was it (re)produced	Key Agents
<b>Democratic pragmatism</b>	<i>The reality of life is that it's all compromise at local government. In Australia's democracy, sustainability means not just listening to what the community wants but supporting a constructive discussion about those wants, the future, and the different perspectives and dilemmas that we face. But our systems aren't perfect- we have to dance within its machinery in order to get the best outcome.</i>	<ul style="list-style-type: none"> <li>• Demonstrated in the practices used by Council and its staff when enacting and pursuing change.</li> <li>• The politics of this discourse were identified in discussions where council staff discussed their perspective and narrative about change.</li> </ul>	<ul style="list-style-type: none"> <li>• Council and council staff.</li> <li>• Laws, rules, and the rationale they foreground.</li> </ul>
<b>Romantic colonialism</b>	<i>The Mountains is where you can have your cake and eat it too- free from the city and its constraints, but not from its conveniences. It offers a life that's close to nature, villages rich with history, and a community that embraces the freedom to come as you are and enjoy life to the full. From its art-deco hotels to a backyard that's pure bush, it's the perfect place to pick up a creative hobby, grow a family, and make the space your own.</i>	<ul style="list-style-type: none"> <li>• An incumbent feature of narratives and meanings attached to many sites and features in the Mountains, especially where those stories were maintained (consciously or unconsciously) by individuals, groups, or institutions.</li> <li>• Reproduced via the values and politics carried by daily practices in the local community.</li> </ul>	<ul style="list-style-type: none"> <li>• Community respondents to specific proposals and sites.</li> <li>• Materials central to the 'performance' of social life in the Mountains, including heritage buildings, pets, parks, and homes.</li> </ul>

**Table 4.** A summary of processual discourses observed to be influencing the Council's work on sustainability. These appeared to be less deliberately expressed and described the politics embedded in observable practices that shaped the process and dynamics of change.

Section 4.1.1 further describes each discourse, typifying the ways in which that discourse frames the social world, and providing illustrative quotes and excerpts to demonstrate how they were raised in the data. A focus is placed on how those discourses were (re)produced and used within/by the Council, although the influence of other actors identified in Table 3 are also discussed.

Detailed evidence and discussion of each discourse is then elaborated upon in Appendix 2 for readers seeking additional information. A focused discussion of the strategic practices used to re-produce and mobilise different discourses by the Council (via *Democratic Pragmatism*) and the community (via *Romantic Colonialism*) is the focus of section 4.2.

#### **4.1.1 An overview: discourses and their (re)production**

##### ***Caring for Country***

*Caring for Country* (CfC) is an established concept in Australia that refers to the cultural relationships and responsibilities of First Nations Australians to their traditional lands and waters. In 2021, Council made explicit its Statement of Commitment to Recognition and Reconciliation, recognising the injustices from the area's colonisation that continue to influence and pattern social and ecological patterns in the area, and committing to improve the picture (BMCC 2021b; BMCC 2021c).

The Statement includes formal recognition of indigenous place relations ('honouring the past') and commitments to take action on social issues ('responding to the future') (BMCC 2021b). Recognising the concept of *Ngurra* (country) requires a recognition of the cultural and custodial relationships and responsibilities of Traditional Owners to the landscape. This provides an explicit storyline about the place politics that Council plans to mobilise and is inherently connected to topics of nature and sustainability. By making commitments to 'provide material steps to address the injustice of the past and to embrace a future together', Council seeks to integrate concepts of decolonisation and reconciliation into its pathways toward sustainable futures and its imaginaries of the places that these futures exist in. Commitments that explicitly illustrate this directionality include the following examples, amongst others, in Council policy documents:

- *We (The Council) commit to:...*

- *Promote activities that increase respect for, and acceptance of, cultural sensitive appreciation and understanding towards Traditional Owners and First Nations peoples.*
- *Continue to support the process of ‘Truth Telling’ seeking opportunities to deliver key outcomes and projects which provide an honest and complete narrative of both Aboriginal and European histories and include a comprehensive thematic and honest history of the Blue Mountains.*
- *Continue to partner with the Gundungurra Traditional Owners through the ILUA and Dharug Traditional Owners through appropriate methods to understand, protect, accept and promote their full history.*
- ..
- *Acknowledging, addressing and eliminating the inherent colonial perspectives and behaviours formed within generations of non-Aboriginal Australians in interacting with Traditional Owners and First Nations people in the City and commencing a journey towards local de-colonising attitudes, policy, processes and practice*

Source: BMCC 2021b

*Caring for Country* was referenced by many interviewees and explicitly suggested by one as the overarching vision that they’d like to see shape and lead Council’s thinking about sustainability, outlined in the quote below.

*“this is my personal vision... so I’m sort of saying Caring for Country should be the overarching and then planetary health, sustainability, rights of nature, are sort of Western ways of trying to achieve that. But the mother concept is the Caring for Country”*

Council staff (interview data)

Justifying this is a rationale that’s based on broader narratives about history, power, place, and reconciliation in Australia. While these are extensively outlined in formal documentation, quotes from Council paint the ethics, morality, and principles at play:

*“You know, the land here was stolen from indigenous people. And we do need to start inserting that back in and just saying, we did the wrong thing. We need to, probably can’t, we definitely can’t, go back to the way it was. But we can really, genuinely*

*acknowledge and put indigenous culture front and center in, in our environmental ethical thinking- Yeah. I'd be proud to live in a country that did that.*

...

*Yeah, and I sort of feel like, [shifting our relationships with nature by framing it around Caring For Country] has really positive side effects into reconciliation."*

Council staff (interview data)

Practically, CfC is thus explicitly endorsed in Council documents and commitments, enabling a special place for First Nations stakeholders to provide input on topics of land and environmental management broadly, but also in relation to specific sites- such as The Gully (Appendix 1-E), and The Katoomba Golf Course (Appendix 1-B). The Statement of Commitment to Recognition and Reconciliation (BMCC 2021b) also recognised the need to address the temporality of party-based politics in local democracy, committing that:

*"Regardless of change in Councillors through local government elections this commitment for the City of the Blue Mountains stands and will be reviewed and reaffirmed within 12 months of a newly elected Council or if requested by Gundungurra or Dharug Traditional Owners or the Blue Mountains City Council Aboriginal Advisory Council."*

Source: BMCC 2021b

Many of these dynamics reflect elements in Leipold & Winkel's (2017) typology of strategic practices, including the use of emotionalization, legitimation/de-legitimation, and normative appeal. The discourse, as outlined above, created a view of normativity based on an ethical framework about relations, rather than a rationalisation of achieving measurable biophysical outcomes in sustainability or environmental impacts. Drawing on and justifying First Nation cultural relations with the environment, it carries some implicit ideas that are similar to discourses about *Stewardship* (below) but focuses on a subset of those relations which are inherently shaped and tailored to the specific SES. Namely, CfC recognises and prioritises relations carried by Traditional Owners, given the cultural and place-based specificity that First Nations culture carries in each part of Australia. Whilst this is thus a discourse that has similarities across Australia, it is different to concepts like Stewardship, which are seen and referred to globally, across various cultures and locations.

### **Ecological Modernisation**

Ecological Modernisation (EM) is a well-researched discourse that occurs in many institutions around the world (Dryzek, 2022; Hajer 1995; Mol & Sonnerfeld, 2000). It emphasizes technological and market solutions, and the potential for an eco-capitalist approach to delivering sustainable futures. Despite usually tending toward a ‘techno-corporatist’ expression (Hajer, 1995), it has also long been seen to potentially also to include more a more critical reflexive expression that adds social and ecological awareness about how technological and market solutions might be developed and considered (Hajer, 1995; Christoff, 1996; Mol & Sonnenfeld, 2000). While it’s storyline is open to incorporate new ideas, EM has often been seen as a powerful incumbent discourse that gradually co-opts efforts which might have sought to change its core directions (Simoens et al., 2022).

In the Mountains, EM was identified through references to concepts, processes, and agendas that are carried by terms like *circular economy*, *Net Zero*, *climate risk*, *sustainable infrastructure design*, and *green buildings*, amongst others. Many of these terms feature in NSW state policy and governance frameworks, influencing how the BMCC does its work.

Interviewees often grouped concepts and policies that I describe as EM through a label of “general sustainability” or “normal sustainability stuff”. EM was not explicitly endorsed by interviewees as normative or even considered as a choice or option. Instead, it was as framed as the bare minimum - the baseline work that they do on sustainability upon which deeper, more ambitious and more meaningful changes were pursued.

As is typical of EM, the discourse also showed signs of ongoing change, with the adoption of new concepts and narratives into its orbit observed during the research period. Further, EM was a discourse that was introduced to the Mountains contexts by trends and institutional decisions at larger social scales, such as state and national policy, and through global trends and norms in urban planning and the built environment sector.

For example, *Nature Positive* emerged as a concept toward the end of the research and shows potential to become the latest example of a market-oriented (re)framing of the emerging priorities in global environmental literature to afford more attention to more-than-humans rights and interests.

Unlike the way EM has tended to engage with concepts like the *Bioeconomy* (Eversberg et al., 2023) and *Circular Economy* (Leipold et al., 2023), the *Nature Positive* narrative emerging in NSW showed signs of a more reflexive expression of EM, rather than a limited neoliberal focus on the market or a narrowly cornucopian faith in technology. Here, NSW state governments (DPE, 2023) and the Committee for Sydney (CfS, 2023) were noted to quickly connect the *Nature Positive* narrative that is emerging in everything from urban planning to investment strategies, to more Australia-specific concepts and narratives about *Country Centered Design*, *Living Natural Infrastructure*, and *Caring for Country*. Drawing these together, media and planning professionals have started to outline and normalise an approach to urban planning and architecture that prioritises place-specific landscapes and ecological conditions in the way we plan for housing and development, describing an approach that seeks to recognise and respond to Indigenous Australian relationships, histories, and power dynamics in Australian places (Bolger, 2023; CfS 2023; GANSW, 2023; DPE, 2023).

A broader discussion of EM is discussed in Appendix 2 and a full recount of new narratives and discursive changes that emerged toward the end of the research and are discussed in Appendix 5.

### ***Planetary Health***

By the end of the research period, the central discourse about sustainability emphasised by the Council was a discourse about Planetary Health (PH). It was discussed institutionally, and by some agents, as the most favoured option to house all the work being done by the Council toward sustainable futures.

Council documents (BMCC 2021e, p124-125) describe *Planetary Health* as “a discipline which links and highlights the interdependence of human health and natural systems” and position this concept as central to BMCC’s Planetary Health Initiative (PHI), which it uses to formally describe the continuation of Council’s “long-term commitments to restore social, environmental and health across the City”.

Council explains what it means by *Planetary Health* and how it is pursuing PHI in many documents, however the explanation in its online FAQs for the former Katoomba golf course (BMCC 2022a), provides a particularly useful summary:

***“ Why am I hearing about Planetary Health, and what is it? ”***

*Planetary Health links our health with the health of the natural systems which support all life.*

*Council has a long history of embedding sustainability into our operations and practices, and helping to protect the planet. Planetary health and sustainability sits at the heart of our Local Strategic Planning Statement Blue Mountains 2040 Living Sustainably. Get more information on Council’s 20+ year sustainability journey {link}.*

*In our last Community Survey in 2020, Blue Mountains’ residents told us that what matters most to them is bushfire and disaster prevention, maintaining the natural environment and appropriately managing development.*

*Given the increase in natural disasters and the critical urgency to stop climate change now – as well as protect our World Heritage Area, restore planetary health and improve health and wellbeing – Council has established the Blue Mountains Planetary Health Initiative.*

*The Blue Mountains Planetary Health Initiative is building on our long-term commitment to restore social, environmental and economic health across the City – and, in turn, generate new jobs for the future. It’s occurring alongside Council’s core business – of waste, road and infrastructure works.*

*Therefore, a key strategic direction for the former Katoomba Golf Course precinct is for this extraordinary location to have a focus on planetary health for the benefit of the City.*  
“

Source: BMCC (2022a)

The narrative in this quote shows how PH is situated as a capacious discourse that houses various aspects of its work, and why. It also reflects some strategic elements of where and how this storyline has been produced, and why that matters. In Australia, local governments need to operate within legislative processes and constraints, contained in key pieces of documentation. In NSW, for example, the state government’s State Environmental Planning Principles (SEPPs) and related laws ‘pass down’ constraints, priorities, and agendas. Local governments, meanwhile, prepare Local Environmental Plans (LEPs), Local Strategic Planning Statements (LSPS) and Community Strategic Plans (CSP) that ‘pass up’ local responses that respond to and fit within state agendas (DPE 2019a; DPE 2019b). By positioning Planetary Health in the LSPS– and asserting this position– it carves out space for the Council to pursue a Planetary Health agenda in its planning for the Mountains.

The storyline that Planetary Health established was often described in documents, and in interviews by drawing on scientific and systems-oriented descriptions and rationalisations of what sustainability means, why it matters, and what kinds of change are needed. As outlined above, this was capacious and evolving. For example, it houses indigenous wisdom by explaining it within/alongside a more global/universal account of systems, flows, energy, and molecules.

*I did a diagram of a spiral with council at its core, and each, and then coming out from that, that was red...as it swirled, different parts of the community are being drawn into the spiral. Each [spiral] is a different colour of the rainbow [showing that] ultimately, we'll all be working collaboratively together to create a rainbow of hope for the future. The notion of the spiral is this beautiful, perfect golden mean...[it represents] spiralling back into time and forward into the future. And so we're taking our strategic plan [and] we're doing deep time visioning, to go back into history, to learn from how our first owners lived in relationship with country, and then how we can all work and then kind of things got broken along the way and how we're all coming back together again now, working with them and with the whole community, to restore planetary health.*

Council staff (interview data)

The iterative re-production of a Planetary Health discourse meant that various (new) concepts in sustainability appeared to be brought in, over time, expanding the remit of what Planetary Health can relate to. On the one hand, this reflects Council's longstanding ability to 'keep up' with progressive ideas in environmental literature, and on the other, it shows an awareness of how to translate these ideas into the machinery that shapes local government's work. Various interviews noted this dynamic, as demonstrated in the excerpt below, which compares the ability of Planetary Health its power to affect change by working within existing planning systems in NSW:

*planetary health is more hardwired into existing sort of state legislation, in that it can speak to sustainability and sustainability principles, ecologically sustainable development, which are recognized state-wide principles, which you consider when you assess an activity under the Environmental Planning and Assessment Act. So ...it's a more practical, or contemporary way of looking at the world. Well rights of nature is really starting to push the boundaries even further. Yeah. And we're not...the legal frameworks or...having it discussed in legislation or law is not there yet.*

Council staff (interview data)



Across these examples, are efforts to re-reproduce a story about Planetary Health in ways that demonstrate an expert use of materials in planning processes. There are many framing and narrative techniques used in this deployment. For example, “logical appeals” and “scientification” are present in the narrative of PH, and can be seen in the use of figures like the one below, which seek to establish the validity of PH frames as the best one for sustainability, and for human health:

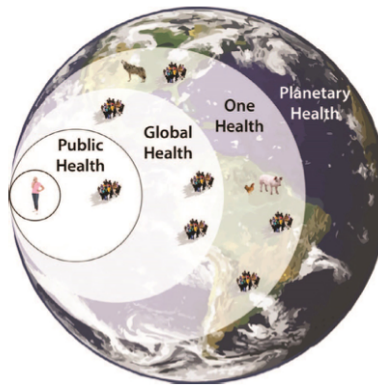


Figure 3 - Planetary health recognises the health of the planet as a system

Source: (BMCC, 2022b: p14)

The outcome of this work is useful. It legitimises a storyline about PH that can be drawn upon to legitimise a range of future actions, including the principles used to plan for specific sites. This was seen in planning for Katoomba, and at the Former Golf Course. In a 2022 planning document, for example, various dynamics described above were illustrated. First, Planetary Health was introduced by referencing Indigenous relationships and responsibilities to the land: “The central principle of ‘Caring for Country’ is that it will, in turn, care for us” (BMCC, 2022b: p14). The discussion then (with excerpt below) introduces and suite of new terms and concepts, making them part of the PH discourse:

*“The Katoomba Master Plan is underpinned by principles of Planetary Health and incorporates the following pillars:*

- *Connection to Ngurra;*
- *Water Sensitive Blue Mountains;*
- *Katoomba Green and Blue Grid;*
- *Circular Economy; and*
- *Urban Regeneration”*

Source: BMCC Katoomba Draft Masterplan (BMCC, 2022b, p14).

*Ngurra* is the Gundungurra word for 'Country', references to a "Green Blue Grid" refer to emerging concepts in NSW planning processes, and references to "Rights of Nature" and "Circular Economy", which have been described elsewhere, refer to broad concepts and discourses about sustainability that influence the Council's work in planning. Their narrative presentation, as demonstrated above, explicitly brings concepts into the PH tent.

Pursuing Planetary Health is an agenda that goes beyond the work of the Council, and the need for partnerships is explicitly discussed, for example, on its website (BMCC, 2022a). Re-producing a story about planetary health via partnerships includes informal work with community organisations and more formal tools, like the Blue Mountains Planetary Health Advisory Committee and Memoranda of Understanding with universities to help Council "explore opportunities for a leadership centre in the field of Planetary Health" (BMCC 2021e, p124-125).

Despite the momentum and endorsements that *Planetary Health* appears to be garnering, there was also recognition of the work required to ground what can sound like a grand and ambitious agenda into real and tangible actions so that it continues to resonate with the community:

*you listen to people who're like, geez, blue Mountains Council can't even fill a potholes in my street. How the hell they're gonna be looking after planetary health?*

*we need to make sure that we've got a rhetoric around the local action for planetary health. So we help the people who we know from all the research we've done, value the environment, understand that the decisions council's making about the way it replaces infrastructure as it ages and fails, even though that takes longer and is potentially more expensive, is about respecting the value of the environment. So for us, as much as anything else as an education piece to turn around and say, you know, this is one drainage solution, this is another one, we believe this one's more appropriate because the water then, you know, falls into National Park is clean and, and not going to...have an impact on the ecology of the streams ...but that's more expensive. So where we can do five of these, we can only do two of those. So that's what we're gonna do. Yeah*

Council staff (interview data)

Research by Robson et al. (2022), done in combination with Council staff, interviewed members of the local Blue Mountains community to explore citizen concerns versus local government responses and the opportunities that Planetary Health concepts and framing might offer to help facilitate change in the region. They found that via health, a PH discourse was useful in its appeal to individual experiences and motivations in ways that other policy discourses about sustainability can miss. The PH frame was also positively discussed by Robson et al. (2022) in its ability to surface and hold concerns and considerations for different scales of action, impact, and interdependencies beyond the individual. The challenge for BMCC, they found, was that while the community in the Mountains showed high concern and commitment for sustainability and action from individuals, government, and business, there was a lack of understanding of local government's role and responsibilities. These were seen in mismatches between how the community understood and rated the levers available to local government in delivering on sustainability. Robson et al. (2022, p572) reflected on this in relation to spatial planning, one of the most powerful tools available to local governments to shape the future of LGAs: "BMCC used [spatial planning] extensively to limit the urban footprint through its 'Sustainable Development Threshold'. Yet, unrestricted urban development...ranked lowest when respondents were asked what concerned them". This viewpoint in the community continued when Council control of urban footprints was raised in order to manage community exposure to the impacts and risks of bushfires. While bushfires are a key risk to local life and property, and are reflected in Council planning process (e.g. BMCC 2020, p50), Robson et al.'s (2022, p572) engagement found "no one believed that limiting urban expansion should be prioritised as a way of recovering from disasters". Similar mismatches in the aspiration for outcomes without endorsing local government's opportunity to act were seen between high hopes in the community for green spaces and affordable housing, but low concerns about the limitations facing local government, despite Council's core role in delivering those priorities, and the constraints that limit them from doing more. Some of the community responses to the PH discourse are reflective of the practices and sentiments that I attribute as mobilising a *Romantic Colonialism* discourse, described below.

The above discussion and excerpts are elaborated upon in Appendix 2c. To mobilise the Planetary Health discourse. I identified a range of strategic practices including coalition building and various narrative techniques, such as rationalisation, scientification, and agenda setting.

A key strategic practice was the iterative re-production of a storyline about PH (and PHI) in ways constantly (re)positioned *Planetary Health* to sit at the apex of the conceptual hierarchy in

sustainability, creating a relationship with a series of concepts and ideas that can be drawn upon to rationalise different actions.

### ***Rights of Nature***

Blue Mountains City Council was the first local government in Australia to adopt Rights of Nature as a guiding principle (BMCC, 2021a; BMCC 2023d). Making a formal and public commitment to integrate RON into its operations, planning and advocacy programs.

RON reflects a distinct concept in sustainability, with origins and connections to a global ethics discourse about sustainability which emphasises non-human rights and flourishing social-ecological relations as its focus (Reidy 2020; p104).

Like CfC and Stewardship discourses, RON shares an ethical assumption that humans are (or ought to) act as stewards of the natural landscape, holding duties to other species and to the land. RON stretches the politics of this green consciousness into more a radical 'deep ecology' territory, challenging current systems to account for inter-species justice by suggesting a shift in the concepts of (legal) rights. Earth Jurisprudence, in this instance, asks which constituents of the Mountains should be afforded the right to exist here and flourish, how are non-human rights reflected in the current planning system and levers of Council, and how ought they be? Council staff addressed the nature of this ambition and the tensions that it raises:

*"I see rights of nature to be like the next frontier of people redefining their relationship with the natural world, in order to become genuinely sustainable."*

*"'Rights' does imply a certain 'sacrosanctness' ... But really, the reality of life is that it's all compromise and in local government it's all about compromise and trying to find the best solution that addresses all those multiple issues that we have to think about. And so yes, there is those ethical issues of poisoning a fox, but there's also ethical issues of not poisoning the fox and letting run rampant killing all the wildlife. "rights" can sort of imply that ...yeah..."these things cannot be transgressed". And therefore, it reduces that sort of flexibility that you might need in order to make good governance decisions, perhaps. So that's why we're at this stage, I suspect, we'll only keep it at a high level, and it may always remain there."*

Council staff (interview data)

While RON was produced through a formal policy position, this was the result of meaning structures that developed outside the region, and were introduced to the organisation by elected Councillors and the work of Earth Jurisprudence advocacy organisation Australian Earth Laws Alliance (AELA) who's leadership sits on the Advisory Committee of the Planetary Health Initiative. These relationships were reflected in the public announcement about how RON would be pursued within Council:

*Council will also engage its Staff and the wider community to promote the significance of RON. It will work with the Australian Earth Laws Alliance (AELA) to create local economic, arts and social projects that support RON principles and to develop practical implementations of RON at Council and in the community.*

*The National Convenor of the Australian Earth Laws Alliance, Dr Michelle Maloney, said: "This is an exciting step forward for public policy in Australia, and the Blue Mountains City Council must be commended for its innovation.*

*"For the first time, we're seeing a government entity seriously consider how to shift from the western approach of treating nature as just a resource or object to be managed solely for human purposes, towards really seeing nature as a living community, with its own rights to exist, thrive and regenerate."*

(BMCC, 2021a)

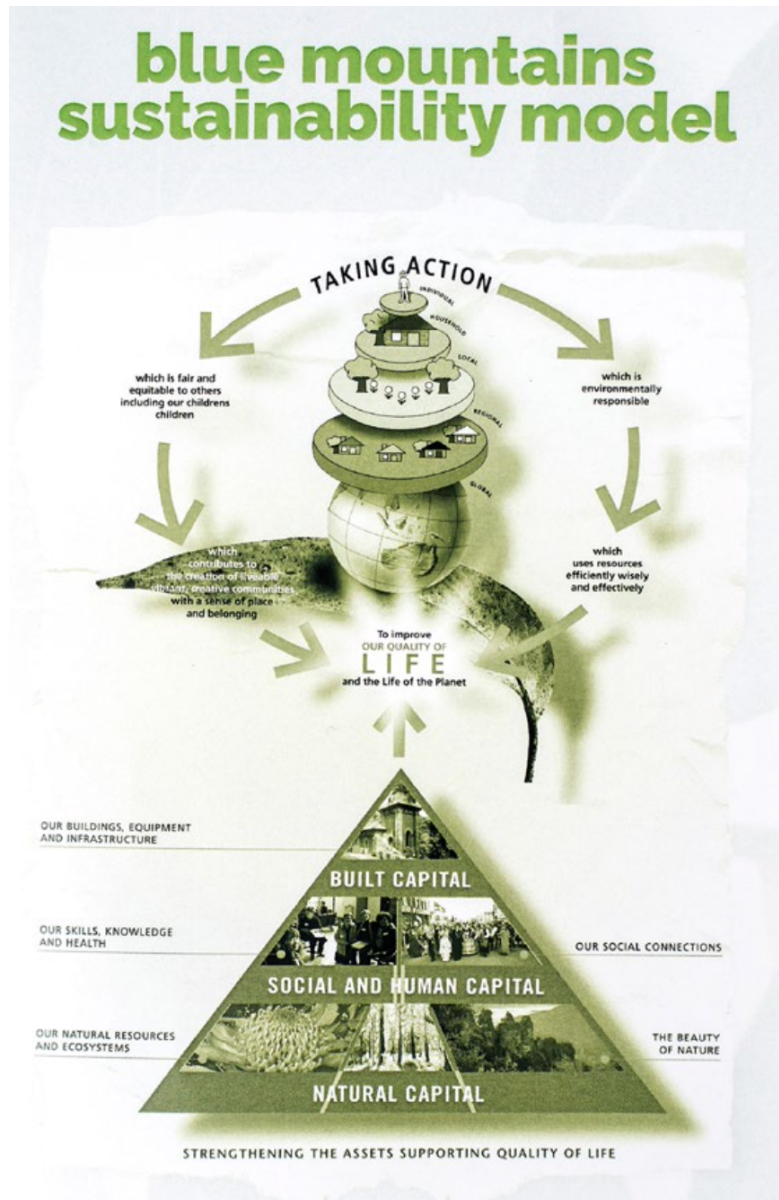
There are three main points that I observed about RON and its (re)production, that will be discussed in later sections. First RON was a valued and compelling concept due to global connotations that provide weight to Council's narrative and its ambitions for sustainability leadership. Second, RON's use in the Mountains can (and has) been somewhat redeployed from a universal discourse about (contested) ethics and rights, into a component concept or supporting narrative that empowers Council's broader interest in Planetary Health and Stewardship discourses. Third, coalitions exist around the global RON discourse and in this case, AELA continues to be an important partner that connects this global discourse to its use in the Mountains. Finally, and perhaps relatedly, there are signs that the discussion about RON and how to apply it continues to evolve- will it remain a concept that serves PHI, or as will it emerge as a specific legal concept with its own levers and implications? By seeding RON into its formal narrative about

sustainability, there are opportunities for Council—and other agents—to respond to it over time, re-issuing RON for discussion, re-surfacing its connotations, or re-mobilising it as a reference to serve a broader narrative about what ought to be done.

### ***Stewarding the Blue Mountains***

The Blue Mountains Sustainability Model (BMCC, 2004) is a heuristic that Council has long used to explain and re-produce a storyline describing the vision for a sustainable future in the Mountains, and Council's role in pursuing it (e.g. BMCC 2013; BMCC 2017; BMCC 2021d).

When considering its conceptual design, the story that it tells, and its use within the Council, it reflects that for 20 years, the Council has adopted cutting-edge positions which it then seeks to assert, build, and re-produce through actions in operations and planning functions, and in its engagement with the community.



The original Blue Mountains Sustainability Model. Source: BMCC (2004).

The Model shows how the Council has long held a holistic viewpoint on sustainability, outlining various social and ecological goals and connecting local spatial scales of concern to the “Quality of Life on Planet Earth”. It also seeks to identify and acknowledge complex interdependencies: between a good life and a healthy environment, and between different types of capital. In doing so, it goes far beyond the view that nature’s foundational service is (utilitarian) resource provision, identifying the “beauty of nature” as also fundamental to “our” local community’s “quality of life”.

Describing SBM as a discourse of “stewarding” aims to highlight for the reader that the priorities mobilised by this discourse hold many similar priorities to the way stewarding is defined in

contemporary STT literature. For example, West et al. (2018) suggest stewardship is a perspective that centers the responsibilities we hold to others (including future generations or nature) and suggests enacting stewardship calls for interwoven acts of care, knowledge and agency in ways that often reflect place-based and relational dynamics. Bennett et al. (2018) present a similar interpretation, defining local environmental stewardship as “the actions taken by individuals, groups or networks of actors, with various motivations and levels of capacity, to protect, care for or responsibly use the environment in pursuit of environmental and/or social outcomes in diverse social-ecological contexts”.<sup>2</sup>

In its framing of sustainability, the BMCC has long sought similar ends. It notes that responsible management of the environment requires affordances for non-humans but also actions that are “fair and equitable to others, including our childrens children” (sic) and which contribute to “the creation of liveable, vibrant, creative communities with a sense of place and belonging” (BMCC 2004).

20 years after its creation, the Model still presents a mature perspective on sustainability that neatly reflects common aspirations in sustainability. The storyline that the Model tells about sustainability in the Mountains and the role of Council in pursuing it has been repetitively reproduced in a wide range of Council policy documents, including formal planning tools that outline and influence how it makes decisions on sustainability (BMCC 2004; BMCC, 20113; BMCC 2017; BMCC 2021d). It has also been re-produced by socio-cultural practices that see its aspirations put into practice. This has been supported by the work of actors within Council— interviews with Council staff suggest, for example, that the key architect of the Model is now the BMCC’s Chief Executive Officer.

Overall, the SBM discourse was a dominant discourse in the Council which is now overshadowed by a focus on Planetary Health. SBM suggests that social-ecological systems are deeply connected with dilemmas, requiring the need to raise awareness of those relationships, and it moves beyond suggestions that social and environmental agendas can be isolated and pursued, reflecting a deeply rational paradigm about change and sustainability. It casts Council as a key figure that holds local responsibility for ecological health alongside a role in supporting the quality of life of the community. In this narrative, Council’s role is one centred on supporting an eco-

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<sup>2</sup> In some contexts, *stewarding* evokes religious connotations however like most literature, I present it as a secular concept (Enqvist et al., 2018).



local life that is rooted in the Mountains' native ecology and which cherishes its social and ecological heritage.

Like other discourses, it is important to appreciate that the ideas that it presents have not grown out of the social-ecological context of the Mountain in isolation from the rest of the world. In fact, it is telling that since 2004, the Mountains has shown (explicitly) an engagement with theoretical discussions about systems change through efforts to design the approaches used by the council around the ideas of Donella Meadows (see BMCC, 2004, p16-17) – who has also become an increasingly influential thinking in the field of STT and the broader remit of sustainability science (e.g. Abson et al., 2017; Leventon et al., 2021).

### ***Democratic Pragmatism***

*Democratic Pragmatism* characterises an overarching story about 'how' Council pursued sustainability ambitions and decision-making. It's a processual discourse that underlay how Council's staff, and Council as an institution, appeared to frame their role in change, and more broadly, showed a pragmatic understanding of what 'doing' local government looks like in Australia. Here, democracy was not seen or relied upon in a naïve sense, where agents might expect informed actors to voluntarily participate with goodwill and passively arrive at a consensus on what's best for society. Instead, it relied on a more realistic understanding of issues such as limited samples of community that engage with Council processes, and the role that personal and competing interests can play. This is similar to Chantal Mouffe's (1999) concept of agonistic pluralism, and their critique of deliberative democracy. Council staff voiced these sentiments indirectly, referring to their role as one of good intent, compromise, and a commitment to continuously building democratic capacity in the community:

*...the reality of life is that it's all compromise at local government. It's all about compromise and trying to find the best solution that addresses all those multiple issues that we have to think about.*

Council staff (interview data)

Two features help to outline *Democratic Pragmatism* in the Mountains. First, by focusing on the process, it surfaces what I observed as a willingness amongst Council to house discussion and reflexivity about different sustainability discourses, including their pros, cons, and efficacy within the context of democracy. Second, some features of *Democratic Pragmatism* appeared to reflect the specific context of the Mountains. Here, Council staff appeared aligned on the view that democracy was not just based on a collection of general views and opinions, but relied upon contextually informed opinions. Here, social and ecological literacy was seen as a preface to good decisions. While comparative research would be required to test if this is seen elsewhere, it reflects why the Mountains was chosen as a case study – the local government has long demonstrated embodied core features of a place-based approach to STT that has been called for in the literature (Wearne & Riedy, in press).

Due to its processual nature, *Democratic Pragmatism* was a capaciousness discourse that formed a preface to more normative and explicit discourses about sustainability, rather than competing with them. It described an overall attitude shared between Council agents toward the process, rather than ends, of how they saw their role in planning and influencing sustainable futures in the Mountains. As such it is constituted by a broad variety of strategic practices that agents used to do their job. As it was open to different applications, it demonstrated how agents often re-use, re-mobilise and re-assemble different concepts and arguments to justify general progress or progress toward specific ends (via strategic discursive practices). This is similar to what Riedy et al. (2019) describe as meaning work, and Leipold & Winkel (2017) as discursive agency. Moreover, the values, goals and processes that were employed to develop, maintain, and synthesise, different kinds of technical, contextual, and practical knowledge showed similar dynamics to normative aspirations called for in sustainability science in regards to coproduction but with council staff, not academics, undertaking that facilitatory process as a routine part of their work.

*Democratic Pragmatism* will be elaborated upon in detail when describing the specific strategic practices used by the Council to undertake discursive agency. It puts on show the practical and contextual knowledge used by agents to navigate the process of place-based change and the art of doing local governance in Australian democracy.

### ***Romantic colonialism***

When outlining the social-cultural context of the mountains, nostalgic memories and colonial landmarks were highlighted as ongoing legacies and features at specific places, influencing how many people view the Mountains as a region. The discourse I describe as *Romantic Colonialism* captures that narratives about the Mountains are not only inherited but are also being re-created by the decisions and practices of contemporary residents and visitors to the area. They communicate a story about living and visiting the mountains in ways that love nature but ignore tensions.

It is an inherently contextual discourse that, decades ago, showed signs of being not only explicit but also a popular and powerful narrative that was supported and endorsed by the Council. Evident, for example, in the narratives used to justify the eviction of residents in the Gully (Appendix 1E) and the celebration of sites like Pulpit's Hill, and Explorer's Tree (Appendix 1C). Here, explicitly colonial views of what makes the Mountains great were used to justify the rapid eviction of a largely Aboriginal community that had been present since European arrival, and the celebration of sites that marked the route of European 'explorers' despite spurious historical evidence and the tensions that this carried (NSW State Library, 2019).

In today's context, I interpreted this discourse as mostly implicit in the politics of common actions in the community. Further, I identified both social and ecological elements of its romantic viewpoints and colonial politics. A socially romantic view of colonial history and the story of white settlement was being carried out and supported, for example, in performances like visiting colonial homesteads and storefronts in the townships, taking high tea at the Hydro Majestic, and shopping at the antique stores littered throughout the areas historic villages. Ecologically romantic and colonial politics were seen where native species are being forced to deal with practices and pressures from human decisions to (re)enact cultures and practices from other places. These are most notably seen in the relationships and politics that we carry from the daily practices of keeping pets, often thought of as part of what constitutes a good quality of life in Australia and in bush communities like the Mountains. Ecologically colonial pressures were also mobilised, sometimes in combination with socio-culturally colonial dynamics, by the 'tastes' that new arrivals asserted on the planned spaces of the Mountains. Here, Council reflected that many newcomers felt they had a right to bring with them ways of living that they liked, resisting efforts to adapt to local ecological constraints, aesthetics, rules, and norms, creating a constant pressure for change.

Overall, the discourse was mobilised by strategies that I describe in the next section as (i) ignoring blind spots and contradictions- particularly when keeping pets; (ii) re-mobilising tastes and narratives from the past; and (iii) in the performance of “not in my backyard” (NIMBY) politics that resisted ecologically progressive changes to public and private space.

### **Recap: Sustainability Discourses and their politics**

This section has provided an overview of the key discourses influencing the work of the Blue Mountains City Council in governing for sustainable futures.

CfC, PH, RON, EM and SBM were rather explicit about the stories they told. These discourses held similarities to one another but they also carried different emphases about the issues that need action, assembled a different hierarchy of ideas about the future, employed different rationales for what should be done, and framed the role of Council in different ways. In these five overlapping, related but different discourses about sustainability, everyone seems to agree that we ought to love nature.

Across these discourses, the descriptions have noted that techniques like emotionalization, legitimation/de-legitimation, and normative appeal were used by agents within Council to (re)produce those discourses and make them impactful in Council or in society. Many of the strategies used, as will now be discussed, were common across the discourses.

Alongside explicit discourses about sustainability were two processual discourses. They included (i) *Romantic Colonialism* which was mobilised by practices in the Community which resisted sustainability, and (ii) *Democratic Pragmatism* which was enacted by the Council and prioritised a pragmatic approach to democracy and the process of pursuing change.

For readers seeking more detail on how specific discourses were interpreted from the data, Appendix 2 elaborates on the summaries above and includes a dedicated discussion of how the interrelations between all discourses changed over time.

Section 4.2 focuses on the strategic practices and discursive agency used in the re-production of processual discourses. In doing so, it will review how the Council and its staff performed *Democratic Pragmatism* and how members of the local community performed and re-produced a *Romantic Colonial* discourse that influenced Council’s work.

## **4.2. Strategic practices and agency in the (re)production and mobilisation of discourses by Council and Community**

### **4.2.1 Strategic practices used in/by the Council**

#### ***Democratic Pragmatism as a discourse.***

As outlined in Section 4.1, '*Democratic Pragmatism*' was identified to characterise a processual discourse in the Mountains that underlay how Council's staff, and Council as an institution, appeared to frame their role in change, given the context of a local government's position in Australia's democratic system. Due to its emphasis on process, rather than ends, the discourse is capacious and it functioned in a way that complemented -or mediated- the re-production of more specific sustainability discourses (i.e. CfC, PH, RON, SBM, and to a lesser extent, EM) depending on the context and in response to the discourse(s) that different agents aspired to.

#### ***A discourse demonstrated through strategically re-producing and mobilising multiple discourses about sustainability.***

To describe *Democratic Pragmatism* thus requires a focus on the way different ideas, narratives and agendas were re-produced and mobilised by agents within the Council. This section will identify that some strategic practices were observed as intuitional norms and others were more akin to individual skills. Like previous sections, the discussion makes references to Leipold and Winkle' (2017) review of environmental discourse analysis and a typology of what they termed as 'strategic practices'

Sections below will outline *Democratic Pragmatism* as a discourse, and enable a discussion of discursive agency. First, it will narratively describe the competencies, strategies and tactics used to re-produce different discourses and mobilise them within the context of local democracy. These (thick) descriptions of the tactics and practices are then summarised (see Table 5) and compared to categories of strategic practices that have been established in the literature, referring to Leipold and Winkle (2017) to situate the findings in the literature.

## 1. Earning trust with the community.

Various agents recognised the need to earn the trust of the community. By managing the ‘small things’ well, as outlined in the quote below, Council could ‘earn the right the play’ with bigger, more ambitious principles and objectives:

*I think the big, the big struggle, with the rights of nature, and with the planetary health stuff, is going to be exactly what [name redacted] just described: explaining to people why it's important, yeah, to them in their backyard. Because people don't necessarily, you know, I mean, I, I—you listen to people who're like, "Geez, Blue Mountains Council can't even fill a pothole in my street. How the hell they gonna be looking after planetary health?"*

Source: Interview data.

Sometimes, addressing the everyday tasks of Council were referred to as ‘hygiene issues’ and it was related to the risks and pressure that can arise when community expectations and Council constraints aren’t understood.

*So it's about understanding what matters to people day-to-day and what we call hygiene issues. You know, making sure that council overall looks competent in dealing with the day-to-day stuff so that we can then convince people that yep, they can trust us with the bigger picture issues and that we've got a right to be playing in that space.*

Source: Interview data.

To manage this, there are various skills and competencies. A key part of the equation on trust was being able to manage expectations - translating big ideas into practical realities and demonstrating the compromises that sustainable action and local governance require. This meant showing what level of services were financially feasible, delivering on those expectations, and then showing not just where progressive ideas were possible but also where positive ambitions from the community might become practically or financially unrealistic. This was raised in relation to Council’s plans for Planetary Health:

*to me, [that's] the biggest mismatch. And that's where we need to make sure that we've got a rhetoric around the local action for planetary health. So we help the people— who*

*we know from all the research we've done, value the environment– understand that the decisions council's making about the way it replaces infrastructure as it ages and fails*

*Source: Interview data.*

## **2. Organisational culture within the Council**

There was a pattern/acknowledgment of the importance of Council culture in maintaining and directing sustainability. On the one hand, agents within council collectively construct its institutional culture and define what internal leadership there looks like; 'influencing up' in the organisation helps to set the agenda. On the other hand, Council has existed for many years and has its own history, story, and institutional identity. This also shapes the dynamics of who joins, and which narratives take hold within its structure and community. An interesting point to note, of course, is that Council staff themselves are a cohort of the local community. Some of the shifts in Council may thus reflect broader shifts in society, not just those within the institution. The following excerpts surface these dynamics:

*I've lived in the mountains for, I dunno, 30 years, maybe more... if you didn't have environmental concerns and you weren't, sort of believing that [sustainability] was important, you wouldn't last [at council], you'd just leave because the culture of the organization is too strongly structured towards, you know, rights of nature, planetary health considerations, the environment, all that kind of stuff.*

*Source: Interview data.*

*[it's] almost like a, like a selection policy. I think you would be a little bit naive if you applied for a job at the Mountains without understanding that [environmental stewardship] was something that was gonna be a fairly big part of the organization. ... it's been driven for 20 years by someone who's been gradually gained seniority and is now obviously sitting as a CEO. ...It is an organizational culture now.*

*Source: Interview data.*

### 3. Strategic use of norms and principles (at an organisational level).

Interviews drew forth an underlying acceptance and commitment to democracy; this mobilised a processual discourse about how change is pursued (see broader discussion of Democratic Pragmatism as a discourse identified in the data). Such sentiments were carried by a suite of strategic practices that drew on the art of compromise and the application of learned wisdom/practical knowledge about how Council staff fulfil their roles. Here, the input of agents into governance is more than a naïve hands-off faith in statutory processes.

*...the reality of life is that it's all compromise at local government. It's all about compromise and trying to find the best solution that addresses all those multiple issues that we have to think about.*

*Source: Interview data.*

A specific example of this practical know-how was described as Council leading social change by using a series of positioning statements that develop momentum and rationale, anticipating that the community might later raise conflict when site-specific actions take effect. In a sense, this was a pattern at an institutional scale, which saw Council practice the creation of norms to create directionality on sustainability issues, in anticipation of NIMBYism. This was supported by individual and collective actions throughout this Appendix. Excerpts from interviews, like the one below, demonstrate the logic and sentiments amongst Council staff:

*It is leadership by people with vision that's happening. But no one's objecting to it because it's difficult to object to, on some levels, until their personal interests are at stake. And at this stage, that's not the case. So therefore, there's no conflict. That's what I mean, people will accept ideas, as long as there's no cost.*

*Source: Interview data.*

I interpreted many examples of the community enacting the dynamics that this excerpt implies; a community that will support and prioritise long-term public good in principle and then makes things difficult when they're the ones that are impacted by its pursuit. This includes examples from public engagement about the best use of the former Katoomba Golf Course, and reflections within interviews about communicating financial constraints the Council faces that require



compromise and cuts to the maintenance of high numbers of libraries, pools, etc., that service very small populations. See, for example, the observations at specific sites (Appendix 1) and descriptions of work by individual actors during engagement processes (4d, below, and Table 5).

There are various links between the strategic practice of developing and maintaining institutional norms and the skills of individual agents used to fulfil their roles and ‘dance with the system’ (discussed below).

#### **4. Dancing with the system.**

This is a broad group of practices, often employed at the individual level in service of the broader strategies above. In a sense, they relate to the pragmatic need for people in governance roles to manage for the long-term public good via (or perhaps despite) democratic processes and principles, drawing on their individual skills and practical expertise to do so.

The context for this pragmatic work within democracy becomes richer when the politics of democracy are surfaced and the fluidity of what constitutes Council is understood. The 2019 elections were raised in various interviews:

*“there was a survey done of the counsellors by the Conservation Society, and 1/3 of them remained silent on [the survey question] “do you want to keep [the former Katoomba Golf Course] public land?” ... [there was a feeling that new councillors might] sell it and do community housing or something, some big Hotel Conference Center”*

*Source: Interview data.*

*“There could be a big shift in this council election, that there's quite a lot of anxiety at the moment around that. And everything could change, but my program will happen no matter what.”*

*Source: Interview data.*

*“so for example, going into a council election, potentially, the councillors could change, and they will sell the golf course.”*

*Source: Interview data.*

Systemically, this points to the truism that there are Windows of Opportunity for policy change, and for those changes to be realised, effort is required. This includes the need for agents to mobilise different discourses within institutions, and within democracy. Many of these factors rely on institutionalised rules and processes- knowing those rules and processes also means that experts have some agency and judgement in how they engage with them and use planning functions wisely, rather than blindly. Examples that I identified in the data are outlined below as a group of interrelated practices framed as ‘dancing with the system’ referencing Donella Meadows’ (2001) essay about the pragmatic skills drawn upon when pursuing change in complex systems<sup>3</sup>.

**(i) ‘meaning work’ with discourse and documentation.**

In another study of local government in Australia and the pragmatic role of agents in democracy, Riedy et al. (2019) talk about the strategic mobilisation of one discourse in order to empower another, enabling agents to work within institutional settings to realise a specific (or fluidly defined) vision for the future.

In this study, I suggest that the concept of ‘discursive agency’ might also be considered in a more granular way. In the Mountains, different agents choose and use certain words, narratives and materials to spread some ideas in favour of others. And even more specifically, key documents within the planning system became a channel for agents to seed and empower certain ideas and discourses within the system. In this sense, planners and agents might be understood to anticipate future contestations about a place, its prospects, and its governance, and in response, create narrative building blocks for future planners, developers, politicians, and community members to draw upon when engaging in those contestations.

Navigating these dynamics requires knowledge of the documentation that mobilises different discourses, and injecting different concepts, frames, rationales and narratives into those documents in order to help exercise agency with the planning system. Overall, it is a strategic response and acknowledgement of the role that power, rules and institutions play in the (uneven) pressures that reproduce certain discourses about sustainability, and means some types of action are more difficult to pursue than others. There is much similarity in this dynamic with the heuristic provided by Simeons et al (2019) relating discourses to institutional power, and the

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<sup>3</sup> Similar sentiments are also raised by Liepold & Winkel (2016); Westley et al 2013; and Shiller (2017) which all link narrative change to policy and comment on the skills, timing, and context required to execute one’s agency in the dynamics of complex systems.

'traps' of discursive co-optation that can novel ideas can change in their meaning and politics—and others have described examples of this occurring to terms like the bioeconomy or circular economy.

The excerpt below reflects how Council-wide and site-specific issues in the Mountains were influenced by factors of state legislation as well as council documentation and the community engagement that inform it. It also shines a light on the facilitatory role council staff see themselves fulfilling by managing deliberation so that place-based planning is constructive, and lands on the long-term common good.

*we have to juggle, I suppose, legislative direction in this area. ... the municipal planning just released a whole set of his own planning principles in which "place" is high up there. And there's been work over the last year or so in developing a State Environmental Planning Policy, speaking directly to that, building upon previous work as well.*

*But for my own views, it has to do with recognizing the role that a place has within the community and within the space that's happening. I mean, there's process to go through for analysis and working [it] out, and community consultation, but in the end, places are about how people interact with their environment. So, and it's about making it work as well as it can, in a way that delivers the broadest range of benefits to the widest range of stakeholders. So...that's a bit but an entry point for me.*

*Source: Interview data.*

The use of this strategy became more explicit when specific concepts that matter in the Mountains—like RON & PHI—were raised. Here, efforts were made to re-produce these discourses via explicit references within the documentation statutory processes of planning, enabling their future mobilisation. The excerpt below shows that attempts to expand the space for Council's agency within the confines of state laws are often taken up, but are not always successful:

*one key challenge for us is trying to maintain those local planning controls with the state government that's standardizing things across the state, right? And so often we try and, you know, articulate very clearly in planning documents why the Blue Mountains is different and why things need to be done differently here, but often it's overridden by a state standard approach. Right? So yeah, that's I guess an additional thing there*

*Source: Interview data.*

Different narrative strategies appeared favoured by different agents, pursuing different discourses. This reflected their reading of the context, and the response, and can be seen in the extended descriptions of the discourses and the strategic practices used to re-produce and mobilise them in the Councils work (Appendices 2a-2e). General strategies like the use of storylines, agenda setting, and normative appeals were present in efforts to justify all of the discourses present, however, some strategies also appeared either more or less suited to specific discourses. General patterns included:

- The use of scientification and rationalisation to mobilise Planetary Health and Blue Mountains Stewardship.
- The use of emotionalization, normative power and counter-storylines to mobilise Caring for Country, and Rights of Nature.
- The use of Agenda Setting and Exclusion, not as a deliberate goal, but rather as an outcome of an incumbent Ecological Modernist discourse embedded and (re)produced by systems that Council operates within—including policy discourse and momentum about green building in urban planning, and the overarching capitalist influences that comprise the dominant mainstream narrative about life in Australia’s cities and economy.

A formal context for this activity is, in part, constrained by a formal hierarchy of planning processes and documentation that shapes local government’s work in New South Wales. However, it is noteworthy that these macro-settings can change. As indicated in an aforementioned quote, without a state election, NSW Ministers were changed during the course of the research, and there was a (brief) introduction- and then repeal- of changes to state planning policy that posed deep influences in the way that place was framed and narrated in the NSW state planning system. While these changes didn’t eventuate, it points to a dynamic context that creates consequences and opportunities for Councils, and individual planners. This is further discussed in Appendix 2 and Section 5.

### **(ii) Internal influence and strategies**

Working in Council means working in an organisation. The ethics and normative motivations of individuals are, like anywhere, important factors that flavour and shape discussions. More interestingly, different individuals shared their own practical wisdom and strategies about how they best effect change. Below are two examples, one seeking to encourage reflexivity and leadership and the other looking to work with internal champions:

*And we're also looking at concepts of not locking it into business plans for each department, because it's too hard. But speaking to—I've already spoken to all the strategic leaders, to all the senior leadership team, about when they make decisions, to think about the implications of their decisions 500 years into the future, not just for years, what would your choice be, you know, what would be the implications of your choice on the generations to come on all living spaces, human and non-human living spaces?*

*Source: Interview data.*

*I'll engage in key areas, but I'll prioritize and work with those willing to be worked with and you know, there's enough areas of council where there's a lot of improvement to happen that are willing to work that I can keep doing that for a long time to come.*

*Source: Interview data.*

Narrative strategies were also used internally in council, to mobilise specific discourses, which are discussed above and in Appendices 2a-2e.

### **(iii) Coalition Building—especially with education**

Various examples of coalition building are evident in the above discussions however coalition building was especially apparent as a strategic practice in relation to education. Council's role in place-based education had many forms- from direct programs with the public to working with school children and teachers on curriculum-based work (BMCC 2023a, BMCC 2018) and the provision of public information boards and placards at major tourism sites (see appendices 1a-e).

*“from our local planetary health initiative, which is a city-wide initiative for the whole of the Blue Mountains, we have Research for Planetary Health to guide our way forward. So we're working with universities and the World Heritage Institute to set up citizens science programs”*

*Source: Interview data.*

*Our goal is to inspire the next generation – by connecting them to our special Blue Mountains environment and fostering their natural love of nature. In a learning experience unique to our City within a World Heritage Area, we offer young people the opportunity*

*to explore their local water catchment, learn why it's special and take action to protect it.*

*(BMCC, 2023a)*

Education about a place is inherently political as the stories we tell can shape popular understanding of a locale, a community, and the natural environment. Coalition building on education in this case study was salient and powerful because there are site-specific examples –such as the Pulpit Hill and Explorer’s Tree—where education about those places helped create anchors that supported popular consensus in the community, over time, about what the Mountains stand for. The significance of the education emphasised at different sites is amplified by the cultural importance placed on them and the scale of tourism in the region.

In discourse theory, this dynamic reflects how some ways of seeing the Mountains will be institutionalised and normalised while others are not (Hajer 1995; Simoens et al., 2022). From the lens of place studies, it reflects how education helps to shape the meanings and identities that most people attribute to a site- and in doing so, shaping which features, species, practices and identities we are emotionally attached to and invested in for the future.

#### **(iv) Framing the context and process of engagement**

Agency was seen in the use of new formats and technologies, at specific times, to support community engagement in Council’s planning processes. Three aspects relating to the way that engagement processes were framed and designed both in terms of logistics and semantics are outlined below. They relate to competencies in council and community to have constructive discussions, the format and materials used to facilitate the process, and the broader timing and social context in which the engagement was taking place.

Having quality conversations during community engagement requires competencies on both sides.

Conversational competency was important in getting the most out of community engagement. This is a skill, as relayed in anecdotal examples. Sometimes, it was presented as the ability to make the case for big-picture change:

*it's explaining that [big picture] stuff in a way that's [also responsive to] you know, someone [who says], "but I just want you to build my footpath" and "you haven't allocated enough money for, you know, mowing the lawns".*

Source: Interview data.

It was also drew on the need to communicate day-to-day pressures and decisions:

*everyone's like, "well why aren't the sports fields open and why haven't you mowed them?" And they don't realize that ...six months of rain means that you put a tractor on it, you rip it to shreds; you just can't do it. And the complaints are coming through...that's the kind of stuff that's difficult.*

Source: Interview data.

The key concern, however, was providing sufficient organisational and financial context, in a compelling enough way, so that the community understood the compromises required by local government (as outlined in Section 3). A key barrier that influenced the quality of those conversations was the limited time and attention that people can offer to the engagement process, elaborated upon below:

*considering, you know, we spend months, years looking at business cases and crunching numbers and whatnot, and then you're trying to take that to your community in, in a short period of time, because that's reality. People have jobs and lives, they don't have every evening to, you know, come to council consultations. But it's really, that's, that's the key competency. Having a clear and transparent case that you can present that, that people can engage with.*

Source: Interview data.

Thematically, the above excerpts highlighted these dynamics between Council and the community in relation to financial planning and budgeting. Another interviewee raised it in relation to environmental planning and site-specific decisions. These themes were also drawn together and discussed as a question of competencies in the community:

*you can't look at issues in isolation with the community. You've gotta promote that whole picture understanding. Otherwise they'll just see that you are closing the pool*

*that's closest to them or that you are, you know, not putting a dog park where they want a dog park.*

*the real difficulty of community engagement is trying to distil very complex information about a lot of things in financial and environmental and social and spatial considerations in down into, like a two hour consultation ... it's easy enough to distil things in a way that people understand, like it's money, it's practical things, it's place and space, but it's really hard to do that in a constrained timeframe.*

Source: Interview data.

These excerpts surface a few patterns I identified in multiple points of data. First, they reflect that Council is thematically challenged by the need for city-wide conversations about budgets and reductions in services. Second, they point to the discursive skill required by Council staff in order to facilitate the engagement processes and the pragmatic challenges that it can bring. Third, stories like those above exemplify a pattern reiterated by Council staff about the way communities engage with planning—namely, a resistance to any change that might negatively affect them personally. These tendencies, often akin to a “not in my backyard” (NIMBY) mindset, presented a barrier to Council pursuing sustainability and present a ‘friction’ point in deliberative democracy. The consequence and dynamic of the NIMBY mindsets was summed up in the line: “...no one cares about something that’s not threatening them”, a sentiment reiterated in various interviews.

#### Formats and materials influence who in the community is engaged.

Some ways that Council was innovating in its engagement processes to overcome the barriers raised above were in relation to the formats it uses to facilitate community input. The use of micro-engagements on the street, digital formats and more traditional methods, like a stakeholder reference group, appeared to help broaden the cohort of people participants beyond the likely suspects of passionate advocates and those with NIMBY motivations.

*something that worked really well for the Katoomba master plan engagement...was a very simple platform and people could access it on their phone or iPad ... we asked a couple of very simple questions about what they like about Katoomba now, what needs to be fixed and what their big ideas are. And so it gave us a very clear sense of the importance of keeping, keeping some things and that everything isn't up for change or*



*shouldn't be...part of the reason why people like a place is because of some of its eclectic nature or because of things that other people might perceive to be old and run down, but the people in Katoomba wanted it to stay, you know, that kind of thing. And then [asking] "what needed to be fixed" gave us a clear kind of, sense of problem areas, and then [asking for] "big ideas" were, you know, gave people that chance to be a bit more visionary or kind of blue sky thinking about it.*

Source: Interview data.

Another practical lesson has been the use of representative groups that come with expectations and norms about the behaviours and rationale used by participants in their decisions.

*the other thing that's worked very well is establishing a stakeholder reference group that is intended to be representative of the community, but not just present their own personal views.*

Source: Interview data.

Not all of these programs were straightforward, for example, social media was not found to be a productive or useful forum:

*We found [social media]...wasn't actually about engagement, it was just about outrage. And so it's very difficult to say what they were upset about or what their thoughts were. They just wanted to go, you know, thumb down, thumb down, thumb down, thumb down. It isn't an effective way to gather feedback. And so we had a whole heap of other engagement activities that delivered a different response.*

*...there's a bit of maturity that needs to come both from, you know, planners and the profession around all the different ways you can engage with social media and not necessarily using social media as the only way to engage and the only way to measure happiness or unhappiness. [you need to] contextualize what you are hearing through one medium against all the other ways you've engaged.*

Source: Interview data.

Similarly, a reference group can be valuable, they suggest, when designed in deliberate ways. Council also noted that in the process of developing their various reports and processes,

different cohorts of the community were engaged, providing them, over time, with a representative understanding of the community.

*It can be difficult to capture some of those things in a meaningful way that [amounts to a] demographic analysis...But all of it together builds a story. So that's usually how I...start thinking about our engagement.*

Source: Interview data.

There are two implications to these dynamics. First new technologies were useful, as were traditional ones, but they required expertise to apply. Second, there is an understanding of the community that goes beyond analytic and rationalistic data- council staff themselves develop experience and empathy through the course of their work and broad engagements with the community.

Timing and context can influence the considerations of respondents.

A second way that engagement was influenced in a way that can respond to Council agency related to the timing of engagement. Undertaking engagement during times when the implications of different long-term issues were salient and front-of-mind was suggested as a positive influence that might help counteract community tendencies to avoid conversations about reducing service levels and/or changing the status quo:

*I think the recent impact of, you know, the rains, the fires, all that kind of stuff is actually giving us local stuff that we can point to and say, "This is why we need to do this better...when we do it the way you want us to do it, this is what happens- it doesn't last, it gets flooded, and it melts"*

Source: Interview data.

*we're very conscious of fire in a way that other areas wouldn't be. Both as something to prepare for and something to survive... The 1957 fire event...it feels like such a long time ago, but it still has flow on effects...there's some sites that have never been redeveloped, some that came back immediately and there are people [living with the] memory*

Source: Interview data.

This is supported by research elsewhere in Australia that pointed to “windows of opportunity” for policy change that follow experiences of extreme weather (e.g. Jones et al., 2017; Geoghegan et al., 2019).

**(v) Enabling community agency.**

Some agents raised an explicit goal and strategy of trying to unlock community agency to support transformative change toward sustainable futures. One approach related to identifying and working with community leaders and the logic for this approach was explained based on a coherent theory of change that notes the benefits gained when we trust the harbinger of ideas about sustainability:

*I wanna work with the community and be more of an enabler for community action rather than leading and driving emissions reduction.*

Source: Interview data.

*every social study we've done says that people are most likely to change an act if they're being told something by a friend. So you get like, you get a big impact from a smaller number of people rather than a small impact from [a] big number of people.*

Source: Interview data.

*something that we've looked at [is] to see if we can set up a network of “champions” where people speak to people they know and get the information from them -rather than the Gazette or Facebook or council- where they, they don't necessarily trust those sources as much as they do the person, their next door neighbour or their, you know, brother or whatever....which is always interesting 'cos you know, they're probably less likely to have the correct information, but they're more trusted.*

Source: Interview data.

A different nuance was added when discussing how some community activists engaged with Council in ways that weren't productive:

*you've got two types [of community groups] in my experience, they're all very passionate, but some of them are passionate and willing to act and do things, whereas others*

*are passionate and believe that Council should do everything that they see as a good idea.*

Source: Interview data.

Further examples of Council activities to enable community agency are seen in the way Council creates coordinating and facilitatory infrastructure to support existing community volunteer groups— which it has been doing for more than thirty years (BMCC 2023b). Now, there is a network of 500 volunteers and 600 students targeted to support ecological stewardship and restorative action in bush areas (Bushcare), swamp areas (Swampcare), rivers (Streamwatch), on popular cycling and climbing routes in Council bushland reserves (Trackcare) and within residents' backyards (Bush Backyards) (BMCC 2023c).

Community engagement with educational dynamics were also present in the planning process and creation of formal plans. Here, momentum with stakeholder representative groups led to a broader civic education program. And while the outcomes might provide some feedback into planning processes, they also helped build community competencies to understand the work of local government, and local democracy more broadly:

*[we had a] stakeholder reference group, but we structured it pretty strongly to try and engage with youth representatives. And then we had a, a teacher from a high school, we had two of their year 11 geography students come along and engaged in the process. And then that ended up leading into another piece of engagement with the whole of their year nine class coming and turning into a, taking one element of what we were doing, turning that into their whole term project.*

Source: Interview data.

This latter approach reflects the axiology of a pathways approach to sustainability transitions and transformations, and the importance of co-producing the knowledge, policy, and decisions to navigate that change (Abson et al. 2017; Leventon et al. 2021). More broadly, it reflects the underlying narrative of the *Democratic Pragmatism* discourse that's been described throughout this section— that Council's pursuit of sustainability depends on a practical knowledge of government and planning processes alongside the broader goals of sustainability and democracy.

**Summary and re-cap of strategic practices used by Council**

Table 5, below, summarises the competencies, strategies and tactics that have been described. As has been indicated, these practices were used by Council and its staff to empower various sustainability discourses. In doing so, they collectively comprise the substance of what was previously introduced as a processual discourse of *Democratic Pragmatism* which described how the Council went about its work.

In observing these approaches, various interconnections can be seen between what was observed in the case study and practices and precedents in STT literature (the second column). The connections between what was observed in the case-study and concepts in the literature will be further discussed in Table 6, and the section below.

Strategy	Types of strategic practices employed	Description (who uses it, to what ends)
<b>1. Earning trust with the community.</b>	<ul style="list-style-type: none"> <li>• Governance strategies</li> <li>• Narrative strategies</li> <li>• Other (see description)</li> </ul>	<p>To earn trust within the community, interviewees described Council as needing to demonstrate a track-record, via actions and a storyline; showing it ‘walks the talk’ and justifying its ‘right to play’ on ambitious sustainability topics like concepts of Planetary Health and Rights of Nature. To maintain this trust, it also needed to manage expectations so that it can deliver on its promises.</p> <p>This required a mix of practical actions, good communication, and supporting strategies that helped raise awareness of pragmatic realities, like financial constraints, that face the Council and limits its ambitions.</p>
<b>2. Organisational culture within the Council.</b>	<ul style="list-style-type: none"> <li>• Governance strategies</li> <li>• Organisational strategies</li> <li>• Agenda setting</li> <li>• Other (see description)</li> </ul>	<p>The culmination of contestations between different discourses about sustainability within Council, over time, (re)produces an institutional position. This was apparent in formal statements and created a structural influence through mechanisms like agenda setting, and by holding/establishing a core identity (and storyline) that rationalised who the ‘Council’ is, what it does, and what it stands for. The formal process of elections is an important influence, wherein the elected Councillors influence the organisation’s management and agenda. However, interviewees noted that there is also an organisational dynamic that outlives the 3-year electoral cycle: who works at council, who wants to work there, and who gets hired and promoted influences which norms and values are seen. Establishing an organisational culture involved a variety of techniques and tactics, used deliberately and tangentially. It meant some sustainability discourses become embedded in the (informal) norms and (formal) agenda of the Council, while other discourses do not. As well as changes that were supported by individuals within Council, there are also influences like state laws, for example, that can influence the institutional norms and culture within the Council.</p>
<b>3. Strategic use of norms and principles at an organisational level.</b>	<ul style="list-style-type: none"> <li>• Governance strategies</li> <li>• Narrative strategies</li> </ul>	<p>In the BMCC, there was a sense of disciplinary expertise, across respondents, about how to ‘do’ the hard work of local governance. This included, for example, tackling entrenched council-community dynamics like anticipating NIMBYism when it comes to progressive action. Governance strategies were present on many levels when came to how plans were communicated and documented, and what those acts of documentation mean. For example, there are differences between one council to the next as to how formal documents (like the CSP) are produced, despite operating in the same overarching state framework. As an organisation, the Council used various discursive techniques like leveraging historic events/storylines for moral reasoning and justification that become part of a formal documented process of policy making that shapes the direction of change, and the scope of sustainability.</p>
<b>4. Dancing with the system</b>	<ul style="list-style-type: none"> <li>• Governance strategies</li> <li>• Organisational strategies</li> <li>• Other (see description)</li> </ul>	<p>There are similarities between this group of practices and the strategy described above (point 3) as both point to patterns of agency in relation to the planning system- by individuals or at the institutional level. For example, the Council as an organisation (strategically) employs organisational and legislative processes/laws/rules in ways that consider windows of risk and opportunities for different futures. This draws on subjective, practical wisdom about how to apply planning processes (a context that creates opportunities and limits for discursive agency).</p> <p>In general, there was a supporting, fluid and overlapping body of techniques and tactics (including discursive strategies, coalition building, and others), that comprise this group, with specific examples extracted below (4a-4e).</p>
<b>4a. ‘meaning work’: using discursive (or narrative) agency</b>	<ul style="list-style-type: none"> <li>• Coalition building</li> <li>• Narrative strategies of various types</li> </ul>	<p>Coalition building was present on multiple levels; between individuals or departments in Council, and with organisations outside of Council (across time and space). For example, coalition building was drawn on to expand and shape the options available to Council to manage pets, influence education, and to shift or expand place-meanings in public places, etc. Some of this activity (re)shaped the constraints (and possibilities) for discursive agents within the Council, creating feedback into what Leipold &amp; Winkel (2017, p18)</p>

to gain buy-in from others.		described as ‘positional characteristics’. Different narrative strategies appeared favoured by different agents, pursuing different discourses. This reflects their reading of the context, and their skills to respond. For example, the strategic use of storylines, agenda setting, and normative appeals (etc) were present in efforts to justify all of discourses present, however some strategies appeared more, or less, effective for specific (or multiple) discourses. These considerations were also fluid, contextual and pragmatic. For example, different agents found it more or less useful, at different times and contexts, to describe a policy as being associated with concepts and narratives that were associated with PH, Cfc, EM, or BMS when trying to get internal and community stakeholders on board, even if that discourse wasn’t their personal/main goal. Examples are shown in the mobilisation of each discourses, discussed in Appendices 2a-e.
4b Broad strategies to achieve internal influence	<ul style="list-style-type: none"> <li>• Narrative strategies</li> <li>• Coalition building</li> </ul>	Strategic efforts to influence others within Council were similar to the strategy of building a council culture, but more specific to the act of individual agents who carry their own agendas and influences. These included non-narrative strategies (like who to talk to, when, and in which organisational contexts) that complemented ‘meaning work’ internally.
4c. Coalition building, especially with education	<ul style="list-style-type: none"> <li>• Coalition building</li> <li>• Narrative strategies</li> </ul>	Focusing on education as a lever was a longer-term strategy for change that shows deep knowledge of socio-cultural change and dynamics in society, but it was applied in intuitive ways. Working with schools etc. was an example of coalition building to enhance democratic capabilities, and constructive discussions about place and sustainability. It also created reflexive opportunities for new residents to learn and respond to local history, including the role that council plays and ought to in general, or at specific sites. Within educational programs, and in public education at specific sites, narrative strategies and site designs influenced power dynamics via their formal contribution to social construction of ‘place’ (asserting official place histories and meanings, designing peoples’ experiences, etc).
4d. Framing the context and process of engagement	<ul style="list-style-type: none"> <li>• Narrative strategies in engagement</li> <li>• Timing and context of engagement</li> </ul>	Agency was seen in the use of new formats and technologies to support community engagement into Council’s planning processes. These tools were used at specific times, for example QR codes and micro-interviews were used on the streets. The use of these tools helped to mobilise a broad variety of voices from the community and support deliberative engagement in Council’s plans. As such, being aware of the context, format and timing of engagement provides agency to Council and its staff to shape how people engage with planning processes- influencing by whom, how, and to what ends engagement might shape decisions. My data suggests this was used as a pragmatic means to get the most out of community input, rather than to deliberately manipulate the process—however it is feasible that the same levers for agency could be used to various ends.
4e. Unlocking community agency	<ul style="list-style-type: none"> <li>• Coalition building</li> </ul>	Some agents raised an explicit goal and strategy of trying to unlock community agency to support transformative change toward sustainable futures. This supported and enacted a re-invigoration of democratic participation and was a tendency favoured by some agents (in some contexts) more than others. It was a strategy that reflected democratic pragmatist priorities about how to do change, and that this process is the goal (the ends are in the means).

**Table 5.** Summary of Strategies and Strategic Practices used by and within Council to mobilise sustainability discourses.

***Typifying agency and strategic practices***

Based on their review of empirical studies into environmental discourse, Leipold and Winkel (2017) provided a typology of strategic practices that agents have been known to draw upon to mobilise and enact environmental discourses. In doing so, they developed the Discursive Agency Approach, and a heuristic to conceptualise how discursive agents interact with institutions and broader their socio-political settings. When considering patterns in the data, outlined in Table 3, I found it most useful and illustrative to describe the activities and practices used by the Council as an institution, and by individual agents within it in more specific terms that reflect the context of their use. However I also noted that many of these descriptors overlap with broad categories of strategic practice outlined by other research.

These overlaps, signalled in the second column of Table 5, are further discussed in Table 6, which maps patterns in the data with Leipold & Winkel's typology of strategic practices. A brief account of the typology in Leipold & Winkel's review is that:

- *Coalition Building* refers the leverage of shared storylines and agendas (after Hajer 1995) between partners – individuals or institutional- in order to mobilise ones' agenda.
- *Narrative strategies* encompass a broad variety in the ways that words, symbols are used to influence change. Leipold & Winkel labelled these as 'discursive strategies' however I have referred to them as 'narrative strategies' for clarity and specificity so as to differentiate them from the broader discourses which they mobilise. They include a range of different practices including tactics such as *rationalisation*, *scientification*, *emotionalisation*, *polarisation*, *(de)legitimation* strategies.
- *Governance strategies* relate to the (re)structuring of policy-making processes and governance arrangements within institutions.
- *Organisational strategies* are similar to governance strategies, but on a larger scale; they include shifting the structure of governance systems themselves, such as national and state rules about where power lies and how (formal) decisions are allocated in those systems.

**Box 3.** A (brief) summary of Leipold and Winkel's (2017) Typology of Strategic Practices that were used to interpret findings about discursive agency.



How discourses were re-produced and empowered within/by Council	Types of strategies employed			
	Coalition building	Narrative* strategies	Governance strategies	Organisational strategies
<b>Institutionalised patterns</b>				
1. Earning trust in the community				
2. Developing cultural norms within Council				
3. Strategic use of documentation				
<b>Acts of discursive agency by individuals</b>				
4. 'Dancing with the system'				
(4a) 'meaning work' with discourse				
(4b) Influencing internal stakeholders.				
(4c) Coalition building				
(4d) Designing engagement practices				
(4e) Enabling community agency				

**Table 6.** Strategic practices used by Council and Council staff to mobilise and engage with sustainability discourse. Colours indicate relationship of practices observed in context compared to Leipold & Winkel's (2017) typology of strategic practices. Dark shading indicates highly-related, medium indicates somewhat related, and white: indicates largely unrelated. \*Narrative strategies are synonymous with Leipold & Winkel's 'discursive strategies'.

Table 6 reviews the practices observed (and narratively described) in my analysis to categories of strategic practice outlined by Leipold and Winkel (2017: 17) (Box 3).

The first three strategic practices in the first column of Table 6 were noted to be largely mobilized/expressed at an institutional scale. They describe how Council agents saw that to enable progress on sustainability, it was important to (i) earn and maintain trust with the community, (ii) maintain a clear cultural narrative about sustainability within Council, and (iii) make pragmatic use of documentation by planners, and Council, to establish space for certain types of sustainability within Australia's planning systems, laws, and rules. To do this, all three of these practices relied on the careful use of concepts, words and appeals (narrative strategies). In regards to trust (point 1), there was an explicit focus on the importance of how Council, as an

institution, needs to 'earn the right' to play on sustainability by being clear in its communication and then demonstrating those commitments through actions. The second point recounts that mobilising sustainability agendas (whichever agenda that might be) involved more than individual, once-off efforts. Instead, the reproduction of discourses relied on relations between individuals within Council, and with outside actors, in order to garner momentum over time. Given Council's progressive history on sustainability, this has been occurring for many years, creating an incumbent culture and narrative history about what sustainability means to the Council. Agents drew upon and engaged with this history of institutionalized concepts, values, and norms about sustainability to mobilise new ideas, or reiterate existing ones. Finally, and perhaps most poignantly, Council was adept at the strategic inclusion of concepts and ideas within documentation (point 3) which enabled some agendas to be codified into planning decisions. These activities have close similarities with what Leipold & Winkel (2017) describe as governance strategies (Box 3) in that they created to pursue specific actions and agendas within the NSW state planning system. They also, at times, started to push the broader governance arrangements that constrain what Council can do in the future (an 'organisational strategy', Box 3), structurally shifting Council's power in relation to other actors. This was seen, for example, the inclusion of cutting-edge ideas, like Rights of Nature and Planetary Health in statutory planning processes which, over time, determined the principles and grounds on which local planning decisions can be made. By consistently building its narrative about sustainability, the BMCC is leading norms in local governments and their role vis-à-vis other powers in society.

A second group of strategic practices were identified as 'acts of discursive agency' (listed under point 4). These were largely mobilized/expressed via individual agents and they were used for various ends, including empowering new discourses, re-enforcing existing discourses, and positioning different agendas within policy and political systems that Council interacts with. They complement and contribute to the broader, institutional patterns that were previously discussed.

- 'Meaning work' work with discourse refers to examples wherein individual agents would concept or idea to make a compelling case for it.
- Influencing internal stakeholders refers to specific internal momentum building, which itself required a variety of strategic practices to consider different agendas, contexts and politics of those colleagues.
- Coalition building was particularly prevalent, for example, in the way Council worked with partners to provide and build education about social and ecological literacy, and by

doing so, supporting the capacity of democratic engagement processes (and perhaps rationalizing the directionality of a progressive sustainability agenda).

- The use of coalitions were seen in a specific strategy used to mobilise champions in the community to enact and realise change, showing the responsibilities of the community complement those of council.
- Finally, and across of the efforts, Council agents drew attention to the engagement processes of local government. The design of engagement processes, for example, influenced the extent of the community that was engaged, and council had an interest in expanding and deepening this representation both on long term Council planning, as well as in regards to proposals at specific sites.

The use of the above practices was often messy; with different strategies drawn upon fluidly and temporarily in overlapping, and concurrent ways depending on the context and opportunity that an agent, or the institution, was faced with. The effort to characterize and summarise the dynamics are intended to represent a picture complex, adaptive and iterative approaches used by agents who drew on their professional competencies and contextual knowledge.

#### **4.2.2 Strategic practices used by the community**

As the prior sections have implied, Council does not act in isolation but in relationship to a network of other actors- within council, within the planning system, and within the community.

The Community is a key group influencing a conflicting narrative about the Mountains which carries with it a discourse about sustainability. This section builds on the description of *Romantic Colonialism* and how it was mobilised by the community through a series of specific practices including keeping cats and dogs, NIMBYism, and the (re)mobilisation of place meanings. These are described below in their broader contexts.

#### ***Ignoring blind spots and contradictions- particularly when keeping pets.***

Council interviews, public records and site observations make it clear that many people who live and visit the mountains have a (general) love for nature and the Australian bush. Despite this, there is also much evidence of a willingness to assert ways of life from elsewhere that ignore the contradictions, tensions and pressures that these choices exert.

Examining the SES context of the Mountains revealed that the region is a hotbed for nostalgia, and a long-held colonial romance attached to specific places continues to influence place meanings in the area (Section 3). Observations from site visits also reflected a nostalgic set of imaginaries and ideals about life in the Australian landscape, and the iconic location of the Mountains seemed to invite the performance of these narratives by visitors and residents alike (Appendix 1). Many of these ways of performing place and relating to the environment transcend the boundaries of the LGA and the Mountains, reflecting tensions in place identity and place meanings that are well-recognised throughout Australia. These nostalgic ideals include daily practices like an off-leash bush walk with your dog, strolling together amongst the gum trees; snuggling up to a cat by the fireplace, with a brandy in the hand; or sitting atop a horse in a dry-za-bone jacket as one gazes out across the Megalong Valley, a plate of local produce awaiting you at the cabin. While there is nothing inherently ‘wrong’ with these visions and imaginaries of a good life in the Mountains, they carry with them politics about which animals are loved, how landscapes are best ‘used’, and which social-ecological histories and relations are preferred.

A particular nexus of contradictions seemed to revolve around the influence and practice of keeping cats and dogs. In the Mountains, prioritising a life with pets drew forth politics about the relations between Australians and the environment that are a mirror of other cases across the nation. The most notable are the ongoing debates about the place for wild horses (brumbies) in Australia’s alpine regions. Here, as with domestic pets, there are fundamental tensions between the impact of ecologically destructive introduced species that are also beloved parts of history, stories and lifestyles. While emotional defence of the brumbies has been associated with settler-Australian feelings of belonging (Farley, 2022; Driscoll et al., 2023), I wonder if the same mechanism is at play in how we relate to pets in public parks and bushland. The rules and norms that perpetuate the practice of keeping cats and dogs as pets but preclude similar relations with native animals that face extinction from introduced predators, raises much fodder for reflection. Box 4 explores the dynamics of keeping cats and dogs in the Mountains, as I encountered them in the data.

The overall implication is that whilst individual cats and dogs create direct pressures as predators in the environment, they also require and encourage daily practices like dog walking. These practices were popular and in turn, influenced community relationships to place, space, and nature, shaping their feedback and participation in the way public spaces were used and planned for. This came out most clearly at the scale of specific sites, such as the former Katoomba Golf Course. Here, Council’s vision for the area to be a Planetary Health Precinct that can support a

range of initiatives from sustainability education to reconciliation to community agency faced resistance from community preferences to keep the space for off-leash dog walking, an important practice in the daily life of the community (see Appendices 1b and 2c for detailed discussions).

### **The politics of pets in place**

In Australia's unique environment, canines and felines are introduced species that have significant impacts on native ecology. Each household cat, for example, has been found to kill an average of 114 native animals each year, or 241 million native animals per year nationally (TSR, 2023; Legge et al., 2020). To put the scale of this predation in perspective, the Threatened Species Recovery Hub (2023) notes that cats have played "a leading role" in Australia's 34 mammal extinctions since colonial settlement, and continue pressure on another 123 native species whose populations are threatened and declining (TSR, 2023).

Interviews with Council planners voiced both awareness and frustration about the dilemmas of daily life with pets, and the scale of change that was needed:

*We've got to change the way we pet... Ugh. Like there's so many things we got to change—and we just need to do it.*

Council staff (interview data)

Understanding this dynamic might first raise questions about the level of social and ecological literacy that people hold about the impacts of their lifestyles. Looking more deeply, it raises questions about the rules and social values that we attribute to different species, normalising some species (particularly introduced cats and dogs) as pets, but banning the same relationship with other species (particularly native mammals)—even when they're facing extinction (Stobo-Wilson et al., 2022; TSRH, 2023; Wynne, 2021; Moodie, 2023).

Whilst a dedicated research project would be required to sample and explore community relationships with pets, place and belonging, in greater detail, I reviewed digital records of comments and letters to the editor in the local newspaper across the years of the research, which offer some insights into these dynamics. In doing so, I identified that the way people talked about dogs and cats was different.

Discussions about dogs, and the issues they carry, were dominated by concerns about hyper-local cases of (dis)respect for private property, calls for owners to collect dog faeces, and calls for dog owners to control their animals and keep them on leashes- not for ecological reasons, but for the benefit of other people and, sometimes, their pets. Community reflexivity and discussions about ecological dilemmas of dog ownership were largely absent in discourse- while some letters to the local paper called (for example) to keep the Katoomba Golf course as a dedicated space for dog walking, there was also no strong or rich response that presented an ecological perspective on these matters. In the 43 comments, letters, and opinions that I found related to dogs in Factiva's database of the Blue Mountains Gazette between 2017 and 2023, the largest focus was on dog owner etiquette (n=16), whilst the next largest were community statements in support of dog parks and walking tracks (n=8). The most controversial discussion was one wherein the community raised concerns with plans by local animal welfare groups RSPCA and WIRES to combine native animal rescue and care programs with dog and cat kennels. Here, all of the letters (n=7) voiced worries about the lack of attention on 'companion animals' implied by the shift to care for native species. A reflection on

community practices around dogs is eloquently summed up in this letter, by N. Stodard (2019), who typified three experiences:

*"There I was, strolling Prince Henry Cliff Walk, world heritage national park, and along comes a dog and its owner. I point out that signs at all entrances say "no dogs", including the sign just 10 metres away. In an instant, he flies into a rage, insists his dog is doing nothing wrong, proudly boasts that he's been doing this "every day for the past two years", and challenges me to do something about it.*

*A guy strolls along a major thoroughfare in Katoomba with his dog roaming freely. The dog drops poo at a front gate. The owner up ahead is oblivious. I catch up and explain what's happened. "What of it? What's it to you?" That dog continues to roam unimpeded.*

*On a bush track at Shipley Plateau the other day, I was confronted by two Rottweilers, no owner in sight. Fortunately, they took one look at me, growled (I'm pretty ugly), turned and ran back to the home from which they'd come*

*What is it about this small minority of dog owners that prompts them to act irresponsibly, brazenly flout regulations, put the safety of adults and children at risk, intrude where they're not permitted and muck up our streets? I'm convinced council has got it wrong. Instead of registering pets, they should be licensing their owners. L-plates and accompanied by a responsible owner to start. P-plates if you pass the test. And a full licence only to those who commit to acting responsibly. Makes Sense!"*

When it came to cats, ecological awareness and concern in the community was high. Here, concerns for native species were the main priority encountered; an overwhelming number of community members wrote to voice support for indoor cat containment, curfews and/or anti-hunting 'bibs' with only one letter voicing resistance, which questioned the fairness of restricting cats' freedom. Interviews with the Council recounted its agency on cat ownership, which led to the community discussion. After exploring the use of cat 'bibs' at the request of a Councillor (bibs restrict the ability to pounce), Council landed on a cat curfew (night-time containment) as the best policy and has been promoting this (but not formally requiring it) since 2017. This position appeared to become emboldened in 2023 due to a resounding shift in public discourse over the course of the research. This shift followed new statistics on the impacts of household cats (TSRH, 2023) and saw national coalitions emerge between councils, researchers and environmental groups calling for the imposition of cat bans or cat containment across various parts of Australia. Attention eventually returned to the Mountains context, with BMCC Councillors quoted in prominent news media on the topic (Cheng, 2023). Just prior to the end of the research, the Planetary Health Initiative announced new financial subsidies for people to create cat enclosures at their homes, working in coalition with a local NGO. Here, the Council showed agency in sensing those discursive shifts and opportunities in the community to support their own interventions (BMCC 2023e).

**Box 4.** *Romantic Colonialism* was mobilised by the practice of keeping pets, given the ecological impacts and politics this carries in a context like the Blue Mountains, and the implications of those practices for how we plan and use public space.

***NIMBYism: engaging to complain, and only doing so when it's personal.***

Community's input into council processes like decisions about specific sites and planning applications, or managing services within finite budgets, tended to ignore the need for compromise, obfuscating tough decisions about what should be done by the Council to deliver on their broad expectations. Council staff identified this directly:

*"it's really that, you know, the expression of "not in my backyard"—even though you deliberately chose your backyard in a place that had strong controls"*

Council staff (interview data)

"Not in My Backyard" (NIMBY) practices were raised as problematic in many interviews with Council staff and were often explained in relation to a contradiction between what people say about their own property and lifestyles, versus what they envisage for the collective good of the region. This was sometimes framed by Council staff in relation to specific commitments by the Council which were endorsed in long-term planning processes:

*"[when you] ask people questions on "do you think this area should be protected?" and "is the world heritage area important?" and "what do you value about living in the, the Blue Mountains?", the answers are those [positive] things. But when that is translated or imposed on private property, the answers are often very different. So I think that in some ways, we are and have the same challenges as, as lots of government areas in terms of people want to do what they want to do on their own land."*

Council staff (interview data)

*"no one's objecting to [Council's commitment to Rights of Nature] because it's difficult to object to, on some levels, until their personal interests are at stake...That's what I mean, people will accept ideas, as long as there's no cost."*

Council staff (interview data)

NIMBYism is not unique to the Mountains. It is a common issue facing local governments and describes the dissonance between endorsing ideas in principle and rejecting them in practice, particularly when personal interests are at stake. This is a form of agency that in many ways

demonstrates a practical understanding of the process of local democracy, albeit toward unfortunately selfish ends.

As outlined when describing the SES context for sustainability governance in the Council, financial pressures are combined with a highly sensitive environment that can mean public works are more expensive. This means Council often must face compromises and constraints about how to govern and invest. On the one hand, Council staff outlined the need, and the challenge, of imparting realistic expectations of what council can do. Having broad ambitions for the Council to be leaders in sustainability endorsed (in principle) by the Community, further complicates this picture, when the opportunity to save money requires cutting budgets for community services, which the community is against. In short, matching the visions and principles that the community has for good lifestyles and responsible impacts is difficult to put into practice, because of tendencies for NIMBYism and self-interest whenever compromise is required. The excerpt below recounts some of the practices used by the community, described by Council planners:

*“So you've got a community that for all sorts of really good reasons, wants to improve its civil and built assets. It wants better footpaths, it wants more footpaths, it wants nice smooth footpaths that are good for PRS and wheelchairs and kids on scooters and all that kind of stuff. Yeah. But they're not necessarily the right type of infrastructure to be putting along the edges of national parks, water quality into hanging swamps, all that kind of stuff because your potential for pollution, that kind of stuff is quite high. They're also, particularly when you look at the, the fact that if you're gonna build the civil infrastructure, the park, so, so you know, drainage infrastructure that is has that element of cleaning the water before it discharges it into the national park”*

Council staff (interview data)

NIMBYism shows on the one hand the long-standing agreement about aspirations for the big picture, but on the other, it shows the difficulty of pursuing these aspirations on the ground, in specific sites. Contextual features- like sensitive sites in the national park downstream of urban settings create unique conditions and risks. The difficulty of dealing with these risks is amplified by a context of limited resources, presenting a recurring challenge to Council staff.



***Re-mobilising tastes and narratives that carry politics about what's valued.***

Like people, tastes travel, and the socio-cultural context of the Mountains described how a large exposure to new people and their interests is creating expectations and pressure for the Council to allow and enable the Mountains to become more like other places, and Sydney in particular.

This dynamic describes a third practice used by the community to mobilise a romantic colonial discourse. This involved choices by the community to (re)mobilise and maintain some memories and tastes over others. It could, on the one hand, lead to a process that resisted change and maintained older meanings, relationships and politics, or it could impose new tastes and practices in preference to what Council saw as normative. The latter was often attributed to Sydney residents and the demographics of new arrivals. Here, ill-fitted pressures on the environment were said to be carried by newcomers to the mountains, with nostalgic memories making some of these newcomers feel a sense of entitlement and belonging to live and shape the Mountains to their tastes. While less obvious than the re-mobilisation of (explicitly) colonial tastes and memories, which was also occurring, the patterns of assertion maintain the logic and romance of (neo)colonialism wherein people feel it is their right to make social-ecological spaces one's own, prioritising those wishes over affordances to what was there before.

These tendencies to re-make spaces and places to suit oneself were combined with romance for (explicitly colonial) historic sites and day-to-day lifestyles that pitted personal interests against ecological ideals, described previously. These practices by the community were intertwined and reinforced in the way the community was described to interact with the local planning processes and decisions about the area. Council's response, meanwhile, as facilitators of place meaning, identity and its development over time, was to face into these pressures. These dynamics were explicitly addressed, reiterated in the following excerpt from interviews with Council planners:

*"we've got very strong controls around built form for very clear and obvious reasons supported by the community out of engagement. But people are coming up and wanting to replicate a product that they might see in new subdivision areas in Western Sydney. And our controls don't really permit that. Even sometimes around height, [my colleague] talked about heritage— some areas we keep it single story because that is the character of the area. And people move in thinking, "oh, it's all single story, I wonder why that is". And then they just go, "can't I put a two-story thing with the, you know [large hand-gesture]?" They really are pushing hard against those controls. Yeah. And it's, I suppose our job is to, a lot of those controls that we bring in are, are us translating what character*

*and, and place “is”, in a way that works in the planning system. And people are coming in and testing it, not necessarily realizing that if we just remove those controls, the character, the place would actually change and the reason why they moved would actually disappear. And that's, that, that's that tension.”*

Council staff (interview data)

#### **Section 4 Recap: discursive agency was applied in relation to context and contestations**

Overall, this section has provided details about how a *Romantic Colonial* discourse was produced by activities in the community. This occurred despite that discourse sitting at odds with longstanding public endorsement of an environmentally progressive Council and community engagement records that consistently show much love for the social and ecological history of the area. The community practices that mobilised *Romantic Colonialism* thus surface a contradiction between stated and performed place relations. To contest and challenge the influence of this discourse, Council and its staff used their own agency, working at the interface of local democracy. This was typified by another set of practices under the discourse of *Democratic Pragmatism*. It involved a suite of practices that were drawn upon broadly and iteratively to empower a range of specific discourses about sustainability that were concurrently present within Council and its stated or implicit interests, providing different directional influences.

Observation of these dynamics raises questions about the influence of ecological place attachment on the processes of local and participatory decision-making. Whilst some research has suggested that an ecological place attachment correlates with pro-environmental action (Gifford, 2011) the dynamics observed in the Mountains appear closer to cases where ecological place attachment was found to be insufficient (e.g. Lindsay et al., 2023). One might ask if a community will indeed ‘fight for what they love’ as the mantra often goes, or if, in practice, they will fight for what they love to do. Research that explores the potential conflicts in those agendas presents an interesting dynamic to explore and reiterates the importance of studying what people do, as well as what they say, in the design of SES and discursive research.

## **5. Synthesis and opportunities for intervention**

### **5.1. Reviewing the socio-cultural dynamics: how doings, sayings, 'things', and agency (re)produced discourses about sustainability**

This section offers my interpretation of the findings. It synthesises how the observed discourses might be understood in relationship to one another and precedes a discussion about what might be learned and implied from the case study.

#### **5.1.1. Grouping discourses and strategic practices**

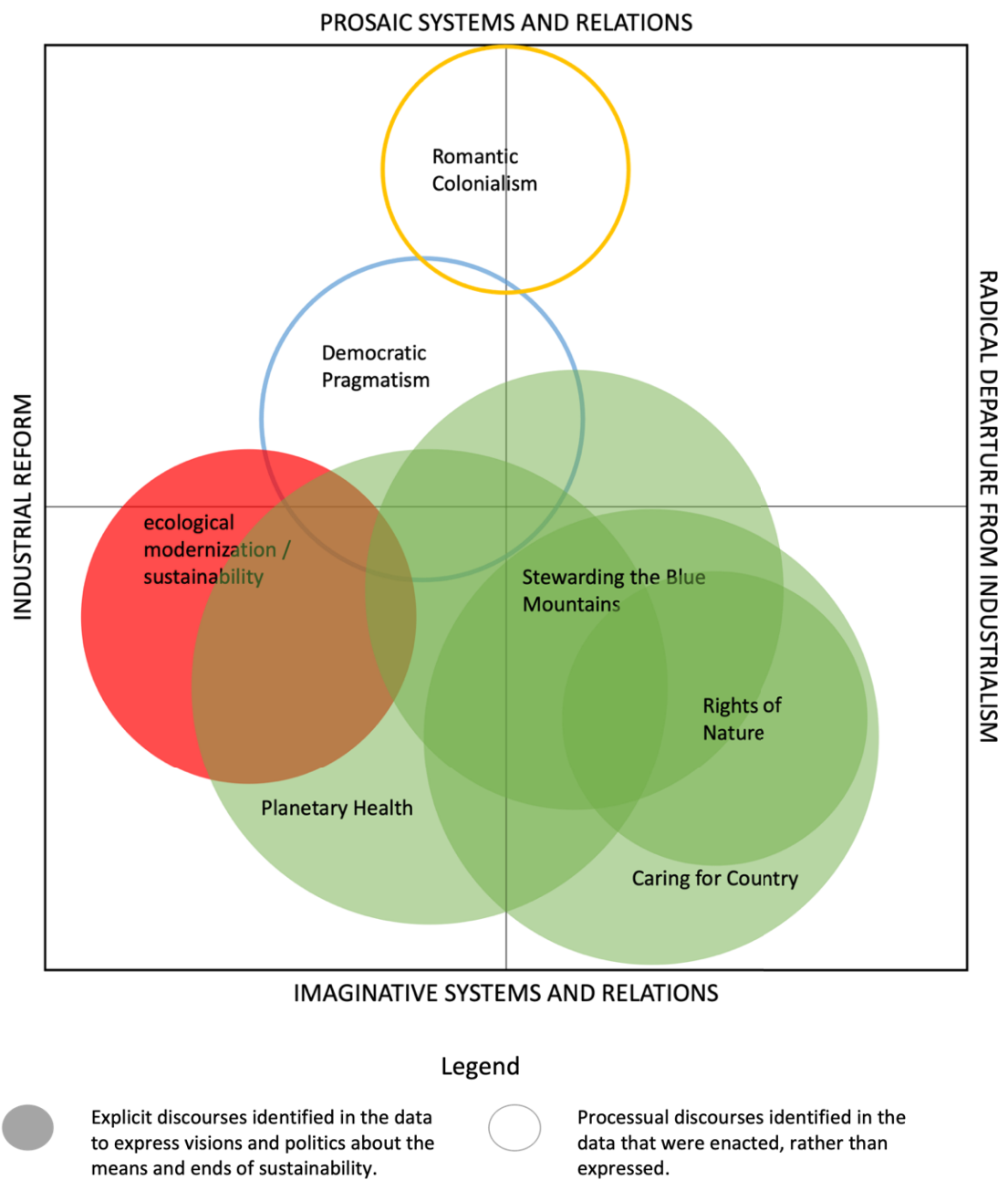
The prior sections have outlined the discourses that were identified, and the strategic practices used to re-produce and mobilise them. Some of these practices were performed through Council's institutional dynamics and others were performed through acts of agency by individual Council staff. Both dynamics were used to progress different discourses pertaining to what sustainability should look like in the Mountains and how it should be realised. Another set of practices were enacted by the community to reproduce a *Romantic Colonial* discourse that resisted change and progress by the Council.

Figure 4 draws together all seven discourses that have been identified and discussed, characterising them in an adaptation of Dryzek's (2005/2022) approach to compare how each discourse relates to the systems and norms that have dominated societies like Australia during the Industrial era (Box 5).

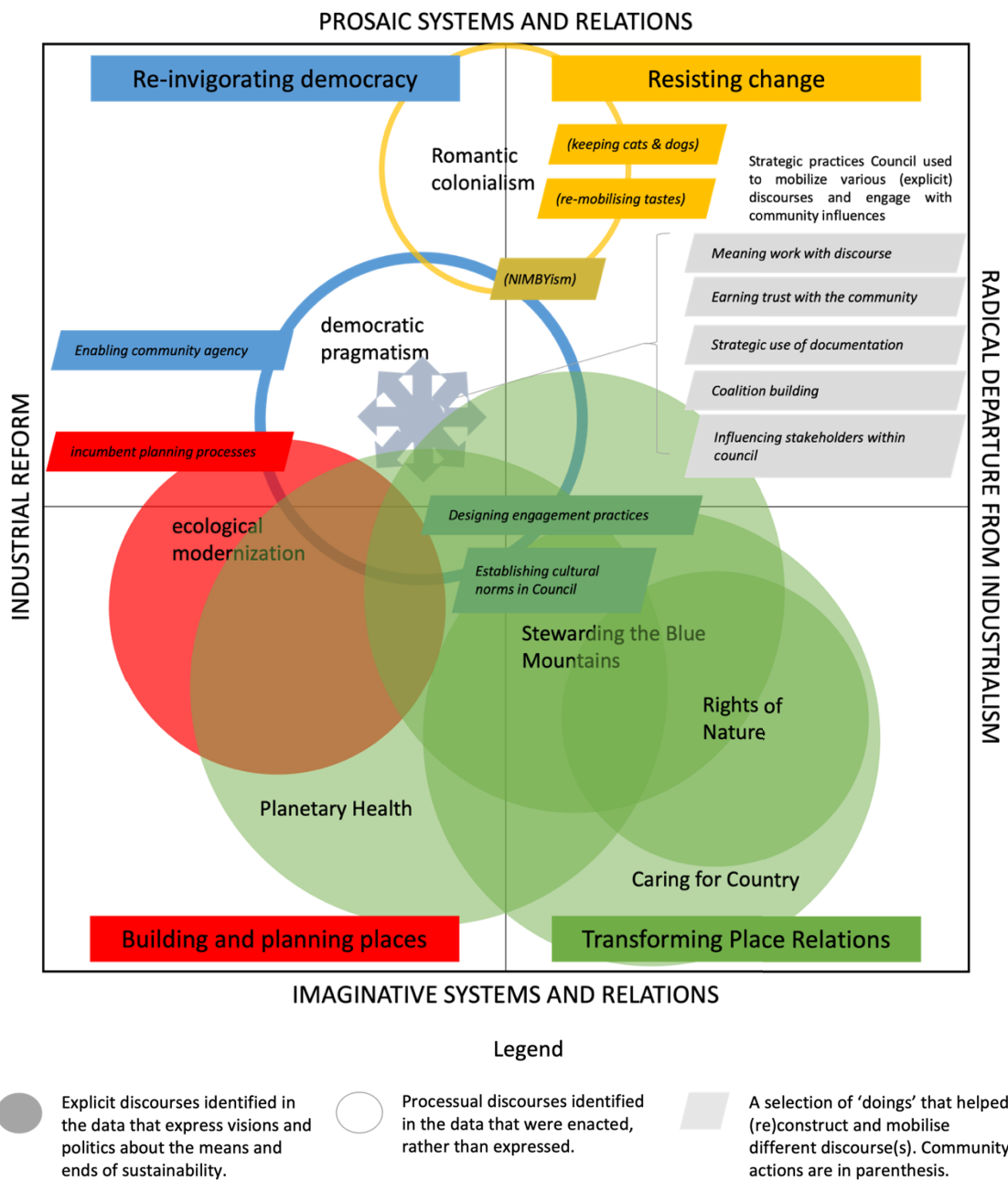
John Dryzek's *Politics of the Earth* (2005/2022) presents an influential analysis of global sustainability discourses, discussing their politics and perspectives. While his scope is broad, tracing prominent global discourses, and mine is more contextual, focusing on those influencing the Blue Mountains City Council, I found useful precedents in both his findings and in his analytical approach— specifically, in the way he categorised and differentiated between different groups of sustainability discourses. Whilst references to global discourses discussed by Dryzek (2022) have (and will) be raised throughout the paper's discussion, this section presents visualisations of the discourses I encountered and described. Those figures reflect his approach to differentiate discourses that are "radical" from those which are "reformist"; and those that are "prosaic" from those which are "imaginative". I complement this conceptual approach with Boenhert's (2011) visualisation of those relations.

To suit my research, some small adaptations are made to these precedents. First, while Dryzek (2022: p16) used the same terms as mine on the x-axis, I provide some slightly more specific terms on the Y-axis. Here, I considered the way each discourse presents humanity's relationship with nature in our cultural, governance and political systems, positioning them according to whether this representation was interpreted to be "imaginative" or "prosaic". The intention is to illustrate underlying tendencies in the discourses and groups of discourses, and surface points of overlap and difference. Using Dryzek's framework also enabled me to consider the relationship between the discourses I identified in the Mountains, to those that he (and others) have identified to occur at broader social scales, which will be raised in the discussion. Finally, while I use Boenhert's (2011) visualisations of Dryzek's work as precedent, I make some necessary modifications to suit my findings. I distinguish sustainability discourses that presented explicit visions and outcomes (filled circles) from the discourses that were processual (open circles) (Figures 4 -7). And as Boenhert's (2011) approach enables areas of overlap to be seen within the framework, I found this created a useful basis on which I could progressively re-count how specific terms, concepts or practices enabled the re-production those discourses and/or points of overlap (refer to Figures 5 and 7).

**Box 5.** Drawing on the work of Dryzek (2005/2022) to group discourses and re-production.



**Figure 4.** Explicit discourses about sustainability influenced the council's work (filled circles) alongside implicit discourses about change mobilised by Council staff and the community (open circles). As outlined in Box 5, Discourses are positioned (via the axes) following Dryzek's (2022) approach to consider how discourses about sustainability relates to the systems and norms that dominate industrial societies. Size serves to show that some discourses are more capacious than others, and areas of overlap show that the discourses rare not neatly separated, but instead share conceptual and narrative features.



**Figure 5.** Arranging the discourses that were present into groups (by colour, with labels), and identifying strategic practices that tended re-produced specific discourses or groups of discourses.

Figure 5 elaborates on the grouping of discourses that is implied in Figure 4 with colours. It also illustrates dynamics in the strategic practices performed by the Council and the community, attributing them to specific discourse, groups of discourses, and their points of intersection. Groups of discourses (labelled, in colour) present an additional level of synthesis and interpretation, capturing what I suggest are overall ends that different groups of discourses work towards, based on the types of activities they prioritise. Figure 6 presents the intersection of practices and groups of discourse in a simplified heuristic and the descriptions below accompany the figures.

There are four groups of discourse outlined in Figures 4 and 5. The first group (in yellow) shows that *Romantic Colonialism* is identified as a discourse that functioned in a way that resists change. While the expression of this discourse asked for neither reform nor radical change, it might best be typified (albeit only very slightly) in the top right of my adaptation of Dryzek's (2022) framework. The rationale for this is that in my view, the stakes of 'doing nothing' at this point in ecological and climate history is bound with radical consequences, rather than none. While this be overstating for consequences of actions taken (only, and often subconsciously) in the Mountains, distinguishing this discourse from the others is useful, and it is notable that Dryzek (2022) positioned discourses about climate denial in a similar position.

The second group (in green) reflects an observation that the four most explicit and normative discourses about sustainability had many similarities. I interpret them all as seeking to Transform Place Relations. They called for different levels of departure from industrialism but they all erred toward deep and radical changes, and carried aspirations for new systems of relations between humans and the environment, even if these viewpoints have been institutional within the BMCC for twenty years. To mobilise these discourses, it has been useful and important to establish cultural norms within Council, and to mobilise specific concepts and ambitions within the planning system, which itself required iterative and careful agency within the functions and processes regulating local government and democracy.

The third and fourth groups (in red and blue) each relate to single discourses of *Ecological Modernisation* and *Democratic Pragmatism*, respectively. EM's points of overlap with other discourses reflect that it is a mainstream sustainability discourse that has been incorporated into the systems and processes of society, but also the discourses and narratives that Council uses to describe its PH agenda and SBM discourse. It was maintained, in large part, by incumbent planning processes that Council was required to use and pursue via NSW legislation and by institutional and disciplinary norms in urban planning.

*Democratic pragmatism* was processual. The practices that comprised it were variously entwined with the Council's mobilisation or interaction with other discourses in Mountains (Figures 5 and 6). I believe it is the most interesting discourse at play. As I encountered this discourse in the Mountains, Council staff appeared both committed and skilled at working at the nexus of decision-making and democracy, accepting its dilemmas but not retreating from its ideals. Here, they used practical knowledge to empower community agency whilst also navigating the flaws of an incumbent system and practices of the community which contradicted

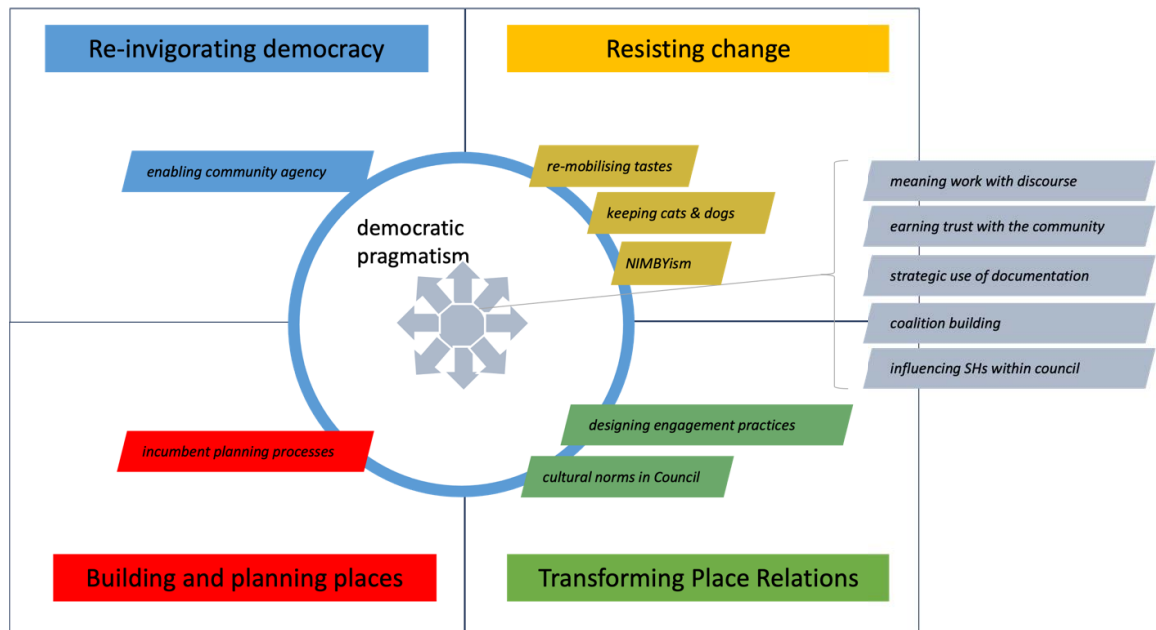
broad ambitions and resisted change. Some practices were used in ways that tended to mobilise specific discourses about sustainability, while others tended to focus on enhancing the process of deliberation, enabling different viewpoints to be considered.

There are few points of connection between this pattern of behaviour and other findings in the literature. First, the role of local governments as important and capable agents supporting social innovation and change in society has been similarly noted by Wright et al. (2018) who noted the underappreciated contextual knowledge and interpretative capacity that staff in local governments of Australia often hold and can contribute to the support of innovation and toward sustainable futures. Second, the focus on democratic process, alongside sustainability outcomes, is a poignant reminder of the mandate of elected governments to plan spaces in society. Across these observations, it was noteworthy that the actions by the Council and its staff demonstrated, for example, many of the virtues (Caniglia et al., 2023) and agilities (Chambers et al., 2022) that have been called for by academics engaged in the pursuit of normative research with society-research which is sometimes designed in ways that assume the best kinds of knowledge for sustainability is co-produced by multiple stakeholders drawn together by academics, rather than government actors, to facilitate the process (e.g. Orlove et al., 2023).

In sum, *Democratic Pragmatism* surfaced a pattern of behaviour that engaged the task of sustainability with an underlying commitment to democratic participation. It did not approach participation naïvely, and it was accompanied by efforts to support ecological and social literacy in the community to enhance the quality and capacity of knowledge co-produced during engagement processes. The practices used to (re)produce *Democratic Pragmatism* were akin to ‘doing’ local government and at their best, they appear to express and mobilise practices and social infrastructure that can host reflexive exchange across sustainability discourses (Figure 5). When considering these aspects of *Democratic Pragmatism* in relation to the other discourses, I suggest that there is an underlying ambition to ‘reinvigorate democracy’ and this shows a different set of priorities and viewpoints on change to the other discourses or groups of discourses that were present. Where this goal is pursued, the task of sustainability is to create space for informed and engaged deliberation and exchange with and by the community. This is similar to Kagan’s (2019) description of a cultural imaginary of sustainability, a view that suggests our social capacities to discuss and come to decisions are both the means and the ends of sustainability.



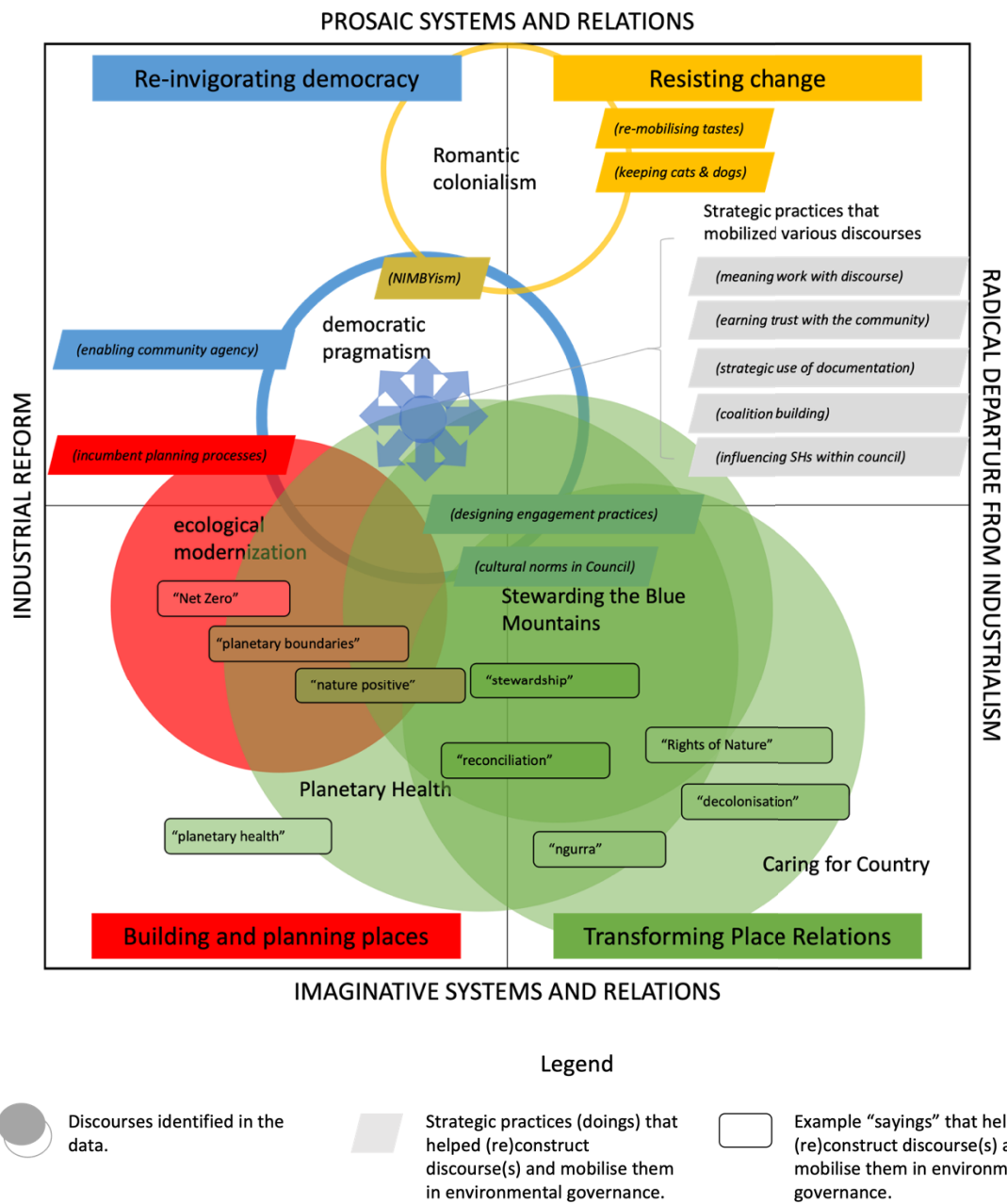
While re-invigorating democratic process has been a priority that is present in some STT initiatives and agendas exploring the coproduction of sustainability (e.g. Soares et al., 2020), it offers much food for thought for all STT researchers seeking to engage in normative processes of place-based change, especially where those contributions fall outside the remit of existing and socially mandated processes of decision-making.



**Figure 6.** A simplified depiction of the strategic practices used to mobilise specific discourses or groups of discourses.

### 5.1.2. Agents mobilised and (re)framed concepts in a fluid discursive landscape

Figure 7 offers a final synthesis of the data. It surfaces further detail in the findings, pointing to a selection of terms and concepts that were used in the (re)production of different discourses. The positions of those terms reflect connections and overlaps where the same concept or narrative was used for a range of different discourses. It is taken to represent findings as they stood at the end of the research period. Here, for example, *Rights of Nature* has been re-framed from a 'discourse' to a concept, to reflect its apparently diminishing role over the course of the research in the way it shaped the pursuit of sustainability by the Council.



**Figure 7.** Different discourses were narrated by the use of specific terms and concepts, as well as strategic practices, in ways that sometimes related to specific discourses and sometimes related to the intersection between different discourses.

Previous sections have outlined the relationship between references to specific concepts and the discourses that were observed, patterns which are elaborated upon in detail in Appendix 2. At a more general level, Figure 7 reflects an overall pattern of discursive re-production and narrative change that have been found in other discursive studies. Riedy et al. (2019), for example, which also explored the role of agents within local governments in Australia, found council staff drew on a landscape of potential terms, concepts, and narratives in order to mobilise sustainability agendas and navigate “the structuring influence of prevailing discourses”. D’Amato’s

(2021) research, which explored circular economy narratives, observed that while policy narratives in sustainability might often be associated with one discourse, they can also be (re)framed and (re)mobilised to support various different discourses at the same time. In the BMCC case study, and these preceding empirical studies, the patterns reflect conceptual propositions by Zilber (2017) that concepts, narratives and discourses are in a constantly fluid state of hierarchical relationship and re-arrangement. They also support concepts of agency in the literature, including Leipold and Winkel's (2017) model of discursive agency, and Westley et al.'s (2013) hypotheses about agency within SES dynamics, by reflecting the influence of both context factors and personal skill.

Speculating on these dynamics in relation to discourse theory points to either issues or opportunities, depending on the perspective taken. George Lakoff (2010), for example, has suggested that a lack of consistent framing in progressive sustainability discourse has created a cognitive barrier in society that restricts progressive agendas from competing with conservative narratives. The plasticity of meanings and relationships may also explain what Simoens et al. (2022) noted as a systemic dynamic wherein new and alternative sustainability discourses often suffer from co-optation by the global dominance of *Ecological Modernisation*, rather than maintaining truly alternative positions and contributions that might be transformative. At the same time, and seen optimistically, the Mountains case study showed that global and decontextualised discourses can miss nuances and diversity in specific places. While *Ecological Modernisation* is often discussed as the dominant global discourse in sustainability governance, and Dryzek's global assessments (2005/2022) suggest that aspirations for large changes in systems and relations, and deep departures from industrial societies are often in the minority amongst governments and institutions, my research found otherwise. In the Mountains, relatively radical ambitions were institutional priorities and reasonably well-established norms, and there were examples that EM itself was undergoing a period of recalibration at national and state levels, especially in the planning sector, to reflect specificities of place relations as they occur within Australia. Finally, the central approach demonstrated by the Council was to empower discussions about sustainability (via a process of democratic pragmatism / deliberative democracy), offering a pragmatic approach to change that prioritises space for ongoing recalibration and reflexivity, an approach which Dryzek also saw hopes for as a pathway to the future (2022, p255-259).

### 5.1.3. Discourse analysis and time

#### *History sets the stage but social dynamics transcend space*

A final point of observation is to briefly reflect on the temporality and contextuality of discursive dynamics in the case study and the limits this places on the analysis.

Over the course of the research, changes in state government policy, national media coverage, and specific events carried linkages, constraints and opportunities to some of the specific concepts and politics carried or relied upon by different discourses. Discursive agents seemed to respond to these conditions, influencing the dynamics and power relations between different discourses.

For example, the discussion has indicated how initially, *Rights of Nature* appeared as something akin to the localisation of an existing global discourse. Then, given constraints in the planning system, it appears to have been re-framed into a broad, supporting concept used to narrate a *Planetary Health* agenda.

Zooming out from the Mountains SES provides a way to reflect the potential influence of these contextual events, the discursive agency taken in the Mountains, and the implications it held for specific sites or broader planning policy decisions. While earlier sections and the appendices trace out many of these connections, the overarching implication is that there is a complex relationship between local discourses and contextual realities; discursive agency is a practical and contextual task of sensing and responding to broader situational and social trends, as well as local social-ecological contexts. In short, the discursive dynamics in the Mountains showed connections to deeply local factors, as well as patterns and politics that occurred at broader scales.

#### *Signals of future change*

To consider discursive trends and the future, I identify three recent contextual shifts that may create new changes for the Mountains, and describe them briefly below. First, the planning sector, the state government, and key institutions like the NSW Government Architect (2023) have seen significant efforts to shift the way place is framed and understood. In late 2021, for example, state government reform sought to center concepts of “place” in planning processes, and connected it to issues of native ecology, and First Nations relationships to Country –using these themes to call for planners to make social and ecological affordances in their work and

pursue ethical approaches to change (DPE, 2021a; DPE, 2021b). While these changes were later repealed following a change of Ministers, the direction of progress was clear- and they signalled a departure from a human-centric and cosmopolitan approach to what constitutes a good urban environment, and normative planning in the sector.

Second, and relatedly, a '*Nature Positive*' narrative has now become common over the course of 2023. Its use in NSW appears to be carrying similar politics about how the planning and built environment sector might approach their work at specific sites and places. It has been explicitly linked, for example, to concepts of *Country-Centred Design* (GANSW, 2023); as a call to employ *natural living infrastructure*; and as a means to emphasise the use of native ecology in planning (CfS, 2023). The Committee for Sydney's (CfS) interpretation of *Nature Positive* made a specific call for cultural awareness and social infrastructure that can support this shift, suggesting the state establish a First Nations urban ecology center to link CfC concepts to the *Nature Positive* agenda. At the end of the research period, *Nature Positive* looks likely to continue to grow in influence, with the NSW Department of Planning and Environment (DPE) announcing that Sydney will host the world's first Global Nature Positive Summit in October 2024 (DPE, 2023).

Finally, formal and public discussion emerged in late 2023 that called for the terms of the Mountains World Heritage listing to be reconsidered, noting that the omission of Aboriginal cultural heritage in those arguments was lacking (Power, 2023). Throughout the interviews, references to being in a listed World Heritage Area was an obvious point of authority and identity about the ecological importance of the Mountains. One wonders what might have transpired in the popular place meanings and identities if cultural recognition was also afforded, noting that such recognition also carries with it implications for cultural management, in effect, emboldening the *Caring for Country* discourse within powerful (material) documents and processes that appear to influence what is done, by whom, and why.

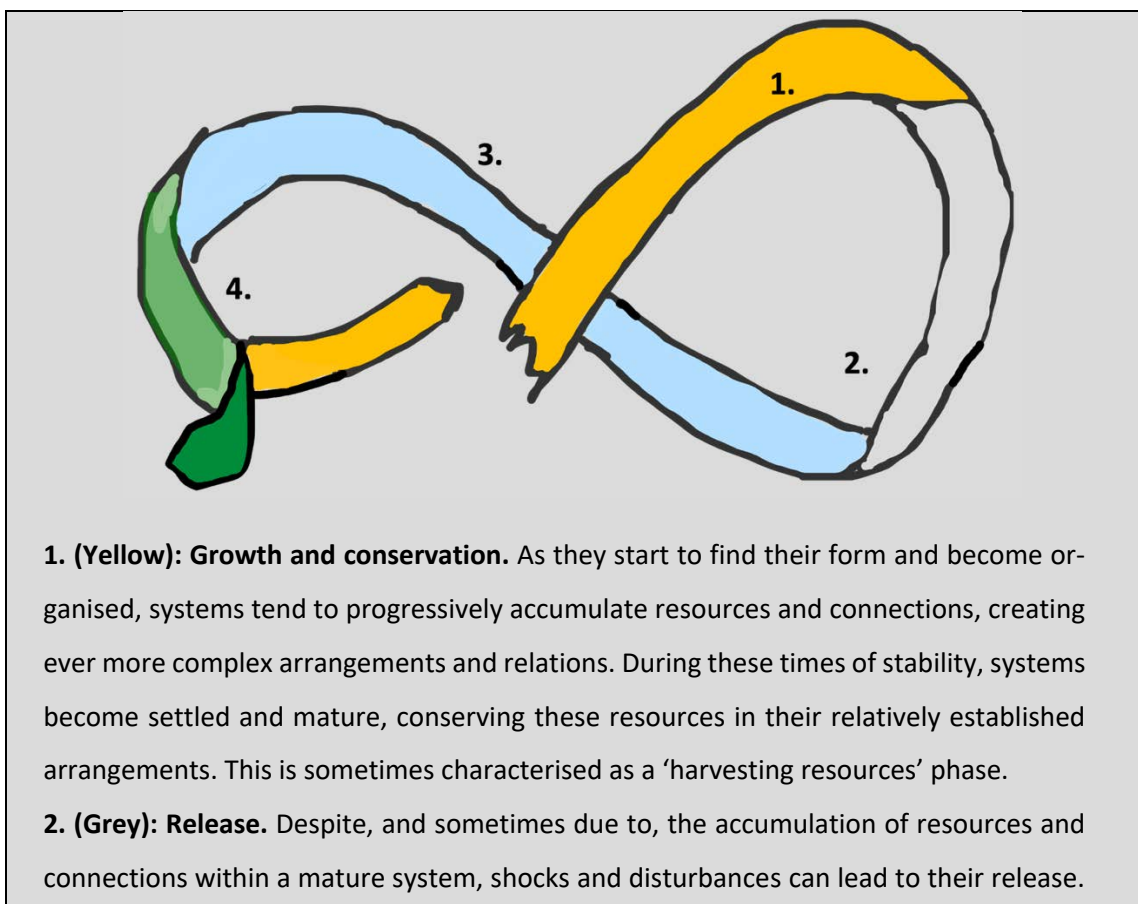
It is easy to see how each of these shifts might create opportunities for discursive agents within Council to pursue specific policies or influence the institution's ambitions. Depending on how it continues to develop, references to *Nature Positive*, for example, could be (re)framed to empower a *Caring for Country* discourse to become the central agenda of the Council, further expand the *Planetary Health* discourse to incorporate new concepts in its narrative or spark new state politics or disciplinary policies that revive *Ecological Modernism* perspectives and its influence on local governance in the Mountains. Council staff working on sustainability will surely continue their work as discursive agents, sensing and responding to the opportunities that those

changes create to mobilise different discourses, concepts, and narratives to create change. As has been described and will be further discussed, the overarching tendency when exploring the practices used by agents, was the flexibility shown by Council staff to respond to these systemic contexts, and a tendency to see the virtues in different discourses about sustainability, even if individual preferences might also be present.

Appendix 2 discusses the emergence of such signals and shifts that occurred over time in more detail and offers a summary of changes that occurred in earlier stages of the research period, such as elections and state policy changes.

## 5.2 Potential intervention points for change

To finalise the study, an initial ambition of the research project was to consider if the research might help Council in its role. To do this, the SES context was reviewed using the Adaptive Cycle (Gunderson and Hollings, 2002) (Box 4). This was undertaken near the end of the analysis process and used as a heuristic to consider if and how the Council might make normative interventions to support a place-based approach to sustainability in the Mountains.



This is sometimes characterised as a shock or collapse phase, which sees the system and its connections break apart and disassemble.

**3. (Blue): Re-organisation.** The pieces and components of whatever is left start to re-assemble. This re-organisation phase is a phase wherein large possibilities are possible.

**4. (Green/Yellow): Restoration OR transformation.** This phase sees a new system start to take shape. The level of change undergone between release and exploitation can be minor, enabling the system to largely restore itself to something similar to what it was before, (the yellow pathway) or it can be a more complete transformation that sees a new system emerge with its own function and characteristics (the green pathway).

**Box 6.** A summary of Gunderson & Holling's (2002) Adaptive Cycle.

The Adaptive Cycle was used to review dynamics observed in the case study and consider potential points for normative interventions. I approached the task reflexively (Abson et al., 2017; Leventon et al., 2021) and I include my commentary on the process and its outcomes. While approaching the task, I considered previous uses of the Adaptive Cycle, including its use to identify concepts of agency in contextual and institutional dynamics (Westley et al., 2013), the role of research in society (Wassénus et al., 2023), and was aware of the similarities the Adaptive Cycle holds to the process of transformative learning (Mezirow, 1993) that's recently been drawn on in research exploring place-based socio-cultural transformation (e.g. Mehmood et al., 2020; Pisters et al., 2019). Doing so pointed to the following characterisations (phases 1 and 2) and interventions (phases 3 and 4):

### **1. Some forces maintain and re-enforce unsustainable practices and discourses**

Problematic patterns in the status quo included:

- Colonial memories and place meanings that displace and disempower Aboriginal heritage, working against decolonial pathways to sustainability.
- Patterns of daily living, like owning cats & dogs, which require affordances in our built environment and displace native species and habitats.
- Attitudes and practices of NIMBYism
- Poor appreciation of the financial constraints faced by Council.

### **2. Actions, dilemmas and events can re-order those routines, requiring us to redefine our Sense of Place.**

Examples that were identified in the Mountains include:

- Relocating (house or town) and life events that change our family structures and habits.
- Experiencing disasters and (re-)building afterwards.
- Deciding to (re)develop sites.
- Directional changes carried by elections and electoral commitments.
- Structural shifts in what local government can do compared to state and commonwealth powers.
- Access to new experiences that create 'disorienting dilemmas', making us question and re-consider what we believe and do.

### **3. Windows of Opportunity and discursive agency hold transformative potential to re-assert norms and patterns.**

Levers that might support the re-organisation of the discourses and practices that hold sway in the Mountains include:

- Time-bound opportunities. Council could provide targeted information, at specific points in time (e.g. when new residents move in) to build critical awareness of the issues and opportunities, helping residents establish normative practices before they become habituated (e.g. if and how we keep pets, which pets, and the routines we adopt to do so).
- Opportunities at new sites. Council can influence the rules for new developments (e.g. Development Control Plans and precinct-level controls) and use their own sites and development projects to demand and inspire new norms.
- Opportunities at existing sites. Council can be deliberate about influencing which place meanings gain influence and power in its work with other institutions, and in its selection of narratives and frames that describe (and name) specific sites and spaces.

### **4. Council can 'lean in' to accelerate reformed & transformed discourses and practices**

- Normalising positive change. Rules and norms set by council in planning documents & decisions (over time) create a network of institutionalized influence on the kinds of development that can happen, where they occur, who they might impact, what kinds of practices they enable, and which place meanings they empower.
- Quality narratives and experiences. Sticky, available and impactful experiences and narratives about the mountains can carry affective power. Investing in the quality of how specific locations are narrated can have deep impacts, gather their own momentum, and reach more people.



- Using coalitions to leverage and extend impacts. Assemblages of power, policy and institutional alignment means some practices and place meanings can reach deeper into identity and impact more people than others. Building coalitions strategically may be one way to help recalibrate these assemblages.
- Checking and expanding coverage. Across all its interventions, Council can shift focus over time, targeting different areas or social cohorts to spread its impact.

An honest recount of this process is that the most useful suggestions I identified were generated less from analytical thinking, and the use of the Adaptive Cycle, and more from intuitive and emergent ideas, some of which I carried with me before the research process began, albeit with knowledge of the Adaptive Cycle, and hypotheses of useful interventions. Two ideas that I felt were most compelling were (i) the creation of a carefully constructed and strategically distributed booklet that served to welcome and ‘induct’ new residents to the Mountains, and (ii) the use of citizen budgeting processes to help the community build deeper understandings of Council’s work and constraints (Box 7).

**“Welcome to the Mountains: an induction into place booklet” provided to new residents during the process of moving in.** Sense of place has been heavily researched. Masterson (2017) summarised it as being a feature of the meanings we choose to tell about a place and the emotional attachments we hold for it. It can be general to an area or influenced by relationships to specific features. Patterns in the Mountains reflected those of many place studies in Australia and abroad, showing that the performance of daily practices was important to consider when identifying which discourses hold power. These provided deeper insights into the identities people held, the meanings they attached to their lives there, and in turn, the collective meanings that developed about what a good life in the Mountains looks like. In this context, making material that can support informed, deliberate, reflexive, emotive and compelling visions about how one might live well and responsibly in the Mountains seems like a useful thing to do. A well-designed booklet might, for example, become a treasured asset in a family to help them become socially and ecologically literate about where one is, its history, and the norms of living there well. It might include advice about ecological experiences and relationships one can participate in, for example, by planting certain species or visiting certain places during specific seasons or events. It might also be a vehicle to nudge or assert new expectations, norms, rules and responsibilities - like keeping cats contained, or the risks of off-leash dog walking in the context of the Mountains. Strategically timing the

provision of this booklet, like when one moves house— information that a Council usually has on hand or might be able to arrange by developing coalitions with local realtors— can empower the booklet to become a preventative intervention. At such times, people may be searching for new ideas and are yet to make practical, financial and cultural commitments that will come to shape the routines and lifestyle choices that influence their impacts on the more-than-human community. When the concept of induction into place booklet was presented and discussed, Council staff showed a good degree of enthusiasm and shared recollections of similar resources and precedents, as well as ideas for content that they'd find useful. From ecological and social perspectives, it is a potential intervention to help influence how newcomers choose to 'narrate' and perform life within the Mountains.

**Citizen juries and participatory budgeting.** Council was admirable in its commitment to build and develop community capacity and inclusion in democratic decision making, and to create knowledge infrastructure amongst the community so that this was informed. There are various practices in development that could be specifically useful to deepen and expand this engagement and address specific points of tensions. In particular, participatory budgeting may be a useful way for Council to develop an appreciation in the Community about the constraints and compromises required in their governance and planning.

**Box 7.** Ideas developed through intuitive and practical thinking to help the Council pursue sustainable futures in the Mountains.

These two ideas for interventions are relatively straightforward. Overall, I found that while the Adaptive Cycle was useful in categorising and describing some of the pressures that were present, many of the ideas identified were already being enacted by the Council. It felt like a process of codifying practical wisdom—relying on rational pathways of justification, I felt, tended to obfuscate, rather than uncover a nuanced appreciation of the context.

Overall, undertaking this process and reflecting on it confirmed the competency of Council staff as agents of systemic change, and the nature of their work and its interface with different kinds of knowledge and perspectives in the process of decision-making. It raised questions, that will be discussed in the final section, as to the process and interaction of the kinds of knowledge produced by research, and the contextual, practical knowledge required for 'doing' systems change. More specifically, it sparked questions and reflections about where sustainability research might best focus in order to support discursive agents and help build systemic capacity that embeds sustainability into the processes and capacities of local democracy.

## **6. Theoretical and methodological reflections**

This section provides a detailed reflection on the methodology used in the process to collect and analyse discourses in the Blue Mountains case study. It focuses on (i) the study's effort to attend to the role of practices and materials in undertaking research into place-based sustainability discourses, and (ii) it reflects on, and problematises, the challenge of finding points of closure in the social dynamics of social-ecological systems research where the exchange of discourses and meanings are considered.

### **6.1 Reflections on processes used to collect and consider materiality in discourse analysis**

In analysing discursive dynamics, this study coded interviews in consideration of Shove et al.'s Social Practice Theory (2012) (Appendix 3), which involved identifying meanings, competences and materials present in the data. Primary coding to trace meanings and competences in the data was straightforward. It was found to be highly compatible with the established processes of environmental discourse analysis and the use of reflexive thematic analysis to interpret patterns in the data. I found that coding for meanings was useful to highlight explicit concepts and narrative patterns and was similar to other approaches that study discourses via language. Coding for competences, meanwhile, was useful as an interim step to consider the strategic practices used by agents, and other actors, to pursue the change they sought. I coded references to sites, events, and specific actors or institutions. These helped develop an understanding of actors, events, and processual relationships.

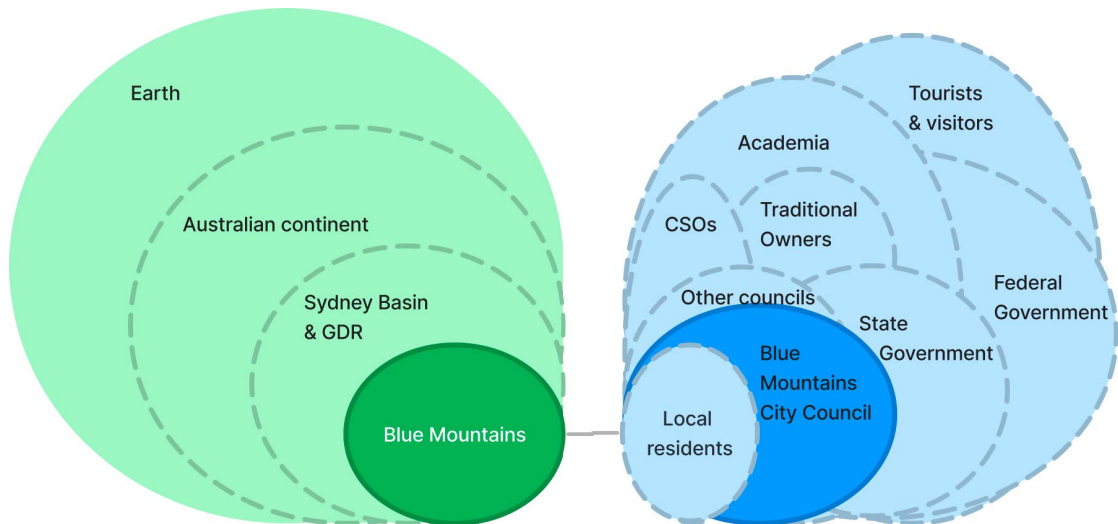
Coding for materials and mapping references to them provided greater insights. These were complemented by site visits to specific locations identified in the interviews as places where the competing discourses about place and sustainability were observable in the Mountains. Actively considering materials helped to identify the role of non-human actors like pets, specific planning documents that encode narratives into institutional and statutory processes, and surfaced the influence of specific sites on place memories and the performance of place and sustainability.

Second round coding involved identifying discourses, narratives and perspectives on change which helped interpret latent patterns of meaning and relationships in the data alongside explicit references to concepts. Here, mapping the interaction and relationships between these elements became a useful part of the sensemaking process (see Appendix 3 for records of this process).

In sum, I found that SPT provided a simple coding framework that assisted the broader task of discourse analysis and that it added value to identifying the presence and dynamics of environmental discourses, especially by affording attention to the materials being used. It highlighted the way discourses can be present, and mobilised, by the things we do and the things we use, complementing patterns and exchange of meaning that were traced by references to concepts and ideas. Coding for materials, I think, can help empirical studies of environmental discourse avoid the tendency to fall into ‘textual reductionism’ that can sometimes occur, and also resist temptations to separate the ‘social’ from the spatial and ecological counterparts that social realities exist within. For research fields like SES, which are explicit about including these more-than-human ontologies in their research paradigms, doing so is useful and appropriate, letting research surface and explore the relational dynamics between physical worlds and socially interpreted realities.

## **6.2 Relating the analysis to concepts of social-ecological systems**

Berkes & Folke’s (1998; 2002) seminal work on SES includes an influential heuristic suggesting social and ecological nesting of systems. In my study, I found that spatial distinctions neatly described the nesting of the Blue Mountains in biophysical systems, however, there were complex overlapping social systems and groups that influenced discourses in the Blue Mountains, and the work of the Council on topics of sustainability. These did not have neat spatial boundaries, but were often interwoven across local and national influences, with influences from groups like academia, tourists & visitors, presenting viewpoints that might be highly specific or highly abstract. An effort to represent this ‘messy’ network of social influence and interaction with/on the Council is provided in Figure 8.



**Figure 8.** Social systems were messily inter-connected, rather than logically stratified. Figure adapted from Berkes & Folke (2002) in Biggs et al. (2022)

Reflecting on the empirical aspects of the research into the discursive dynamics in the Mountains raises questions about how SES research might continue to consider social connections and influences, in ways that account for different networks of inter-connected and cross-scale influences, like those indicated in Figure 8. One pathway forward might be to consider the discursive flows and influences present in digital media, professional networks, and general patterns of public discourse on the politics and policies pursued in specific places. In my research, I noticed that discourses like *Rights of Nature* and references to specific concepts like ‘*bioregions*’ entered into Council’s lexicon via social networks between Councillors, council staff, and specific academics. Other observations showed how trends in broader public discourse created windows of discursive opportunity, such as where developments in research generated national media attention, which then shaped Councils potential work on cat containment. Finally, the discussion also observed the temporality of these influences, including the late emergence of concepts and narratives like *Nature Positive*, and *Country-Centered Design*. I suggest that future SES research which has interests in discursive exchange and influence could seek to expand its engagement with digital data sources and analysis techniques (such as those emerging in culturomics, or corpus-assisted discourse studies) to explore trans-scale studies that trace digital discourses, concepts or narratives through networks and material flows.

The empirical observations in my study echo conceptual and diagnostic views in the literature. Stojanovic et al.’s (2016) review, for example, also problematised if the ‘social’ in the SES heuristics adequately addresses contemporary social dynamics and interactions. They suggested SES was a useful boundary device, but that social research should remain open to points of

conceptual departure, where necessary, to integrate social dynamics of change. Westley et al.'s (2011) conceptual discussion also observed the need for SES to find ways to consider agency and innovation within institutions to support systems change between local and broader scales. My approach to generating and analysing data about the discursive dynamics in the Mountains has, I hope, helped examine and explore some of these opportunities, whilst recognising that many areas of opportunity still remain.

The context of the Mountains also carries important limitations when extrapolating from its findings. First, the LGA boundaries in the Mountains held a level of ecological coherence that many areas do not. The mismatch between jurisdictional boundaries and biophysical patterns— or the geographies of local industry— have often been raised as a procedural barrier that makes deliberative pathways to sustainable futures difficult, including in Australia (e.g. Pape, 2016; Wiseman 2010). In response, there are longstanding and resurgent movements, including the global discourse of bioregionalism, for example, which have sought to draw explicit attention to a need for regional scales of governance (Hubbard et al. 2023; Wearne et al, 2023). As such, assuming the positive observation of local government planning processes in the Mountains will exist in other contexts and issues may be a risky endeavour. Another limitation and caveat is that while the bushland setting of the Mountains made it an attractive case study for my research, creating a forum that (re)produced progressive discourses about sustainability within Council, most of humanity is increasingly urban (e.g. Hajer et al., 2022). In those settings, while the socio-cultural meanings produced by specific sites and the position of nature in human-place relations may be different to those in my research, I suspect that analytical attention to the social dynamics of meaning, and the way places are performed through everyday practices will remain equally important for discursive SES research to consider.

### **6.3. Relating the analysis to theories of discourse and discursive dynamics**

As above, when studying discourses and discursive agency in SES, I found that social influences were fluid and transcended spatial limits. I used interpretive approaches to identifying environmental discourses, drawing on traditions and steps outlined by Leipold and Winkel (2017) alongside those by Hajer (2006). I approached the study considering the global discourses described by Dryzek (2022), and the work done in earlier stages of my PhD (Wearne & Riedy, in press; Wearne et al. 2023; Hubbard et al., 2023) as precedents. This was useful to understand which

discourses were present and to identify global influences on the way sustainability was discussed in the Mountains.

While discussing the dynamics observed in the Mountains, I found synergies with other research, that have sought to demonstrate ways in which agents act as institutional entrepreneurs and/or engage with ideas and coalitions of actor networks from elsewhere in order to open up new spaces and directions for sustainability and change (in particular, Reidy et al. 2019; Leipold & Winkel 2017; Simoens et al., 2022; Westley et al., 2011).

Whilst risking getting bogged down in concepts and conceptualisations, Figure 9 offers some implications for how my observations might adapt Leipold and Winkel's (2017) heuristic describing analytical elements of a Discursive Agency Approach. The aim is simply to reflect that global sustainability discourses and contextually specific factors both influenced how agents could exercise their agency. Both global and local influences were mediated through materials (like specific places and documents) or human actors (including the subjective perspectives of the agents themselves, but also their relationships to researchers and professional networks).

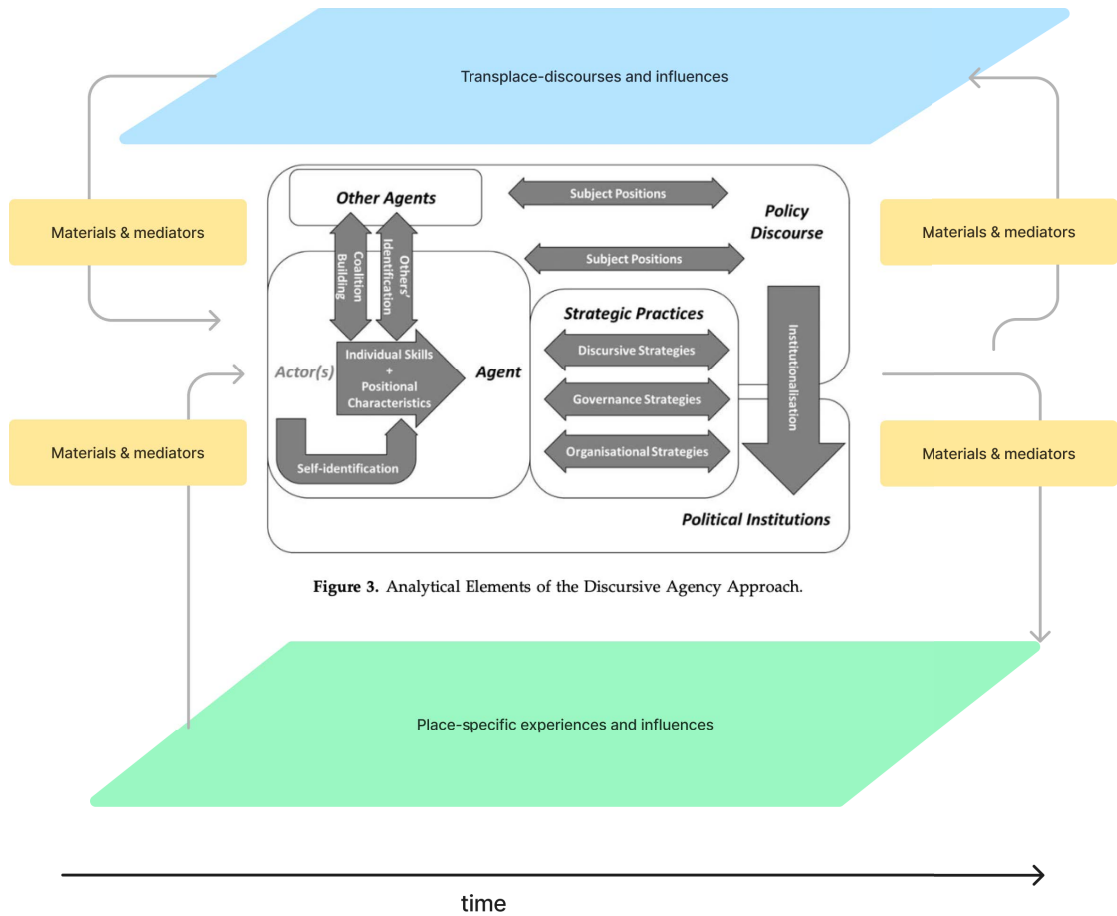


Figure 3. Analytical Elements of the Discursive Agency Approach.

**Figure 9.** Analytical Elements of an SES approach Discursive Agency, building on and adapting the work of Leipold & Winkel (2017).

I found that a person's position and skills influenced their ability to become an agent of discursive change, as did their exposures to different ideas, experiences, and materials. To exercise that agency, as Leipold and Winkel (2017) suggested, I found that agents drew upon a range of strategic practices in the context of broader political institutions, broader policy discourse, and the work of other agents (the original, grey elements of Figure 9). My suggestion- or observation- is that the contextual factors that agents engage with (including incumbent institutions, and broader policy discourse) progressively change over time, and that those factors include both trans-place social networks and contextual influences in specific places. I found it useful keep these broader relations within the field of view when considering discourses and discursive agency in the SES dynamics of the Mountains.

Given SES research seeks to account for contextual factors and social interactions across scales, paying attention to the materials & mediators that locate discursive agency within places, and in relation to trans-place networks, might be helpful additions to how research is conceptualised and pursued.



#### 6.4 Discursive Agency, Performed Practices, and Leverage Points in Systems.

A final reflection in relation to discourse and transformations theory is in relation to the patterns of practices and agency that were observed in the case study to support or resist sustainability.

Within Council, many of the strategic actions by agents to promote sustainability included examples of behaviour that are often studied via institutional entrepreneurship. Meanwhile, the analysis suggested that the *Romantic Colonial* discourse within the community, which resisted sustainability, appeared influenced by factors such as emotive experiences in specific places, popular stories about events, and social norms in daily life. While research into sustainability discourse at the interface of SES and STT research is still early, much focus has been on discourses as they exist in relation to specific policy narratives or policy-making institutions. Dynamics in the Mountains suggests there may be value in expanding this remit into social and cultural domains. This might, for example, uncover useful insights into social and cultural points of influence that shape the context for making-policy and the performance of (un)sustainability in specific locales and communities. Relatedly, while council staff had roles in making normative futures more socially attractive and attainable, a *Romantic Colonial* discourse was mobilised by stories, experiences and artefacts that have proven resilient over time. These experiences were often produced by actors in society, not government. A more action-oriented research agenda might interpret the dynamics in this case study as a call to ask how research might support sustainability advocates to produce or maintain experiences and stories that can be affective and resilient as high tea at the Hydo Majestic, the story of Explorer's Tree, or the poems of Banjo Patterson. There were some interventions, like the redevelopment of Echo Point, which showed signs of compelling agency that may do so. Exploring these examples and the decisions that they entailed could be a source for further study.

A second point of reflection is that alongside nostalgic memories, daily practices also created and supported a *Romantic Colonial* discourse. These practices appeared contradict the stated values and aspirations that were popular in the community. Dedicated research would be required to quantify and test these observations amongst the community however my findings suggest there is much value in continuing to extend research at the interface of practice theory and STT research. How might sustainability agents, for example, normalise daily patterns of behaviour that can help facilitate productive relationships with nature— and can developing these daily practices shift the way people view and value place? This orientation might lead

research to explore the connection between daily practices, dominant discourses, and stated worldviews.

Across these reflections are opportunities for STT research that considers questions of discourse, place and sustainability to more broadly consider topics of aesthetics, communication, and design, as important areas of interest for research seeking to understand societal discourses about sustainability.

## **7. Implications and conclusions**

### **Discourse, democracy and conflict in the knowledge-coproduction of place and sustainability**

Methodologically, this case study found that incorporating affordances to materials, sites, and practices assisted the processes of SES scoping and sustainability discourse analysis. In particular, accounting for materials as part of discursive change was useful. It made processual discourses about how a community relates to place, and how local government did their work, more salient in the process of analysis.

Thematically, the analysis has outlined contestations between a romantic colonial discourse that was mobilised by community practices and a set of normative discourses about how to pursue sustainability in a local government in Australia. In investigating the dynamics of these conflicts and contestations it considered the skills of individual agents working in response to institutional processes, contextual dynamics and broader social trends.

In a context such as the Mountains, and Australia more broadly, it might be unfair- perhaps naïve- to expect there not be a contradiction between the daily lives and decisions of a community and their aspirations for a normative future. In the face of these tensions, it was discussed how Councils hold a mandate in Australia's democracy to navigate diverse perspectives and make decisions that constitute local rules and norms that can translate long-term visions into tangible sites and places. Council staff were seen to be experts in this work. They served as capable agents able to navigate systemic opportunities and contextual challenges by using a range of strategic practices that re-produced and mobilised different concepts and storylines to

(re)empower different discourses, and pursue normative agendas. *Democratic Pragmatism* described a discourse being mobilised by the way Council staff did this job and it related to a broader pattern of action to support democratic process and capabilities.

In the discourses observed and the practices used to re-produce them, various concepts and narratives about sustainability had found their way from contemporary sustainability literature to the work of the BMCC. Reflecting on the work of the Council also drew forth a comparison between their work in democracy, and trends within sustainability science that envisage researchers adopting similarly facilitatory roles to enable systemic change. I'm left with questions about these connections and the implications they hold for normative research practice.

References to the concept of knowledge co-production in relation to sustainability have shifted and changed over time. Jasanoff (2004: p1) introduced the term as a way to acknowledge the relational dynamics between society and science, noting "ways of knowing the world are inseparably linked to the ways in which people seek to organize and control it". This served to draw attention to power dynamics and influence that knowledge production can entail, noting that those who set the rules of knowledge-making, also define social norms.

More recent descriptions in sustainability science describe co-production as positive efforts to "iteratively unite ways of knowing and acting" (Wyborn et al., 2019, p320) often carrying ambitions to "achieve intended aims, such as influencing decisions towards particular social-ecological outcomes" (Chambers et al. 2022, p2).

On the one hand, my research demonstrated that scientific knowledge was embedded in the way sustainability was discussed. It was tied up, it seemed, in processes of rationalisation and in the roles and identities of individuals and institutions. Some representations, and discourses, that had the backing of the academy, like *Planetary Health*, appeared to grow in influence, despite contextual factors also playing a role. These kinds of knowledge were fluidly drawn upon alongside contextual knowledge about the area and its community; professional or technical knowledge about planning, ecology, Australia's statutory systems; and institutional and practical know-how about doing the work of local government.

Orlove (2023) has reflected upon Jasanoff's perspective and contrasted it with the outcome-oriented ambitions that "co-production" is sometimes generating in sustainability science, summarising those engagements as often pertaining to calls for a "collaboration between scientists and other groups of experts and knowledge holders, often limited to short-term projects". She,

and others (e.g. Chambers et al. 2022), are now seeking to draw attention amongst researchers back to the tensions of power in any co-production process, concluding that “transformative change to solve the climate crisis will depend on careful attention to these interactions between knowledge and power” noting that there is a need to support Indigenous and non-Western knowledge systems in particular, when developing policy and action on sustainability.

Considering these dynamics, I think an additional point of reflection for academics seeking to coproduce knowledge for place-based change is to consider their role in relation to democracy, where it exists. Given the social mandates and processes that already house decision-making in entities like local councils, research might be wise to find ways that address issues of power within those systems, and to contribute and enhance the systems, capacities, and processes that they rely on to make adequate decisions for society. Doing so might result in the prioritisation of what some scholars refer to as building the co-productive capacities (van Kerkhoff & Lebel, 2015), with attention paid to the development of capacities required in local communities or sectors, beyond government and academic institutions. Further extensions might be possible by (re)viewing coproduction as a practice (West et al., 2019) and adopting a critical and relational perspective on who ought to be involved, in which roles. The axiology of these ideas has similarities to broad calls for science in relation to the pursuit of sustainable futures (e.g. Wyborn et al., 2020; Wyborn et al., 2019) but draws greater attention to the roles and mandates of government compared to those of academics. In doing so, it reflects and amplifies the way coproduction has been discussed in relation to place-based approaches; in those lineages of coproduction literature, the key actors appear to be government and the community, with academia playing the supporting role (e.g. Soares & Horlings, 2020; Hakkarainen et al., 2022).

In my case study, I found that Council and Council staff were participating in processes that were akin to an ongoing process of co-producing knowledge with the community, academia, and other parts of society about how to best govern the Mountains. Rather than seeking to replicate these efforts, research might seek to complement them. The competency of Council staff in pursuing their work at the interface with the politics of everyday lives, and their mandate to do so in Australia’s democratic system, sits in contrast to inherent risks and implicit assumptions that assume knowledge co-production for sustainability is the job for academics to lead by conversing with select groups of experts or representatives in small workshop environments. While not a panacea, and acknowledging that councils, like any institution, will carry their own challenges and biases, centering existing voices that house contextual and practical knowledge, and a responsibility to make decisions should be an obvious point of call for efforts in academia that

seek to deliberately change societal systems and structures and influence decision-making about the future.

In sum, observing and reflecting on the dynamics in the Mountains draws attention to knowledge co-production in the context of Australia's representative democracy. Drawing attention to the mandate, competency, and experience of local government being at the center of these processes, where possible, raises the opportunity for reflexive considerations about where and how research might best play its part. In particular, how might we enhance the co-productive capacity of communities within the systems of democratic representation, rather than replacing those forums with new ones? Doing so ought to bring sustainability science into greater and more deliberate engagement with democratic principles and studies in how change is approached.

### **Concluding thoughts and propositions**

This paper has communicated findings from a study of discursive dynamics in a social-ecological system governed by a local government in NSW, Australia. It characterised the discourses that were present and the strategic practices that were being used to mobilise these discourses and influence the work of the local council in their pursuit of sustainable futures. While many discourses were present, democratic pragmatism described an underlying discourse about the process of change, giving a role to different agents, and housing a diversity of viewpoints and positions of power.

The case study revealed how discursive contestations and knowledge co-production processes are an inherent part of the democratic policy-development process. Democracy, in this example, was necessarily knotted; policy and planning decisions were co-produced between evidence-based thinking that followed the trends and outputs of science and research, alongside the influence of societal pressures and dynamics that played out through local, state and national dynamics. The process is less like linear flows of rationalism and consensus and more like a networked constellation wherein different discourses about sustainability carry different power relations and are mobilised via individual and institutional expressions of agency that influence which/whose knowledge holds sway, and which futures is pursued.

Reflecting on these dynamics, I suggest that SES researchers continue to explore discursive research to surface the politics of sustainability. While there are trends calling for sustainability research to become central in the co-production process, it seems wise to remind ourselves of the principles and structures of society, including democratic principles and existing democratic pathways. Selecting interventions that strengthen the systemic capacity of communities, individuals, and institutions, to engage in systems of constructive and deliberative decision-making should inspire us to bolster such systems (where they exist) rather than replicate them in temporary ways which center scientists and academics, rather than local governments and elected representatives. Our ambitions to support rapid and just environmental outcomes do not always require something new- perhaps looking to strengthen what exists can be more useful and appropriate.

**PART C.**  
**DISCUSSION AND CONCLUSION**

# DISCUSSION

## 1. SYNTHESIS ACROSS THE VIEWPOINTS

### 1.1 Overall findings and propositions

My research was driven by two overarching questions:

- I. how are place-based approaches to sustainability transitions and transformations being pursued and discussed? (RQ1) and
- II. how might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit? (RQ2)

In the preceding sections, I have shared findings from original research that offered answers and insights to these questions from three complementing perspectives. The first research question has been addressed in the content of the research, and the second research question has been partially addressed in the methodologies that were used and demonstrated. Across the analyses, I have discussed how the findings from each piece of research relate to contemporary discussions and debates in sustainability, addressing the issues of power and politics at the interface of place and STT, the role of discursive agency, and how context and social networks influence how sustainability is perceived and pursued.

To recount my findings on RQ1, the first viewpoint created a broad sketch of the way place and place-based approaches to change were being discussed in prominent STT literature and on the English internet. It identified a shared storyline about the (conceptual) role of place in STT that appeared to be promoted by STT academics, place-based sustainability educators and policy-makers. Key features of this storyline were “(i) a concern with environmental change, including climate change, and a vision for the future that includes biodiversity conservation and societal development, (ii) an awareness of multi-scalar change, including interactions between local and global scales, as well as changes within people and broader communities, (iii) an interest in the system dynamics of institutional, ecological, and social dimensions of change, and the management of this change, (iv) recognition that non-humans rights and outcomes matter and that place-related values are contested... and (v) an approach to change that emphasizes collaborative work by and with local communities, based on a foundation of cultural and ecological literacy about that place” (*Viewpoint 1, p72-73*).

Viewpoints two and three traced specific expressions of this narrative in greater depth and specific contexts. The second viewpoint did this by looking at the global discourse of bioregioning,



which offers a specific story about place-based approaches to change and sustainable futures. This viewpoint outlined that despite contemporary bioregioning sharing its own set of emphases and a core narrative, it too was capacious; among the contemporary leaders we talked to, sustainability issues appeared to be narrated in slightly different ways, and specific places (presented as 'bioregions') drew forth plural imaginations of sustainable futures, and the process of change.

The final viewpoint presented a viewpoint from the bottom up, focusing on the work being done by a local government in Australia that had publicly espoused the goals expressed in the central storyline above. From this perspective, I explored how contextual social-ecological influences interfaced with the discursive agency of Council staff, trends and incumbent politics in Australia's planning system, and the politics of daily practices performed by members of the local community. I found that three normative discourses about sustainability all sought to 'Transform Place Relations', and held different storylines that intersected with the themes identified in viewpoints 1 and 2. A processual discourse (*Democratic Pragmatism*), enacted by the Council, enabled the consideration of these discourses in the context of local government and democracy. The discourses I identified were sometimes deeply emergent, tied to local histories, cultures, and context (such as *Caring for Country* and *Romantic Colonialism*) or reflected institutional norms and precedents (like *Stewarding the Blue Mountains*). Alongside this, global narratives and viewpoints were also evident and influential. Global discourses about the *Rights of Nature*, *Planetary Health*, and *Ecological Modernisation* were all present and influenced in the work of the Council, but they also showed signs that they were undergoing, or had undergone, various levels of localisation. Overall, I identified that the pursuit of place-based approaches to STT in the Mountains was most poignantly dependent on a *Democratic Pragmatism* discourse being performed by the Council and the community's performance of a *Romantic Colonial* discourse through their use of space and everyday practices. The case study discussed the contestation between different discourses, and the normative use of practical knowledge by council staff to navigate those dynamics in the context of the Mountains, and within Australia's democracy.

RQ2 is broad and I have made deliberate contributions toward it by testing and extending methodological to discursive research to consider how issues of place and context intersect with complex socio-cultural exchange, and concepts about systems dynamics and change in STT research. Three approaches were used, matching the 'scale' of discursive exchange (and conceptualisation of place) that each viewpoint addressed. In the first viewpoint, 'place' was being discussed mostly as a concept and spatial boundaries were largely absent from the

research design (noting that limitations do likely arise from its reliance on the English language, an inherent bias in my selection of academic publications, and uncertainties limitations with internet data). It allowed a consideration of abstract and conceptual discussions about place to be surfaced alongside reflections across plural place-based research projects and experiences that were raised within the data. Methodologically, it showed how digital data sources and techniques can help to introduce new opportunities for discursive research on environmental issues. Learning from the pros and cons of this study, I found that some of the tools (like WebBootCat) were useful for a researcher's practice, even if not formally leaned upon when writing academic papers.

In the bioregioning study (viewpoint 2), I thus used the WebBootCat tool as a precursory step to the study. It confirmed what my research group had identified in our workshop-based discussion— adding a degree of objective confidence that (i) the people we'd identified were indeed influential leaders in the field, and (ii) that bioregional concepts were being discussed in discordant ways, reiterating our observations and warranting further investigation (Appendix B1). The bioregioning study then relied on the analysis of interview data and the research project involved collaborators from different contextual and disciplinary backgrounds. To acknowledge these differences, we drew on reflexivity and relationality when considering the perspectives of our interviewees and one another, respecting the different places we come from and surfacing the role of context in the stories we tell about sustainability. Doing this, we found, surfaced a greater sensitivity to the ethics of our work, and the way we approached the task of analysing participants and their stories.

Finally, in a case study of the Blue Mountains City Council, a local government in Australia (viewpoint 3), I drew upon interpretive traditions in environmental policy discourse analysis and combined them with orientations from social-ecological systems research. This enabled the research to consider socio-cultural dynamics affecting the Council's work through the analysis of interviews, documents, and material contexts (like specific sites and their use), and to study the strategic practices used during acts of discursive agency by the Council and the community. While this study found that concepts of discourse, agency, practice, and SES helped outline the discourses and their dynamics, the study found that discursive agency relied on forms of knowledge that were highly practical and contextual, which resisted acts of codification that academic research tends to rely on. More broadly, the importance of democratic process and functions were surfaced, asking where and how researchers should best position themselves when deliberately engaging in processes of knowledge co-production in society.

Like all research, the ideas I have presented also carry limitations. These too have been discussed in each part of the thesis. Most notably, calls for a place-based approach to STT have grown over the course of my research and the STT field has also expanded. As a result, references to place-related concepts and priorities are now relatively commonplace in influential discussions about how sustainability should be researched and how change should be pursued. Concern with place-based scales, our relationships to those areas, and attention to local processes of decision-making have become part of an increasing number of interrelated and overlapping fields of research, including human-nature connections studies (Riechers et al., 2021), place-based social-ecological research (Bennett et al. 2021; Norström, 2022), and sustainability transitions and transformations (Masterson et al., 2019; Mehmood et al., 2020; Pereira, Asrar et al., 2021). This context reflects that while my use of three viewpoints helps to provide structure and reach regarding discursive dynamics and place across scale (compared to say, three local case studies), each of those perspectives carries its own limited scope and dataset, and they are only three perspectives into a topic that spans the Earth's full diversity of places. It would be interesting for example, to extend the research approach used in the Mountains to study a different context, such as a highly urban environment. Secondly, as interest in topics of place, sustainability and transitions grows, it shows how the study of discourses can feel like researching a moving target. It now would be interesting, for example, to explore how sustainability discourses about 'place' differ from those of 'neighbourhood' (Hajer et al., 2020), 'country' (GANSW, 2023), or 'region' (e.g. Pape et al., 2016) and to trace how these differences play out across time, disciplines, or different geographies. While CADS may be one way to explore such opportunities, the shifting and expanding interest in topics of place in sustainability also demonstrates a fundamental challenge I faced when doing discursive research. Each study took significant time to complete while the discourses being analysed never stopped changing and evolving. Methodological limitations and constraints were also present; Viewpoint 1 also offered a specific discussion of the challenges face when using CADS- noting technical issues in obtaining and using web-derived data and an analysis process that faced challenges in translating insights into a timely publication for peer-review. Viewpoints 2 and 3 were analytically more straightforward, using qualitative approaches, but they carry a greater reliance on the subjectivity of the researcher and retain inherent constraints in terms of the size of data that could be considered. Methodologically, there is an ongoing opportunity to keep improving how CADS and interpretative discourse analysis can be combined and explored. The various caveats above serve to acknowledge that the answers I've presented against my research questions, have been limited and shaped by the scope of my data, and the methods that I used. Despite these limitations, the research retains a suite of useful empirical insights, demonstrates new methodological approaches and possibilities, and

surfaces reflections and discussions that are relevant to a broad variety of researchers and practitioners interested in the interface of place, discourse, and sustainability.

Conceptual and thematic throughlines were also developed during the research. As demonstrated in Viewpoint 1 and then reiterated in Viewpoints 2 and 3, I found that the narratives and storylines used to connect place-related issues to the goals and process of sustainability tended to share some broad axiological ambitions and political preferences, centring the need for bottom-up processes of decision-making, an ethic of care, and eco-justice politics. In doing so, there was an ambition to emotively and rationally connect local levels of change to pressing global issues. Despite these similarities, various nuances were also present. Contextual influences and subjective perspectives seemed to influence which priorities were emphasised by different agents. As outlined in the discussion of the bioregioning paper, we found parallels between what the content of our study suggested about contextual and/or relational influences and what we experienced in the process of doing our research. What appeared to be universal concepts, we found, were often interpreted in different ways. Reflecting on this dynamic, the paper problematised the (universal) assumption that valuable knowledge in sustainability can (only) be generated through the rational processes of semi-detached analysis and discussion. We asked if knowledge systems within research need to place more thought on the way that relational and contextual influences might be surfaced during the research process. For practitioners, Viewpoints 2 and 3 both confirmed that a focus on place seems to accompany a deliberative and emergent approach to change, which was prefaced in viewpoint 1. Finally, abstract and conceptual discussions of place-based approaches to STT (such as the global discourse about place-based approaches to STT or concepts of bioregionalism) appeared to be at their best when treated as boundary devices, facilitating reflexive and critical discussions about what to do in a specific place, time and social-ecological context. In bioregioning, for example, depending on how one narrates the issues of sustainability, very different (but rational) justifications about the priorities for a place-based approach to STT were possible. Overall, there was a shift within bioregional discourse that appears symptomatic of how and why place is becoming an attractive concept in contemporary sustainability. Without abandoning a clear vision for thriving and diverse futures, it also creates a prerogative for change agents to distinguish favourable approaches to change from unfavourable ones, based on the virtues they embody and the processes they employ, rather than the ends they purport to deliver. This shift, as will be discussed, enables a greater focus on relational ethics and orientations such as duty, care, and responsibility that are fulfilling to use in research, and appear effective in policy

and practice when socio-cultural dynamics of sustainability (like our relationships with nature) are considered part of the agenda.

In the Blue Mountains, I identified a similar focus on process where in norms and aspirations of democracy were identified in the politics enacted by agents within the Council. Here, *Democratic Pragmatism* appeared to be a shared ambition about how change should be pursued. This underlay the Council's work toward sustainable futures, mediating how a set of more specific and explicit sustainability discourses were concurrently used, pursued and considered by the institution and its staff. By considering a specific context in depth, the third viewpoint also showed the difficulty and contestations that occur within specific places. Here, progress toward sustainability was influenced by deeply contextual meanings, attachments and performances of a good life in the Mountains. These performances expressed a discourse about the place (*Romantic Colonialism*) that contradicted stated goals and made progress toward sustainability more complex. Between this and the examples of strategic practices used by council staff to exercise discursive agency, the viewpoint shows how on the one hand, social connectivity in the modern age creates complex webs of meaning across spatial scales and social networks, and on the other, that there is a significant amount of practical wisdom required by discursive agents to respond to these dynamics to realise change in their specific contexts.

In the process of researching the content and dynamics of place-based discourses across each of the three perspectives, the thesis has thus shown the value of combining environmental discourse studies with (i) quantitative and digital data sources, (ii) relational ethics and collaborative approaches to research, and (iii) considerations of context social-ecological system dynamics. By using a suite of different perspectives and associated methodologies, my research offers observations of discursive dynamics that are present in the way place is discussed in relation to STT, and reflects on the dilemmas, hopes and tensions that they carry— connecting my empirical observations to central priorities and debates in contemporary sustainability literature. Doing so has assisted efforts to integrate studies of discourse and sense of place topics into the field of STT research, has provided insights into the politics of place in sustainability and has offered methodological and theoretical contributions to how that transformations literature might explore sociological perspectives on change.

While my contributions to RQ1 have been discussed through each of the individual viewpoints and reiterated in the above synthesis, more discussion is required to complete my contributions to RQ2. To complete my thesis, the remainder of this section will examine and discuss overarching themes and dynamics that have been raised, noting many of them remain unresolved. A final

paper is then presented that extends those reflections into a specific proposition about how sustainability science might proceed. It draws attention to the role of academic research and publication as an important influence and potential leverage point, that holds influence on systems of power and politics that promote some sustainability discourses over others. It also serves to question and more deeply explore the role of place in sustainability and the implications of my findings for STT research practices in the future. The thesis will conclude by summing up my contributions and sharing how I plan to take forward opportunities and insights that have been raised in the thesis to explore further contributions, reflecting areas of opportunity that have been raised.

## **1.2 Contextualising the thesis within broader shifts in science and (western) philosophy.**

Across the perspectives in my thesis, I have occasionally highlighted that studying place, social change and sustainability has overlapped with three ongoing 'turns' in sustainability science. In the introduction of this thesis (p29), I noted that Abson et al. (2017) provided a neat summary of how the interdisciplinary field of sustainability transitions and transformations studies seeks to engage with these trends and topics. Their agenda provided a useful summary of the orientation and context that I engaged with when I set out to do my research:

*"We propose a research agenda inspired by systems thinking that focuses on transformational 'sustainability interventions', centred on three realms of leverage: reconnecting people to nature, restructuring institutions and rethinking how knowledge is created and used in pursuit of sustainability."*

(Abson et al., 2017, p. 30)

Since this observation, sustainability science has continued to take up this agenda in at least three related ways. They include (i) an ethical turn that (re)centres nature and calls for socio-cultural changes that shift for whom we 'do' sustainability; (ii) an ongoing interest in systems dynamics via the development and use of frameworks and heuristics that reflect trans-scale interconnections and dynamics of complex adaptive systems, and (iii) an onto-epistemological turn toward viewing human-nature relationships through relational epistemologies, and/or concepts of social-ecological hybridity. This is a particularly deep shift and it extends across the social sciences with many multiple implications and points for reflection.

While the discussion section of my second viewpoint touched on some of these points, they are reiterated below. Collectively, my thesis leaves me with a mix of insights and remaining questions about how sustainability research that takes a place-based agenda seriously ought to engage with each of these priorities through research and practice:

- **Ethics.** My studies have all discussed how a focus on place creates dilemmas about power and ethics that can benefit from relational values, more diverse ways of thinking, and reflexive forms of research. Findings from each perspective demonstrated an ambition in theory and practice to try and expand ethical considerations in sustainability to consider the rights of other species and the heritage of different places. In practice, my research found that these pursuits proved difficult (viewpoints 2 and 3). Many of the ideals and ambitions that a place-based approach implies seem ill-fitted to the power dynamics that sit in incumbent institutional structures that shape the way that research is done, which kinds of knowledge are valued, and how sustainability intersects with decision-making in society.
- **Systems thinking.** I found that concepts of complex systems were often useful for conceptualising ways to study change and discourses. Most often, their utility was best grasped when they were treated as boundary devices that prompted reflexivity and discussion in how sustainability was researched or pursued, rather than as explanatory rules or definitional playbooks. The influence of systems thinking was evident in the way that a *bioregioning* discourse (viewpoint 2) and *planetary health* discourse (viewpoint 3) made their arguments for influence. Here, justifications for a focus on practical and contextually specific approaches to STT could sometimes become ironically abstract. While observing these dynamics, I also experienced the seduction of abstract and conceptual discussions about 'place' and societal transformation while undertaking my research. It leaves me with nagging questions about the role and politics of systems-orientations within sustainability research and how they engage with normative ideas about democratic, deliberative, and contextually specific approaches to change. On a more positive note, the use of systems concepts also interacted with the way ethics seemed to interact with place in the pursuit of STT. In the second perspective, *bioregioning* displayed a subtle shift in emphasis where broad ambitions for the future, and concepts of how to get there were productively used boundary concepts, often in awareness (or memory) of the tensions and dilemmas that doctrinal approaches to bio-regional ideas have carried in the past. Reflecting on those dynamics, the paper asked if this was indicative of a broader tendency occurring at the interface of place-based

interests in sustainability that see a shift away from an ideas-driven approach that tends to put a utilitarian emphasis on the outcomes of sustainability (like in previous expressions of bioregional thought) toward a greater focus of the (virtue and deontological) ethics that are embodied during the processes of change.

- **Relationality.** Also in the discussion of viewpoint 2 (*Section 5.2*), I asked about the epistemological implications that contextual dynamics appear to have on meaning-making structures in sustainability, which were further explored in viewpoint 3 (*Sections 1 & 7*). When looking at concepts of place alongside epistemology, Western Science appears to be in a moment that raises dissonance about how research and scientific rationalisation are done. Contextual knowledge, and relational knowledge, are often drawn from synonymously, but they appear to draw on different philosophical foundations and implications for epistemology and research- are we studying *relational* hybrids of social systems coupled with ecological systems, or are we erasing those distinctions to new indeterminable wholes of NatureCultures?

There is much room to take these considerations, reformative seeds and critical discussions further. The remainder of this section will build upon the reflections from my thesis to discuss opportunities that remain.

## 2. OPPORTUNITIES FOR FUTURE RESEARCH AND PRACTICE AT THE INTERFACE OF SUSTAINABILITY, DISCOURSE, PLACE AND SOCIO-CULTURAL CHANGE

A key focus of my thesis has been to study and consider how the concepts, goals and politics of place-based sustainability discourses connected across time, space, and through contextual and individual mediators. There remains much opportunity for methodological, conceptual, and empirical contributions to improve our understanding of these dynamics in socio-cultural change. Below are some key opportunities and considerations that I think are useful.

### **2.1 Empirical and methodological opportunities: tracing discourses, narratives and their implications across time and space.**



In my first perspective, I used web-derived data and corpus linguistic tools to study discourses in two datasets. It showed new ways for STT research to trace the networked exchange of meaning about sustainability in an increasingly digital society. Conceptualising discourses and discursive research in digital forums of exchange opens up a dizzyingly diverse and expansive landscape that appears to be being made more complex by the moment, as communication technologies keep adding new threads of access whilst also complicating how those networks flow. While using CADS helped me to gain useful insights in a matter of weeks, it took years to translate into an academic publication. Section 6 of that paper discussed those dynamics, reflecting the difficulty of sharing knowledge in a global publication system. Despite these challenges, there remains much more to explore from extending the approaches I demonstrated in Viewpoint 1. A particularly promising opportunity is to trace cultural relationships to specific non-human features, over time, using web-corpora and corpus-assisted discourse studies.

There are also related opportunities, I believe, to further expand what is typically included as data in environmental discourse analysis. For example, whilst the literature on cultural change in society acknowledges that ‘memes’ (packages of culture, page 20) occupy various formats of communication, limited research in transformations studies have included aesthetic elements in their analysis. Sacha Kagan (see Kagan 2011; 2012; Kagan & Kirchberg, 2016; Kagan & Volker, 2008) has been a leader in introducing the role of art, creativity, and aesthetics in STT and there remains an interesting opportunity to introduce insights and theories of aesthetics and imaginaries (like those of Kagan, 2018) into empirical studies of sustainability discourses as they relate to the pursuit sustainability and efforts in socio-cultural change. I had ambitions to include these factors in my own doctoral research but they fell outside the scope and feasibility of a single PhD thesis.

## **2.2. Conceptual opportunities: deepening a practice-based perspective on leverage points and systems change**

When I started my PhD, concepts of systems change were largely related to Donella Meadows (1990) seminal text “places to intervene in a system”. The 12 points she described, have often been discussed and interpreted in ways that positioned them not just in a linear scale of importance (e.g. O’Brien & Synga, 2018) but as a call for change agents to focus on trying to change the higher-order points; i.e. it has led to many interventions that use concepts of Transformative Learning (TL) as a way to enable deeper reflexivity and changes in worldviews.

Since then, leverage points have been discussed in quite different ways in the literature. More recent work tends to draw attention to the linkage between the points that Meadows outlined, making the space for strategic agency more fuzzy and less codified. Leventon et al. (2021) discuss how the concept itself has become a boundary concept, and suggest researchers focus on the complex interactions between different features of a system. This has led to conceptualisations of a 'leverage points' approach to sustainability that is iterative, reflective and agile, rather than something more linear and strategically planned. This better reflects, in my view, the foundational idea that social, ecological, and material systems are complex and that the interactions between (for example) our practices, and our worldviews, are difficult to predict.

Interestingly, a decade after describing the points of leverage in a system, Meadows (2001) made the distinction between the kind of work used to pursue system change in practice, as opposed to the research she did to understand systems and explain them. It is here where her reference to 'dancing with systems' emerges, which I found to be a useful way to describe the way that place-based approaches to STT appear to be pursued in practice, especially in their most compelling forms<sup>7</sup>.

Reflecting on this context and the findings of my research draws to the fore a consideration of the heuristics used in sustainability science and the role they play in helping (and shaping) the way people think about doing change and engaging with complex systems. In the bioregional study, concepts about scale have shifted over time from firm ideas and strategies to concepts that serve as boundary devices to inspire and raise discussion. In the Blue Mountains, SES heuristics, social practice theory, and the DAA were all useful concepts that carried different heuristics to communicate their agendas. I found it useful to use these carefully, but not as strict doctrine or direction. There is, I think, more work to do to normalise a culture amongst sustainability researchers, practitioners and policymakers, to ensure that frameworks and concepts that emerge as popular in academia remain acknowledged as approximations of a broader world rather than something more concrete.

Treating frameworks as fallible (but potentially useful) boundary objects, sensitising objects or discursive aids, rather than as tools to dictate strategy, may help avoid a tendency for what

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<sup>7</sup> See for example, the conclusions about contemporary Bioregioning in Section 5.3 of Viewpoint 2 and in the description of the practices used to enact Democratic Pragmatism, Section 4.2 of Viewpoint 3.

Alfred North-Whitehead (1925/1997) called the ‘fallacy of misplaced concreteness’; wherein theoretical abstractions distract our focus, becoming more consequential to our ways of thinking than the real world which those abstractions set out to represent.

These reflections lead to an unresolved question that I’m stuck with and continue to explore. If we take the complexity of complex systems seriously, then applying the processes of codification that traditional science is based on seems to miss something fundamental about the object(s) and phenomena that it purports to study. These issues become particularly evident when sustainability is considered in place-specific forums. Here, while sustainability science is engaged with the creation of abstract knowledge through processes of de-contextualisation and rationalism that sit at the core of Western science, the practice of sustainability appears to deeply rely on contextual and practical knowledge that resist efforts of de-contextualisation and codification. What then, is the role of research that seeks to support practitioners who want to create change in (truly) complex systems?

The discussion paper, below, further explores these concepts, situating them more deeply in the literature. Specifically, it considers how knowledge systems in sustainability science might be changed to better serve patterns and aspirations of a place-based approach to STT.

### **2.3. Practical opportunities: connecting discursive research to discursive agency and pursuing place-based approaches to change**

A final area of opportunity and reflection that connects themes raised in the conceptual and empirical discussions above, relates to how discursive research might support discursive agency and place-based approaches in practice.

My findings reflect a complex view of socio-cultural change wherein a myriad of influences shaped sustainability discourses about place, and how change was pursued in specific locations. In the third perspective, I reflected on these dynamics, suggesting that research which seeks to normatively intervene or support some discourses to take hold in society might find value from engaging with factors like the performativity of daily practices and engaging concepts of aesthetics and design to consider the ‘stickiness’ and affective power that comprise different narratives and are used by discursive agents.

Connecting discursive research to normative pursuits of socio-cultural change carries with it many tensions, implications, and opportunities to test, research, and discuss. While there are obvious opportunities, like trying to codify and disseminate examples of compelling materials and practices that have been shown to support change (extending, for example, ideas of Chabay et al., 2019), this approach can quickly fall into the trap of codifying highly contextual or practical knowledge, as previously discussed. A second approach could be for researchers to take a more hands-on approach, using their own discursive agency to storylines that have potential or testing their own capabilities as creators of place-based narratives. A third avenue may lie in a more systemic approach, one which focuses more centrally on the role of research in socio-cultural change and discourse. I elaborate on one such opportunity below, discussing how the STT research community might re-visit the systems we use to communicate and discuss knowledge. Innovation in this area, I suggest, might have a positive influence on discursive policy-making processes in sustainability.

### **2.3.1 A specific proposition for research: place-based knowledge systems**

The following discussion paper provides a final contribution to the second research question of my thesis. Topics of epistemology, power and practice, which have been reflected upon throughout the thesis, are re-surfaced and explored. The paper reflects upon the goals that are often emphasised in calls for place-based approach(es) to change. It compares these goals to the power dynamics which currently sit at the interface of sustainability research and sustainability policy.

If we wish to empower patterns of emergent place-based change (and corresponding epistemological systems) for sustainable futures, what might be done differently? The paper speculative explores one response to this question, using heuristics from STT literature (in this case, the Adaptive Cycle) to illustrate and discuss how regionally specific publications might serve as a normative point of intervention within the academic system to support its own normative transformation.

## Are We Practicing What We Preach? Scaling Out Knowledge System Infrastructure for Sustainability Transformations. Place-Based Publications: A Provocation and Proposal.

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### Abstract

Six years ago in Scotland, the 2017 Transformations to Sustainability Conference drew forth a discussion about the need for transformative changes in knowledge systems in order to realize more normative and sustainable futures. Participants voiced a growing discontent about the way that knowledge systems influence sustainability practice by shaping which kinds of knowledge gain power, who are seen as the experts, and how change is pursued.

Since then, calls for sustainability research to approach knowledge in ways that are more plural, contextual, decolonial, and deliberately co-produced have grown and gained momentum. However, discussing how the knowledge systems within academia might need to shift in structural ways to enable those changes remains under-explored. For example, how do mainstream processes in academia, like publishing in international peer-reviewed journals, interact with the issues of power we critique and the ideals we are pursuing?

I've been thinking about these questions alongside my PhD into sustainability discourses and place-based approaches to transformation. In this short and speculative paper, I recap some common themes in the calls to action and explore where there might be opportunities for strategic intervention. The specific opportunity I focus on is how academic knowledge systems engage with contextual ('place-based') knowledge, and I raise the idea of explicitly regional transdisciplinary publications as a potential leverage point in knowledge systems and their influence on sustainability. I hope to promote reflexivity about the current system and discussion of this potential addition: what could it look like, what incentives could it support, how could it influence power, and what pathways might it unlock for sustainability practitioners, local communities, and the landscapes that we live in?

### Introduction

There is increasing discontent with the ethics and outcomes of knowledge systems that dominate the transdisciplinary field of sustainability science. Six years ago, the Transformations Community outlined this, suggesting diverse, plural, and emergent forms of knowledge co-production are needed to realize just and pragmatic sustainability transitions and transformations that are contextually nuanced and ethically pursued (Fazey et al., 2020). Since then, narratives about these issues and diagnoses of potential ways forward have been continually gaining pace. Table 1 indicates a small sample of some of these critiques and

calls for action in relation to knowledge systems for sustainability as they've been framed in sustainability science.<sup>1</sup>

**Table 1.** Sample of critiques and calls for transformations in knowledge systems for sustainability transformation, many of which are overlapping. This summary is limited and subjectively biased to the kinds of knowledge that the author has been drawn to, in line with the epistemic assumptions of this paper.

<b>Simplified narrative about the issue</b>	<b>Some narratives and ideas that might address those issues</b>	<b>Exemplar references</b>
Part of the challenge of sustainability is the power afforded to different kinds of knowledge; epistemic biases toward abstract, universal and reductionistic concepts elide the value of contextual knowledge, non-Western knowledge systems, and personal experience. This tends to favour a utilitarian approach to change, rather than a processual one.	Use locally specific knowledge co-production processes that improve participation and recalibrate which power structures influence decision-making and change.	Caniglia et al. (2021) Wyborn et al. (2020) Fazey et al. (2020)
	Strengthen knowledge networks between leaders/individuals, and/or networks of bioregional and place-based social-ecological research (PBSER).	Berkes & Folke (1998) Meadows (2001) Loorbach et al. (2020) Carpenter et al. (2012) Norström et al (2017, 2022)
Policy and governance need to shift from a pattern of localizing global agendas to a 'scaling out' of contextually nuanced and participatorily-determined approaches to change.	Adopt the axiology and process of an emancipatory and participatory 'pathways' approach to sustainability transitions and transformations.	Stirling (2015) Ely (2022) Scoones et al. (2020) Hanspach et al. (2020) Hakkarainen et al. (2022)
	Use knowledge frameworks and structures that inform policy from the bottom up.	Pereira et al. (2020, 2021) Bennett et al. (2021)
	Pursue two-way learning between cultures and organisations wherein the structure for engagement is set by First Nations organisations, not Western organisations.	Strang (2008) Marrika et al. (2009)
Sustainability researchers and practitioners need knowledge, skills, and reflexivity, not just an ability for rational	Acknowledge researchers are both subjects and the objects of change, with processual and epistemological implications that	Bradbury et al (2020) Wassenius et al. (2023)

argumentation or reductionist logic.	necessitate new approaches to research.	
	Researcher competencies and virtues can be built via processes like learning journeys, transformative learning, and methodologies that promote reflexivity and relational approaches to research.	Wooltorton et al. (2020) Bawaka Country et al. (2015) Chan et al. (2018) West et al. (2018)
	Personal and socio-cultural norms and competencies can be developed to enhance decision-making within complexity.	Caniglia (2023) Kagan (2018, 2019)

This paper will outline and elaborate on a potential intervention that I presented to the Transformations Conference in 2023. It builds upon the critiques and aspirations in Table 1 to suggest that researchers consider the merits of developing regionally scaled place-based publications as a deliberate and systemic intervention (akin to knowledge co-production infrastructure) that can support sustainability transitions and transformations that are locally nuanced and shaped through democratic and deliberative engagements.

At this point, the reader may be wondering, ‘Why those references, and why not others?’ The context is that I offer this paper as an ‘opinion,’ and I hope to be consistent in the epistemic norms it calls for and the epistemological basis that it uses to make its arguments.

As such, the references and arguments presented reflect my reading of the literature whilst also acknowledging that my personal experiences and practical knowledge shape and complement an engagement with concepts in academic discourse. A key admission here is that one reason I see academic publications as a potential leverage point in the system is not due to theory but because, as a practitioner who’s new to academia, I have found that weaving systemic change is more of an opportunistic dance than a formula. It has always served me well to pay attention to the incentives that drive individuals and organizations when seeking to navigate and introduce change.

### **A Provocation: contemporary publication practices as a systemic enabler of the knowledge systems we critique**

Many of the thinkers and papers in Table 1 have voiced an awareness of the irony in making calls for contextual, decolonial, and practical knowledge via de-contextually peer-reviewed academic articles that are published in (academic) English and only accessible via paywalls. We are, obviously, creating an argument for transformations by using the very same tendencies and systems that we identify as requiring change.

In writing this paper, I embody these contradictions. But I do so knowingly, as I’d like to share food for thought with the broad readership of this journal given the ‘moment’ that the Transformations Community, and sustainability science more broadly, appears to be

navigating. With these caveats and considerations as a preface, I suggest three ways the publication process influences the modern academic experience and knowledge systems for sustainability. They reflect the biases above but also many of the underlying arguments of ideas referenced in Table 1. The aim of surfacing these features is to justify why I believe the publications that we use can be a leverage point for systemic change. The reader and reviewers can decide if they ring true:

**1. Publishing is powerful.** It feeds into individual and institutional incentives and helps identify ‘experts’ in society. Doing well through publication leads to greater influence on policy with practical consequences for people and places.

**2. Publication systems are biased in the kinds of knowledge they empower.** From the process of international academic peer review through to the categorization of knowledge into universal disciplines and concepts, current norms in publishing reflect and are deeply suited to the worldview and knowledge system that designed it. Namely, it is suited to knowledge that is developed via processes of abstraction, reductionism, and de-contextualisation toward translocatable and universal truths. This helps tip the scales to academics in the Global North, who are fluent in English, and the institutions there that hold disproportionate power about what gets researched, how, and for whose benefit, even when the focus is on challenges faced by communities and cultures in the Global South.<sup>ii</sup>

**3. To create the knowledge systems we say are needed to enable sustainable futures, we need transformative innovations, not just efforts of reform.** The act of academic publishing appears to be a key practice that upholds incumbent knowledge systems in sustainability science and perpetuates power dynamics between experts and decision-makers, with implications for places and communities. In the field of sustainability science, we find ourselves calling for transformational changes in these arrangements, asking for new voices and knowledge systems to influence decisions, but in the act of doing so, we often re-create and re-empower the systems and cultures we seek to change. This not only carries irony, but it also risks transformative aspirations being channeled into patterns of systemic reform rather than system transformation.<sup>iii</sup> In my view, considering the formats, tools, and practices used in publication might uncover transformative innovations that can shift the way sustainability research interacts with society in deeper, more powerful ways.

In summary, from the incentive cycles they create for individuals and institutions to the rationales and viewpoints they tend to bias, academic publications in sustainability science continue to influence which ideas have power. Patterns in publishing attract funding and attention, creating consequences for the distribution of social, financial, and material capital. This has implications on what is done, by whom, and toward what ends. In my view, there is an obvious need to ask if and how current practices in academia might better enact and empower the changes in knowledge systems that they are calling for. Beyond utilitarian ideas of actually achieving the goals we aspire to, there are also questions of ethical authority and process that should draw our attention to these concerns. If we’re to embody the kind of virtues that we say can help societies navigate change, it seems like a fair expectation that we first focus on ourselves. Perhaps the systems that we should use for transformational ‘experiments’ are those that influence us most directly; transformations can be difficult, damaging, and destructive processes, not just a force for good.

**Can place-based publications be a leverage point for change?**



To envisage an intervention that uses the publication process to (re)create systems that empower the types of knowledge that we call for, I encourage the reader to think about the region they're in now – this could be defined by a range of larger-than-local concepts, like a greater city region, state or provincial boundaries, or a biophysical pattern in the landscape, like the concept of a bioregion (Berg & Dasmann, 1977; Wearne et al., 2023).



Figure 1. A journal supporting knowledge specific to your region.

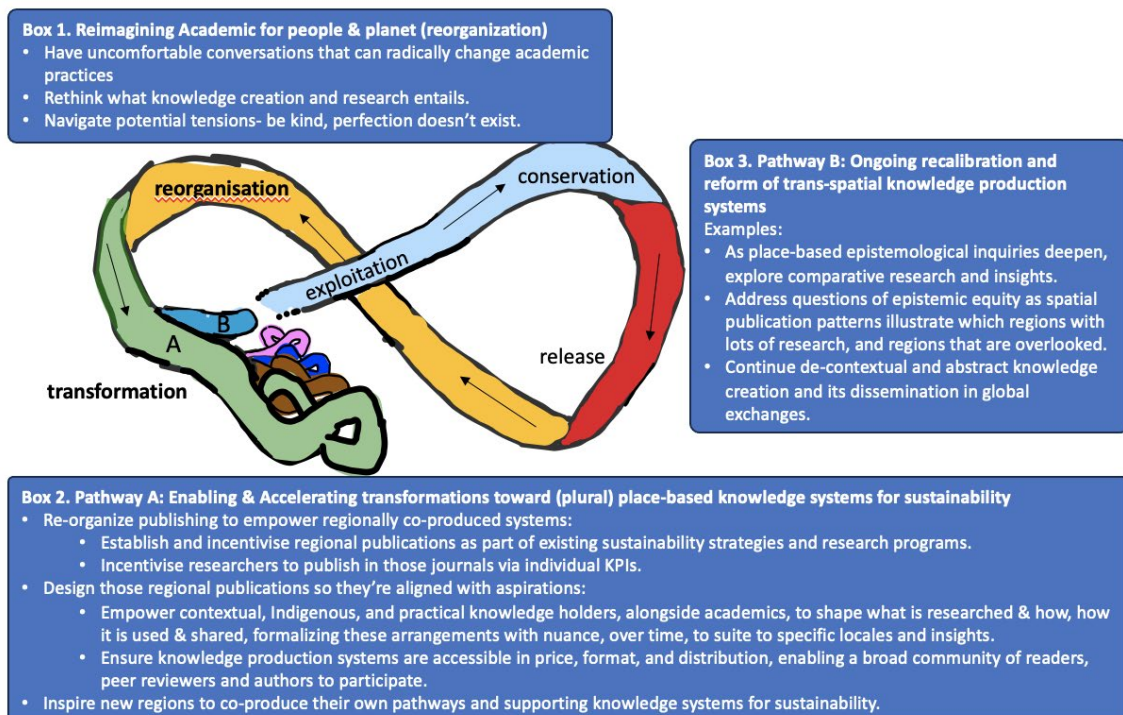
Imagine a publication (Figure 1) that creates a vehicle to regularly disseminate, archive, cross-pollinate, and deepen research into that context. It might explicitly include research into practices and policies that can support sustainability transitions and transformations specific to that context, but it might also include broader information about the social-ecological history and contemporary dynamics of that locale as important considerations to inform a readership interested in discussions about its future.

To preface this contribution, some risks worth considering include:

- i. How do we avoid the intervention we design from becoming a tool for co-optation, inadvertently disempowering and dismantling the features that generate alternative knowledge systems, like local cultures and languages?
- ii. How do we avoid this being performatively compelling but not powerful in terms of the knowledge that is created and how it is used?
- iii. How do we make it consistent with the ideas that inspired it?

Figure 2 uses Gunderson & Holling's (2002) seminal idea of the Adaptive Cycle to understand how systems change via complex, adaptive, and nested relationships. It builds on Wassénus et al.'s (2023) recent use of this heuristic to describe sustainability science as

entering a 'reorganization' phase after a long process of exploitation, conservation, and release (Box 1). The figure expands on this premise to speculate how regional publications might help support transformative directions by (i) enabling and accelerating the creation of plural, regionalized knowledge co-production systems for sustainability (Pathway A, Box 2) and (ii) positively contributing to reform of the incumbent existing global system (Pathway B, Box 3). The suggestion is that by viewing publication as a leverage point, sustainability scientists might strengthen place-based knowledge co-production systems (and collectively, a network) that systemically (re)empowers the changes that we're calling for.



**Figure 2.** Speculative exploration of the reorganization and transformation phases of knowledge systems for sustainability using Gunderson & Holling's (2002) Adaptive Cycle and extending work by Wassenius et al. (2023).

A brief discussion to complement Figure 2 is below.

*How and why might regional publications start?*

- By (co)sponsoring a journal, university(s) in the region might demonstrate their commitment to the sustainability transitions within their social and ecological communities. By linking publication within that journal to the KPIs of individuals in their institutions, they might align incentives for the journal's success and for their employees' careers, supporting impacts 'on the ground' within the researcher and developing new knowledge for society.

*How might they be locally transformative?*

- A regular transdisciplinary journal open to everyone with an interest in that region might be of use and interest to various stakeholders, influencing the type of

knowledge drawn upon to govern in that area. Funding agencies and policymakers might find nuanced and specific information useful when shaping their plans and programs. Local residents and communities might find the journal a meaningful resource to deepen their knowledge of that place, sharpening their collective competencies and contributions to local democratic processes. Researchers who live and work in the area might identify new opportunities to collaborate, developing a place-based epistemology. A context-specific format might see those with disciplinary expertise productively challenged by those with contextual, practical, and place-specific knowledge. Participation in the creation, selection, and discussion of the knowledge published in the journal might influence which/whose knowledge and voices gain authority and what happens there.

#### *How it might become systemically transformative*

- At a landscape level, a network of regional publications might help create the knowledge infrastructure to support visions of a ‘Patchwork Earth’ (Bennet et al., 2022), making the world and its epistemological systems richer and more diverse. There are systemic arguments for the resilience that such diversity can offer in a future rife with disruption and dilemmas (e.g., Berkes et al., 2002). Having this diversity creates a body of knowledge that trans-place and comparative research can draw from – in effect, building on the work, lessons, and ideas that have been raised by Balvanera et al. (2017) and Norström et al. (2022), for example, from existing global networks of PBSER.
- As a global collective that is concerned with topics of justice, seeing where regional journals do and don’t appear might provide some visibility into questions of ethics and attention: where is research concentrated, and where are the “research deserts” that might need more contributions in order to navigate their transition toward sustainable futures?
- As a community of individual researchers, the experience of doing work in a different system, and one which demands new competencies, may lead to new and valuable opportunities for transdisciplinary, trans-place exchange.

This idea, whilst outlined in a way both necessarily simplistic, speculative, and idealistic for a short article and a broad readership, is perhaps not that far from a variety of current practices – it just seeks to formalize the publication and dissemination of knowledge into a more deliberately considered knowledge (co-production) system. Within academia, research programs are routinely designed to consider impacts and outcomes in line with the host institution’s broader social and environmental goals outlined in purpose statements, sustainability plans, and public commitments. Projects, programs, and individual researchers often seek to create multi-stakeholder steering committees to help design and govern research, helping ensure an ethical and normative engagement between local stakeholders and the academic research process. The ‘outputs’ of a project and the knowledge it creates also often break past the act of academic publication, seeking ways for findings to be disseminated via more popularly read formats – like newspapers and social media. And there are, I’m sure, some journals out there that already have alignment in their design and function to the dynamics that I’ve suggested.<sup>iv</sup>

Outside of academia, various precedents are also easy to find. Local and regional newspapers, despite often being in decline, routinely make locally specific research available to the local

public, considering various stakeholders and their knowledge systems in the process. Less obviously, in local governments across Australia, policymakers routinely create programs to build ecological and cultural literacy about a place on the one hand and rely on participatory and deliberative processes to engage in the planning process on the other. They also engage with academic research and experts as inputs into this process. Substantive local democracies are, at their best, perhaps expressions of knowledge co-production for sustainability transitions and transformations that draw in a broad variety of knowledge holders to inform actions and navigate dilemmas.

In this context, the work academics and academic institutions might do to develop and use place-based publications might be considered a relatively humble and perhaps an easy next step that complements these efforts. The potential value, I suggest, lies not in dramatically new ideas but in deliberately (re)deploying the act of publishing to create systemic interventions that (re)empower place-based knowledge co-production processes, establishing alternative and balancing influences against universalizing, de-contextualizing incumbents.

## **Conclusion**

I've shared a relatively simple idea in the hope of furthering discussion on what ought to be done or experimented with, in a practical sense, to draw on ideas in transformations literature and enact the changes that we're calling for regarding knowledge systems for sustainability. It is a call to complement, not overhaul, current systems in academia, as I acknowledge the valuable role and contributions available from continuing processes of abstraction and trans-place dialogue. While not the only pathway available to spread and disseminate transformative engagements with knowledge,<sup>v</sup> the focus of this paper is on academic publication practices in sustainability science, as this is a practice and a field that continues to play an important role in the politics and power dynamics that shape how we define and pursue sustainability in many parts of the world, and many sectors of society.

If we don't address the systemic issues that we've identified in the way we practice academia, the discussions we have as a Transformations Community seem to be at risk of becoming stuck in a state of contradiction, reinforcing the gravitational pull toward universal ideas and interventions. Members of the Transformations Community can help sustainability science by creating abstract theories and translocatable heuristics, but it should (also) be a community that fosters energy, resources, and tools that empower a lineage in sustainability that MacGillivray (2015) aptly identified as requiring a "relentless focus on context."

There is also a valid question about maintaining ethical authority and consistency between the changes that we call for and the changes we pursue and demonstrate. Demonstrating that we're willing and able to transform issues we see in an incumbent academic system that restricts pathways to sustainability despite potential influences on our personal lives and careers seems, to me, a very valid point of focus for a community that is often positioned and (self)identified as expert advisors on how other sectors, places, and lives ought to be transformed. I hope this paper sparks some reflexivity and attention to this issue.

In terms of the potential for regional publications as generalizable and translocatable interventions, there are necessary warnings and caveats to return to. This is not a call for a single type of change – each locale needs to decide when, if, and in what form regional publications might help – and then navigate the details, such as who to include, when, and

how. Formats, language, and processes need to be negotiated to work out how ‘deep’ a journal might go in its openness to different forms of knowledge. The pragmatic answer, I suggest, is not to avoid trying but to encourage ourselves as researchers to exercise our own agency within our institutions and to use the knowledge that we have about transformative theory and the places we reside in to try and weave systemic change.

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## Endnotes

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<sup>i</sup>In these texts, and this paper, ‘knowledge systems’ describes the systems of agents, practices, and institutions that organize the production, transfer, and use of knowledge, in line with Tengö et al. (2014).

<sup>ii</sup>These biases have deep roots. Aristotle, for example, seemed characteristically prescient when suggesting *Phronesis* (practical wisdom, the ability to get things done) is unsuited to thinking via theory and codification because it is inherently contextual. Current discontent with academic knowledge systems to explore sustainability as a practical form of knowledge and how to achieve things like normative change in complex systems and nuanced contexts seem to be reconvening with this conclusion.

<sup>iii</sup>System transformation implies fundamental changes to what a system is and how that system functions, while reform is a less powerful type of change (e.g., Waddell et al., 2015). Research into the way new ideas and narratives enter sustainability has noted how some end up becoming captured (or co-opted) by incumbent systems, while others carry and drive fundamental re-arrangements (Simoens et al., 2022).

<sup>iv</sup>These are especially established at national scales, which is useful, but not synonymous with the benefits and participatory dynamics that are likely from regional scale publications. Social Innovations Journal is itself an example; its original conceptualisation was to be ‘the first regionally focused, volunteer driven online publication and knowledge lab dedicated to social innovators and entrepreneurs’; focused on Greater Philadelphia area, it recognised those voices were often overlooked and saw a need to provide a vehicle to capture and share this knowledge (SIJ, 2023; PHMC, 2023).

<sup>v</sup>There are, for example, promising activities in education about systems change that seek to include diverse types of knowledge and build agency amongst new voices and cohorts to drive change (e.g., Birney et al., 2018; OECD, 2017).

# CONCLUSION

A place-based lineage in sustainability is a long and resurgent tradition that MacGillivray & Franklin (2015) summarised as comprising a “relentless focus on context”. My thesis has explored contemporary expressions of this lineage, focusing on the way discourses about specific places, and place a concept, have intersected with discourses about sustainability and the pursuit of socio-cultural transformation.

My thesis makes contributions to the field of sustainability science in general, and to STT specifically. These are briefly recounted below and summarised in Table 5 at the end of this section, mapping my contributions to the overarching questions that I sought out to address. To complement this summary, the reader may find it illustrative to cast their mind back to the metaphor that was used to describe key perspectives about socio-cultural change and place in STT literature (*Figure 3*, p11). The imagery of this metaphor has since been built upon in the images on the title page of each section in the thesis. The first viewpoint, I suggest, considered discourses about place and STT from a view akin to pollen; sampling place-based discourse present in the global exchange of language. It provided an initial, but broad, contribution to RQ1 through its sample of prominent discourse about place in relation to sustainability, outlining a shared storyline about place-based approaches to STT that was supported by a coalition of advocates in academia, policy and education. It discussed the implications of this narrative and the opportunities and uncertainties that it raises. It contributed to RQ2 through its use and discussion of CADS, demonstrating how digital data sources and tools can help trace and analyse the emergence of meaning structures that influence sustainability in global forums online and in academia.

The second viewpoint has offered a view akin to pollinators; exploring the discourse of bioregioning, an expression of place-based approaches to change that seeks strategic links across locations and scales of action. This provided a second, more specific, contribution to RQ1 through its exploration of contemporary bioregioning, a global sustainability discourse that calls for place-based approaches to STT. It provided insights into this discourse and the global exchanges and contextualisation of meanings that support it. The findings were informed by the analysis of perspectives of contemporary thought leaders in the discourse. This viewpoint contributed to RQ2 through its thematic and reflexive discussion about how discourses about place (in this case, bioregions) appear to interact with knowledge-making processes in

sustainability, drawing attention to relational and contextual influences on epistemology in sustainability and research.

The third viewpoint has offered a view akin to gardens; capturing the different discourses about sustainability that were present in a specific social-ecological context. It complements viewpoints 1 and 2 by offering a contextually rich case study that contributes to RQ1 by tracing and discussing the sustainability discourses and agency influencing the work of a local government in Australia. This explores place-based discourse about sustainability from the perspective of a specific place. The study draws attention to the interaction of global sustainability discourses with contextual specificities. It led to a discussion of power dynamics within sustainability discourses and critical questions about the role of research and its influence on the processes and politics of place-based change. In that discussion, I drew attention to the role and aspirations of researchers in concepts of knowledge co-production for sustainable futures. Further contributions to RQ2 were made through the integration of DAA with SES concepts in the analytical approach and methodological reflections.

Alongside the empirical insights presented through each viewpoint, I have considered and contextualised those findings against contemporary discussions in sustainability. And while each viewpoint offered its own discussion of these dynamics, the discussion section of the thesis drew together and synthesised insights across the research. Looking across the thesis, I suggested that a focus on place in relation to STT creates a microcosm, and a vehicle, for a set of broader turns that are occurring in sustainability science, and in STT studies in particular. These trends entail a shift in sustainability away from utilitarian ethics about change and outcome-oriented visions for the future, and toward processual alternatives. They also reflect an emerging interest in relational paradigms, which have unresolved consequences for the epistemology and practice of sustainability. The implications for these shifts remain unsettled, and data and discourses that I've sampled show a mix of shared views as well as tensions in the way place-based approaches to sustainability are envisioned and pursued. For example, when trying to grasp the complexity that comes from acknowledging inter-scalar connectivity and the importance of diverse contextual experiences, there appears to be a tendency to succumb to the allure of abstractions and frameworks as a crutch on which to lean. I found that abstractions like the idea of a hypothetical and generic "place-based" approach, theories of multi-scalar change, or conceptualisations of the way sustainability discourses interact with society, served best as thinking tools and discursive aids. While they sometimes helped build understanding and comparison, they were ill-suited to dictate action. Perhaps, I suggest, we ought to more

deliberately accept that systems are complex- and that the work of systems change requires different skills and contributions than those to which academia is currently suited. At the end of my thesis, I am left wondering if and how sustainability research might best contribute to place-based pathways in practical ways. Instead of attempting to codify practical or contextual knowledge, it may be more feasible to focus on how we can support discursive agents and dynamics in specific contexts. In my own work, outside of this thesis, I've been the use creative writing and speculative fiction (e.g. Wearne, 2020a; Wearne 2020b; Wearne, 2021) as a way to contribute to and empower discourses about places, and discourses about sustainability, that I think are productive. I've also taken up projects that explore how research in technological innovation might be strategically approached to support place-based pathways and opportunities (Lee et al. 2021) and am currently researching how research might help to (re)invigorate constructive discussion and participatory processes on topics of urban planning and housing in Australia. If we are to truly follow the relational, ethical, and systems turns that accompany a focus on place, the implication is a deep transformation of science, with contextual epistemologies supported by scale-oriented publishing pathways and processes of rationalisation that match the paradigms of the research. Presently, we seem stuck in efforts that reinterpret and express these concepts using universal paradigms that can create contradictory cycles of influence. Place, and discourses about it, are the front edge, I believe of these dilemmas and there remain plenty of provocations, tensions, and opportunities to explore.

While the analysis and its discussion uncovered a range of insights, hopes, and opportunities, it has also surfaced a range of unresolved questions and tensions for practitioners and researchers to engage with. The discussion section of the thesis raised some of these questions. It discussed the implications that place-based approaches might present to the pursuit of sustainability transitions and transformations, and how concepts of place intersect the practice of sustainability research. If place-based knowledge and processes are important- what kinds of knowledge and research practices are useful? More pointedly, it asked if a place-based approach to sustainability requires us to rethink the interface of research with policy and knowledge production in society. These questions present large and significant topics for sustainability science and research to engage with. To make a small contribution to this process, I offered a speculative discussion of one aspect that might help, focusing on the publication process in science.

The purpose of this thesis was to provide insights into the way place is being discussed and pursued in relation to concepts of discourse and socio-cultural transformations toward

sustainability. It has done so by sharing my findings from original research from a strategically selected set of viewpoints. The implications of my findings have been contextualised against key themes in STT research, noting complex dynamics of discursive exchange that influence the meanings that place and sustainability carry in different contexts, and how these meanings interact across scales. In doing so, it has offered empirical, methodological and conceptual contributions to sustainability science at the nexus of various overlapping and interrelated fields, including place studies, environmental discourse analysis, place-based social-ecological research, human nature connections studies, and sustainability transitions and transformations. It is my hope that this thesis and the papers, findings, reflections, and practices it discusses provide insights that can continue to be taken up and explored by other practitioners and academics who share my vision for a world of thriving and diverse places, and ethical processes to pursue them.

Overarching Research Questions	Viewpoint 1	Viewpoint 2	Viewpoint 3	Discussion
<p><i>How are place based approaches to sustainability transitions and transformations being pursued and discussed?</i></p>	<p>This paper (i) identified a central narrative present in contemporary references to place-based approaches to sustainability transitions and transformations, and (ii) identified a discourse coalition amongst sustainability researchers, educators and policy makers that appear to be proposing this narrative, shaping a shared storyline that holds influence in global forums and networks of sustainability.</p> <p>This addresses a key gap in the literature and discusses the politics, tensions and opportunities of this narrative. The findings identify that while STT research tends to frame place as important due to a concern with more-than-human ethics, place is also a feature of anthropocentric discourses about how to govern local areas toward normative futures.</p> <p>Areas for future research were noted, including the revival of Bioregional discourse, and the value of exploring how place-based futures are being pursued in the planning functions of local government, with Australia appearing to be a particularly interesting context. These observations informed the specific focus of Viewpoints 2 and 3.</p>	<p>This paper clarified contemporary bioregional discourse through interviews with six influential thought leaders. It discussed how a renewed interest in 'bioregioning' represents places in deliberate and strategic ways. The concept of bioregions, for example, served as a motivating and clarifying construct that helped create a storyline about what sustainability is and how society might pursue normative futures across scales and in contextually specific ways.</p> <p>By outlining this discourse, the thesis describes and discusses an important way that place is being discussed in the theory and practice of sustainability transitions and transformations. Reflecting on tendencies in bioregioning, the viewpoint discusses how topics of place are interacting with global, conceptual, and abstract narratives about sustainability and social change.</p>	<p>This case study identified a suite of sustainability discourses that were influencing the work of a local government in Australia. It noted the confluence of both global and contextual influences. It identified discourses that were explicit intentions of the Council and discourses that were processual, performed through the actions and attitudes of council staff and in the daily lives of the local community. It analysed how these discourses took shape in society, and the strategic practices used by agents to reproduce them.</p> <p>Reflecting on its dynamics, the paper argues that local government staff were demonstrating what sustainability literature calls processes of knowledge-co-production for sustainability. It reflects on this dynamic and asks what the role of normative, change-oriented research is in democratic systems.</p>	<p>The discussion offers a broad and reflexive discussion that integrates insights that were developed across each viewpoint in the research, noting the implications, limitations and considerations that are raised across this work.</p>

<p><i>How might discursive research in places, and across scales, provide insights into the socio-cultural dynamics of sustainability transformations and help in their pursuit?</i></p>	<p>The study that comprises viewpoint 1 demonstrated how corpus-assisted discourse study (CADS) can be useful to uncover political dimensions of sustainability and its pursuit.</p> <p>In addition to the empirical contributions paper demonstrated and discussed how researchers might use CADS to find new and novel ways to study discourses about the politics of sustainability and humanity's relationships with nature. Specifically, it:</p> <ul style="list-style-type: none"> <li>• Demonstrated how interpretive traditions in environmental DA might be combined with quantitative tools and techniques from corpus linguistic software</li> <li>• Showed how internet data might be used systematically to trace discourses about sustainability based on the results of search algorithms</li> <li>• It demonstrated the difficulty and uncertainties that CADS retains, including some pragmatic pathways forward, such as the use of WebBootCat searchers to scan discursive landscapes during the early stages of research.</li> </ul>	<p>In its methodology and its discussion, the paper on bioregioning discusses how relational and contextual knowledge is implicit in calls for place-based approaches to change.</p> <p>In its approach to the research, the study extended relational concepts into the process of collaborative and reflexive research.</p>	<p>Extends and integrates approaches to discursive research used in environmental policy discourse analysis with concerns and perspectives of STT (namely, it integrated a Discursive Agency Approach with concepts that describe the dynamics of social-ecological systems).</p> <p>The research demonstrated and discussed how consideration of materiality and practices might be included in the discursive research via SES scoping, site observations and thick descriptions, and by a simple coding methodology that surfaced elements of social practices for consideration in the analysis.</p>	<p>After revisiting the overarching insights provided by each perspective, the thesis' discussion focused on how a place-based approach to STT might interact with key themes and trends in sustainability literature.</p> <p>The discussion outlines a range of areas and issues for future study, including areas that I am or have been exploring alongside the work in my thesis.</p> <p>A speculative paper deepens a discussion about a key theme and implications raised through the research.</p> <p>It considers how sustainability research might progress in ways that not only provide insights into place-based dynamics or help trace the presence and politics of discourses in sustainability, but systematically partake in knowledge coproduction systems that are 'place-based' in their design and socio-cultural impact.</p>
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**Table 5.** A summary of how the overarching questions that drove my research have been addressed throughout this thesis.

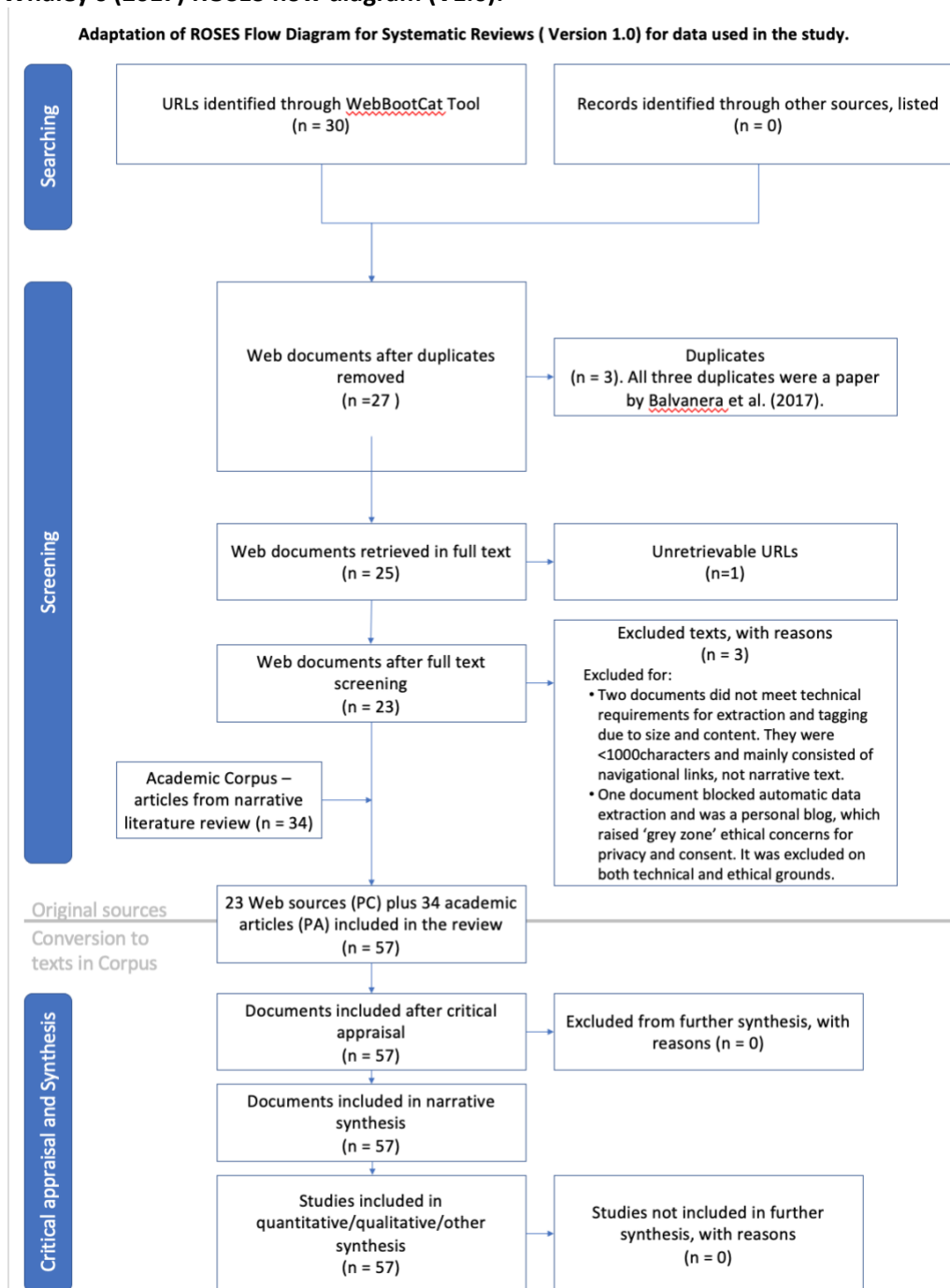


**APPENDIX A: Supporting information for Viewpoint 1.**

## Supplementary Information.

This document lists the documents included for analysis in the public corpus and academic corpus (S1-3) and contains information about where to access detailed results and analyses (S4). Tables and figures in S5-8 provide summaries of corpus linguistic tests that are referenced in the main text. While succinct summaries are provided in the descriptors, we encourage readers to engage the main text to understand those tables and images in more detail.

### S1. DATA OVERVIEW- Data selection and cleaning process, using an adaptation of Haddaway, Macura & Whaley's (2017) ROSES flow diagram (V1.0).



REFERENCE: Haddaway NR, Macura B, Whaley P, and Pullin AS. 2017. ROSES flow diagram for systematic reviews. Version 1.0. DOI: 10.6084/m9.figshare.5897389

## S2. DATA SOURCES- Documents in the Public Corpus after cleaning (inc. document-level coding).

Doc ID	Reference	Author Group	Region	Dominant Theme	Document type
1	Lloyd, A and Gray, T. (2014). 'Place-based outdoor learning and environmental sustainability within Australian Primary Schools', <i>Journal of Sustainability Education</i> , October 2014.	Academic	Australia	sustainability education	Research
2	Past Global Changes (n.d.). <i>Conference listing for 'The Second Conference of the Programme on Ecosystem Change and Society (PECS), Mexico, Oaxaca</i> . PAGES website for the PECS II conference. <a href="http://pastglobalchanges.org/calendar/upcoming/127-pages/1694-pecs2-mexico-17">http://pastglobalchanges.org/calendar/upcoming/127-pages/1694-pecs2-mexico-17</a>	Academic	Global/Not applicable	sustainability science & practice	Research
3	Balvanera, P., Daw, T. M., Gardner, T. A., Martín-López, B., Norström, A. V., Ifejika Speranza, C., Spierenburg, M., Bennett, E. M., Farfan, M., Hamann, M., Kittinger, J. N., Luthe, T., Maass, M., Peterson, G. D., & Perez-Verdin, G. (2017). Key features for more successful place-based sustainability research on social-ecological systems: a Programme on Ecosystem Change and Society (PECS) perspective. <i>Ecology and Society</i> , 22(1), Article 14. <a href="https://doi.org/10.5751/ES-08826-220114">https://doi.org/10.5751/ES-08826-220114</a>	Academic	Global/Not applicable	sustainability science & practice	Research
4	IntechOpen (2022). <i>Book summary: Environmental Change and Sustainability by Steven Silvern and Stephen Young, 2013</i> . Climate Change Books.	Academic	Global/Not applicable	sustainability science & practice	Research
5	Seto, K. C., Reenberg, A., Boone, C. G., Fragkias, M., Haase, D., Langanke, T., Marcotullio, P., Munroe, D. K., Olah, B., & Simon, D. (2012, 2012/05/15). Urban land teleconnections and sustainability. <i>Proceedings of the National Academy of Sciences</i> , 109(20), 7687-7692. <a href="https://doi.org/10.1073/pnas.1117622109">https://doi.org/10.1073/pnas.1117622109</a>	Academic	Global/Not applicable	sustainability science & practice	Research
6	Wilbanks, T. J. (2003). Integrating climate change and sustainable development in a place-based context. <i>Climate Policy</i> , 3(sup1), S147-S154. <a href="https://doi.org/10.1016/j.clipol.2003.10.013">https://doi.org/10.1016/j.clipol.2003.10.013</a>	Academic	Global/Not applicable	sustainability science & practice	Research
7	Smith, G (2017). <i>Place-Based Education</i> . Oxford Research Encyclopedia of Education. Retrieved 2022/07/22. <a href="https://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-95">https://oxfordre.com/education/view/10.1093/acrefore/9780190264093.001.0001/acrefore-9780190264093-e-95</a> .	Academic	Global/Not applicable	sustainability education	Research
8	Boyd, D. (2019,). Utilising place-based learning through local contexts to develop agents of change in Early Childhood Education for Sustainability. <i>Education 3-13</i> , 47(8), 983-997. <a href="https://doi.org/10.1080/03004279.2018.1551413">https://doi.org/10.1080/03004279.2018.1551413</a>	Academic	Global/Not applicable	sustainability education	Research
9	Vanderbilt University Center for Teaching. (n.d) <i>Teaching Sustainability</i> '. CFT Teaching Guides. <a href="https://cft.vanderbilt.edu/guides-subpages/teaching-sustainability/">https://cft.vanderbilt.edu/guides-subpages/teaching-sustainability/</a>	Academic	North America	sustainability education	Teaching resources
10	Semken, S. (2012). <i>The Relevance of Place and Sense of Place to Sustainability</i> . Interdisciplinary Teaching About Earth for a Sustainable Future (InTeGrate) by the Science Educational Resource Center (SERC), Carleton College. <a href="https://serc.carleton.edu/integrate/workshops/sustainability2012/essays/semken.html">https://serc.carleton.edu/integrate/workshops/sustainability2012/essays/semken.html</a>	Academic	North America	sustainability education	Teaching resources

11	LankellyChase (2017). <i>Historical review of place based approaches</i> . Report Commissioned by the Institute for Voluntary Action Research. <a href="https://lankellychase.org.uk/wp-content/uploads/2017/10/Historical-review-of-place-based-approaches.pdf">https://lankellychase.org.uk/wp-content/uploads/2017/10/Historical-review-of-place-based-approaches.pdf</a>	Consulting	UK	community wellbeing and development	Consulting paper
12	ChangeLab Solutions (2018). <i>Place-based health disparities: 8 policies that have contributed to place-based health disparities across generations</i> . Change Lab Solutions Blog Page. <a href="https://www.changelabsolutions.org/blog/place-based-health-disparities">https://www.changelabsolutions.org/blog/place-based-health-disparities</a>	Consulting	North America	community wellbeing and development	Blog post
13	Sustainability North Inc. (n.d.). <i>Sustainability that works for business and communities</i> . Sustainability North Homepage. <a href="https://www.sustainabilitynorth.ca/">https://www.sustainabilitynorth.ca/</a>	Consulting	North America	sustainability science & practice	Consulting website
14	Getting Smart. (2017). What is Place-Based education and why does it matter? Getting Smart, eduInnovation & Teton Science Schools. <a href="https://www.gettingsmart.com/wp-content/uploads/2017/02/What-is-Place-Based-Education-and-Why-Does-it-Matter-3.pdf">https://www.gettingsmart.com/wp-content/uploads/2017/02/What-is-Place-Based-Education-and-Why-Does-it-Matter-3.pdf</a>	Consulting	North America	sustainability education	Teaching resources
15	Center for Place-based Learning and Community Engagement (n.d.). <i>Promise of Place</i> . Landing page. <a href="https://promiseofplace.org/">https://promiseofplace.org/</a>	Education advocacy	North America	sustainability education	Teaching resources
16	Queensland Council of Social Services. (n.d.). <i>Place-Based Approaches</i> . <a href="https://www.qcross.org.au/our-work/place-based-approaches/">https://www.qcross.org.au/our-work/place-based-approaches/</a>	Government	Australia	community wellbeing and development	Policy plan and commentary
17	Victorian Government (Australia), Department of Environment, Land, Water and Planning (DELWP) (2020). <i>Regional Climate Change Adaptation Strategy- Guidance Note 1: Place-based adaptation concepts and approaches</i> . <a href="https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0037/489682/RAS-GN1_Place-based-adaptation-concepts-and-approaches.pdf">https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0037/489682/RAS-GN1_Place-based-adaptation-concepts-and-approaches.pdf</a>	Government	Australia	sustainability science & practice	Policy plan and commentary
18	European Environmental Agency (2017). <i>Perspectives on transitions to sustainability</i> . EEA Report No 25/2017. Publications Office of the European Union, Luxembourg. <a href="https://www.eea.europa.eu/publications/perspectives-on-transitions-to-sustainability/file">https://www.eea.europa.eu/publications/perspectives-on-transitions-to-sustainability/file</a>	Government	Europe	sustainability science & practice	Research
19	New Zealand Government Ministry of Education. (n.d.) <i>Sustainability: environmental education for sustainability</i> . <a href="https://tewhariki.tki.org.nz/en/teaching-strategies-and-resources/sustainability/">https://tewhariki.tki.org.nz/en/teaching-strategies-and-resources/sustainability/</a>	Government	New Zealand	sustainability education	Policy plan and commentary
20	Federal Reserve Bank of Atlanta (2015). <i>The role of place-based initiatives in community development</i> . (online article: march/april 2015). <a href="https://www.frbatlanta.org/community-development/publications/partners-update/2015/02/community-development-finance/150323-role-of-place-based-initiatives-in-community-development">https://www.frbatlanta.org/community-development/publications/partners-update/2015/02/community-development-finance/150323-role-of-place-based-initiatives-in-community-development</a>	Government	North America	community wellbeing and development	Policy plan and commentary
21	U.S. Department of Housing and Urban Development (2011). <i>Measuring Sustainability. Evidence Matters</i> , Summer 2011. Publication by the Office for Policy Development and Research. HUDUSER. <a href="https://www.huduser.gov/portal/periodicals/em/summer11/highlight2.html">https://www.huduser.gov/portal/periodicals/em/summer11/highlight2.html</a>	Government	North America	community wellbeing and development	Policy plan and commentary

22	Hallengatte & Hammer (2020). <i>Thinking ahead: for a sustainable recovery from COVID-19 (Coronavirus)</i> . Published on World Bank Blogs: Development and a Changing Climate. <a href="https://blogs.worldbank.org/climatechange/thinking-ahead-sustainable-recovery-covid-19-coronavirus">https://blogs.worldbank.org/climatechange/thinking-ahead-sustainable-recovery-covid-19-coronavirus</a>	Government	World Bank	sustainability science & practice	Blog post
23	Place-based education. (2021). In Wikipedia. Retrieved 2021-01-04. <a href="https://en.wikipedia.org/wiki/Place-based_education">https://en.wikipedia.org/wiki/Place-based_education</a>	Wiki	Global/Not applicable	sustainability education	General

### S3. DATA SOURCES - Documents in the Academic Corpus.

#### PS sub-corpus

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- Grenni, S. 2020, 'The inner dimension of sustainability transformation: how sense of place and values can support sustainable place-shaping', *Sustainability Science*, vol. 15, no. 2, pp. 411-22.
- Horlings, L.G., Nieto-Romero, M., Pisters, S. & Soini, K. 2020, 'Operationalising transformative sustainability science through place-based research: the role of researchers', *Sustainability Science*, vol. 15, no. 2, pp. 467-84.
- Horlings, L.G., Roep, D., Mathijs, E. & Marsden, T. 2020, 'Exploring the transformative capacity of place-shaping practices', *Sustainability Science*, vol. 15, pp. 353-62.
- Husain, S.O., Franklin, A. & Roep, D. 2020, 'The political imaginaries of blockchain projects: discerning the expressions of an emerging ecosystem', *Sustainability Science*, vol. 15, no. 2, pp. 379-94.
- Mehmood, A., Marsden, T., Taherzadeh, A., Axinte, L.F. & Rebelo, C. 2020, 'Transformative roles of people and places: learning, experiencing, and regenerative action through social innovation', *Sustainability Science*, vol. 15, no. 2, pp. 455-66.
- Moriggi, A. 2020, 'Exploring enabling resources for place-based social entrepreneurship: a participatory study of Green Care practices in Finland', *Sustainability Science*, vol. 15, no. 2, pp. 437-53.
- Pisters, S.R., Vihinen, H. & Figueiredo, E. 2020, 'Inner change and sustainability initiatives: exploring the narratives from eco-villagers through a place-based transformative learning approach', *Sustainability Science*, vol. 15, no. 2, pp. 395-409.
- Rebelo, C., Mehmood, A. & Marsden, T. 2020, 'Co-created visual narratives and inclusive place branding: a socially responsible approach to residents' participation and engagement', *Sustainability Science*, vol. 15, no. 2, pp. 423-35.
- Soares da Silva, D. & Horlings, L.G. 2020, 'The role of local energy initiatives in co-producing sustainable places', *Sustainability Science*, vol. 15, no. 2, pp. 363-77.

#### SoP sub-corpus

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- Briggs, L., Stedman, R. & Krasny, M. 2019, 'Place attachment and social-ecological system sustainability examined through the voices of indigenous Guatemalan women', *Sustainability Science*, vol. 14, no. 3, pp. 655-67.
- Enqvist, J.P., Campbell, L.K., Stedman, R.C. & Svendsen, E.S. 2019, 'Place meanings on the urban waterfront: a typology of stewardships', *Sustainability Science*, vol. 14, no. 3, pp. 589-605.
- Ingalls, M.L., Kohout, A. & Stedman, R.C. 2019, 'When places collide: power, conflict and meaning at Malheur', *Sustainability Science*, vol. 14, no. 3, pp. 625-38.
- Marshall, N., Adger, W. N., Benham, C., Brown, K., I Curnock, M., Gurney, G. G., Marshall, P., L Pert, P., & Thiault, L. (2019, 2019/05/01). Reef Grief: investigating the relationship between place meanings and place change on the Great Barrier Reef, Australia. *Sustainability Science*, 14(3), 579-587.
- Masterson, V.A., Enqvist, J.P., Stedman, R.C. & Tengö, M. 2019, 'Sense of place in social-ecological systems: from theory to empirics', *Sustainability Science*, vol. 14, no. 3, pp. 555-64.

- Masterson, V. A., Spierenburg, M., & Tengö, M. (2019, 2019/05/01). The trade-offs of win–win conservation rhetoric: exploring place meanings in community conservation on the Wild Coast, South Africa. *Sustainability Science*, *14*(3), 639-654.
- Murphy, A., Enqvist, J. P., & Tengö, M. (2019, 2019/05/01). Place-making to transform urban social–ecological systems: insights from the stewardship of urban lakes in Bangalore, India. *Sustainability Science*, *14*(3), 607-623.
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- Verbrugge, L., Buchecker, M., Garcia, X., Gottwald, S., Müller, S., Præsthholm, S., & Stahl Olafsson, A. (2019, 2019/05/01). Integrating sense of place in planning and management of multifunctional river landscapes: experiences from five European case studies. *Sustainability Science*, *14*(3), 669-680.

### ES sub-corpus

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- Balvanera, P., Daw, T. M., Gardner, T. A., Martín-López, B., Norström, A. V., Ifejika Speranza, C., . . . Perez-Verdin, G. (2017). Key features for more successful place-based sustainability research on social-ecological systems: a Programme on Ecosystem Change and Society (PECS) perspective. *Ecology and Society*, *22*(1). doi:10.5751/ES-08826-220114
- Bouamrane, M., M. Spierenburg, A. Agrawal, A. Boureima, M.-C. Cormier-Salem, M. Etienne, C. Le Page, H. Levrel, and R. Mathevet. 2016. Stakeholder engagement and biodiversity conservation challenges in social-ecological systems: some insights from biosphere reserves in western Africa and France. *Ecology and Society* *21*(4):25.  
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- Carpenter, S. R., E. G. Booth, S. Gillon, C. J. Kucharik, S. Loheide, A. S. Mase, M. Motew, J. Qiu, A. R. Rissman, J. Seifert, E. Soylu, M. Turner, and C. B. Wardropper. 2015. Plausible futures of a social-ecological system: Yahara watershed, Wisconsin, USA. *Ecology and Society* *20*(2): 10.  
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- García-Llorente, M., I. Iniesta-Arandia, B. A. Willaarts, P. A. Harrison, P. Berry, M. del Mar Bayo, A. J. Castro, C. Montes, and B. Martín-López. 2015. Biophysical and sociocultural factors underlying spatial trade-offs of ecosystem services in semiarid watersheds. *Ecology and Society* *20*(3):39.  
<http://dx.doi.org/10.5751/ES-07785-200339>
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- Luthe, T., and R. Wyss. 2016. Resilience to climate change in a cross-scale tourism governance context: a combined quantitative- qualitative network analysis. *Ecology and Society* *21*(1):27.  
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- Meacham, M., C. Queiroz, A. V. Norström, and G. D. Peterson. 2016. Social-ecological drivers of multiple ecosystem services: what variables explain patterns of ecosystem services across the Norrström drainage basin?. *Ecology and Society* 21(1):14. <http://dx.doi.org/10.5751/ES-08077-210114>
- Mitchell, M. G. E., E. M. Bennett, A. Gonzalez, M. J. Lechowicz, J. M. Rhemtulla, J. A. Cardille, K. Vanderheyden, G. Poirier-Ghys, D. Renard, S. Delmotte, C. H. Albert, B. Rayfield, M. Dumitru, H.-H. Huang, M. Larouche, K. N. Liss, D. Y. Maguire, K. T. Martins, M. Terrado, C. Ziter, L. Taliana, and K. Dancose. 2015. The Montérégie Connection: linking landscapes, biodiversity, and ecosystem services to improve decision making. *Ecology and Society* 20(4):15. <http://dx.doi.org/10.5751/ES-07927-200415>
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- Plieninger, T., T. Kizos, C. Bieling, L. Le Dû-Blayo, M.-A. Budniok, M. Bürgi, C. L. Crumley, G. Girod, P. Howard, J. Kolen, T. Kuemmerle, G. Milcinski, H. Palang, K. Trommler, and P. H. Verburg. 2015. Exploring ecosystem-change and society through a landscape lens: recent progress in European landscape research. *Ecology and Society* 20(2): 5. <http://dx.doi.org/10.5751/ES-07443-200205>
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#### S4. DETAILED RESULTS & ANALYSES

Detailed results and analysis data have been made available online at the following URL:

[https://osf.io/y7zmc/?view\\_only=2f1fc577ec104bfcaafd8dd5c3acf666](https://osf.io/y7zmc/?view_only=2f1fc577ec104bfcaafd8dd5c3acf666)

Data in the online folder includes in the following:

Topic	File names	Description
Keyness	File_1.1_AC_Keyness_terms.xlsx	Keywords, and keyterms for academic corpus. Includes annotations, thematic coding, and analysis of shared keywords across the AC sub-corpora.
	File_1.2_AC_Keyness_words.xlsx	
	File_1.3_PC_keyness.xlsx	All significant keyterms for public corpus, including annotations and thematic coding.
<i>Collocates</i>	File_2.1_AC_word_sketch_Change.xlsx	Keyterm tables of wordsketches undertaken in the study.
	File_2.2_AC_wrdsketch_SOP_place-based.png	
	File_2.3_AC_wrdsketch_E&S_place-based_.svg	
	File_2.4_AC_wrdsketch_PS_place-based.png	
	File_2.5_PC_Wrdsketch_PC_Change.xlsx	
	File_2.6_PC_Wrdsketch_PC_place-based.xlsx	
	File_2.7_PC_Wrdsketch_PC_sustainable.xlsx	
<i>Comparisons</i>	File_3.1_PC_Ed versus AC.xlsx	Keyterms from comparison of the PC's place-based sustainability education texts to the Academic Corpus.
	File_3.2_PC_ST&ED_versus AC.xlsx	Keyterms from comparison of sustainability themed PC texts (i.e. PC's education and ST sub-corpora) to the Academic Corpus.
	File_3.3_SharedKeyterms_AC_ED_ST.xlsx	Identification of shared keyterms between proponents of an environmental view on place-based change (exc. community dev. Themed texts).
<i>Statistical and methodological tests</i>	File_4.1_KEYNESS COMPARISON_AC_REFs versus No REFs in raw txts.xlsx	Results from a comparison of keyterm lists if references were retained or removed in the AC corpora.  We found that this had only minor implications for the findings (adjusting frequency counts of some individual words but not the overarching themes or conclusions) – inclusion of the references was favoured it more fully represents the discursive landscape of academic papers
	File_4.2_SigEff_Rayson_AC_PC.xlsx	Results of tests using Paul Rayson's Significance and Effect Calculator. This let us check H0 values and assess keyness using the %DIFF method as an alternative to Simple Maths.  The tests showed that the keyterms presented in our paper carry a high confidence against a null hypothesis (i.e. $p$ -values <0.0001). We also found that Bayes Factor Analysis and %DIFF tended to highlight obscure and infrequent strings of text, and were less insightful for our analysis than Simple Maths.

**A selection of the outputs (data tables & wordsketch visualisations) from the above analyses are also provided below in S5-S7.**

## S5\_Top 50 Keyterms in the PC texts (inc. thematic coding\*).

Subcorpus: PB Sustainability Education						
No. Keyterm	THEME (Manually coded)	Frequency (focus)	Relative freq. (focus)	DOCF (focus)	Sallience score (Simple Maths)	
1	place-based education	<i>Pedagogical</i>	67	1925.3427	7	1894.794
2	place-based learning	<i>Contextualised learning</i>	30	862.09375	4	855.278
3	education for sustainability	<i>Pedagogical</i>	29	833.3573	5	812.952
4	ecological footprint	<i>Tools &amp; practices</i>	20	574.72919	1	455.732
5	outdoor education	<i>Contextualised learning</i>	16	459.78333	3	380.537
6	early childhood	<i>Pedagogical</i>	73	2097.7615	4	361.531
7	early childhood education	<i>Pedagogical</i>	19	545.99268	2	287.066
8	outdoor learning	<i>Contextualised learning</i>	10	287.36459	1	267.292
9	early childhood education for sustainability	<i>Pedagogical</i>	9	258.62811	1	259.538
10	environmental education	<i>Pedagogical</i>	14	402.31042	5	245.65
11	ecological identity	<i>Contextualised learning</i>	8	229.89166	2	229.779
12	footprint calculator	<i>Tools &amp; practices</i>	8	229.89166	1	226.92
13	critical pedagogy	<i>Pedagogical</i>	9	258.62811	3	226.832
14	footprint calculation	<i>Tools &amp; practices</i>	7	201.15521	1	200.117
15	environmental sustainability	<i>Pedagogical</i>	12	344.83749	4	177.94
16	zoo practitioner	<i>Tools &amp; practices</i>	6	172.41875	1	173.419
17	resource use	<i>Tools &amp; practices</i>	9	258.62811	1	171.066
18	environmental knowledge	<i>Pedagogical</i>	6	172.41875	1	165.602
19	learning model	<i>Pedagogical</i>	7	201.15521	1	144.569
20	pedagogy of place	<i>Pedagogical</i>	5	143.6823	2	144.453
21	power of place	<i>Pedagogical</i>	5	143.6823	1	142.699
22	cultural sustainability	<i>Contextualised learning</i>	5	143.6823	1	142.324
23	place attachment	<i>Pedagogical</i>	5	143.6823	3	140.976
24	childhood study	<i>Pedagogical</i>	5	143.6823	1	135.756
25	sense of place	<i>Pedagogical</i>	7	201.15521	2	131.524
26	international perspective	<i>Contextualised learning</i>	6	172.41875	2	130.411
27	local context	<i>Contextualised learning</i>	6	172.41875	3	125.778
28	project-based learning	<i>Contextualised learning</i>	5	143.6823	2	124.585
29	experiential learning	<i>Contextualised learning</i>	7	201.15521	4	121.749
30	education for the environment	<i>Pedagogical</i>	4	114.94583	1	115.856
31	place-based learn	<i>Contextualised learning</i>	4	114.94583	1	115.811
32	ecological footprint calculator	<i>Tools &amp; practices</i>	4	114.94583	1	115.753
33	teaching sustainability	<i>Pedagogical</i>	4	114.94583	1	115.272
34	new learning model	<i>Pedagogical</i>	4	114.94583	1	115.254
35	ecological literacy	<i>Pedagogical</i>	4	114.94583	3	114.313
36	indigenous knowledge	<i>Contextualised learning</i>	5	143.6823	2	114.18
37	project-based approach	<i>Contextualised learning</i>	4	114.94583	2	114.03
38	student agency	<i>Contextualised learning</i>	4	114.94583	1	113.739
39	sustainability issue	<i>Contextualised learning</i>	5	143.6823	2	113.504
40	learning experience	<i>Contextualised learning</i>	18	517.25623	4	110.963
41	ecological context	<i>Contextualised learning</i>	4	114.94583	1	110.113
42	primary year	<i>Pedagogical</i>	4	114.94583	1	109.963
43	teaching moment	<i>Pedagogical</i>	4	114.94583	1	107.666
44	natural world	<i>Contextualised learning</i>	13	373.57394	5	102.37
45	early education	<i>Pedagogical</i>	5	143.6823	3	95.598
46	service learning	<i>Contextualised learning</i>	4	114.94583	2	92.761
47	local knowledge	<i>Contextualised learning</i>	6	172.41875	5	92.579
48	deep connection	<i>Tools &amp; practices</i>	4	114.94583	2	90.234
49	agent of change	<i>Contextualised learning</i>	4	114.94583	2	88.629
50	utilising place-based learning	<i>Contextualised learning</i>	3	86.20937	1	87.209

Subcorpus: Sustainability Science & Practice (2>DOCF)						
No. Keyterm	THEME (Manually coded)	Frequency (focus)	Relative freq. (focus)	DOCF (focus)	Sallience score (Simple Maths)	
1	sustainability research	<i>research &amp; theory</i>	40	263.66614	3	255.3
2	social-ecological system	<i>human env systems</i>	32	210.93292	3	203.74
3	sustainability science	<i>research &amp; theory</i>	27	177.97466	5	166.77
4	ecosystem service	<i>ToC or management</i>	49	322.99103	5	163.87
5	global sustainability	<i>scale</i>	23	151.60803	4	134.19
6	global environmental change	<i>scale</i>	19	125.24142	3	116.75
7	environmental change	<i>human env systems</i>	31	204.34126	3	96.961
8	sustainable development	<i>outcome goal</i>	82	540.51562	4	96.536
9	global change	<i>scale</i>	20	131.83307	4	87.393
10	conceptual framework	<i>research &amp; theory</i>	27	177.97466	4	85.05
11	urban sustainability	<i>scale</i>	13	85.6915	3	81.453
12	analytical approach	<i>research &amp; theory</i>	14	92.28315	3	71.944
13	collective action	<i>ToC or management</i>	23	151.60803	3	71.583
14	urban system	<i>human env systems</i>	11	72.50819	3	66.611
15	institutional change	<i>ToC or management</i>	13	85.6915	3	64.177
16	local scale	<i>scale</i>	11	72.50819	3	62.501
17	millennium ecosystem	<i>outcome goal</i>	9	59.32488	3	57.779
18	transdisciplinary research	<i>research &amp; theory</i>	9	59.32488	3	57.261
19	ecological system	<i>human env systems</i>	11	72.50819	4	56.598
20	land use	<i>human env systems</i>	47	309.80771	4	55.544
21	climate change	<i>issue</i>	205	1351.2889	7	48.114
22	natural system	<i>human env systems</i>	11	72.50819	3	46.351
23	complex system	<i>human env systems</i>	18	118.64977	4	43.964
24	spatial scale	<i>scale</i>	8	52.73323	4	39.817
25	climate change adaptation	<i>ToC or management</i>	8	52.73323	4	39.009
26	change adaptation	<i>ToC or management</i>	8	52.73323	4	38.938
27	change process	<i>ToC or management</i>	8	52.73323	3	37.714
28	sustainability issue	<i>issue</i>	7	46.14157	3	36.983
29	temporal scale	<i>scale</i>	6	39.54992	3	35.732
30	sustainable future	<i>outcome goal</i>	8	52.73323	5	33.082
31	network analysis	<i>ToC or management</i>	7	46.14157	3	31.697
32	driver of change	<i>ToC or management</i>	5	32.95827	4	30.738
33	key theme	<i>research &amp; theory</i>	7	46.14157	3	29.313
34	social system	<i>human env systems</i>	10	65.91653	4	28.932
35	research community	<i>research &amp; theory</i>	9	59.32488	4	28.774
36	impact of climate	<i>issue</i>	9	59.32488	5	28.639
37	impact of climate change	<i>issue</i>	8	52.73323	4	27.285
38	adaptation strategy	<i>ToC or management</i>	5	32.95827	3	26.82
39	natural capital	<i>ToC or management</i>	5	32.95827	3	25.784
40	stakeholder participation	<i>ToC or management</i>	4	26.36662	3	25.329
41	different perspective	<i>human env systems</i>	12	79.09985	3	24.195
42	case study	<i>research &amp; theory</i>	53	349.35764	4	22.244
43	climate model	<i>issue</i>	7	46.14157	3	21.464
44	global scale	<i>scale</i>	7	46.14157	4	20.034
45	conserving biodiversity	<i>outcome goal</i>	3	19.77496	3	19.987
46	societal development	<i>outcome goal</i>	3	19.77496	3	19.812
47	underlying driver	<i>ToC or management</i>	3	19.77496	3	19.796
48	global climate	<i>issue</i>	8	52.73323	3	19.394
49	global climate change	<i>issue</i>	5	32.95827	3	19.276
50	research result	<i>research &amp; theory</i>	5	32.95827	3	17.084
51	urban area	<i>scale</i>	14	92.28315	3	16.495

Subcorpus: Community Development & Wellbeing					
No. Keyterm	Frequency (focus)	Relative freq. (focus)	DOCF (focus)	Sallience score (Simple Maths)	
1	place based approach	76	2961.4619	1	2958.681
2	based approach	84	3273.1948	1	2074.909
3	neighbourhood renewal	14	545.53247	1	532.652
4	theory of change	12	467.59927	2	414.027
5	indicator system	10	389.66605	1	373.306
6	local stakeholder	11	428.63266	1	342.448
7	community change	9	350.69946	2	319.587
8	area-based initiative	7	272.76624	1	273.227
9	place-based initiative	7	272.76624	1	271.725
10	low-income community	8	311.73285	1	237.953
11	place based working	6	233.79964	1	234.781
12	strategy for neighbourhood renewal	6	233.79964	1	234.328
13	strategy for neighbourhood	6	233.79964	1	234.31
14	community of color	8	311.73285	1	225.969
15	sustainability indicator	6	233.79964	1	223.464
16	community engagement	13	506.56589	2	217.988
17	previous approach	6	233.79964	1	210.37
18	limitation of place based approaches	5	194.83302	1	195.833
19	demonstrating impact	5	194.83302	1	194.627
20	community development	12	467.59927	2	166.785
21	previous place based approach	4	155.86642	1	156.866
22	contribution of funders	4	155.86642	1	156.848
23	theory of change process	4	155.86642	1	156.83
24	place based work	4	155.86642	1	156.824
25	location efficiency	4	155.86642	1	156.376
26	neighborhood of color	4	155.86642	1	155.925
27	community researcher	4	155.86642	1	155.226
28	sustainability indices	4	155.86642	1	154.698
29	previous programme	4	155.86642	1	154.291
30	neighbourhood level	4	155.86642	1	153.258
31	based initiative	4	155.86642	1	150.408
32	empowerment zone	4	155.86642	1	150.385
33	land use regulation	4	155.86642	1	146.47
34	use regulation	4	155.86642	1	142.845
35	systems change	4	155.86642	1	141.562
36	built environment	8	311.73285	2	141.453
37	change process	5	194.83302	1	137.449
38	consistent message	4	155.86642	1	135.302
39	foundation neighbourhood	3	116.89982	1	117.9
40	implementation of place based approaches	3	116.89982	1	117.9
41	place based initiative	3	116.89982	1	117.868
42	learning from the review	3	116.89982	1	117.863
43	neighbourhood approach	3	116.89982	1	117.79
44	funding place	3	116.89982	1	117.772
45	neighbourhood programme	3	116.89982	1	117.545
46	national government body	3	116.89982	1	117.431
47	place-based strategy	3	116.89982	3	117.368
48	resident of color	3	116.89982	1	117.345
49	past programme	3	116.89982	1	117.309
50	importance of clarity	3	116.89982	1	117.066

S6\_Top 50 keyterms in the AC texts (inc. thematic coding\*).

Subcorpus: ES					Subcorpus: SOP					Subcorpus: PS							
No. Keyterm	THEME (Manually coded)	Frequency (focus)	Relative freq. (focus)	DOCF (focus)	Sallience score (Simple Maths)	No. Keyterm	THEME (Manually coded)	Frequency (focus)	Relative freq. (focus)	DOCF (focus)	Sallience score (Simple Maths)	No. Keyterm	THEME (Manually coded)	Frequency (focus)	Relative freq. (focus)	DOCF (focus)	Sallience score (Simple Maths)
1	ecosystem service	1088	4593.6826	15	2323.864	1	place meaning	256	2335.91553	9	2330.418	1	place brand	96	832.2713	5	816.762
2	social-ecological system	178	751.54004	16	723.462	2	sense of place	266	2427.16235	9	1579.778	2	sense of place	129	1118.36462	7	728.266
3	human well-being	110	464.43484	13	369.037	3	place attachment	174	1587.69263	9	1547.993	3	sustainable place-shaping	77	667.55096	7	668.422
4	biosphere reserve	89	375.77002	2	329.466	4	flood risk	88	802.97101	3	553.627	4	transformative learning	74	641.54248	4	612.358
5	landscape structure	69	291.3273	3	280.854	5	lake group	52	474.48285	2	474.913	5	social innovation	66	572.18652	7	411.424
6	undesirable aspect	57	240.6617	1	239.225	6	ecological system	65	593.10358	9	457.434	6	enabling resource	47	407.46616	5	405.187
7	scenario planning	63	265.99451	6	237.134	7	risk perception	46	419.73483	3	344.161	7	sustainable place	46	398.79666	6	386.492
8	desirable aspect	54	227.99529	1	225.726	8	waterbody meaning	37	337.61279	2	338.613	8	blockchain project	43	372.78821	2	339.563
9	driver of change	46	194.21822	8	176.703	9	social-ecological system	38	346.73749	8	334.301	9	sustainability transformation	31	268.75427	5	268.714
10	transdisciplinary research	40	168.88539	5	161.256	10	place identity	26	237.24142	7	234.411	10	political imaginative	31	268.75427	2	268.61
11	service bundle	38	160.44113	9	157.913	11	place claim	25	228.11676	3	228.039	11	sustainability research	31	268.75427	5	260.212
12	ecosystem service bundle	37	156.21899	8	157.182	12	water meaning	24	218.9921	1	219.873	12	inclusive place	30	260.08478	4	255.611
13	riparian vegetation	39	164.66327	1	152.197	13	river landscape	24	218.9921	3	216.159	13	place-shaping practice	29	251.4153	5	252.406
14	land cover	52	219.55103	10	148.463	14	biocultural diversity	22	200.74275	2	199.457	14	role of researchers	29	251.4153	4	251.209
15	millennium ecosystem	36	151.99686	11	146.54	15	recreational group	22	200.74275	1	198.651	15	place-based approach	28	242.7458	7	239.644
16	land-use intensification	32	135.10832	3	135.809	16	traditional authority	22	200.74275	1	184.021	16	place-based research	27	234.07631	5	234.477
17	enabling factor	33	139.33046	1	133.728	17	environmental stewardship	29	264.61545	4	182.61	17	inner dimension	28	242.7458	5	233.32
18	scale of observation	31	130.88618	2	130.782	18	lake group member	19	173.36874	1	174.369	18	place value	29	251.4153	3	213.404
19	local stakeholder	38	160.44113	8	128.68	19	project staff	22	200.74275	1	168.533	19	place attachment	25	216.73732	2	212.159
20	multiple ecosystem	30	126.66405	8	125.521	20	flood risk management	19	173.36874	2	165.506	20	place shape	24	208.06783	5	208.053
21	participatory scenario	29	122.44192	5	123.061	21	ecosystem service	35	319.36346	7	162.031	21	social entrepreneurship	32	277.42377	5	205.145
22	multiple ecosystem service	29	122.44192	8	122.352	22	tourism operator	19	173.36874	1	158.258	22	place meaning	23	199.39833	4	199.841
23	frontier in ecology	29	122.44192	12	120.667	23	community land	19	173.36874	2	157.192	23	transformative capacity	23	199.39833	9	198.553
24	spatial scale	38	160.44113	9	119.63	24	river management	17	155.1194	2	151.674	24	energy initiative	23	199.39833	1	184.621
25	ecosystem change	29	122.44192	8	116.841	25	ecological grief	16	145.99472	2	146.892	25	energy transition	30	260.08478	4	184.465

26	ecosystem service assessment	Management or outcomes	27	113.99764	5	114.718	26	landscape value	Relationship to nature	16	145.99472	3	143.722	26	visual narrative	Describing change	22	190.72885	4	180.228
27	study area	Research	64	270.21664	8	114.432	27	community conservation	Management	16	145.99472	4	143.712	27	place-based social entrepreneurship	Agency for society	20	173.38986	5	174.39
28	service assessment	Management or outcomes	27	113.99764	5	113.547	28	place research	Research	15	136.87006	6	137.492	28	local energy initiative	Energy	19	164.72037	1	165.592
29	social-ecological research	Research	26	109.77551	4	110.66	29	meaningful place	Relationship to nature	15	136.87006	3	134.867	29	local energy	Energy	22	190.72885	1	164.488
30	landscape research	Research	26	109.77551	2	109.478	30	flood risk perception	Relationship to nature	14	127.74538	2	128.71	30	place-based sustainability	Agency for place/self	18	156.05087	5	157.008
31	water governance	Management or outcomes	27	113.99764	4	109.044	31	hard infrastructure	Management	14	127.74538	1	126.69	31	transformative agency	Agency for place/self	18	156.05087	6	156.675
32	land use	Management or outcomes	142	599.54315	13	107.322	32	lake meaning	Relationship to nature	13	118.62071	1	119.621	32	regenerative action	Describing change	18	156.05087	3	156.463
33	biodiversity conservation	Management or outcomes	33	139.33046	11	106.54	33	rigidity trap	Relationship to nature	13	118.62071	8	119.574	33	action research	Describing change-research	30	260.08478	6	155.327
34	sustainable stewardship	Management or outcomes	25	105.55338	16	105.971	34	stewardship group	Relationship to nature	13	118.62071	3	118.679	34	transformative learn	Learning	18	156.05087	2	154.62
35	landscape ecology	Management or outcomes	27	113.99764	9	104.671	35	role of place	Relationship to nature	13	118.62071	7	118.465	35	regenerative practice	Describing change	17	147.38138	4	147.383
36	ecosystem integrity	Management or outcomes	25	105.55338	5	104.387	36	river section	Ecological or local context	13	118.62071	1	116.794	36	visual method	Method	17	147.38138	3	142.066
37	bundle of ecosystem services	Management or outcomes	24	101.33124	3	102.284	37	stewardship activity	Relationship to nature	13	118.62071	2	116.675	37	wind park	Energy	18	156.05087	1	141.196
38	bundle of ecosystem	Management or outcomes	24	101.33124	3	102.276	38	group type	Research	13	118.62071	1	114.208	38	learning process	Learning	49	424.80515	5	135.124
39	ecosystem quality	Management or outcomes	24	101.33124	1	101.592	39	protected area	Management	38	346.73749	2	110.8	39	citizen initiative	Agency	15	130.04239	4	125.224
40	problem orientation	Management or outcomes	24	101.33124	1	101.486	40	conservation intervention	Management	12	109.49605	2	108.686	40	learning journey	Learning	16	138.71188	2	121.105
41	social demand	Management or outcomes	26	109.77551	2	101.317	41	river restoration	Ecological or local context	12	109.49605	2	106.325	41	sustainability transition	Describing change	14	121.3729	7	120.021
42	regional scale	Understanding interactions	29	122.44192	9	100.425	42	ecological change	Ecological or local context	12	109.49605	4	101.579	42	sustainability initiative	Describing change	16	138.71188	6	115.399
43	service supply	Management or outcomes	24	101.33124	4	98.605	43	place dependence	Relationship to nature	11	100.37138	3	101.273	43	energy cooperative	Describing change	13	112.70341	2	111.901
44	governance scale	Management or outcomes	23	97.10911	2	98.033	44	meaning of place	Relationship to nature	11	100.37138	4	100.743	44	local actor	Stakeholder	15	130.04239	5	111.755
45	natural capital	Management or outcomes	30	126.66405	6	96.935	45	positive service	Relationship to nature	11	100.37138	1	99.901	45	regional development	Describing change-development	19	164.72037	7	108.23
46	service production	Management or outcomes	23	97.10911	2	96.041	46	system state	Ecological or local context	12	109.49605	3	93.954	46	sustainable placeshaping	Describing change-shaping	12	104.03391	6	105.03
47	scenario development	Management or outcomes	23	97.10911	4	95.058	47	group member	Stakeholders	32	291.98944	2	92.401	47	place-based development	Describing change-development	12	104.03391	5	104.795
48	stakeholder group	Management or outcomes	34	143.55258	7	93.917	48	perception of flood risk	Relationship to nature	10	91.2467	2	92.19	48	participatory action	Describing change	13	112.70341	6	104.509
49	social-ecological sustainability	Understanding interactions	22	92.88697	3	93.872	49	perception of flood	Relationship to nature	10	91.2467	2	92.165	49	social-ecological system	SES context	12	104.03391	4	100.975
50	ecosystem service production	Management or outcomes	22	92.88697	2	93.854	50	management preference	Management	10	91.2467	2	91.742	50	transdisciplinary research	Research	12	104.03391	6	99.699

**\*A note on thematic coding of keyterms reflected in tables S5 & S6.**

The themes amongst keyterms were identified by an iterative process of looking at each keyword, offering a description of that word, checking the contextual uses of each keyword in respective concordances (in-text references) and adjusting the categorisation/description if necessary. Looking at descriptions across keywords led to some descriptions being collated as they described similar themes. This is similar in process and epistemological paradigm to the qualitative exploration of texts in traditional discourse analysis, which often adopt (and tailor) the concept of reflexive thematic analysis (Braun & Clarke, 2019), or cycling between descriptive (or In Vivo) coding followed by thematic categorisation (Saldaña, 2021 133-142; 257-267).

**References:**

- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589-597. doi:10.1080/2159676X.2019.1628806
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.): Sage.

## S7\_Shared keyterms in AC subcorpora.

Lock keyterms (any freq)	ES	SOP	PS	Lock keyterms (any freq)	ES	SOP	PS	Lock keyterms (any freq)	ES	SOP	PS
social-ecological system	X	X	X	place meaning		X	X	sustainability science		X	X
sustainability research	X	X	X	place identity		X	X	different stakeholder		X	X
participatory process	X	X	X	place research		X	X	ecological process		X	X
landscape value	X	X	X	meaning of place		X	X	study area		X	X
social capital	X	X	X	research participant		X	X	ecosystem service		X	X
ecological system	X	X	X	research agenda		X	X	human well-being		X	X
environmental change	X	X	X	semi-structured interview		X	X	biodiversity conservation		X	X
research question	X	X	X	place value		X	X	stakeholder group		X	X
cultural value	X	X	X	place-based cognition		X	X	landscape stewardship		X	X
place attachment	X	X	X	dimension of place		X	X	ecosystem management		X	X
sense of place	X	X	X	empirical case		X	X	protected area		X	X
local knowledge	X	X	X	power dynamics		X	X	landscape planning		X	X
				particular system		X	X	conservation biology		X	X
<b>Lock keyterms (any freq)</b>	<b>ES</b>	<b>SOP</b>	<b>PS</b>	social actor		X	X	local water		X	X
place-based research	X		X	place relationship		X	X	adaptive capacity		X	X
place-based sustainability	X		X	place relationship		X	X	outdoor recreation		X	X
transdisciplinary research	X		X	influence of place		X	X	global change		X	X
external stakeholder	X		X	sustainability transformation		X	X	poverty alleviation		X	X
research process	X		X	politics of place		X	X	cultural ecosystem service		X	X
social learning	X		X	advance in theory		X	X	cultural ecosystem		X	X
conceptual framework	X		X	specific place		X	X	landscape change		X	X
methodological approach	X		X	transformative change		X	X	ecological change		X	X
research approach	X		X	changing climate		X	X	social process		X	X
collective action	X		X	narrative of place		X	X	water management		X	X
sustainable development	X		X	relational value		X	X	case study		X	X
multiple scale	X		X	transformative power		X	X	environmental management		X	X
institutional context	X		X	participant observation		X	X	scenic beauty		X	X
institutional setting	X		X	connecting people		X	X	ecological knowledge		X	X
power relation	X		X	change process		X	X	natural resource management		X	X
natural system	X		X	sustainable place-shaping practice		X	X	management option		X	X
governance system	X		X	mapping place attachment		X	X	ecological dynamics		X	X
adaptive governance	X		X	place of sense of role		X	X	grazing land		X	X
spatial scale	X		X	place-shaping practice		X	X	resource user		X	X
type of research	X		X	place of sense on literature		X	X	coral bleach		X	X
				sustainable place-shaping		X	X	adaptive management		X	X
								sustainable management		X	X
								social-ecological resilience		X	X
								climate change impact		X	X
								change impact		X	X
								resource use		X	X
								emergence of a perspective		X	X
								generation of ecosystem services		X	X
								generation of ecosystem		X	X
								community-based natural resource management		X	X
								resilience thinking		X	X
								community-based natural resource		X	X



**S8\_Word Sketches of 'change' produced with SketchEngine.** Visualisations show (up to) 30 collocates of change and represent comparative frequency (word size), typicality (distance to centre), and grammatical context (colour/descriptive text). Wedge sizes reflect the relative frequency of search term collocates present in the identified grammatical structure.



REFERENCE: Adam Kilgarriff, Vojtěch Kovář, Simon Krek, Irena Srdanović, Carole Tiberius. A quantitative evaluation of word sketches. *Proceedings of the 14th EURALEX International Congress*: 372-79, 2010. <http://www.sketchengine.eu>

**APPENDIX B: Supporting information for Viewpoint 2.**

## Bioregions- a scan with SketchEngine

- 29 websites, inc. some repeats/duds
- Academic articles, “pracademic” movements and projects, blogs, NGOs, Consultants.
- Some clear arguments for bioregions.
- Some soft use of the term as a ‘philosophy’ others harder and firmer (eg down to bioregional economics)
- Some seemingly ‘random’ uses of the term.

1

## Key themes

- Background: 1980s in America- bioregional conference. Great quote from the Bioregional Congress in Oregon, 1988. Sounds like today.
- Interesting links to Donella Meadows as a proponent for bioregional learning centres.
- (As expected) links to:
  - Peter Berg, (and quotes of Thomas Berry)
  - Joe Brewer, Daniel Christian Wahl, and Sam Matey & Glenn Page, as leaders.
  - Educationally oriented ideas, policy-oriented ideas, economically-oriented ideas, culturally-oriented ideas. All of these based on the idea that BR is the language of nature expressing itself, and the way to engage with it. Cultural argument is based on global-local linkages and scales of meaning when reinhabiting (some educational arguments here too).
- Some interesting new publications/movements. Eg Progressive International. 3rs.

2



# 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

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.

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

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

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 *Dùthchas* (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.

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 through bioregional 'learning journeys', which are processes of collective learning and civic participation taking inspiration from Indigenous-led learning journeys (Poelina et al., 2022; Woollorton 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



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



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 decentering 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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There are no conflicts of interest to report.

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**APPENDIX C: Supporting information for Viewpoint 3.**



## 1A/ ECHO POINT

### WALKING NOTES & SITE OBSERVATIONS.

Echo Point (visit: 30/5/2023)



After a busy morning of mapping ideas from codes and re-investigating quotes in interviews, I decide to head out for some site visits and walking notes.

Echo Point sees about 5million visitors a year and I quickly realised the site was too big, with too many people to do any meaningful kind of commentary on the individuals that I encountered. Instead, I captured general impressions, taking notes during a walk through. I sat on the benches and incorporated my reflections while I was there.

#### **Site Notes & Observations.**

I arrive to a small carpark next to a tasteful tourism center hosting a few restaurants, cafes, and shops. It has nice gardens and landscaping that make the site feel small. It seems there's only few buses, so I expect low crowds. On my side other side of the road, it looks like a ubiquitous small town suburb; single-story brick homes. In my experience of Australia, I'm feeling some classic small-town authenticity.

Street parking costs \$8/hr and I think about not paying, as it doesn't look too busy and I assume there's no parking meter checkers. On ethical grounds, I decide I'd better pay. There's no option but a full hour. I doubt I'll need it, but I decide to go ahead, pay the money, and consider it a donation to the Council's site. The receipt is a QR code. Over the top? I wonder.

As I walk down, I realise the site is much bigger than I recalled from previous visits— I seem to avoid this place on my trips to the Mountains, thinking it will be like Scenic World: too busy to bother with.

The walks and lookouts are spiralling and hidden via the landscaping. The site, it turns out is massive. And it isn't quiet at all, there are loads of people here, but it still feels calm.

Large stones along the walkway sit like totem poles, I walk past. Near the end is one with hand-prints, with a welcome note from the site's traditional owners.

The views are, as always, breathtaking- what I imagine as an Australian equivalent to the grand-canyon.

I take photos and walk around.

I see a sign by the NSW's National Parks and Wildlife (NPWS) authority. It makes no mention of dogs. Instead, I notice all the signs are multilingual- with far more languages than usual. The NPWS sign is simple and to the point: information about the walks, and a safety note about the cliff edge.

People from all corners of the world pass me by. They're all cheerily taking photos. A tour guide is explaining the site to a Korean family, who are listening and asking questions. A group of American teenagers walk by loudly talking about Uluru and sharing their knowledge of geological landmarks in Australia.

The signs and site names pointed out on the placards have Aboriginal words and placenames mixed in with other meanings and representations. I didn't recognise the indigenous placenames at first, only later realising these weren't describing the travel of explorers, but of characters in a Dreamtime story across the landscape. The message is subtle, and I didn't find the full story but it was engaging, leaving me interested to hunt around the site to find more information on the placards, and to look it up online. Alongside this was much familiar information- names of sites as they've now come to be called, and descriptions of the geology and the landscape.

I'm struck by the success. Handling 5m visitors a year, with a subtle carpark, and a well-designed, but huge capacity, network of lookouts and walkways.

I see a small plaque to mark a visit from Queen Elizabeth.

As I stroll around the lookouts, I hear languages and accents from all corners: French, Australian, American, Korean, British, Malaysian, Arabic, and everything in between. There are visitors in full burqas, short shorts and activewear, and scarfs and jackets.

I return to read the poetry on stone in the entryway, as I only noticed the engravings on the last one when coming in.

From a poem by a local Gundungurra woman's about the etymology of Katoomba (Kadumba- the sound, echoing, from the waterfall on the rocks), to Charles Darwin's wonder at the gorge. There's a clear love for this place from countless visitors over so much time.

I find the experience a great reminder of why we're here and why this 'place' matters to us- because we love it.

Plural place meanings might be conflicting and political, but they often come from a position (and a perspective) of love for the landscape. It gives me much hope. I feel buoyed for Australia standing here and seeing the cultures mix and the education/weaving of history in the site.

I notice that although the site hasn't felt 'busy' or cramped, it certainly isn't quiet. I've probably seen a few hundred people, 4 or so busloads and lots of self-drivers.

I walk off the main Echo Point site on one of the connecting clifftop walks, toward the Three Sisters.



Here, another NPWS sign as you start on the track. No dogs, take your rubbish with you, and tour groups must be licensed. Interesting there is no mention of the 'fine' like there were on the bushtracks in Lawson. I assume it's so busy dog walkers don't come here, more likely an issue in peripheral areas and tracks where people want to walk their dogs in quite shame and private romance.

There are silver metal statues of animals along the walk, and they look great and naturalistic. A kid is delighted, pointing and shouting to his Seik family.

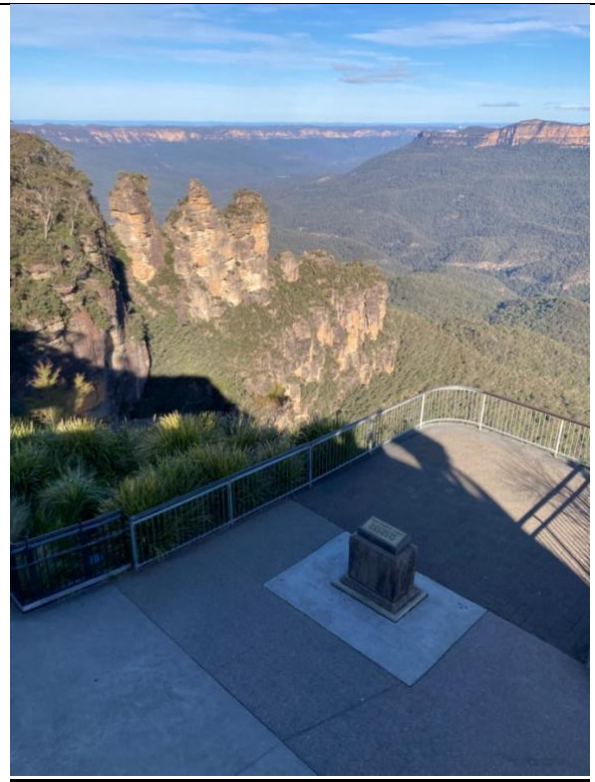
I get back to the car, surprised that I used the full hour and time is running tight for my afternoon plans. The \$8, in hindsight, was a bargain and more than worth it to see such a great site.

I look back at the houses next to the car. Do these locals complain about this wonderful sight? How has council deliberately kept development here so low key? It still feels like a small carpark in a small town, despite everyone from Charles Darwin, the Queen and everyone else over the last 200 years who visited Sydney stopping by? The authenticity feels precious, and I start to appreciate the controls over the 'local form' that, in my own area of Sydney, I've sometime felt were pointless.

### ADDITIONAL PHOTOS



Poems about Echo Point on monoliths at the site



Overview of the vista, and memorial of royal visit





Multiple meanings are communicated in information placards about the landscape

## 1B/ Former Katoomba Golf Course

### WALKING NOTES & SITE OBSERVATIONS.

(Old) Katoomba Golf Course (Visit: 15/5/2023).



### A brief history.

#### **A well-positioned Golf Course is purchased by the Council (2020)**

Council's redevelopment of the area started with its purchase of the Clubhouse in September 2020, which adjoins 30ha of Council-owned public land (the grounds of the former golf course). The area's zoning is for Public Recreation and Environmental Protection which requires its use (broadly) to benefit the natural environment and quality of life in the community.

The grounds are a landscape of fairways, light woodland, heath, scrub, and swamp. It sits in Katoomba Creek Valley catchment, downstream from the Gully.

#### **Various futures –and democracy**

Plans for the Golf Course were publicly discussed under phase 1 of the Katoomba Master Plan's engagement processes in 2020-2021 (BMCC, 2021e).

From interviews, engagement summaries and discourse in the local paper, many residents simply wanted the golf course to remain an off-leash dog walking area. Moreover, a local government election saw more ideas come forward, for the site to be considered for a hospital, conference centre, and other uses.

Council responded to this dynamic by noting a need to "strategically plan for the entire site, principally through a "Precinct Plan", resulting in further consultation about the site's use (BMCC 2022a; BMCC 2022b; BMCC 2022c). When a similar political representation was re-elected, Council (and its key stakeholders) continued to explore the sites potential in association with the Planetary Health Initiative.

#### **Towards a Planetary Health Focus Area (2022-present)**

Over the years, the role of PHI has been 'baked in' to Council's work via general council commitments and plans (e.g. the LSPS and LEP) as well as site specific planning that follows those directions including the decision to purchase the golf course, the Draft Katoomba Masterplan (2022b), and the precinct planning process Golf Course site specifically (2022-23). The site is currently described as a Planetary Health Focus Area whilst a Precinct Plan continues to be developed, including things like draft principles for the precinct that the public is engaged on.

The Council has also leased areas of the Clubhouse to a range of partners, noting their alignment to the Planetary Health Initiative, namely, the local office of the National Parks and Wildlife Service (NPWS), the Blue Mountains World Heritage Society, which is an active environmental network in the region.

## **Site Survey: uses and users.**

As I drive in, I see a bunch of white sulphur crested cockatoo around Katoomba Creek, near the reservoir and the falls. I didn't realise there was so many ovals and so much manicured gardens and walk-ways, throughout Katoomba- there's a campground, I see, which I didn't know existed.

Around the corner from the golf course, I see a sign for Gundungara Tribal Council and the Katoomba Native Plant Nursery. There's lots of cars there, and a curious 'community walk' thing too.

Another corner, and I'm now adjacent to the golf course. A line of humble houses are opposite, to the south.

I hop over the fence, and about 5m in, I hear a dog bark, through the trees. I count 3 people, and 5 (off leash) dogs. The people are of an older age (grey hair?) walking slowly, and seem to be enjoying a chat. One of them looks like a Council staff member I'd interviewed. Interesting- I wonder if they personally struggle with the dog ownership dilemma, like I do, whilst also dealing with the consequences of this practice in the way council plans public spaces and tries to balance sustainability ambitions with practices people connect to their quality of local life.

The site is still manicured like a working golf course; idyllic rolling hills and lines of established and open woodland.

I see a Tibetan grotto (statue?) on the hill, and another near a work shed. It reminds me of the anti-COVID cafe I was in: very eastern influences, but with an alternative/radical (and anti-medicine) political bent.

I don't see anyone else, but it is 4pm on a Tuesday.

The cars going past are all nice, I notice. Are they NPWS staff—are NPWS well-paid?

I'm curious about the development of apartments I can see on the West of the golf course, so I drive past. It's "The Escarpment Development Site" and I see "signature terraces" are still for sale, with lots of for sale signs. The design is pretty ugly: concrete boxes, a buy-from-a-plan style set of townhouses. Lots of Utes & boats out the front.

Then I spot a sign that says 'protect the golf-course from overdevelopment'. It's neat, and I'm surprised it is here, unremoved, and unvandalized, amongst the development (I assume) it is protesting. Around the corner is a mess of earthworks.

With all the rhetoric and hope for the site, how is this development here, and under construction? How does this fit into the PHI plans? Who owns this bit of development?

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**Notes: Reflections, Thoughts and Observations after the site visit.**

**Site-specific observations**

**Katoomba Golf Course as a Planetary Health Centre**

- *Place meanings.* There is a rich conflict latent in the DA process- our stated ideals, identity & opinions about a place can conflict with lived practices (and the discourses these carry) that influence power of what a place actually looks like and becomes.
- The case shows a confluence of agendas & strategic practices to mobilise them.
- Ambitions/opportunities as to what the site could do/be are quite compelling. But the practical and processual barriers resisting it coming to fruition are interesting.

**The power of our pets: the practices we enact to keep them and the consequences for space, sites, and planning.**

- Pets are linked to narratives about a 'good life' in Australia, and this extends to communities that live in close relationships to the Australian bush.
- Pet ownership practices might also be connected to the 'new arrivals' discourse- and this extends to other pressures (and expectations) on the build environment.
- But then again, this is a golf course- it's a modified landscape of fairways, greens, and Cyprus trees. There's a sense that you can narrate instances and site-specific issues as each only minor cases, but if you focus on them in detail, or consider them as broader trends, they become really large priorities.

**Council legacy? And juxtaposition against the Gully.**

I wonder if perhaps the PHI initiative is a change to respond to its history in the nearby site of the Gully- will a Planetary Health Center show what it could have been if 60 years ago the Council had played a progressive role in the Gully – helping the ethos, culture, and community emerging there to be celebrated and to thrive?

When a local elder came and spoke to our university visit to the site (outside of my PhD arrangements & dataset), I remember the connections they drew between the history of the Gully and the potentiality of the Golf Course, and the meaningfulness that arose because of it.

When Council reps spoke about PHI, more generally, it had a different tone. It was more future oriented- looking beyond/looking forward/looking out. Perhaps they were coordinating the message to address both goals, but I found it interesting how little emotional interest I felt via a global narrative that sought to conceptually connect/appeal via intellect and logic., versus a highly contextual appeal, that was based on lived experiences and described the use of the site as part of a process to rebalance past injustices- to put some morality into narrative arc of history, specific to this area.

**Dancing with the system and stewarding deliberative democracy toward sustainable futures.**

Through the mix of democratic representation, council direction and engagement on its overall direction and site-specific plans, there is an art to local government that is more than a simple process of 'asking people what they want'.

An examination of strategic practices will help to deepen the insights, but there are some interesting influences at play.

Plans for the golf course site appear to draw on democratic processes within a range of broader planning processes that gives council some oversight and agency. Specific groups of stakeholders

influence this at different points and forums; anyone can feed into overarching documents, like the Community Strategic Plan (CSP) and Local Strategic Planning Statement (LSPS), and then things like Stakeholder Reference Group for the Katoomba Masterplan, for example, sit alongside the PHI Advisory Committee, which complement standard public engagement via public exhibition. In the Golf Course's case, the SRG was expanded to support Precinct Planning for the former Katoomba Golf Course to "include a range of representative of groups in the community, including Traditional Owners. Other stakeholder groups are also being engaged directly." The short point is that stakeholder voices and influences aren't straight forward, there is a narrative built over time and it's influenced by who participates; decisions aren't a naïve or direct form of democracy.

My suspicion is that this is not bad, but good, because the DA process also isn't substantially or procedurally very democratic- its nominally voluntary and supposedly open access, but it also seems to bring out the worst in us. For example, I suspect most people only respond in order to object (NIMBYism), from what I've seen, digital exhibition platforms are usually unpleasant and likely inaccessible to navigate for some people, and voluntary council engagement processes are usually not something most people have the bandwidth, time, or interest to feed into. In that context, planners are trying to manage people who aren't represented, and inject some common good (perhaps drawing on longer-term aspirational documents) rather than just what people say about a single site.

#### **Narrative matters: mobilising PHI and connecting it to the site.**

As noted above, the Blue Mountains City Council has launched a Planetary Health Initiative, and sought to connect this to the potential use of the golf course, through the Katoomba Master Plan processes (in 2021) and then through the (2022) Precinct Plan processes.

Interviews with staff showed that overtime, the Council shifted from describing a Planetary Health *Institute* to Planetary Health *Initiative*. On the one hand, changing this frame appeared to be a safeguard; disconnecting the work from a specific site (as the site stood a chance of being sold, or used for other purposes). However, it also seems to have been useful in contributing to a rationalisation of the use of the golf course— establishing PHI as an initiative, Council had to show progress and commitment to Planetary Health (as an initiative). When it eventuated that golf course wasn't sold, and a site-specific institute was possible, it perhaps provided a more compelling illustration of what could be achieved if the initiative were able to have a physical home. If you've established the relevance for the initiative separately, meaning now we're just saying wouldn't it be good to give this a home? Rather than trying to introduce an abstract idea and the site at once.

#### **Additional photos, documents & Notes.**

- 1) Public consultation and engagement documents about the Golf Course and its use.
- 2) Site history.
- 3) Public records regarding politics / election discourse in relation to the Golf Course.

#### **1. Public consultation and engagement documents about the Golf Course and its use**



*An invitation to imagine*  
**the future of the former Katoomba Golf Club precinct**



**At this extraordinary time, at an extraordinary site in our City within a World Heritage Area, we have an amazing opportunity to do something special.**

We urgently need to take better care of nature to protect our own health. Our City is perfectly positioned to explore ways to care for our planet's natural systems and share these solutions globally.

With Traditional Custodians, our community, educators and researchers from a number of universities, Blue Mountains City Council is exploring opportunities related to planetary health initiatives at the former Katoomba Golf Course precinct (clubhouse and adjoining 30 hectares of public land). We are doing this for the long-term benefit of our City and our community and to create new job opportunities.

Share your vision with words or art online, or take our survey to provide more detail.

Go to [yoursay.bmcc.nsw.gov.au/katoomba-golfcourse-precinct-plan](https://yoursay.bmcc.nsw.gov.au/katoomba-golfcourse-precinct-plan)



**We are accepting your thoughts until 14 April 2022.**

*There will be many other chances for you to be involved in the development of the Draft Precinct Plan for the former Katoomba Golf Course site in 2022. Subscribe to receive updates about this project directly to your inbox. Use the QR code above to get more information.*

**We want to know – what opportunities you see for the former Katoomba Golf Course site?**

**How do you think this site could be transformed to help restore planetary health?**



Engagement flyers, inviting the community to imagine how the golf course site “could be transformed to help restore planetary health”. Retrieved 11 April, 2022. (BMCC 2022d).

# Former Katoomba Golf Course Precinct

## Draft principles



A place for:	A place which:	A place that provides:
Caring for Country – Listening to and learning from Country and Traditional Owners (Custodians)	Protects, restores and respects water, soil, vegetation and animals	Spaces and supporting structures that are environmentally responsive and integrated within the site
The community, particularly our youth, to come together to investigate, innovate and demonstrate Planetary Health	Demonstrates and communicates strategies for restoring Planetary Health	Flexible, multipurpose and adaptive structures and spaces which shape interactions and build relationships
Learning, discovery, scientific and artistic exploration within the Blue Mountains regional and internationally	Evolves over time through regular review and responding to lessons learned	International leadership on Planetary Health through a First Nations Custodial Lens
<b>COUNTRY</b>		

Former Katoomba Golf Course draft principles 1

Draft principles and ambitions for the site, with explicit references to concepts of Planetary Health and Caring for Country and its potential to foster place-related meanings, knowledge, inspiration, and identity that can support sustainability in Mountains. Retrieved 11 April, 2022 (BMCC 2022d).

## **2. Detailed site history**

Site ownership/usage zoning (condensed- most pertinent to the research):

<b>29 September 2020</b>	<b>Purchase of the former Katoomba Golf Course Clubhouse site.</b> The Council resolved to purchase the former Katoomba Golf Clubhouse site that sits alongside the former Katoomba Golf Course (minute no. 306).
<b>12 July 2021 - March 2022</b>	<b>Change of Use to Public Administration (National Parks and Wildlife).</b> Development application approved for change of use to Public Administration Building (Upper level – National Parks and Wildlife Service, Lower level – Blue Mountains Council) and function centre.
<b>15 March 2022</b>	<b>Complying development certificate issued for tenancy fit-out.</b>

Source: BMCC, 2022c.

### **Narrative on the history & Council’s role/vision (various sources).**

Council’s website (BMCC 2022e; BMCC, 2022f) show that visions for the site’s use had foundational links to PHI at the time of purchase in 2020:

*“In September 2020, Blue Mountains bought the former Katoomba Golf Course site after the [LSPS planning document] identified a long term aim of establishing a centre of excellence for environmental science, sustainability or planetary health in the Blue Mountains”*

Source: BMCC, 2021f

Its proposed use as a Planetary Health Center was incorporated into the Katoomba Master plan process (May, 2021). Council summarised the feedback from the initial engagements as follows in their online FAQs:

*We received a number of comments and suggestions for the former Katoomba Golf Course site during earlier and broader engagement on the Katoomba Master Plan in 2021.*

*At that time, the community told us that the former Katoomba Golf Course site could be used for– an education or learning facility; sustainable housing; parks or recreation (like a community garden, nature-based playground or urban farm); or businesses (like an Indigenous-led enterprise, planetary institute, museum, environment centre, or markets).*

Source: BMCC, 2022a

Interviews and engagement records suggested that the initial feedback from public about the site (during the Katoomba Master Plan consultations) didn’t give the buy-in that was required for Council to go forward with its plans and a more thorough engagement process to shape the site’s future. Combining insights from interviews, engagements records (above) and themes in the local paper, it was clear some people preferred to use the golf course as an off-leash dog-walking area, for example. To deepen the discussion, Council sought to “strategically plan for the entire site, principally through a Precinct Plan”, noting:



*“Precinct Planning for this site provides an amazing opportunity to do something special at this extraordinary location within our City.*

*We want to do this in a coordinated and transparent way, with the involvement of the community.*

*The former Katoomba Golf Course Precinct Plan will set the vision, principles and priorities for the future of the site, guide any future uses to occur on the site and set a framework for how the site might be transformed over time.*

*The Precinct Plan will also contain an implementation plan with short, medium and long term actions.*

*The former Katoomba Golf Course Precinct Plan will set the vision, principles and priorities for the future of the site, guide any future uses to occur on the site and set a framework for how the site might be transformed over time.*

*The Precinct Plan will also contain an implementation plan with short, medium and long term actions. “*

Source: BMCC, 2022a

Engagement process for the Precinct Plan process have included pop-up engagement in town centres in March 2022 and onsite workshops. An example narrative, below (from the flier above), shows how PHI is firmly inserted into the way the discussion is framed:

*“You're invited to imagine the future of the former Katoomba Golf Course Precinct! Join us to learn more and provide your vision and input.*

*With Traditional Custodians, our community, educators and researchers from a number of universities, we're exploring opportunities related to planetary health initiatives at the former Katoomba Golf Course precinct (clubhouse and adjoining 30 hectares of public land). We are doing this for the long-term benefit of our City and our community and to create new job opportunities.*

*We want to know – what opportunities you see for the former Katoomba Golf Course site? How do you think this site could be transformed to help restore planetary health? “*

Source: BMCC (2022d): ‘An invitation to imagine’ Flyer (image above).

### **3. Politics / election discourse in relation to the Golf Course**

The Blue Mountains Conservation Society (2016; 2021) does surveys each election cycle, questioning political candidates about their stance on (mainly local) environmental issues. In 2021, they specifically asked about future ownership and use of the Katoomba Golf Course. As indicated in the survey notes (and reiterated in public commentary and interview data) there were concerns that depending on the outcome of the elections, the Golf course might be sold.

**Q.12 Do you support retaining the Katoomba Golf Course as a publicly owned community recreation area?**

Candidate	Party	yes/no	Response
<b>ward 1</b>			
Kevin Schreiber	Liberal		
Suzie Van Opdorp	Labor	yes	I support the Katoomba Golf Club remaining in public hands. I will not support the sale – ever!
Sarah Redshaw	Greens	yes	To work appropriately with the Institute for Planetary Health.
<b>ward 2</b>			
Joanne Bromilow	Liberal		
Chris Van der Kley	Indep.	yes	
Romola Hollywood	Labor	yes	I support this land remaining in public hands.
Brent Hoare	Greens	yes	Certainly, it is wonderful to have this site back in public hands again, and essential to ensure that public access is guaranteed in perpetuity.
<b>ward 3</b>			
Kingsley Liu	Greens	yes	
Mick Fell	Labor	yes	I am committed to ensuring that the site stays in public hands and is never sold.
Daniel Myles	Indep.		
Roza Sage	Liberal		
<b>ward 4</b>			
Mark Greenhill	Labor	yes	I support it remaining in public ownership, never to be sold.
Peter O'Toole	Indep.	yes	I opposed the sale of the Kat. Golf Club site in the '90's and had the numbers to oppose [REDACTED] It was the best course in the Mountains.
Brendan Christie	Liberal		

*Preamble: (The Katoomba Masterplanning process, presently under way, will determine the future of the old Katoomba Golf Course. Local tourist operators have publicly stated their interest in the Golf Course as a site for a large-scale hotel/resort/conference centre or tourist 'hub'.*

Screenshot from a 2021 questionnaire used by Blue Mountain Conservation Society. (BMCS, 2021).

## 1C/Pulpit Hill & Explorer's Tree

### WALKING NOTES & SITE OBSERVATIONS. "Pulpit Hill" & "Explorer's Tree".



#### Site Survey: notes & observations.

- The carpark is old and empty; most of it is being used as a depot, with a temporary wire fence enclosing big plastic drums of liquid. There's a ute of an engineer or tradesman who is wrapping up for the day.
- Otherwise, I'm the only one here. The site feels relatively unvisited and abandoned- I'm not even sure I saw the tree in question.
- Looking at the Pulpit Hill Placards, I'm struck by the placenames. The assertion of colonial naming is very salient, as is the juxtaposition between the site today, and what feels like the expectation of visitor numbers in the TOV when written [see discussion below and photos].
- I go back to the carpark and look at the broader map. There's a clifftop trail for cycling and walking. The main incompatible uses warned against on the sign are horses, dogs, motorbikes, reflecting themes at other sites: some things have changed, but what about the politics in the way we enjoy the great Australian outdoors?

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#### ***Notes: Reflections, Thoughts and Observations.***

I find myself asking basic questions about Indigenous placenames: I come to realisations like "oh, so this area is only for the Gundungurra", and "Oh- Ngurra is their word for 'country'!". It's the first time I'm reading these ancient words and placenames, mouthing their unfamiliarity.

Meanwhile, I see how "explorers" are named next to these notes/descriptions of the site; the white guys who the placard says were the first to pass through the mountains.

Lawson, Blaxland, Wentworth- surnames I know well. They're the townships you pass through on the drive up and they're littered across the area's most awesome features, institutionalising them in cultural psyche,.

The placards talk eloquently about the two perspectives of history and consequence of crossing "the Divide", via the mountain pass. The context, which I'd never heard before, was Sydney's geography, wedged between mountains, rivers and sea, had people feeling that the mountains were penning Sydney in. Crossing them, and accessing the timber, soil and the vast Liverpool plains beyond helped

the city and the colony to “access land and resources” that helped deliver Australia’s later success. Refereeing here to the “Great Dividing Range”, it made me read these words descriptively, seeing Australia’s long South Easter mountain range as a physical barrier to the spatial reach of colonisation. They’re words I’d never thought about and I didn’t realise the historic sense of the term and its connection to the Blue Mountains, let alone this road.

Overall, the placards already have an outdated TOV and narrative about it. It seems like the authors expected an argument, and that the streams of visitors to the site would continue- but it feels surpassed by the majority of Australians moving on from a simple romance. The context is that this site was once hugely popular- school buses used to frequent the area as part of the curriculum; people now call it “settlers’ stump”. Veneration for such obviously blunt and painful sites of colonial action now appear on the nose (in my view, at least).

Perhaps fitting then, that the tree rotted out and the site was eroded. It now looks pretty miserable: a half-broken sign and a small and rundown clearing. I wasn’t sure which tree to look at.



## Additional photos



Information Placard- explorer's tree





Information placard- Pulipt hill (1/4)

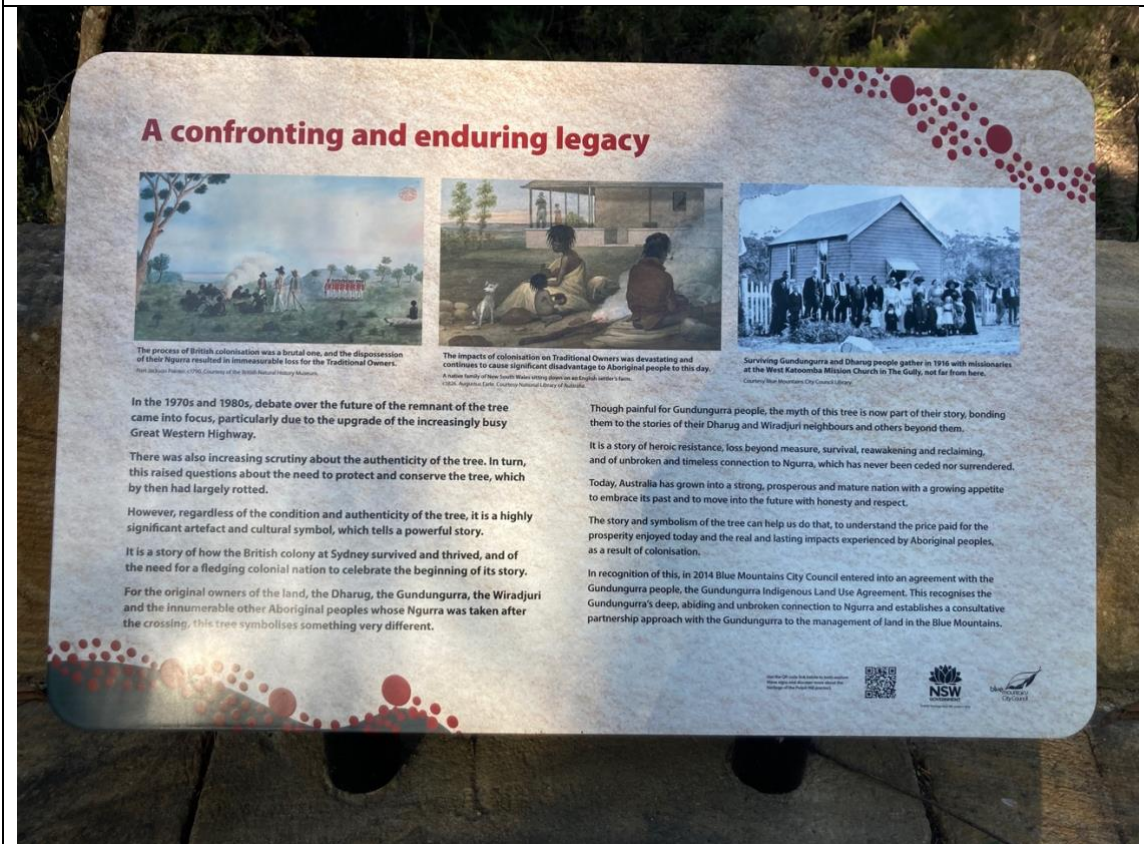


Information placard- Pulipt hill (2/4)





Information placard- Pulpit hill (3/4)



Information placard- Pulpit hill (4/4)

## Additional Resources & Background (literature & media)

### 1 Newspaper Media.

Curtin (2021) published a telling update in the Blue Mountains Gazette in February 2021. Excerpts below (incl photos used in online article) outline how the tree was lost. TfNSW refers to "Transport for NSW", the state government department responsible for roads.

*"when council engineers inspected the tree last Thursday, they alerted TfNSW that collapse was imminent. TfNSW arrived on Friday and immediately scheduled removal for 5pm on Saturday. The highway was closed and the stump, fence and the degraded platform taken away.*

*The mayor, Mark Greenhill, said he was enormously relieved that the tree had been removed.*

*"The risk of it collapsing had been keeping me awake at night. If it came down, it would have brought the platform with it. That amount of material could have pushed cars into the railway corridor. That's why I brought an urgency motion to the February 9 council meeting to get action."*

*Council had been stymied because, while it was responsible for the tree, it was located in the highway corridor, which required TfNSW permission to work on it.*

*The remnants of the tree - much of which had concrete poured into it over the years in a failed effort to protect it - have been taken to a TfNSW depot in Lawson.*

*TfNSW has said the tree will be included in its cultural interpretation strategy for the highway upgrade but at least one councillor has said no further money should be spent on it.*

*Cr Kerry Brown said: "I am delighted it has gone. I am not so delighted to hear TfNSW and council are hoping to relocate the remnants of the remnants. Not one cent of public money should be spent on preserving or displaying a shard of the dead wood, concrete or rubble."*

*An interpretative display was built near the tree at Pulpit Hill in 2018, explaining the devastating impact of colonialism on the Gundungurra people and their Dharug and Wiradjuri neighbours. It also outlines the long-running debate about the authenticity of the tree.*





## 2. NSW Heritage Listing information

Heritage NSW (2021) officially documents the significance of the site The Statement of significance (Updated 9 Aug 2021) states:

The presumed association of this tree with the three explorers of 1813 meant that the preserved stump has been publicly accepted as a historic focal point to commemorate the Colonial enterprise of exploration. The recognition and role of the tree has changed during the past 30 years with considerable doubts about its authenticity. Nevertheless the transformation of the Marked Tree from a supposedly authentic relic to a broader symbol is also of significance precisely because of both its former place in a central explanatory historical narrative of national achievement and its now marginal status due to the rapid decline and replacement of the sustaining myths about national origins. The Marked Tree is typical of many sites or relics where dramatically changing national narratives leave previously venerated sites marooned and their messages marginalised.

Controversy about the site's history are also documented. This section summarises my notes from reading that document.

- First, it seems there are no records that Blaxland, Lawson & Wentworth ever marked a tree.
- Second, the history surfaces how a celebratory colonial narrative emerged, influenced by politics and buy-in from Sydney's elite including ministers, businessmen, perhaps even the NSW Prime Minister (i.e. prior to federation), who liked visiting the area.
- Third, the official history of the site illustrates a shared storyline between sites like the Explorer's tree and the Hyrdo-Majestic hotel given the narratives they told about the area & the appeal they held to tourism– in the early 20<sup>th</sup> century, a section of the tree was sawn off and moved to the hotel for visitors to pin their business cards to. That a piece remains in the collection of the "Australasian Pioneers' Club" speaks to the romance it may continue to hold for lovers of early settler history.
- Overtime, it became apparent that no-one could recall what the original markings were, when they were noticed, or whose idea it was to memorialise it. The appeal, it seems, lay in the message and narrative that it represented about what Australia is, and what it offers, to whom.
- Despite this, pressure on Council to 'protect it' goes back a long way. Today, an interesting turn is seen in way jurisdictional powers and regulations were used to enable its removal- and reflect a stark change in tone from Council.
- Council continued its role in maintaining the tree, with what looks like considerable effort and enthusiasm, up until the 1960s. Then there appears to be a long demise, which mirrors the political shifts from the 1980s as Australia started to question its White Australia image (including 1967 referendum, land rights & treaty movement, etc).

## 1/D Townships (var).

### WALKING NOTES & SITE OBSERVATIONS.

#### Township tours (various)

May 2023



These notes were taken during a drive up the mountains, visiting some of the council facilities mentioned in interviews with Council staff and exploring less popular tracks abutting these townships.

### Site Notes & Observations.

#### **Driving Up the Mountains.**

- Heading out of Sydney, as you come toward the Nepean River, the road levels out and finally charts a welcome straight line.
- I feel myself exhale after the hectic and confusing 'space' of the long semi-bush, semi-degraded land that stretches along beside Prospect Reservoir that makes you wonder if you've left the city yet, passing the 'Racing Waters' theme park sits curiously and lonely by the road.
- Bee-lining for the mountains you cross the wide, powerful river and start to climb in steep ascent.

#### **Blaxland Library & Community Centre.**

- It is a charming and quiet site that is nestled in a wooded gully.
- A 'Lower Blue Mountains Neighbourhood Centre' sits in the same complex as the library. The expression of "lower-mountains" identity seems telling. Is it saying "We're not as bushy as them?"
- As I walk around, there's a meeting in a room that looks like a ubiquitous public-school classroom from regional Australia. There's a group of 10 or so people reading in a circle; I quietly pass by.
- The library itself is small, warmly lit and looks humble, well kept, and surprisingly up to date with all the latest books. Feels like it carries soul and sense of localness - perhaps the kind of place that few actually use, but it 'feels' like it is part of a community.
- The building has a roof like you see at a camp or a National Park centre; unmistakable aesthetics of an Australian bush town, just like the typography on the signs.

#### **Lawson Library & Echo Bluff/Empire Track**

- The library sits opposite a bowling club that is clearly more regularly patronised, has more money, and caters for more use.
- The library sits in a charming old building, with "Shire Offices" embossed in stone above the door. Typography of the Mountains.
- The sign nearby points to the "Olympic pool", the meanings of the words bring out the sceptic in me - I wonder how many Olympics, or Olympians its seen. As I walk toward it I don't find a pool, just a weird, unmarked building that looks like it carries more cultural history than the heritage protected houses in my suburb.
- I see a sign pointing to an "Echo Point" lookout. Another "Echo Point"? I'm curious so I follow.

- I drive a very short way to the carpark to have a look, keen for a quick walk in the Bush after driving up from the city. There's the main highway road, then the library, and then a few houses before you reach pure bush. Stunning.
- The carpark is atop a ridge and is rough strewn with fallen bark. It's gives a rugged unplanned lookout over the gully nearby, where you can see houses nestled into the hillsides, and large powerlines with a clearway that dissects the area.
- The houses are dwarfed by the expanse of national park and bushland reaching north and west.
- The first thing I see, as I start to pull up is a grey-haired man and his dog, happily walking together down what looks like a fire trail, into the National Park.
  - o I take a quick and subtle shot with my phone camera.
  - o He's 100-200 m ahead and as he goes over a rise and turns a small corner he walks towards his dog, subtly putting it on the leash, from the body language, I feel like he sense me watching him.
  - o I start walking and seem to catch up quickly. Walking past, I keep to myself. He looks at me with uncertainty in his eyes, holding his dog leash uncomfortably.
  - o I take a turn toward a different track, heading straight north- no time for the Fairy Falls, but they sound interesting.
  - o When I reach the end of the fire trail, which breaks into its own set of smaller walking paths, I see two signs, both by state government National Parks and Wildlife Service (NPWS). The first sign has a big dog with a cross through it, situated. On the other side of the track is a welcome sign to the "Blue Mountains National Park".
  - o The second sign has the same no-dog message, but also carries a laminated flier explaining how native animals see dogs as 'predators' and their sight, or even their smell, will put native animals off coming to an area and can impact their breeding. Clearly, dogs are an issue here. The listed penalty is \$200, which seems very paltry. The place seems unfrequently visited but the sign, its carefully written, printed and stuck up manner, seems like a desperate effort from a well-meaning NPWS staff to reach local hearts and minds.
  - o I turn back, and head toward the car. The timing of the man must have been similar, because he's back on the fire trail ahead of me.
  - o Again, he puts the dog back on the leash, and walks idyllically through the bush. "He's local", I notice to myself, as he walks straight through the carpark and quickly disappears; he must have went into one of the nearby houses.
  - o I double check the sign at the car park. A ubiquitous sign here says no dogs in national parks, with the same line about a \$200 fine, and a note that in (broader) Council areas, dogs always need to be always on a leash.

#### **Katoomba Tip.**

- I head here after listening to hearing about the challenges of having a tip that backs onto a wetland and bush.
- Going to the tip isn't something I'd usually do, and it takes me to backroads that make me realise how small Katoomba is, the thinness of these townships either side of the road. I wonder where the 'poor' suburbs are.
- The other thing I notice is that there seem to be lots of football grounds (ovals). It seems like there are plenty of places to take a dog off leash that won't cause large ecological pressure; but I suspect there are also strong emotional pulls that make people want to take their dog for a romantic walk in the bush, too.
- I drive back via Leura and am reminded how it feels much less touristic (and less anti-COVID) than the feeling I get on Katoomba's main street of restaurants and cafes. I wonder if Leura is the local hangout.



**ADDITIONAL PHOTOS**



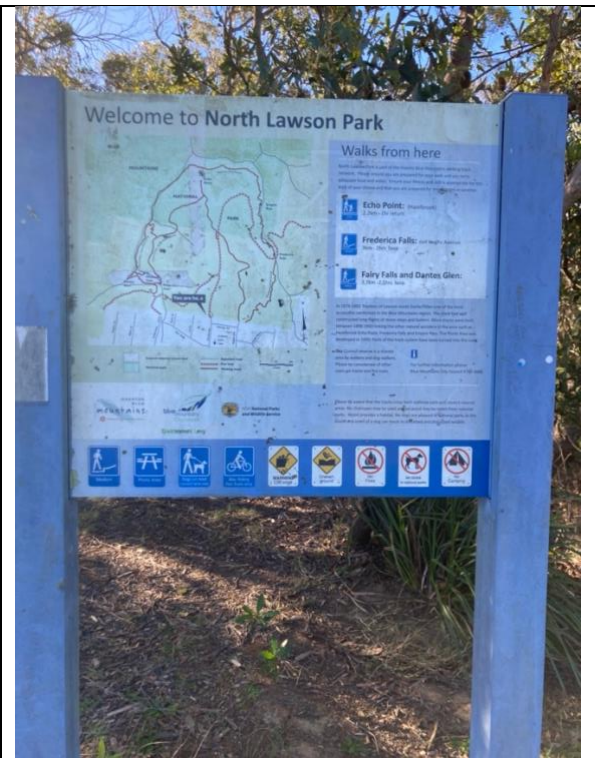
NPWS sign (1/2)



NPWS sign (2/2)



Expansive bushlands abut townships



Information about ecology (and dogs) are consistent



Even the waste refuse center has a vista.



## 1/E 'Garguree'. The Gully & Catalina Park

WALKING NOTES & SITE OBSERVATIONS. (Visit: 15/5/2023).



### **A brief history- drawing on information on site placards.**

#### **A diverse community settled**

From the 1800s, Aboriginal groups started to settle in the Gully, a base for their engagement with the emerging settlement in the new colony of Australia. The community was a mix of different groups, including the Gundungurra Tribes from the North and Darug Tribes from the West and South.

#### **A hard life but a cohesive and well-remembered place**

Looking back to accounts of the Gully community gives a sense that this was a time when Australia could have gone either way (see also, Johnson (2006)).

Over a century, Chinese grocers, itinerant workers, other 'outcasts' found a place to stay in the Gully. Life was still tough, but it sounds like life, and the childhood/sense of place that emerged around it was good.

#### **A (flippantly) White Australia: the 1950s.**

In the Gully, a businessman who was a car enthusiast proposed to turn the area into a sportscar racetrack. It wasn't subtle or small. It was a vision for big sports

#### **Council as conspirator.**

Council approved the proposal, provided funding and equipment to clear and develop it. Work finished in 1961, ready for the first race meet. The park was named after the mayor who supported in and saw it through- Frank Walford. It's still called that.

Some locals pushed back- media and locals couldn't sit in on the committee meetings. Also, noted the disregard the proposal had for the Gully Committee. Main concern, it seems, might have been noise concerns from the racecourse.

Under pressure, the president responded, saying they altered the race course and residents wouldn't be impacted...(obviously not the case for the community who were evicted and had their houses demolished.)

#### **Finance killed it: in 1992.**

The track wasn't successful. It was too dangerous; mist, rain, weather. People died & the club folded. The council never recouped the loan.

#### **Words of apology and state government designation: 2002.**

The mayor released a formal apology and the NSW government designated it as "An Aboriginal Place". The council collaborated with traditional owners to build the Gully Walk (this is where the placards are).

#### **Names and practices persist.**

There's a lake and a small park next to the racetrack, Catalina Lake / Catalina Park. Its origin is another business enterprise- parking WWII 'flying boat' (a seaplane) in the small reservoir as a tourist attraction.

## Site Survey: uses and users.

I enter from a small track on the East, go along the Race Track, turn into the Gully Walk and read the placards. I walk uphill to the sites' Southern boundary, then turn back to the carpark at Lake Catalina. I take a note of how the place is being used along the way:

1. A man walking a black dog (off-leash). He's in a driza-bone jacket. Walking along the asphalt racetrack.
2. A woman walking in black activewear and wool, she's alone. Walking along the racetrack.
3. A young woman with 2 Maltese dogs. They're off-leash and playing around the lake, directly in-front of a large council notice calling for all dogs to be on leashes.
4. A man walks past the historic placards on the Gully Walk. He pauses, it seems, before he reaches me to put his two dogs back on their leashes.
5. I walk up to the top of the hill, where you can see look at the enormous modern aquatic centre, fitted with solar panels.
6. A lady, is sitting and reading quietly on a chair. As she stands, her dog appears, offleash. They walk past, heading north.
7. I toward the carpark, past the lake. I read information placards about the ecology. I take a photo of a heavily vegetated (and beautifully established/striated) gully with ferns, hedges, and sedges housing a vibrant sounding steam, richly coloured by tannins from the bush upstream.
  - "It's really lovely, that, isn't it?" an elderly lady says, smiling kindly as she passes by. No dog in tow.
8. I near the carpark, where I'll wrap up the visit. A young mother gets out of the car- to meet the young girl I'd seen earlier, the one with two Maltese dogs. As I take photos (film) of the final placards, the conversation washes over me.
  - "Peaches, come- leave the ducks alone. Peaches. Come! Come on Peaches". She's shouting at a dog. The dog isn't listening.
  - The friend arrives. "Oh hoho! I didn't think she'd be an animal killer!".
  - "No she totally is, haha. She loves birds. I think she's a cat".
  - "OK" says the friend. "Are we good to go?"
  - "Yeah. What do you want to do- walk around the race-track thing?"
  - "Yeah- that's oh. Yep. Eugh! You know until recently, I didn't even know this place existed - Terry and I came and scoped – this place is awesome." They wander off as the dogs trot into line.

(Note: In one part of the area, I see a different name on one sign: 'Garguree' it's not explained or referenced again elsewhere, or in the books I trace down in the library after the visit, I guess it's the Aboriginal placename?).

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**Notes: Reflections, Thoughts and Observations after the site visit.**

### **1. Dogs & daily life**

The uses I encountered feel like normal life; the delicate & daily building of place meaning that arise from the practices people use a site for and the attachments they build to it, and specific features in the landscape there, because of it.

The presences of dogs is really salient, like in other sites and interviews.

Pets have become like family to so many Australians– to me, just like the people I encountered. For many it seems new, post-COVID, with new state laws letting more people have them. But what is this force on Australia’s public space? Where are we, again and what kind of nature do we love? Why do we ignore ‘the rules’ and happily go about our impacts?

It feels easy to simplify issues of dogs where they shouldn’t be as wilful ignorance. But I find the Gully interesting because it makes me remember that dogs aren’t just a ‘white thing’. In Johnson’s (2006) book “sacred waters”, looked at after the walk, she records stories told about daily life in the Gully. It’s interesting to see those stories paint nostalgic memories referencing “the friendly bark of a dog heralding a visitor” (p10). The practice of loving dogs isn’t limited to race, and it seems really significant in terms of scale, impacts on Australian landscapes and the emotional/cultural way we story and value those places. The low levels of public appetite to talk about the problematic aspects of the pets we keep is interesting.

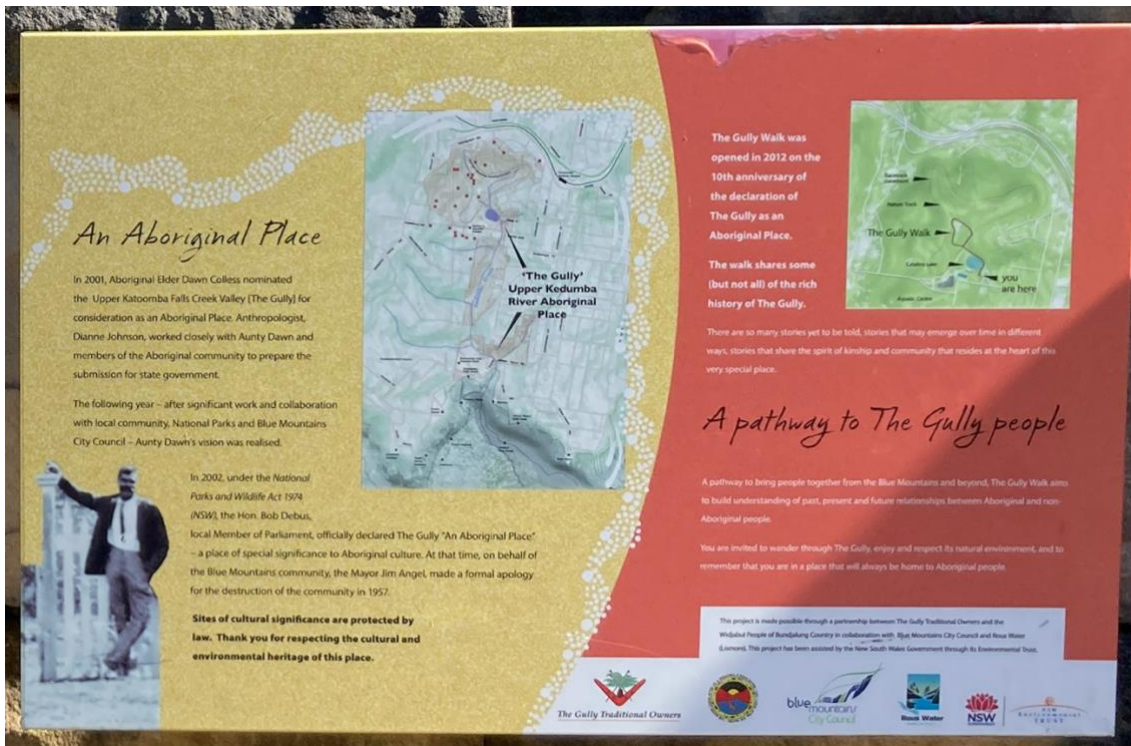
### **2. The Gully & its history**

Thinking about the narrative of the Gully’s destruction in 1956, it sounds to me like a painfully racist era of (white) entitlement mixed with passivity about the shameful of this perspective. I worry this culture continues today, expressed in pockets of agnosticism about the morality of settler Australia’s place in history and the landscape, and passivity about any ethical duty we might hold to try and make-good on injustices that continue.

Reading stories that recount life in the Gully gives me hints of a post-colonial sense of place, a thread of potential that went all the way from the colony, through federation, through technological and tourism developments until 1956. It’s seen through nostalgic and fond memories that describe a cosmopolitan community that is rooted around Indigenous people. Perhaps it is carried through to today- through the stories of people who grew up there. Descriptions of the Gully feels like a glimpse of an Australia could have been - but Australia moved away from embracing this potential, almost from the get-go. From 1901, the newly federated Australian Commonwealth went hand-in-glove with an institutionalisation of colonial mindsets, captured by the dual evils of Terra Nullius and the White Australia policy. It’s tragic that the Gully was resilient through so many years of displacement, forced removal of children, and the systemic erasure of Indigenous presence, history, and culture. Reading its story gives me the impression of the ‘hard edge’ of how ‘we’ (settler Australia) used, abused, and transformed local spaces and local peoples’ lives.

There’s a tone about history that I sense from the language about the site, and in the narrative of the placards. It’s perhaps subjective, but I get the impression that there is fair amount of guilt about the role the Council played, and a wish, it seems, to quickly look away now that an apology was granted and the site was declared “An Aboriginal Place”. Is this the end- close that chapter & move forward?





I wonder if perhaps the PHI initiative is a change to respond to this history, to show what it could have been if council played that meant the Gully was celebrated and helped to thrive? When a local elder came and spoke to ISF at the site (outside of my PhD arrangements), I remember the connections they drew between the history of the Gully and the potentiality of the Golf Course, and the meaningfulness that arose because of it. When Council reps spoke about PHI, more generally, it felt more future oriented- looking beyond/looking forward/looking out. Perhaps they were coordinated to address both goals. But it's interesting how little emotional appeal I got from a global narrative that connects to intellect and logic, versus a highly contextual appeal, using a site as a process to rebalance some morality into the long narrative of history, specific to this area.

**Additional photos**



## **Appendix 2: Detailed descriptions and analysis discourses in the data.**

This appendix provides additional detail and discussion of discourses in the data (2A-G) of temporal and contextual events during the research, in the following order:

- 2A) *Caring for Country*
- 2B) *Ecological Modernism*
- 2C) *Planetary Health*
- 2D) *Rights of Nature*
- 2E) *Stewarding the Blue Mountains*
- 2F) *Democratic Pragmatism*
- 2G) *Romantic Colonialism*
- 2H) *Discursive trends and time.*

### **FIVE SUSTAINABILITY DISCOURSES**

#### ***(2A) Caring for Country***

*Caring for Country* (CfC) is an established concept that refers to the cultural relationships and responsibilities of First Nations Australians to their traditional lands and waters. It is a discourse and storyline about human relationships with Australian landscapes that goes back millennia and is supported by a complex set of beliefs, practices and actors. This section outlines how CfC was encountered as a discourse in my data and it focuses on acts and evidence of its reproduction within Council's during its work on sustainability, noting its socio-cultural (re)production is also supported by a range of actors in Australia.

In May 2021, Council made explicit its interest in CfC in relation to sustainability through the unanimous adoption of its Statement of Commitment to Recognition and Reconciliation, which outlined a "vision for Council to walk with Traditional Owners, and the broader aboriginal community, to build a more positive future based on truth, respect and recognition of Traditional Ownership" (BMCC 2021a). The statement was developed over four years of engagement and co-creation with the Blue Mountains Aboriginal Advisory Council, representing *Dharug* and *Gundungurra* members of the community as the traditional owners of the region.

The Statement includes formal recognition of indigenous place relations ('honouring the past') and commitments to take action on social issues ('responding to the future') (BMCC 2021b). By formally connecting the concept of *Ngurra* (country) to the cultural and custodial relationships and responsibly to Traditional Owners, it provides explicit directionality for the place politics Council plans to mobilise. This might influence its agency and influence in defining places and their socio-cultural attachments; such as decisions about the naming of different sites, the meanings and narratives Council-developed sites and educational platforms choose to champion, and the politics and perspectives these storylines mobilise.

By making commitments to 'provide material steps to address the injustice of the past and to embrace a future together', Council seeks to integrate concepts of decolonisation and reconciliation into its pathways toward sustainable futures and its imaginaries of the places that these futures exist in. Commitments that explicitly illustrate this directionality include the following examples, amongst others:

- *We (The Council) commit to:...*
  - ...
  - *Promote activities that increase respect for, and acceptance of, cultural sensitive appreciation and understanding towards Traditional Owners and First Nations peoples.*
  - *Continue to support the process of 'Truth Telling' seeking opportunities to deliver key outcomes and projects which provide an honest and complete narrative of both Aboriginal*

- and European histories and include a comprehensive thematic and honest history of the Blue Mountains.*
- *Continue to partner with the Gundungurra Traditional Owners through the ILUA and Dharug Traditional Owners through appropriate methods to understand, protect, accept and promote their full history.*
  - ..
  - *Acknowledging, addressing and eliminating the inherent colonial perspectives and behaviours formed within generations of non-Aboriginal Australians in interacting with Traditional Owners and First Nations people in the City and commencing a journey towards local de-colonising attitudes, policy, processes and practice*

Source: BMCC 2021b

A focus on framing Council's approach to environmental sustainability (and stewardship) as one which moves toward the Indigenous concept of Caring for Country was a normative agenda brought up in different ways by different agents during interviews.

One interviewee was explicit in identifying Caring for Country as the most normative overarching principle that they'd like to see shape and lead council's thinking, housing initiatives that connect to different aspects of sustainability and place governance. They put it like this:

*"I'm sort of saying caring for country should be overarching and then planetary health, sustainability, rights of nature, are sort of Western ways of trying to achieve that. But the mother concept is the Caring for Country.*

*Yeah, and I sort of feel like, [shifting our relationships with nature by framing it around Caring For Country] has really positive side effects into reconciliation."*

Source: Interview data.

### Strategic practices used to mobilise and (re)produce the discourse in Council

In terms of discourse theory, the strategic practices used to mobilise CfC are, most obviously, seen by considering how it serves as a formative concept in a compelling narrative that calls for our approach to environmental stewardship of the land to also address Australia's history of colonisation and acknowledge the continued relationships and cultural responsibilities held by Traditional Owners.

Doing so draws the strategic practices described in the literature (see Leipold & Winkel, 2017)<sup>1</sup> as *emotionalization*, letting agents go beyond logical appeals and engage hearts, as well as minds. Given the ethical and historical rationale, it also carries strong logical appeal and works toward the *legitimation* of decolonial politics alongside environmental sustainability (and the *de-legitimation* of sustainability discourses that continue to elide or erase the rights and histories of Indigenous Australians). In doing so, it creates a *normative appeal* for how change is pursued, who needs to be leading it, and how the future ought to connect to the (deep) past.

In calls to approach sustainability via CfC, the normativity of its appeal carries a strong ethical argument. As an Indigenous concept, CfC has similarities to stewardship in terms of outlining duties humanity holds to nature, but the two are not synonymous because CfC asserts cultural responsibilities and requirements as to who can do the "Caring" while stewardship is more cosmopolitan. In the Blue Mountains SES, concepts of Country and cultural lore imply that this caring is (and must be) carried out by Gundungurra and Dharug people. CfC might

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<sup>1</sup> As outlined in the Methodology, identifying strategic practices draws on Leipold & Winkel's (2017) typology.

be considered a more emergent version of stewardship that is tailored to the specific history and context of the Blue Mountains, and Australia, more broadly.

Calling for CfC thus involves a call to address issues of social (in)justice and work toward reconciliation, because there are continued power disparities (legal, material, epistemic) that need to be addressed if CfC is to be carried out. As the same interviewee quoted above put it:

*“You know, the land here was stolen from Indigenous people. And we do need to start inserting that back in and just saying, we did the wrong thing. We need to... we probably can't, definitely can't go back to the way it was. But we can really, genuinely acknowledge and put indigenous culture front and center in, in our environmental ethical thinking. And Yeah. I'd be proud to live in a country that did that.”*

Source: Interview data.

Practically, the discourse is mobilised by being referred to across Council documents and commitments, enabling a special place for First Nations stakeholders to provide input on topics of land and environmental management broadly, but also in relation to specific sites- such as The Gully (Appendix 1-E), and The Katoomba Golf Course (Appendix 1-B).

The Statement of Commitment to Recognition and Reconciliation (BMCC 2021b) also recognised the need to address the temporality of party-based politics in local democracy, committing that

*“Regardless of change in Councillors through local government elections this commitment for the City of the Blue Mountains stands and will be reviewed and reaffirmed within 12 months of a newly elected Council or if requested by Gundungurra or Dharug Traditional Owners or the Blue Mountains City Council Aboriginal Advisory Council.”*

Source: BMCC 2021b

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## **(2B) Ecological Modernisation**

Ecological Modernisation (EM) is a reformist discourse that has become a dominant discourse in global sustainability and environmental policy (Dryzek, 2022). It has been the focus of decades of research in environmental discourse and policy analysis and its expression in the Mountains holds thematic similarities and tangible connections to these dynamics.

EM emerged in the 1980s as a hopeful endorsement of green innovation and market-oriented policies as solutions to environmental issues (Jänicke, 2008; Huber 1985). Since then, it has seen ardent proponents, and various critiques. Mol & Sonnenfeld (2000) summarised three phases of EM in its first two decades, and scholars have long commented on EM's capacious tendencies between two poles of a cornucopian 'techno-corporatist' view (Hajer 1995) and a more reflexive alternative that adds critical (social and ecological) awareness to how technological and market solutions might be developed and considered (Hajer 1995; Christoff, 1996; Mol & Sonnenfeld, 2000). Thus far, a more cornucopian outlook seems to have been the dominant expression of the discourse around the world, despite some more reflexive moments and expressions (Dryzek 2022, 178-185).

As an incumbent discourse reflecting and shaping the priorities of many institutions and policy structures, EM (and its techno-corporatist expression) has shown tendencies to outcompete, incorporate, and co-opt, a variety of more specific narratives and concepts within sustainability that might emerge to challenge it on a deep and normative level (Leipold et al., 2019, 446; Simoens et al., 2022). The interplay of EM with alternative discourses

has been demonstrated, for example, in Eversberg et al.'s (2023) discussion of how Georgescu-Ronen's (1971) original concept of 'bioeconomies' started out as a rejection unlimited economic growth due to ecological constraints but has now been reinterpreted and reframed into a narrative that presents industrial ecology and biotechnology as ways to overcome those limits and perpetuate unlimited growth. Leipold et al. (2023) demonstrated similar patterns in the way 'circular economy' narratives were initially envisaged and then used in the European Union. Both demonstrate some of the patterns of power that dominant discourses can wield over alternatives. Simoens et al. (2022) summarised these as 'discursive lock-in mechanisms including patterns wherein (i) core values and assumptions are reproduced, unquestioningly, by structural forces, (ii) the sheer scale of incumbent narratives and their place in institutions can outcompete other options gaining traction, and (iii) incumbent narratives can co-opt promising alternatives by reframing them within their terms.

The throughline in EM is an emphasis on the potential for technological change and strategic policy reform as mechanisms to address the impacts of industrialisation on the natural environment. It resists the call for wholesale changes to the philosophies and worldviews have been developed through Modernity and come to dominate global discourse about governance and policy, and it remains committed to a version of sustainability that is compatible with modern democracies and market-based economies. Dryzek (2022) reflects these sentiments, summarising EM as a discourse that is driven by vision for the world which is similar to a Sustainable Development, but carries specific politics about capitalism and human ingenuity in how to realise these ambitions.

#### Re-production of EM and (potential) shifts in its expression

In the Mountains, EM was deeply embedded in the rules, norms, and structures that shape mainstream environmental policies and practices. These systems constantly reproduced this discourse, meaning its influence on sustainability policy was maintained. Its presence is seen, for example, in a series of frames and concepts used by and enforced upon Council as best practice ways to include environmental considerations in planning and governance processes. This includes things like the pursuit of Green Building Standards, net zero commitments, sustainable energy procurement goals, and sustainability reporting all of which have become institutionalised norms in the way sustainability is discussed and pursued throughout organisations in Australia.

Interviewees often grouped concepts and policies that I describe as EM through a label of 'general sustainability' or 'normal sustainability stuff'. EM was not explicitly endorsed by interviewees as normative or even considered as a choice or option. Instead, it was as framed as the bare minimum - the baseline or 'normal' – work that they do toward sustainability, upon which deeper, more ambitious and more meaningful changes were pursued.

As is typical of EM, the discourse showed signs of ongoing change with the adoption of new concepts and narratives into its orbit observed during the research period. This included the introduction of new terms like *Nature Positive*, which offers a market-oriented re-framing of priorities in environmental literature. In this case, *Nature Positive* seems to respond to calls to afford more attention to a more-than-human world, in a broad (and measurable) sense. Unlike other concepts, like the *Bioeconomy*, and *Circular Economy*, *Nature Positive*, at this stage, seems to retain potential to (re)steer the expression of EM in Australia, NSW, and the Mountains, toward a more critical expression, rather than a 'techno-corporatist' one (described above). For example, a conceptual and narrative connection has already linked *Nature Positive* narratives in urban planning, with concepts of *Country Centered Design*, *Living Natural Infrastructure*, and *Caring for Country*. Drawing these together, media and professional discourse have started to outline and normalise an approach to urban planning and architecture that prioritises place-specific landscapes and ecological conditions in the way we plan for housing and development and approaching place-based interventions in ways that recognise and respond to Indigenous Australian relationships, histories, and power dynamics in Australian places (Bolger, 2023; Cfs 2023; GANSW, 2023; DPE, 2023).

These were signals emerged toward the end of the research and are further discussed in Section 5 (and Appendix 2).

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### **(2C) Planetary Health (PH).**

Council explains what it means by planetary health (PH) and how it is pursuing this agenda through its Planetary Health Initiative (PHI) in many documents, however the explanation in its online FAQs for the former Katoomba golf course (BMCC 2022a), provides a particularly useful summary:

#### **“ Why am I hearing about Planetary Health, and what is it?**

*Planetary Health links our health with the health of the natural systems which support all life.*

*Council has a long history of embedding sustainability into our operations and practices, and helping to protect the planet. Planetary health and sustainability sits at the heart of our Local Strategic Planning Statement Blue Mountains 2040 Living Sustainably. Get more information on Council’s 20+ year sustainability journey.*

*In our last Community Survey in 2020, Blue Mountains’ residents told us that what matters most to them is bushfire and disaster prevention, maintaining the natural environment and appropriately managing development.*

*Given the increase in natural disasters and the critical urgency to stop climate change now – as well as protect our World Heritage Area, restore planetary health and improve health and wellbeing – Council has established the Blue Mountains Planetary Health Initiative.*

*The Blue Mountains Planetary Health Initiative is building on our long-term commitment to restore social, environmental and economic health across the City – and, in turn, generate new jobs for the future. It’s occurring alongside Council’s core business – of waste, road and infrastructure works.*

*Therefore, a key strategic direction for the former Katoomba Golf Course precinct is for this extraordinary location to have a focus on planetary health for the benefit of the City. “*

Source: BMCC (2022a)

This narrative is deepened/expanded in PHI newsletters (e.g. BMCC 2023e). There, the story of pursuing planetary health in the Blue Mountains was elaborated upon in two ways, described below.

**(i) descriptions of PHI and its collaborators, and explicitly addressing relationships between human & environmental health.** Planetary Health is presented as overarching agenda that links to a broad a range of concepts and activities, like holism, systems thinking, permaculture and regenerative design. Connecting these to ‘banner’ of PH and Council’s PHI was often done directly when communicating about its work:

*Just this month we introduced 120 first year medical students, from the University of Notre Dame, to the urgent need to view medicine holistically by recognising that human health is dependent on the health of all natural systems.*

*The site has become a focal point for training in systems thinking, permaculture and regenerative design, social enterprise development, job creation, and the training of teachers to help accelerate*



*action to restore the health of our planet. We are reimagining and recreating the way we can live, work and play on Dharug and Gundungurra Country, and we are committed to expanding the habitat on the site to increase biodiversity and support more life.*

Source: BMCC (2023e)

**(ii) Specific choices of linguistic frames.** While specific terms and linguistic frames are seen in the example above, another notable example of this is seen in each newsletter's footer wherein concepts from 'bioregionalism' are drawn upon and connected to Planetary Health as another way to describe what PH is and what PHI entails.



Source: BMCC (2023e).

While the concepts in bioregionalism are not themselves worth elaborating upon from this relatively small example (see Wearne et al. 2023; Hubbard et al. 2023 for detailed discussions of bioregional discourse), the practice being observed is one wherein Council's approach to PH and PHI is strategically narrated, using and connecting it to concepts that exist elsewhere in sustainability. In Council's narrative, PH is positioned at the apex of this hierarchy, creating a relationship with a series of concepts and ideas that can be drawn upon to rationalise different actions.

#### Strategic practices used to re-produce PH as a discourse and mobilise its influence:

Reflecting on the typology of strategic practices used in discursive policy making that were collated by Leipold & Winkel (2017), additional details become apparent about the way Council and Council staff use and deploy PH in their work.

##### *Coalition building*

Various partnerships and relationships are used to build the influence of PH as a concept, and to create opportunities for it to have an impactful on the region.

The need for partnerships is explicitly discussed, for example on its website: "*Council's existing and future partnerships are critical in helping us to grow Planetary Health*" (BMCC, 2022a).

To guide its work, Council has an Planetary Health Advisory Committee consisting of academics, City Council representatives, Traditional Owners, and environmentalists. It also has established partners in decisions to co-

house the PHI office with the National Parks and Wildlife Service (NPWS) and the Blue Mountains World Heritage Institute's offices. These are sited at the former Katoomba Golf course, with the announcement noting "Council has established a long-term lease with National Parks and Wildlife Service (NPWS) – who are also committed to the ethos of the Planetary Health Initiative" (BMCC, 2022a).

The links between PHI and the use of the former Katoomba golf course further those coalitions. It's inherent, for example, in the power afforded to different stakeholders in the planning for the site. For example:

*A Stakeholder Reference Group (SRG) is considered to be a representative sample of the community. This group works with Council to examine input from the community and use it to develop a vision for the site, draft planning principles, and provide feedback on options for future uses.*

*The SRG established for the Katoomba Masterplan will be expanded to assist with the Precinct Plan for the former Katoomba Golf Course.*

Source: BMCC (2022a)

And specifically on that expansion:

*The current Stakeholder Reference Group for the Katoomba Master Plan will be expanded to include a range of representative of groups in the community, including Traditional Owners. Other stakeholder groups are also being engaged directly.*

Source: BMCC (2022a)

These stakeholders build on the existing influence of the PHI Advisory Committee, the growing list of partners that it works with, and the broader relationships that always shape Council's work, such as the make-up of elected representatives, and planning documents and processes that sit above and influence site-specific plans (see below).

Coalition building also includes ad-hoc work, such as community engagement with schools and community organisations, that serve to mobilise and support PH as well as other discourses (see Appendix 2f).

### *Agenda setting*

Local governments need to operate within legislative processes and constraints, contained in key pieces of documentation. This is especially pertinent between local and state government; the state government's State Environmental Planning Principles (SEPPs) and related laws 'pass down' constraints, priorities, and agendas. Local governments, meanwhile, prepare Local Environmental Plans (LEPs), Local Strategic Planning Statements (LSPS) and Community Strategic Plan (CSP) that 'pass up' local responses that respond to, and fit within, state agendas (DPE 2019a; DPE 2019b). This creates an integrated, 25-year planning cycle that sees visions turn into controls and regulations that guide what can be done in specific areas and the overall LGA.

By positioning planetary health into those processes of statutory planning, Council has been able to embed PH as a principle that can be used to shape its decisions about the region.

### *Narrative strategies*



The strategic use of words is seen in a variety of ways. There are specific narratives, for example, that describe how PH frames sustainability by focusing on the connective role of water as something restorative & healing in the landscape, while also enabling human health:

*The 30ha of the former golf course mirrors The Gully as its catchment also feeds a peat swamp that supports extraordinary biodiversity, protects us from the extremes of climate change, and cleans the water that the City of Sydney drinks.*

Source: BMCC (2022a)

Beyond these descriptions, as previously outlined, there is a broader strategy at play. Council has been formalising PH as an institutional discourse and it affords power to specific issues when it outlines them within a logic about change. Embedding these issues and their descriptions it into formal planning and policy documents leads to repercussions for specific sites.

There are many framing and narrative techniques used in this deployment. For example, “logical appeals” and “scientification” are present in the narrative of PH, and can be seen in the use of figures like the one below, which seek to establish the validity of PH frames as the best one for sustainability, and for human health:

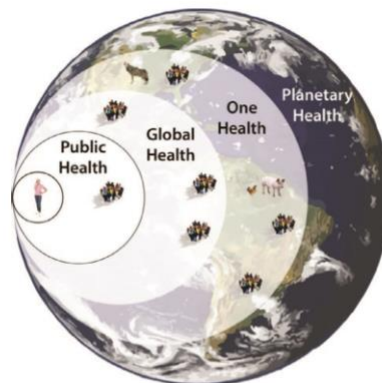


Figure 3 - Planetary health recognises the health of the planet as a system

Source: (BMCC, 2022b: p14)

There is also a strategic use of words and frames that take on meaning over time; creating and connecting specific concepts words and frames into narratives, and presenting this ensemble of ideas, practices, and narratives into a coherent overarching discourse. Some word choices, taken as discursive signs, have shifted over time showing the progressive use of a PH discourse to house other concepts and stories that previously sat outside it. A 2022 planning document, for example, describes Planetary Health by starting with a reference to Indigenous relationships and responsibilities to to the land: “The central principle of ‘Caring for Country’ is that it will, in turn, care for us” (BMCC, 2022b: p14). The section (with excerpt below) then introduces and suite of new terms- referring to the landscape as *Ngurra* and introducing a suite of terms and concepts as (new) parts of the PH discourse.

*“The Katoomba Master Plan is underpinned by principles of Planetary Health and incorporates the following pillars:*

- *Connection to Ngurra;*
- *Water Sensitive Blue Mountains;*

- *Katoomba Green and Blue Grid;*
- *Circular Economy; and*
- *Urban Regeneration”*

Source: BMCC Katoomba Draft Masterplan (BMCC, 2022b, p14).

Note: *Ngurra* is the Gundungurra word for ‘Country’

References to a “*Green Blue Grid*”, for example, identify a concept in NSW planning processes, while references to “*Rights of Nature*” and “*Circular Economy*”, which have been described elsewhere, refer to other concepts and discourses about sustainability that influence the Council’s work in planning. The use of documentation, as demonstrated above, thus explicitly brings concepts into the PH tent as the PH discourse is iteratively reproduced. Presenting them as “pillars” of PH achieves multiple discursive ends: connecting PH to new bodies of knowledge, bringing existing work and programs under a PH storyline, and positioning PH as a concept in the planning process. This process entails a formalisation and institutionalisation of different terms and meanings into the PH discourse.

Doing this is useful- having these elements in certain documents and relationships to one another present individual and linked ideas/commitments/rationales that can be drawn upon to legitimise later actions.

For example, the concept of PH and its principles in the Katoomba Masterplan process help to rationalise specific actions for spatial planning, and in turn, site-specific proposals for the golf course. Examples of this dynamic are discussed below.

### *Connecting PHI to the Former Katoomba Golf Course*

In summarising implications from the Masterplan, PH is identified as a response to climate change, community resilience, and as a way to enact best practice approaches to green spaces and sustainable water management (under a ‘green blue grid approach to planning):



Source: (BMCC, 2022b: p135).

Logically following on from the narrative that has been established, the BMCC Katoomba Draft Masterplan (BMCC, 2022b: p126) then reflects how PH leads to decisions about the former golf course, and notes that this should entail specific approaches to stakeholder engagement processes.

Summary of Actions:

	<b>Former Katoomba Golf Course</b>
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S6	Prepare a Precinct Plan for the delivery and management of the former Katoomba Golf Course, informed by the Planetary Health Advisory Committee and ongoing engagement with Traditional Owners.
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Source: (BMCC, 2022b).

These connections aren't implicit or hidden, they form the explicit language of 'strategy' in site planning. Demonstrated, for example, in this narrative in the Masterplan (BMCC, 2022b, p124-125):

*Blue Mountains City Council has a long history of embedding sustainability into operational practices and planning policy. Most recently, this has been captured in Blue Mountains 2040: Living Sustainably (the Blue Mountains Local Strategic Planning Statement) and the Council's Community Strategic Plan. The LSPS also included an action to collaborate with and seek investment from tertiary institutions to develop an International Centre of Excellence in the Blue Mountains for sustainable living, environmental science or Planetary Health.*

*As referenced in Part 1, in 2021, Council established the Blue Mountains Planetary Health Initiative to build on long-term commitments to restore social, environmental and economic health across the City. This is supported by the Blue Mountains Planetary Health Advisory Committee, as well as Memoranda of Understanding with a number of tertiary institutions to explore opportunities for a leadership centre in the field of Planetary Health – a discipline which links and highlights the interdependence of human health and natural systems.*

*At the time of writing, Council had commenced preparation of a Precinct Plan for the former Katoomba Golf Course site, which seeks to outline the vision, principles and priorities for the long-term planning of the site, in the context of the strategic direction outlined above. The Precinct Plan follows from the Draft Katoomba Master Plan, as a site specific, detailed study of one of the key sites within Katoomba.*

*To help inform this process and in collaboration with the Blue Mountains Planetary Health Advisory Committee, draft planning principles have been developed for the site. These draw together important elements such as listening to and learning from Country, Traditional Owners and other First Nations people, providing a place for community, for learning and artistic exploration, and ensuring that the environmental values of the site are protected, restored and communicated through strategies which restore Planetary Health. The draft principles also confirm this importance of environmentally responsive development, which is flexible and adaptive, to create a place of international leadership through a Blue Mountains lens.*

*It is in the context of this strategic framework that early engagement activities with the community on the future use of the site have begun, to hear and understand community ideas and aspirations. Key themes, ideas and issues raised by the community include the importance of community access to the site, the prioritisation of environmental restoration, as well as the potential for a range of uses including public recreation, educational opportunities and botanical gardens or parklands.*

*Given the importance of the Golf Course site to Katoomba and the Blue Mountains more broadly, the Draft Precinct Plan for the former Katoomba Golf Course site is being prepared concurrently with the Draft Katoomba Master Plan. Importantly considerations include connection of this site to the town centre of Katoomba including consideration of new links for pedestrians and cyclists, as well as other modes of transport. Importantly, the site has the potential to represent a key destination within the southern tourism area of Katoomba and establish connections between other key sites including as an important node on the Grand Clifftop Walk currently proposed by the NSW NPWS.*

In sum, the Blue Mountains City Council has a broad conceptual discourse about its pursuit of sustainability through a PH discourse. It has launched a Planetary Health Initiative to help enact this vision, and has connected it to the potential use of the former Katoomba golf course, through mechanisms including the Katoomba Master Plan processes (in 2021) and then through the (2022) Precinct Plan processes (BMCC 2021e; BMCC 2022a; BMCC 2022b).

Interviews with staff showed subtle changes overtime. For example, the Council shifted from describing a Planetary Health *Institute* to Planetary Health *Initiative*. On the one hand, changing this frame appeared to be a safeguard; disconnecting the work from a specific site (as the site stood a chance of being sold, or used for other purposes) (see Appendix 1 for discussion). However, in a circuitous route, this shift seems to have been strategically useful to make a rationalised case for using the golf course as an institute. By (re)establishing PHI as an initiative, Council had to demonstrate progress and commitment to delivering on Planetary Health as an initiative. When it eventuated that golf course wasn't sold, and a site specific institute was possible, having an established narrative about this initiative provides a compelling basis – one can easily imagine what could be achieved if an initiative were able to have a physical home, such as an institute. I.e. Establishing the relevance for the initiative separately, simplified the site-specific conversation and created space to ask “wouldn't it be good to give PHI a home?” rather than the use of the golf course being central to the merits of PH as a concept in Council's approach to sustainability.

These kinds of nuanced use of framing and rationale in the context of engagement processes are discussed in Appendix 2F as a strategic practice used at institutional and agent-specific scales.

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## **(2D) RIGHTS OF NATURE**

Rights of Nature (RON) is connected to the concept of Earth Jurisprudence. Exemplar quotes from interviews with staff, I think, describe this discourse and its orientation well:

*“I see rights of nature to be like the next frontier of people redefining their relationship with the with the natural world, in order to become genuinely sustainable.”*

*“an interesting context, is the fact that our mayor has also come out very strongly about using 1080 poison to control pests... predominantly because it's does cause a degree of suffering to them. Like...it's not perfect vertebrate pest control in that manner. Because it does have does cause some distress to the animals. So he's gone. “No, we're not going to use it”.*

*Source: Interview data.*

However, implementing RON in the context of Council's work proved more difficult. Elaborating on the example of foxes (above), the excerpt below points to the dilemmas that broad brushed narratives about 'nature's rights' don't address, and in doing so asks if a more complex ethical framework/hierarchy is required to assess the rights of one species versus another. The critiques also point to the limitations or perhaps, the emotive and narrative role, that this concept offers to support broader agendas, rather than its own ends.

*“what about the rights of the wildlife that are getting eaten by the foxes? Yes, you can say that the foxes have that right. But there's always a balancing act. And rights do imply a certain 'sacrosanctness' about those rights. But really, the reality of life is that it's all compromise and in local*

*government, it's all about compromise and trying to find the best solution that addresses all those multiple issues that we have to think about. And so yes, there is those ethical issues of poisoning a fox, but there's also ethical issues of not poisoning the fox and letting run rampant killing all the wildlife. ..."rights" can sort of imply that ...yeah..."these things cannot be transgressed". And therefore, it reduces that sort of flexibility that you might need in order to make good governance decisions, perhaps. So that's why we're at this stage, I suspect, we'll only keep it at a high level, and it may always remain there."*

*Source: Interview data.*

### How RON was re-produced and mobilised

To identify strategic practices used in the reproduction and mobilisation of RON concepts by Council, a first point of call is to review how it was framed and discussed in the Council's Public Media Announcement of its adoption in 2021 (BMCC, 2021a). A second source of insight is found in the way the RON discourse was reproduced and described by Council staff during interviews.

#### *(i) A legal intervention or a concept?*

In theory, RON serves as a way 'frame' environmental issues as a problem of rights and power, and it outlines a specific (legal) solution in response, namely, the affordance of non-human entities with legal rights and interests. In the BMCC's announcement, it referred to RON as 'an initiative', and 'a set of principles'. Public remarks by Mayor Cr Mark Greenhill noted many of these goals and connections explicitly:

*"By becoming part of this critical initiative, we are shifting our lens from seeing nature only from the human point of view, to adopting a more holistic approach where we acknowledge that everything living thing plays a role.*

*The incorporation of RON principles into Council's operations, planning and advocacy programs aligns with its existing commitments to Planetary Health that recognises that human health and planet health are inextricably linked.*

*By acknowledging RON as a guiding principle in its overarching high level strategic planning documents, Council is making a powerful statement about its intent to be a best practice, environmentally responsible organisation in all aspects of its operations and decision making."*

*(BMCC, 2021a).*

Councils' somewhat fuzzy use of RON might have been practical, as interviewees discussed that it was unclear how the concept could be practically implemented within the context of NSW law.

*planetary health is more hardwired into existing sort of state legislation, in that it can speak to sustainability and sustainability principles, ecologically sustainable development, which are recognized state-wide principles, which you consider when you assess an activity under the Environmental Planning and Assessment Act. So it it's, it's a more practical, or contemporary way of looking at the world. Well rights of nature is really starting to push the boundaries even further. Yeah. And we're not...the legal frameworks or...having it discussed in legislation or law is not there yet.*

*Source: Interview data.*

Framing RON as a guiding principle, seems to be a way for Council to engage with a body of ideas and values that imply a deep commitment to nature, but (somewhat) elide the conflict that RON can create as a legal response to competing rights between humans and non-humans. In this fuzzy usage, it seems more coherent

that RON could be (re)mobilised into a relationship with Council's institutionally preferred discourse on Planetary Health- which ties human health to environmental health, further erasing the potential for conflicts between human interests and the environment that led to an RON discourse in the first place.

*(ii) Narratives & framing- RON held a rational fit with Council's long-running narrative about stewarding a good life in the mountains*

The public announcement also showed how RON was also supported by the CEO, in her own narrative, in which she connected concepts of responsible living ("human civilisation") to "flourishing natural systems" and to the need for "wise stewards of natural resources" (BMCC 2021a).

Here, RON as concept appears to be narrated by referencing ideas that have been around for a long time in BMCC's Stewardship discourse. Raising RON in this way re-asserts Council's role and identity as an environmental leader amongst its peers and in the community. Furthermore, it reminds us that leadership means taking principled stances and working through the dilemmas they bring- there's recognition that this is going to be hard:

*"We recognise that human civilisation depends on flourishing natural systems, and the wise stewardship of natural resources. We recognise that the natural world is just as entitled to exist and evolve as humanity. We will work to make our policies and operations reflect this, recognising that this will be challenging at times. I encourage other Councils, and levels of government, to do the same.*

*"The City of Blue Mountains embraces its responsibility to ensure environmental, social and economic sustainability at a local level, and to play an important leadership role in contributing to the health of the planet overall."*

(BMCC, 2021a).

*(iii) Coalition building*

Finally, the announcement reflected the origins and influence of RON as a global concept, used by discursive agents engaged with discourses about sustainability outside of the role of Council and the immediate LGA. Here, the work of Earth Jurisprudence advocacy organisation Australian Earth Laws Alliance (AELA) is mentioned. What's not raised in the initial public announcement (with another excerpt below), but was identified in the interviews, is the connection between an environmentally committed Councillor and AELA, which is how the idea came to the Council's decision-makers' consideration- and more broadly, the role of AELA (and its leader) on the Advisory Committee of the Planetary Health Initiative.

*Council will also engage its Staff and the wider community to promote the significance of RON. It will work with the Australian Earth Laws Alliance (AELA) to create local economic, arts and social projects that support RON principles and to develop practical implementations of RON at Council and in the community.*

*The National Convenor of the Australian Earth Laws Alliance, Dr Michelle Maloney, said: "This is an exciting step forward for public policy in Australia, and the Blue Mountains City Council must be commended for its innovation.*

*"For the first time, we're seeing a government entity seriously consider how to shift from the western approach of treating nature as just a resource or object to be managed solely for human purposes,*

*towards really seeing nature as a living community, with its own rights to exist, thrive and regenerate.”*

(BMCC, 2021a)

In sum, in my initial engagement with the way RON was used in Council, it appeared to be mobilised in a way that reflected George Lakoff's (2010) work on framing in that it helped trigger concepts already established by Planetary Health and Stewardship discourses. There were also signs of coalition building with AELA, and in the efforts to conflate and connect a call for RON with Council's narrative on Planetary Health, and its history on Stewardship. The RON discourse is globally established (e.g. Riedy, 2020) but locally nascent, and there were signs that references to RON might be being used create the grounds for Agenda Setting in the future (Leipold & Winkel, 2017). Acknowledging that there may be some difficulties in fully pursuing a RON discourse, it was engaged and entangled as with other, more established discourses in the Council. By 'seeding' references and concepts about RON as a principle in planning documents, it creates a potential for RON to be returned to overtime. Seeding RON as terminology thus meant Council, in the future, could the practice of 're-issuing' and 'de-issuing' discussions about both broad principles as well as the specific legal interventions that RON can conjure.

*Changes over time? Re-engaging the discourse in 2023.*

Moving forward to 2023, and the Councils' website (BMCC, 2023d) maintains many of the above narrative appeals to normative values, global leadership, and links to Planetary Health, but it adds an interesting and new level of detail as to how RON can be applied within NSW state law. This shifts the use of RON from previous descriptions of it serving as a general principle to its potential use as specific lever in assessing environmental impacts:

*RON is a rapidly growing international movement that aims to ensure a safe and healthy future for our planet by encouraging humanity to reorient its relationship with nature, from an essentially exploitative one, to one that recognises the importance of all life on earth.*

*RON principles will be progressively added to all current and future strategic documents, planning and decision making processes and the operational delivery of Council's functions.*

*This includes Part 5 Assessments (under the Environmental Planning & Assessment Act 1979) that consider environmental impact.*

*Council will also partner with the Australian Earths Law Alliance (AELA) to offer Rights of Nature workshops for the community, as part of upcoming consultation for the Community Strategic Plan 2035 (and future Local Strategic Planning Statement actions).*

(BMCC, 2023d)

The above description, I suggest, re-emphasises three points that were raised earlier in this description. First RON remains valued and compelling due to global connotations that provide weight to Council's narrative and its ambitions for sustainability leadership. Second, RON in the Mountains can (and has) been somewhat re-deployed from a universal discourse about (contested) ethics and rights, into a component concept or supporting narrative that empowers Council's broader interest in Planetary Health and Stewardship discourses. Third, coalitions exist around the global RON discourse and in this case, AELA continues to be an important partner that connects this global discourse to its use in the Mountains. Finally, and perhaps relatedly, there are signs that the discussion about RON and how to apply it continues to evolve- will it remain a concept that serves PHI, or as will it emerge as a specific legal concept with its own levers and implications? By seeding RON into

its formal narrative about sustainability, there are opportunities for Council—and other agents— to respond to it over-time, re-issuing RON for discussion, re-surfacing its connotations, or re-mobilising it as a reference to serve a broader narrative about what ought to be done.

There are almost certainly other strategic practices at play in the narrative used by Council that could be discussed and explored— from emotionalization and moral appeals through to legitimation and rational argumentation (for example, assumptions about what human civilisation depends on; and framing RON as an important part of becoming the City we want it to be— and part of who we are).

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### ***(2E) Stewarding the Blue Mountains***

Environmental stewardship has a long history in global sustainability and has various interpretations (Enqvist et al. 2018; West et al., 2018). In my paper, I refer to it as a secular concept. While this seems reflective of most literature, the term sometimes carries religious connotations, which appears common in contexts like the UK (Enqvist et al. 2018). To provide clarity for those readers, my use of the term stewardship aims to reflect ideas like those of West et al. (2018) who have argued stewardship involves responsibilities to others (such as future generations, nature, etc.) and depends on interwoven aspects of care, knowledge and agency in ways that often reflect place-based and relational dynamics. More importantly, my use of the term is a descriptor- the discourse outlined below carries many of the ideas above, but reflects them within the specific context of the Mountains.

Starting with the BMCC's (2004) Sustainability Model (Figure 1) is a useful way to explain a discourse about sustainability that has been asserted, built, and mobilised in the Blue Mountains' Council and community for over twenty years. Interviews with Council staff suggest that the key architect of the Model is now the BMCC's Chief Executive Officer.



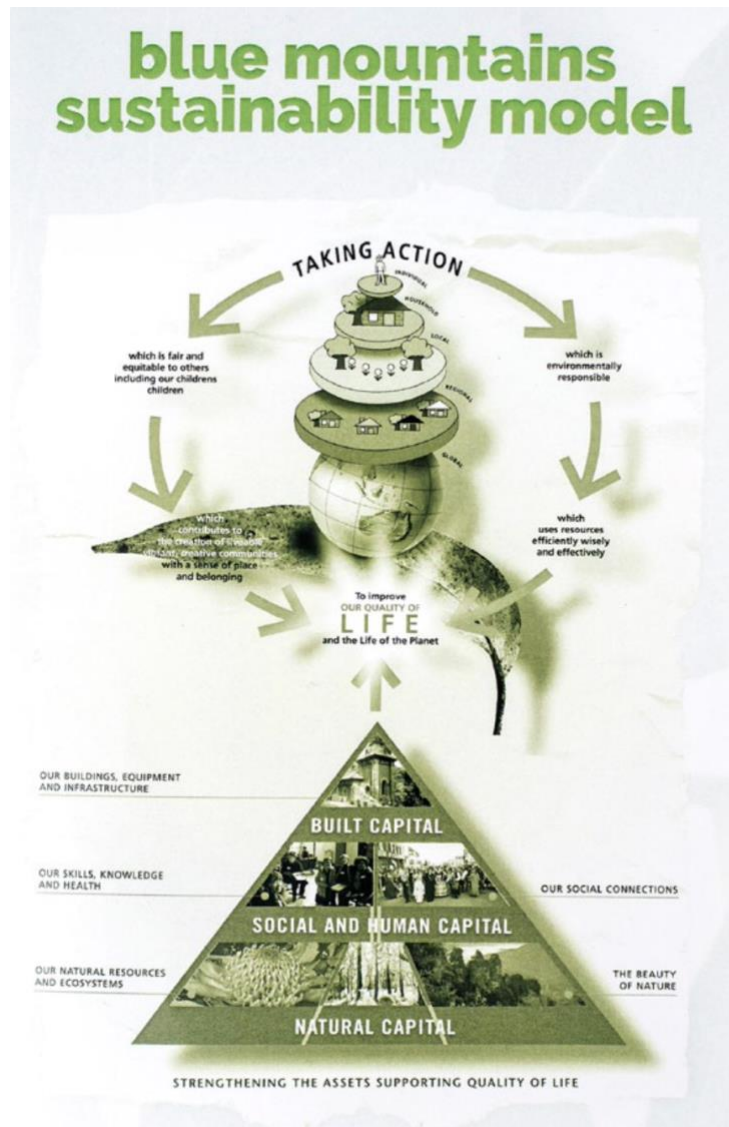


Figure 1. The original Blue Mountains Sustainability Model. Source: BMCC (2004).

The Model presents a holistic viewpoint on sustainability, outlining various social and spatial scales of sustainability, and identifying the interdependencies between a good life and a healthy environment, and between built capital, social and human capital, and natural capital. In doing so, it goes beyond the view that nature’s foundational service is (utilitarian) resource provision, identifying the “beauty of nature” as also fundamental to a “our” local community’s “quality of life”.

Further, its framing of sustainability notes that responsible management of the environment requires affordances for non-humans but also actions that are “fair and equitable to others, including our childrens children” (sic) and which contributes to “the creation of liveable, vibrant, creative communities with a sense of place and belonging”.

20 years after its creation, the Model still presents a mature perspective on sustainability that neatly reflects nuances in priorities and conditions that continue to be raised in STT literature, including normative calls for social changes toward sustainability to be pursued as a place-based phenomenon within open, complex and nested social-ecological systems (e.g. Wearne & Riedy, in press). Here, places, and their sustainability, are complex expressions of contextually negotiated social-ecological relations that occur across a range of scales

and issues. It transcends descriptions of nature as either a resource or an intrinsically valuable 'other', instead describing it as part of humanity's 'culture', foreshadowing contemporary ideas such as the Nature Futures Framework (Pereira et al., 2020). In its language and design, the Model thus suggests social-environmental systems are deeply connected with dilemmas, requiring the need to raise awareness to those relationships, and it moves beyond suggestions that social and environmental agendas can be isolated and pursued, reflecting a deeply rational paradigm about change and sustainability.

These ideas have not grown out of the social-ecological context of the Mountain in isolation from the rest of the world. In fact, it is telling that since 2004, the Mountains has shown (explicitly) an engagement with theoretical discussions about systems change through efforts to design the approaches used by the council around the ideas of Donella Meadows (see BMCC, 2004, p16-17) – who has also become an increasingly influential thinking in the field of STT and the broader remit of sustainability science (eg Abson et al., 2017; Leventon et al., 2021).

### Strategic practices used to mobilise and (re)produce the discourse in Council

Theoretically, there are a range of ways its mobilisation since the early 2000s might be described in relation to Leipold & Winkel's (2017) typology of strategic practices used in environmental policymaking. These are outlined below.

#### *Governance and Discursive strategies.*

Creating the Model as a framework has helped to formalise a certain identity in the Council, and a certain frame of sustainability. Practically, the Model formalises and endorses a bundle of concepts, and a narrative about sustainability. It has seen long-term institutional use in Council documents that influence the design and governance of the area: it's thus helped to create a narrative about what sustainability in the Mountains looks like, and what role Council has, often presented with emotional and logical rationale, as demonstrated above (BMCC 2004; BMCC 2013; BMCC 2017; BMCC 2020). This has practical consequence. Having this as endorsed element of Council policy creates potential for Council to take certain actions. It has also, over time, resulted in a certain brand or culture for the Council, influencing who wants to work there, and a sense of baseline expectations and norms for how it ought to act on sustainability (which might be described as 'Agenda Setting' in Leipold & Winkel (2017)).

#### *Coalition building & Organisational strategies.*

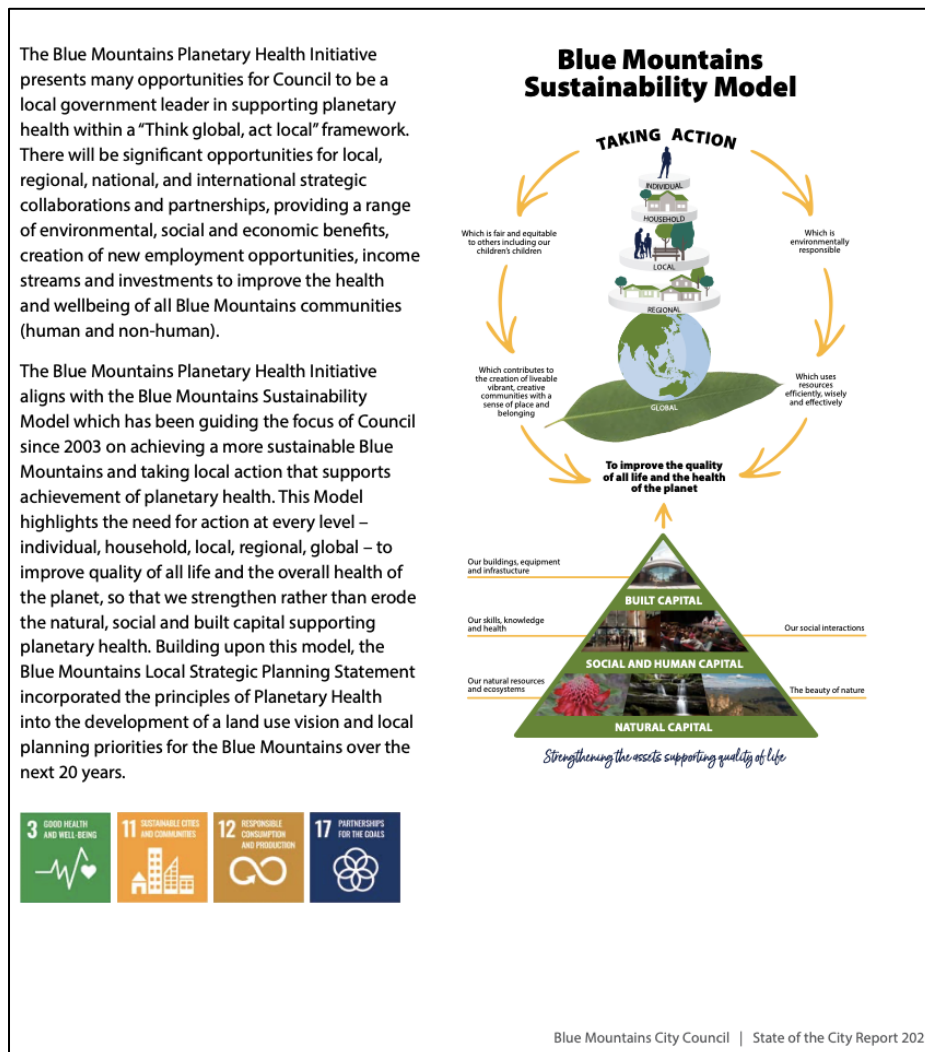
Conceptually ahead of its time, the Model positioned the BMCC as a leader on sustainability, perhaps reflecting and re-enforcing the social identity of the region as a community that cares for nature. This influences who wants to work with the BMCC, who wants to move there, and what other entities expect from it (e.g. the formal listing of the bush as a World Heritage Area goes along with this organisational history, and there appeared to be interplay between the people who advocated for that, and the positionality of the Council). The WHA listing in turn, creates formal rules, influencing the laws and policy context for the BMCC in relation to other actors and powers (such as state and federal government departments). Interviews with Council staff surfaced explicit discussions of this dynamic:

*I've lived in the mountains for, I dunno, 30 years, maybe more... if you didn't have environmental concerns and you weren't, you weren't sort of believing that that was something that was important, you wouldn't last [at council], you'd just leave because the culture of the organization is too strongly structured towards, you know, rights of nature, planetary health considerations, the environment, all that kind of stuff.*

*[it's] almost like a, like a selection policy. I think you would be a little bit naive if you applied for a job at the Mountains without understanding that [environmental stewardship] was something that was gonna be a fairly big part of the organization. And I think if you got there and you were like, oh no, this is too much for me, people would just leave. So it, it really is, particularly as it's been driven for 20 years by someone who's been gradually gained seniority and is now obviously sitting as a CEO. ...It is an organizational culture now.*

Source: Interview data.

The discourse outlined in the Model, and the work and perspectives it expresses and relates to, has since been handed over, it seems, to Council's current focus on Planetary Health. This hand over is sometimes explicit. Figure 2, below provides an example of this narrative shift.



**Figure 2.** An excerpt from the BMCC State of the City Report 2021 which provides a revised description and presentation of the Blue Mountains Sustainability Model, re-mobilising the Model to serve Council's focus on Planetary Health. Source: BMCC (2021d, p15).

Looking between how sustainability is presented differently between figures 1 and 2 shows an interesting shift in the 'purpose' statement that describes the goal of sustainability in the region. The differences are as follows (emphases retained):

To improve OUR QUALITY OF **LIFE** and the Life of the Planet (figure 1)

**To improve the quality of all life and the health of the planet** (figure 2)

While subtle, an obvious shift the seeding of 'health' as a concept that links human and natural systems. There is also a subtle shift in emphasis (removing 'our') that depersonalises the benefits and aims of sustainability. The emphases of the planetary health discourse that's become dominant in the Council are discussed directly in Appendix 2c.

While the Model may have been re-stated and repurposed, I suggest that a broader narrative about sustainability, place, and belonging that helped develop a discourse about sustainability which I've described as Stewarding the Blue Mountains, persists. This discourse sees sustainability as the pursuit of an eco-local life that is rooted in the Mountains' native ecology and cherishes its village culture. It persists in the frames, emotions and narratives that it has carried, and which are still present in the organisation.

## PROCESSUAL DISCOURSES

### (2F) Democratic Pragmatism

#### **Democratic Pragmatism as a discourse.**

'Democratic Pragmatism' characterises an overarching discourse which describes 'how' different actors pursued their discursive ends and ambitions in the context of democratic processes. It's a processual discourse that underlay how Council's staff, and Council as an institution, appeared to frame their role in change, given the context of a local government's position in Australia's democratic system. Due to its capaciousness and emphasis on process, rather than ends, it complemented more specific sustainability discourses that different agents aspired to (described in the main text, and outlined in 2A-E above).

#### **A discourse demonstrated in the mobilisation of multiple discourses about sustainability.**

To describe Democratic Pragmatism requires a focus on the process of discursive change: how different ideas, narratives and agendas were re-produced and mobilised. It discusses strategic practices that were observed, demonstrated or discussed by Council or individual agents and shows different actors (individuals, and institutionally). Like previous sections, the discussion makes references to Leopold and Winkle's (2016) review of environmental discourse analysis and a typology of what they termed as 'strategic practices'

This section repeats and elaborates on the (thick) description of each strategy that were provided in Section 4.2 and it adds a short commentary about the practices encountered and the reflections these raised during the process of analysis.

#### **1. Earning trust with the community.**

Various agents recognised the need to earn trust with the community. By managing the 'small things' well, as outlined in the quote below, Council could 'earn the right the play' with bigger, more ambitious principles and objectives:

*I think the big, the big struggle, with the rights of nature, and with the planetary health stuff, is going to be exactly what [name redacted] just described: explaining to people why it's important, yeah, to them in their backyard. Because people don't necessarily, you know, I mean, I, I—you listen to people who're like, "Geez, Blue Mountains Council can't even fill a pothole in my street. How the hell they gonna be looking after planetary health?"*

*Source: Interview data.*

Sometimes, addressing the everyday tasks of Council were referred to as 'hygiene issues' and it was related to the risks and pressure that can arise when community expectations and Council constraints aren't understood.

*So it's about understanding what matters to people day-to-day and what we call hygiene issues. You know, making sure that council overall looks competent in dealing with the day-to-day stuff so that we can then convince people that yep, they can trust us with the bigger picture issues and that we've got a right to be playing in that space.*

*Source: Interview data.*

To manage this, there are various skills and competencies. A key part of the equation on trust was being able to manage expectations - translating big ideas into practical realities and demonstrating the compromises that

sustainable action and local governance requires. This meant showing what level of services were financially feasible, delivering on those expectations, and then showing not just where progressive ideas were possible and but also where positive ambitions from the community might become practically or financially unrealistic. This was raised in relation to Council's plans for Planetary Health:

*to me, [that's] the biggest mismatch. And that that's where we need to make sure that we've got a rhetoric around the local action for planetary health. So we help the people— who we know from all the research we've done, value the environment— understand that the decisions council's making about the way it replaces infrastructure as it ages and fails, even though that takes longer and is potentially more expensive, is about respecting the value of the environment. So for us, as much as anything else [there is] an education piece to turn around and say, you know, this is one drainage solution, this is another one, we believe this one's more appropriate because the water then, you know, falls into National Park and is clean and, and not going to...have an impact on the ecology of the streams ...but that's more expensive. So where we can do five of these, we can only do two of those. So that's what we're gonna do. Yeah.*

*Source: Interview data.*

## **2. Organisational culture within the Council**

There was a pattern/acknowledgment of the importance of Council culture in maintaining and directing sustainability. On the one hand, agents within council collectively construct its institutional culture and define what internal leadership there looks like; 'influencing up' within the organisation helps to set the agenda. On the other hand, Council has existed for many years and has its own history, story, and institutional identity. This also shapes the dynamics of who joins, and which narratives take hold within its structure and community. An interesting point to note, of course, is that Council staff themselves are a cohort of the local community. Some of the shifts in Council may thus reflect broader shifts in society, not just those within the institution. The following excerpts surface these dynamics:

*I've lived in the mountains for, I dunno, 30 years, maybe more... if you didn't have environmental concerns and you weren't, you weren't sort of believing that that was something that was important, you wouldn't last [at council], you'd just leave because the culture of the organization is too strongly structured towards, you know, rights of nature, planetary health considerations, the environment, all that kind of stuff.*

*[it's] almost like a, like a selection policy. I think you would be a little bit naive if you applied for a job at the Mountains without understanding that [environmental stewardship] was something that was gonna be a fairly big part of the organization. And I think if you got there and you were like, oh no, this is too much for me, people would just leave. So it, it really is, particularly as it's been driven for 20 years by someone who's been gradually gained seniority and is now obviously sitting as a CEO. ...It is an organizational culture now.*

*Source: Interview data.*

## **3. Strategic use of norms and principles (at an organisational level).**

Interviews drew forth an underlying acceptance and commitment to democracy; this mobilised a processual discourse about how change is pursued (see broader discussion of Democratic Pragmatism as a discourse identified in the data). Such sentiments were carried by a suite of strategic practices that drew on the art of

compromise and the application of learned wisdom/practical knowledge about how Council staff fulfil their roles. Here, the input of agents into governance is more than a naïve hands-off faith in statutory processes.

*...the reality of life is that it's all compromise at local government. It's all about compromise and trying to find the best solution that addresses all those multiple issues that we have to think about.*

*Source: Interview data.*

A specific example of this practical know-how was described as Council leading social change by using a series of positioning statements that develop momentum and rationale, anticipating that the community might later raise conflict when site-specific actions take effect. In a sense, this was a pattern at institutional scale, which saw Council practice the creation of norms to create directionality on sustainability issues, in anticipation of NIMBYism. This was supported by individual and collective actions throughout this Appendix. Excerpts from interviews, like the one below, demonstrate the logic and sentiments amongst Council staff:

*It is leadership by people with vision that's happening. But no one's objecting to it because it's difficult to object to, on some levels, until their personal interests are at stake. And at this stage, that's not the case. So therefore, there's no conflict. That's what I mean, people will accept ideas, as long as there's no cost.*

*Source: Interview data.*

I encountered many examples of the community enacting the dynamics that this excerpt implies; a community that will support and prioritise long-term public good in principle and then making things difficult when they're the ones that are impacted by its pursuit. This includes examples from public engagement about the best use of former Katoomba Golf Course, and reflections within interviews about communicating financial constraints council faces that require compromise and cuts to the maintenance of high numbers of libraries, pools, etc., that service very small populations. See for example, the observations at specific sites (Appendix 1) and descriptions of work by individual actors during engagement processes (4d, below).

There are various links between the strategic practice of developing and maintaining institutional norms and the skills of individual agents used to fulfill their roles and 'dance with the system' (discussed below).

#### **4. Dancing with the system.**

This is a broad group of practices, often employed at the individual level in service of the broader strategies above. In a sense, they relate to the pragmatic need for people in governance roles to manage for the long-term public good via (or perhaps despite) democratic processes and principles, drawing on their individual skills and practical expertise to do so.

The context for this pragmatic work within democracy becomes richer when the politics of democracy are surfaced and the fluidity what constitutes Council is understood. The 2019 elections were raised in various interviews:

*"there was a survey done of the counsellors by the Conservation Society, and 1/3 of them remained silent on [the survey question] "do you want to keep [the former Katoomba Golf Course] public land?" .... [there was a feeling that new councillors might] sell it and do community housing or something, some big Hotel Conference Center"*

*Source: Interview data.*

*“There could be a big shift in this council election, that there's quite a lot of anxiety at the moment around that. And everything could change, but my program will happen no matter what.”*

*Source: Interview data.*

*“so for example, going into a council election, potentially, the councillors could change, and they will sell the golf course.”*

*Source: Interview data.*

Systemically, this points to the reality that there are Windows of Opportunity for policy change, and for those changes to be realised, effort is required. This includes the need for agents to mobilise different discourses within institutions, and within democracy. Many of these factors rely on institutionalised rules and processes—knowing those rules and processes also means that experts have some agency and judgement in how they engage with them and use planning functions wisely, rather than blindly. Examples that I identified in the data are outlined below as a group of interrelated practices framed as ‘dancing with the system’ referencing Donella Meadows’ (2001) essay about the pragmatic skills drawn upon when pursuing change in complex systems<sup>2</sup>.

### **(i) ‘meaning work’ with discourse and documentation.**

In another study of local government in Australia and the pragmatic role of agents in democracy, Riedy et al. (2019) talk about the strategic mobilisation of one discourse in order to empower another, and work toward a more specific (or fluidly defined) vision for the future.

In this study, I suggest that the concept of ‘discursive agency’ might also be considered in a more granular way. In the Mountains, different agents choose and used certain words, narratives and materials to spread some ideas in favour of others. And even more specifically, key documents within the planning system became a channel for agents to seed and empower certain ideas and discourses within the system. In this sense, planners and agents might be understood to anticipate future contestations about a place, its prospects, and its governance, and in response, create narrative building blocks for future planners, developers, politicians, and community members to draw upon when engaging in those contestations.

Navigating these dynamics requires knowledge of the documentation that mobilises different discourses, and injecting different concepts, frames, rationales and narratives into those documents in order to help exercise agency with the planning system. Overall, it is a strategic response and acknowledgement of the role that power, rules and institutions play in the (uneven) pressures that reproduce certain discourses about sustainability, and means some types of action are more difficult to pursue than others. There is much similarity in this dynamic with the heuristic provided by Simeons et al 2019 relating discourses to institutional power, and the ‘traps’ of discursive co-optation that can novel ideas can change in their meaning and politics— and others have described examples of this occurring to terms like the bioeconomy or circular economy.

The excerpt below reflects how Council-wide and site-specific issues in the Mountains were influenced by factors of state legislation as well as council documentation and the community engagement that inform it. It also shines a light on the facilitatory role council staff see themselves fulfilling by managing deliberation so that place-based planning is constructive, and lands on the long-term common good.

*we have to juggle, I suppose, legislative direction in this area. ... the municipal planning just released a whole set of his own planning principles in which “place” is high up there. And there's been work over*

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<sup>2</sup> Similar sentiments are also raised by Liepold & Winkel 2016; Westley et al 2013; and Shiller (2017) which all link narrative change to policy and comment on the skills, timing, and context that’s required to execute one’s agency in the dynamics of complex systems.



*the last year or so in developing a State Environmental Planning Policy, speaking directly to that, building upon previous work as well.*

*But for my own views, it has to do with recognizing the role that a place has within the community and within the space that's happening. I mean, there's process to go through for analysis and working [it] out, and community consultation, but in the end, places are about how people interact with their environment. So, and it's about making it work as well as it can, in a way that delivers the broadest range of benefits to the widest range of stakeholders. So...that's a bit but an entry point for me.*

*Source: Interview data.*

The use of this strategy became more explicit when specific concepts that matter in the Mountains—like RON & PHI—were raised. Here, efforts were made to re-produce these discourses via explicit references within the documentation statutory processes of planning, enabling their future mobilisation.

The excerpt below shows that attempts to expand the space for Council's agency within the confines of state laws are often taken up, but are not always successful:

*one key challenge for us is trying to maintain those local planning controls with the state government that's standardizing things across the state, right? And so often we try and, you know, articulate very clearly in planning documents why the Blue Mountains is different and why things need to be done differently here, but often it's overridden by a state standard approach. Right? So yeah, that's I guess an additional thing there*

*Source: Interview data.*

Different narrative strategies appeared favoured by different agents, pursuing different discourses. This reflected their reading of the context, and the response, and can be seen in the extended descriptions of the discourses and the strategic practices used to re-produce and mobilise them in the Councils work (Appendices 2a-2e). General strategies like use of storylines, agenda setting, and normative appeals were present in efforts to justify all of discourses present, however some strategies also appeared either more or less suited to specific discourses. General patterns included:

- The use of scientification and rationalisation to mobilise Planetary Health and Blue Mountains Stewardship.
- The use of emotionalization, normative power and counter-storylines to mobilise Caring for Country, and Rights of Nature.
- The use of Agenda Setting and Exclusion, not as a deliberate goal, but rather as an outcome of an incumbent Ecological Modernist discourse embedded and (re)produced by systems that Council operates within—including policy discourse and momentum about green building in urban planning, and the overarching capitalist influences that comprise the dominant mainstream narrative about life in Australia's cities and economy.

A formal context for this activity is, in part, constrained by a formal hierarchy of planning processes and documentation that shapes local government's work in New South Wales. However, it is noteworthy that these macro-settings can change. As indicated in an aforementioned quote, without a state election, NSW Ministers were changed during the course of the research, and there was a (brief) introduction- and then repeal- of changes to state planning policy that posed deep influences in the way that place was framed and narrated in the NSW state planning system. While these changes didn't eventuate, it points to a dynamic context that creates consequences and opportunities for Councils, and individual planners. This is further discussed in Appendix 2G and Section 5 of the main text.

## **(ii) Internal influence and strategies**

Working in Council means working in an organisation. The ethics and normative motivations of individuals are, like anywhere, important factors that flavour and shape discussions. More interestingly, different individuals shared their own practical wisdom and strategies about how they best effect change. Below are two examples, one seeking to encourage reflexivity and leadership and the other looking to work with internal champions:

*And we're also looking at concepts of not locking it into business plans for each department, because it's too hard. But speaking to—I've already spoken to all the strategic leaders, to all the senior leadership team, about when they make decisions, to think about the implications of their decisions 500 years into the future, not just for years, what would your choice be, you know, what would be the implications of your choice on the generations to come on all living spaces, human and non-human living spaces?*

*Source: Interview data.*

*I'll engage in key areas, but I'll prioritize and work with those willing to be worked with and you know, there's enough areas of council where there's a lot of improvement to happen that are willing to work that I can keep doing that for a long time to come.*

*Source: Interview data.*

Narrative strategies were also used internally in council, to mobilise specific discourses, which are discussed above in Appendices 2a-2e.

## **(iii) Coalition Building—especially with education**

Various examples of coalition building are evident in the above discussions however coalition building was especially apparent as a strategic practice in relation to education. Council's role in place-based education had many forms- from direct programs with the public, to working with school children and teachers on curriculum-based work (BMCC 2023a, BMCC 2018), to the provision of public information boards and placards at major tourism sites (see appendices 1a-e).

*“from our local planetary health initiative, which is a city-wide initiative for the whole of the Blue Mountains, we have Research for Planetary Health to guide our way forward. So we're working with universities and the World Heritage Institute to set up citizens science programs”*

*Source: Interview data.*

*Our goal is to inspire the next generation – by connecting them to our special Blue Mountains environment and fostering their natural love of nature. In a learning experience unique to our City within a World Heritage Area, we offer young people the opportunity to explore their local water catchment, learn why it's special and take action to protect it.*

*(BMCC, 2023a)*

Education about a place is inherently political as the stories we tell can shape popular understanding of a locale, a community, and the natural environment.

Coalition building on education in this case study was salient and powerful because there are site-specific examples –such as the Pulpit Hill and Explorer's Tree—where education about those places helped create

anchors that supported popular consensus in the community, over time, about what the Mountains stand for. The significance of the education emphasised at different sites is amplified by the scale of tourism in the region, and the cultural importance placed on them.

In discourse theory, this dynamic reflects how some ways of seeing the Mountains will be institutionalised and normalised while others are not (Hajer 1995; Simoens et al., 2022). From the lens of place studies, it reflects how education helps to shape the meanings, identities that most people attribute to a site- and in doing so, shaping which features, species, practices and identities we are emotionally attached to and invested in for the future.

#### **(iv) Framing the context and process of engagement**

Agency was seen in the use of new formats and technologies, at specific times, to support community engagement into Council's planning processes. Three aspects relating to the way that engagement processes were framed and designed both in terms of logistics and semantics are outlined below. They relate to competencies in council and community to have constructive discussions, the format and materials used to facilitate the process, and broader timing and social context in which the engagement was taking place.

##### Having quality conversations during community engagement requires competencies on both sides.

Conversational competency important in getting the most out of community engagement. This is a skill, as relayed in anecdotal examples. Sometimes, this was to make the case for big-picture change:

*it's explaining that [big picture] stuff in a way that's [also responsive to] you know, someone [who says], "but I just want you to build my footpath" and "you haven't allocated enough money for, you know, mowing the lawns".*

Source: Interview data.

It was also required to communicate day-to-day pressures and decisions:

*everyone's like, "well why aren't the sports fields open and why haven't you mowed them?" And they don't realize that a week and a half of sun after six months of rain means that you put a tractor on it, you rip it to shreds; you just can't do it. And the complaints are coming through...that's the kind of stuff that's difficult.*

Source: Interview data.

The key concern, however, was providing sufficient organisational and financial context, in a compelling enough way, so that community understood the compromises required by local government:

*So if we turn around and say "it costs us, you know, this much money to maintain six libraries, we wanna rationalize and bring that down to four", all the people who use the four libraries were gonna keep aren't gonna say anything. They're gonna relax "sweet, they're keeping my library", they're gonna tune out, they're gonna walk away. The people that use the two libraries that we say we can't afford to maintain anymore will jump up and down and yell and scream and carry on and, you know, get active on social media. So when you look at the overall perception of the proposal to close two libraries, all you hear is the negatives. It's impossible to get people to think if, if they're not, not impossible, but it's very difficult if they're not personally affected. It's very difficult for them to come back and say, okay, so can you put something forward that says you actually support this cuz you never support something*

*that you don't feel like you need to support. So when we try and have those conversations about reducing levels of service, the only people we hear from are the ones who are negatively affected. Which then makes it, of course very difficult for the politicians because the paper's full of people writing in saying they're gonna close my library council terrible. And no one's writing in and saying, well they're keeping mind open and I'm really happy with it. Cause no one cares about something that's not threatening them.*

Source: Interview data.

A key barrier that influenced the quality of conversation was is the limited time and attention that people can offer to the engagement process, elaborated upon below:

*considering, you know, we spend months, years looking at business cases and crunching numbers and whatnot, and then you're trying to take that to your community in, in a short period of time, because that's reality. People have jobs and lives, they don't have every evening to, you know, come to council consultations. But it's really, that's, that's the key competency. Having a, a clear and transparent case that you can present that, that people can engage with.*

Source: Interview data.

Thematically, the above experts highlighted these dynamics between Council and community in relation to financial planning and budgeting. Another interviewee raised it in relation to environmental planning and site-specific decisions. These themes were also drawn together and discussed as a question of competencies in the community:

*you can't look at issues in isolation with the community. You've gotta promote that whole picture understanding. Otherwise they'll just see that you are closing the pool that's closest to them or that you are, you know, not putting a dog park where they want a dog park.*

*the real difficulty of community engagement is trying to distil very complex information about a lot of things in financial and environmental and social and spatial considerations in down into a, like a two hour consultation ... it's easy enough to distil things in a way that people understand, like it's money, it's practical things, it's place and space, but it's really hard to do that in a constrained timeframe.*

Source: Interview data.

These excerpts surface a few patterns I identified in the data. First, they reflect that Council is thematically challenged by the need for city-wide conversations about budgets and reductions in services. Second, they point to the discursive skill required by Council staff in order to facilitate the engagement processes and the pragmatic challenges that it can bring. Third, stories like those above exemplify a pattern reiterated by Council staff about the way community engage with planning—namely, a resistance to any change that might negatively affect them personally. These tendencies, often akin to a “not in my back yard” (NIMBY) mindset, presented barrier to Council pursuing sustainability and present a ‘friction’ point in deliberative democracy. The consequence and dynamic of the NIMBY mindsets was summed up in the line: “...no one cares about something that’s not threatening them”, a sentiment reiterated in various interviews.

#### Formats and materials influence who in the community is engaged.

Some ways that Council was innovating in its engagement processes to overcome the barriers raised above were in relation to the formats it uses to facilitate community input. The use of micro-engagements on the

street, digital formats and more traditional methods, like a stakeholder reference group, appeared to help broaden the cohort of people participants beyond the likely suspects of passionate advocates and those with NIMBY motivations.

*something that worked really well for the Katoomba master plan engagement...was a very simple platform and people could access it on their phone or iPad ... we asked a couple of very simple questions about what they like about Katoomba now, what needs to be fixed and what their big ideas are. And so it gave us a very clear sense of the importance of keeping, keeping some things and that everything isn't up for change or shouldn't be...part of the reason why people like a place is because of some of its eclectic nature or because of things that other people might perceive to be old and run down, but the people in Katoomba wanted it to stay, you know, that kind of thing. And then [asking] "what needed to be fixed" gave us a clear kind of, sense of problem areas, and then [asking for] "big ideas" were, you know, gave people that chance to be a bit more visionary or kind of blue sky thinking about it.*

Source: Interview data.

Another practical lesson has been the use of representative groups that come with expectations and norms about the behaviours and rationale used by participants in their decisions.

*the other thing that's worked very well is establishing a stakeholder reference group that is intended to be representative of the community, but not just present their own personal views.*

Source: Interview data.

Not all of these programs were straightforward, for example social media was not found to be a productive or useful forum:

*We found...[social media]...wasn't actually about engagement, it was just about outrage. And so it's very difficult to say what they were upset about or what their thoughts were. They just wanted to go, you know, thumb down, thumb down, thumb down, thumb down. It isn't an effective way to gather feedback. And so we had a whole heap of other engagement activities that delivered a, a different response.*

*...there's a bit of maturity that needs to come both from, you know, planners and the profession around all the different ways you can engage with social media and not necessarily using social media as the only way to engage and the only way to measure happiness or unhappiness. So, you know, you try and contextualize what you are hearing through one medium against all the other ways you've engaged.*

Source: Interview data.

Similarly, the reference group was valuable, they suggest because of the specific way they designed it:

*established a pretty standard approach, which is a stakeholder reference group, but we structured it pretty strongly to try and engage with youth representatives.*

Council noted that the process of developing their various reports and processes, different cohorts of the community were engaged, providing them, over time, with a representative understanding of the community.

*It can be difficult to capture some of those things in a meaningful way that's for assessment or for, you know, demographic analysis. And, you know, he can't give you like a nice sort of, you know, you know, table of, you know, a nice graph or numbers. Yeah. But all of it together builds a story. So that's usually I think our approach to when we start thinking about our engagement.*

Source: Interview data.

There are two implications to these dynamics. First new technologies were useful, as were traditional ones, but they required expertise to apply. Second, there is an understanding of the community that goes beyond analytic and rationalistic data- council staff themselves develop experience and empathy through the course of their work and broad engagements with the community.

#### Timing and context can influence the considerations of respondents.

A second way that engagement was influenced in a way that can respond to Council agency related to the timing of engagement. Undertaking engagement during times when the implications of different long-term issues were salient and front-of-mind was suggested as a offering a positive influence that might help overcome the tendencies for community to avoid conversations changes to reduce current service levels and/or change the status quo.

*I think the recent impact of, you know, the rains, the fires, all that kind of stuff is actually giving us local stuff that we can point to and say, this is why we need to do this better.*

*Because when we do it the way you want us to do it, this is what happens. And it doesn't last and it gets flooded and it melts and that, you know, all the bad things happen to it.*

Source: Interview data.

*we're very conscious of fire in a way that other areas wouldn't be both as something to prepare for and something to survive... 1957 fire event is, you know, it feels like such a long time ago, but it still has flow and effects to this date... there's some sites that have never been redeveloped, some that came back immediately and there are people with lived memory...*

Source: Interview data.

This is supported by research elsewhere in Australia that pointed to windows of opportunity following experiences of extreme weather (e.g. Jones et al., 2017; Geoghegan et al., 2019).

#### **(v) Enabling community agency.**

Some agents raised an explicit goal and strategy of trying to unlock community agency to support transformative change toward sustainable futures. This included two different rationales. One related to identifying and working with community leaders:

*I wanna work with the community and be more of an enabler for community action rather than leading and driving emissions reduction.*

Source: Interview data.

The logic for this approach was explained based on a coherent theory of change that notes the benefits gained when we trust the harbinger of ideas about sustainability:

*every social study we've done says that people are most likely to change an act if they're being told something by a friend. So you get like, you get a big impact from a smaller number of people rather than a small impact from the big number of people. If that makes sense.*

Source: Interview data.

*I guess concept of local champions is something that we've looked at in a lot of ways to see if we can set up a network of champions where people speak to people they know and get the information from them -rather than the Gazette or Facebook or council- where they, they don't necessarily trust those sources as much as they do the person, their next door neighbor or their, you know, brother or whatever....which is always interesting cuz you know, they're probably less likely to have the correct information, but they're more trusted.*

Source: Interview data.

More nuance was added, when discussing how different practices were present in the way community activists engaged with council:

*I guess another challenge with community groups, you've got two types in my experience, they're all very passionate, but some of them are passionate and willing to act and do things, whereas others are passionate and believe that council should do everything that they see is a good idea.*

Source: Interview data.

Examples of these activities are seen in programs like Bushcare, which the Council describes on its website (2023b) as helping to create facilitatory infrastructure around existing community volunteer groups:

*Blue Mountains Bushcare Program has its origins in the activities of early Bushcare groups such as Friends of Katoomba Falls Creek Valley, Fairy Dell Restoration Committee, Minnehaha Falls Landcare Group, Glenbrook Lagoon Society and Pope's Glen Bushcare Group.*

*These groups started in late 1989. In response to their activities, Council decided in 1992 to fund a position to coordinate the activities. Since then the number of groups, participants and Bushcare Officers, has steadily increased.*

Source: BMCC 2023b.

Bushcare is just one example of an active community extension program ran by the council with a network of 500 volunteers and 600 students targeted to support ecological stewardship and restorative action in swap areas (Swampcare), rivers (Streamwatch), on popular cycling and climbing routes in Council bushland reserves (Trackcare) and within residents' backyards (Bush Backyards) (BMCC 2023c).

Another example of educational links was more specific to the planning process and creation of formal plans. Here, momentum with stakeholder representative groups led into a broader civic education program. While the outcomes might provide some feedback into planning processes, they also generate broad-based improvements in community competencies to understand the work of local government, and local democracy more broadly:

*[we had a] stakeholder reference group, but we structured it pretty strongly to try and engage with youth representatives. And then we had a, a teacher from a high school, we had two of their year 11 geography students come along and engaged in the process. And then that ended up leading into another piece of engagement with the whole of their year nine class coming and turning into a, taking one element of what we were doing, turning that into their whole term project.*

Source: Interview data.

This latter approach supports reflects the axiology of a pathways approach to sustainability transitions and transformations, and the importance of co-producing the knowledge, policy and decisions to navigate that change (Abson et al. 2017; Leventon et al. 2021).

More broadly, it reflects the underlying narrative of the *Democratic Pragmatism* discourse that's been described in this section— a narrative that focuses on how to do change in democracy, and a sentiment that this process is the goal of place-based STT (i.e. a view that suggests the ends are in the means).

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### Commentary

The performance of *Democratic Pragmatism* demonstrates a set of different narratives about how change was occurring (or sought to occur) in the pursuit of STT. Wearne & Riedy's (2023, in press) meta-study of place-based ST&T discourse observed that within advocates for the bottom-up, place-based approach to sustainable futures such as those seen in the Mountains, nuance in positionality could be gained by exploring different narratives and positionality about 'change'. This study helps to situate and explore some examples of this dynamic. The following discussion shows a variety of ways in which Council and specific agents within it moved between different roles and views on change: Council and its staff were presented as the leader, disruptor, facilitator, and enabler of change. In doing so, it surfaces various positions about how Council is or should be considered in relation to the community, the landscape, the future, and other institutions within the state.

In addition, three topics were drawn forth, which are raised in the discussion of the main text.

### Power

Power matters in discourses about sustainability, and the agents I spoke to knew it. Moreover, they were proficient in navigating the system of discursive influence in deliberate ways, reflecting an awareness of the kinds of 'discursive lock-ins' Simoens et al (2022) have theorised about in the ST&T literature, as well as some of the tactics and strategies to achieve change found in other empirical and conceptual research into sustainability discourses and their mobilisation (e.g. Reidy et al. 2019; Leipold & Winkel, 2017; Westley et al. 2013).

A fluid system of influences between contextual, organisational, and individual factors were present. Acting in this environment draws on concepts of agency that reflect both a leverage points approach to working within complex dynamic systems (Abson et al. 2017; Leventon et al. 2021), and a place-specific preference that frames the goal and task of sustainability as one requiring bottom-up processes of deliberation and decision-making (Wearne & Riedy, 2023). These patterns and dynamics also reflect the politics voiced in contemporary calls for sustainability research to support knowledge-coproduction for sustainable futures (e.g. Chambers et al. 2022), and imply a pathways (Ely, 2022), or patchwork (Bennett et al., 2021) approach to the way sustainability and change might be understood and pursued across places and across scales.

Despite these similarities, the Mountains case study differed to other place-based approaches to change, like bioregioning (Wearne et al 2023), and some approaches to knowledge co-production, in that it situated local governance, rather than academic concepts or academic-practitioner led interventions, at the center of this process. Doing so, the discourse of democratic pragmatism which I observed shows similarities to a similar discourse identified by Dryzek (2022) and set of 'solving problems' discourses about sustainability and its processual tendencies has blurs the line between the 'cultures of sustainability' and 'political sustainability' imaginaries described by Kagan (2019).

### Leverage Points.

Looking back across the practices, one can see many examples where practical knowledge of council staff might be explained by ideas that sit in STT literature about systems change. I used the Adaptive Cycle as one framework to do this and identified a range of potential levers for intervention, however I also found that such worked seemed to a process of intellectually codifying what agents were already doing. The exceptions to this



pattern were probably best presented as my own ideas/suggestions, rather than as ideas that emerged from the scientific process.

### Co-Producing Knowledge for Sustainability Transitions.

Academic concepts were present in the discursive landscape that was present, and in argumentation and justifications used to pursue some discourses over others. In short, ST&T literature was implicated in power contestations between different discourses of sustainability.

There are various barriers and enablers influencing (what academics call) the co-production of knowledge that shapes what research focuses on, and how research influences society. ST&T research already informs, indirectly, local pathways to sustainability transitions and transformations are reflected in the above dynamics.

The implications ought to raise reflexivity about what a normative engagement should look like. My reflections are that:

- Co-production is political. There are flaws in standard engagement processes that reflect the challenge of deliberative decision-making about the future in a populous that has their own worries, lifestyles and priorities that can mean input into formal governance processes are either limited, biased toward self-interests, and can create community pressures that sit contrary to the long-term goals and visions that the same population calls for.
- Contextual and material settings can help facilitate better conversations, as can competent facilitators. Taking the barriers raised above more deeply might lead to more substantive innovations and changes of the design of engagement- like the use of participatory budgeting, or other forms of deliberative democracy that provide more context, time, resources and responsibility to members of the public.
- There are pragmatic benefits to the above situation, but they rely on institutional and individual commitments to substantive democracy, lest they become tools for something akin to consultative elitism, which has parallels to what Dryzek called administrative rationalism (2022) or perhaps expressing a modern-day equivalent to the axiology of Aristotle's Philosopher Kings.
- There is cause for sustainability researchers to consider these dynamics and where they can offer ways to build the capacity and quality of democratic processes, rather than replace them. Developing research that sits outside the formal consultation processes, or even outside the Council's knowledge, might be well intentioned however this process to identify and empower some policy options over others risks inadvertently endorsing a shadow system with academics, rather than council staff, at the center of local decision making. This pattern of input may, in turn, further undermine the role and the social credentials of local governments in pathways to sustainability.
- Where sustainability research seeks to deliberately engage in knowledge co-production for place-based pathways to sustainable futures, my view is that these efforts should make it their priority to contribute to the 'co-productive capacity' of existing democratic systems and processes. Assuming these structures have a mandate (and social contract) to make those decisions, we ought to try and empower the contextual and practical knowledge that they hold, not challenge or duplicate it. This might, for example, lead to interventions that improve the capacity of the community to engage in informed ways that prioritise the public good, rather than re-creating forums that sit outside of existing democratic and planning processes.

## ***(2G) Romantic Colonialism***

When outlining the social-cultural context of the mountains, nostalgic memories and colonial landmarks were highlighted as ongoing legacies and features at specific places, influencing how many people view the Mountains as a region. The discourse I describe as Romantic Colonialism captures that narratives about the Mountains are not only inherited but are also being re-created by the decisions and practices of contemporary residents and visitors to the area.

It is an inherently contextual discourse that, decades ago, showed signs of being not only explicit, but also a popular and powerful narrative that was supported and endorsed by the Council. It was evident in the narratives used to justify the eviction of residents in the Gully (Appendix 1E) and the celebration of sites like Pulpit's Hill, and Explorer's Tree (Appendix 1C).

In today's context, I interpreted this discourse as mostly being (re)produced through the politics attached to everyday actions. Further, I identify both social and ecological aspects to this process of reproduction. A socially romantic view of colonial history and the story of white settlement is carried out and supported, for example, in the performance of visiting colonial homesteads and storefronts in the townships, taking high-tea at the Hydro Majestic, and shopping at the antique stores littered throughout the villages. The ecological politics of colonialism were seen where native species are being forced to deal with practices and pressures from human decisions to (re)enact cultures and practices from other places. These most notably seen in the relationships and politics that we carry from the daily practices of keeping pets, often thought of as part of a good quality of life. In Australia, these relationships with the natural world become colonial due to the pressure they present on local ecological communities that predate European arrival. Whilst individual cats and dogs create direct pressure on the environment, they also inform practices like community responses to Development Applications that preference the use of public space to dog walking, for example, creating conflicts and dilemmas about how to plan for the area's future in ways that balance social wishes with an ecological context that proceeds it.

All of these politics appeared implicit in the practices I observed, rather than an explicit story people might use to describe their own politics or perspective. Put differently, I suggest (like democratic pragmatism) this was a processual discourse in that it is seen through the actions people took, and the (sub-conscious) politics that were mobilised by the observed behaviour. There was not, for example evidence of an explicitly organised movement to enact 'Romantic Colonialism' as the preferred vision for the mountains, and there was no explicit call for this to be realised in Council's planning for the future. Instead, these aspirations and politics were latent and implied in actions like community tendencies to reject changes that would impact established day-to-day lifestyles, like dog walking at the Former Katoomba Golf Course. Here, although Council's proposed use of the site to support the Planetary Health initiative appears well aligned with two decades of community endorsement to become leaders in ecological sustainability, the feedback from the community showed two practices that might be discussed. On the one hand, it surfaces the inherent politics of keeping cats and dogs in the ecological context of the Mountains, and secondly, it shows the practice and politics of a "not in my backyard" (NIMBY) approach to planning, a phenomenon well recognised in the way communities engage with local government.

This discussion has raised overlapping and interrelated practices that mobilise Romantic Colonial meanings and ways of living in the Mountains. Three features are elaborated upon below to help surface specific dynamics, politics, and sites of expression in the data to discuss how they created conflict and contestation in Council's work to plan for sustainable futures in the Mountains.

*Ignoring blind spots and contradictions- particularly when keeping pets.*

By considering community engagements with Council planning processes and making observations of community activities at various sites directly, and vicariously, as recounted through stories of interview participants, it was clear that many people who live and visit the mountains have a (general) love for nature and the Australian bush aesthetics. Despite this, like so much of Australia's colonial history, they also had a willingness to assert ways of life from elsewhere and ignore the contradictions, tensions and pressures that these choices in daily life exert on the very features that they love, and the values and aspirations the might purport to hold.

To contextualise how these were mobilised, it is first important to recap how the Mountains is a hotbed for nostalgia, and there remains a long-held and continued colonial romance attached to specific places (see Section 3) but also in practices of an 'ideal' life in Australia. Whilst the social implications of this dynamic will be discussed separately, this section will focus on the ecological impacts that community seems to mobilise by maintaining daily practices due to blind spots and contradictions in the things they say they value, and the things that they do.

Observations from site visits reflected much of the bush village aesthetics and lifestyles that the Mountains is famous for. Ideals such as the lone walker and their dog, strolling amongst the gum trees. A cat by the fireplace with a brandy in the hand. Maybe even a horse and a dry-za-bone jacket as you gaze out across the Grose Valley, with a plate of local produce awaiting you at the cabin. While there is nothing inherently 'wrong' with these visions and imaginaries of a good life in the Mountains, they carry with them politics about which animals are loved, how landscapes are best 'used', and which social-ecological relations are preferred.

Many of these imaginaries and ideals about life in the Australian landscape transcend the Mountains setting to broader patterns of identity and place meanings in Australia. The iconic location of the Mountains seemed to invite its performance by visitors and residents alike. They are similar to the politics and relations between Australians and the environment that seen, for example, in the ongoing and emotional debates about the place for wild horses (brumbies) in Australia's alpine regions which sees their ecological destructive impacts rub against the prospect of culling the beloved protagonists of nationally iconic stories, like Banjo Patterson's 1890 poem *The Man From Snowy River*. Other scholars have noted the politics of these emotions, with Farley suggesting they reflect the emerge of settler claims to belonging comprising their own claims to indigeneity (Farley, 2022; Driscoll et al., 2023). Similar politics of belonging carried by settler-Australian ways of life appear increasingly salient in the politics surrounding the common practice of keeping invasive species as pets, like cats and dogs, but banning similar relations with native animals. In this respect, we appear to prize native species' right to be wild but ignore the pressure we place on them by maintaining these conditions, all the while pushing some species to extinction through the predation and displacement caused by the species we do keep as household pets.

#### **Politics of Pets in daily lifestyles**

In Australia's unique environment, canines and felines are introduced species that impact native animals. Each household cat, for example, has been found to kill an average of 114 native animals each year, or 241million native animals per year nationally (TSR, 2023; Legge et al., 2020). To put this in perspective, the Threatened Species Recovery Hub (2023) note that cats have played "a leading role" in Australia's 34 mammal extinctions since colonial settlement, and continue pressure on another 123 native species whose populations are threatened and declining (TSR, 2023). While the impacts of dogs is less prominently researched and discussed, site visits during the research

identified appeals from National Parks and Wildlife Service (NPSWS) to dog owners to become aware of how native animals perceive them as predators. Alongside this, the overwhelming use of public spaces observed was dog walking, with most owners ignoring signs and warnings to keep dogs on-leash. Meanwhile, dog walking areas was key influence shaping the prospects of enacting sustainability ambitions by using specific sites, like the Former Katoomba Golf Course, as a site for a Planetary Health Centre (Appendices 1B; 2C).

Pets have a rich role in Australian life. In the period of my research, they reached historically unprecedented numbers, with Australian households having the highest rates of pet ownership in the world. On the one hand, this rise in pet ownership was due to the COVID-19 pandemic, which saw people work from home, and active encouragement from the media suggesting pets were a way to combat isolation and loneliness (Pendrick, 2021). On the other, new rules removed restrictions of landlords and strata committees that let renters in apartments have the right to keep a pet.

One might safely assume that for those who have them, our pets are the first and most formative emotional connection that we forge with the natural world. But unfortunately, the domestic cat and dog also cause catastrophic damage to the natural environment; with each household cat, for example killing an average of 114 native animals each year, or 241million native animals per year nationally (TSR, 2023; Legge et al., 2020). To put this in perspective, the Threatened Species Recovery Hub (2023) note that cats have played “a leading role” in Australia’s 34 mammal extinctions since colonial settlement, and continue pressure on another 123 native species whose populations are threatened and declining (TSR, 2023).

These dynamics were raised explicitly in interviews, and seen, for example, in the appeals of National Parks and Wildlife Service (NPSWS) signs asking dog owners to become aware that native animals perceive them as predators (Appendix 1D). After witnessing the high proportion of public spaces used for dog walking at places like the Golf Course, the Gully, and walks around Townships and the tracks that link in urban areas to neighbouring bushland, (Appendices 1B; 1D; 1E) I found myself wondering why there is such little public discourse about dogs and their ecological impacts. This is particularly relevant when one considers the peaks in dog abandonment that occurred when COVID restrictions were lifted, and people went back to work (e.g. Seven, 2020).

Understanding dynamics pets, native ecology and intentions of their owners might first raise questions about the level of social and ecological literacy that people hold about the impacts of their lifestyles. Looking more deeply at the rules which govern pets, it also raises questions about why we have normalised invasive species as pets, but (in NSW), we ban the same relationship with comparable native species. This dynamic becomes more curious when the stakes are such that many native mammal species face almost certain extinction without an intervention such as domestication or captive breeding—a dire situation largely due to predation pressures from the species we choose to keep as pets (Stobo-Wilson et al., 2022; TSRH, 2023; Wynne, 2021; Moodie 2023).

With an evidently progressive community that cares about native ecology, one might expect to see public discussions about these dilemmas present in the Mountains when pets and their impacts are raised, but they were largely absent in the data. Whilst a dedicated research project would be required to explore relationships with pets in detail, my review did include a review of digital records of comments and letters to the editor in the local newspaper across the years of the research, and in relation to site-specific decisions about the Katoomba Golf Course. In doing so, I identified that the way people talked about dogs, and the issues they carry, was dominated by concerns about hyper-local cases of (dis)respect for private property, calls for owners to collect dog

faeces, and calls for dog owners to control their animals and keep them on leashes- not for ecological reasons, but for the benefit of other people and, sometimes, their pets.

While some letters to the local paper did call (for example) to keep the Katoomba Golf course open for dog walking, there was also no strong or rich response that presented an ecological perspective on these matters. In the 43 comments, letters, opinions that I found related to dogs in the articles archived in Factiva's database of the Blue Mountains Gazette between 2017 and 2023, the largest focus was on dog owner etiquette (n=16), whilst the next largest were community statements in support of dog parks and walking tracks (n=8). The most controversial discussion was one wherein the community raised concerns with plans by local animal welfare groups RSPCA and WIRES to combine native animal rescue and care programs with dog and cat kennels. Here, all of the letters (n=7) were worried about the lack of attention on 'companion animals' in favour for native species. The view of those concerned with dog ownership and their impacts are summed up in this example, from N. Stodard (2019):

*There I was, strolling Prince Henry Cliff Walk, world heritage national park, and along comes a dog and its owner. I point out that signs at all entrances say "no dogs", including the sign just 10 metres away. In an instant, he flies into a rage, insists his dog is doing nothing wrong, proudly boasts that he's been doing this "every day for the past two years", and challenges me to do something about it. A guy strolls along a major thoroughfare in Katoomba with his dog roaming freely. The dog drops poo at a front gate. The owner up ahead is oblivious. I catch up and explain what's happened. "What of it? What's it to you?" That dog continues to roam unimpeded.*

*On a bush track at Shipley Plateau the other day, I was confronted by two Rottweilers, no owner in sight. Fortunately, they took one look at me, growled (I'm pretty ugly), turned and ran back to the home from which they'd come*

*What is it about this small minority of dog owners that prompts them to act irresponsibly, brazenly flout regulations, put the safety of adults and children at risk, intrude where they're not permitted and muck up our streets? I'm convinced council has got it wrong. Instead of registering pets, they should be licensing their owners. L-plates and accompanied by a responsible owner to start. P-plates if you pass the test. And a full licence only to those who commit to acting responsibly. Makes Sense!*

When it came to cats, ecological concerns were raised as the main priority, with an overwhelming number of community members supporting cat containment, curfews and or anti-hunting 'bibs' with only one letter of concern for the imposition it placed on cat freedoms. These topics were led by Council agency on the matter in 2019, which brought in a 'bib' to restrict the pouncing action. Stronger measures of curfews and permanent containment were rekindled by research and media attention in 2021-2023. Over these years, and especially in relation to cats, a shift in public discourse was visible during the period of research. National coalitions emerging between councils, researchers and environmental groups calling for normalising the imposition of cat bans or cat containment across various parts of Australia. These movements eventually returned to the local context, with BMCC Councillors quoted in prominent news media on the topic (Cheng, 2023) and the Planetary Health Initiative soon after announcing financial subsidies for people to create cat enclosures at their homes, working in coalition with a local NGO. Here, the Council showed agency in sensing those discursive shifts and opportunities in the community to support their own interventions.

## Outdoor Cat Enclosure Subsidies

At the Planetary Health Initiative's Wildlife Emergency Assistance Workshop last Saturday, it was identified that one of the biggest threats to our Blue Mountains wildlife is domestic cats. To address this Council is now providing Blue Mountains cat owners with the opportunity to apply for a cat enclosure subsidy of up to \$400 for a limited time. It's a win/win for cats and wildlife because cats kept safe at home live on average 10 years longer than cats who roam. [Find out more here](#)

Source: (BMCC,2023e).

Interviews with Council planners also voiced frustration on these dilemmas, and the scale of change that was needed:

*We've got to change the way we pet... Ugh. Like there's so many things we got to change—and we just need to do it.*

**Box 1.** Romantic Colonialism was mobilised by the practice of keeping pets, given the apparent ecological impacts and politics this carries in a context like the Blue Mountains.

Box 1 shows that the ecological dilemmas of cat ownership are becoming more commonly appreciated and discussed in national discourse while a discussion about dogs has not. This may partially be explained by scientific evidence that identifies cat predation and the lack of existing controls and norms by cat owners is a key issue in Australia (Stobo-Wilson et al., 2022; TSRH, 2023). A critical view might ask why dogs are not a strong focus of research or public discussion. While insufficient as an ecological argument, it was curious that NPSW signs observed at specific sites (Appendix 1D) made strong and convincing statements about the impacts of dogs on native animals, that made more concerned about the impacts of my own dog. However, this argument was difficult to trace in public and academic discourse. With nationally unprecedented numbers of dog ownership on the one hand, and common observations of owners flaunting many of the assumed controls on the other, one might wonder if those impacts deserve more scrutiny and assessment. Critically, I find myself reflecting on observations of community attitudes in the Mountains and the practices of dog owners in my own context (and household), and I wonder if our emotional connection to dogs, and the cultural attachment we have to the practice of off-leash dog walking, make this a particularly uncomfortable and unwilling topic for discussion, and perhaps, for research.

*NIMBYism: engaging to complain, and only doing so when its personal.*

*it's really that, you know, the expression of "not in my backyard"—even though you deliberately chose your backyard in a place that had strong controls*

Source: Interview data.

Community's input into council processes like decisions about specific sites and planning applications, or managing services within finite budgets, tended to ignore the need for compromise, obfuscating tough decisions about what should be done by the Council to deliver on their broad expectations. It was raised in many interviews with Council staff, referred to explicitly (above), and often explained in relation to a contradiction between what people say about their own property and lifestyles, versus what they envisage for the collective good of the region:

*[when you] ask people questions on “do you think this area should be protected?” and “is the world heritage area important?” and “what do you value about living in the, the Blue Mountains?”, the answers are those [positive] things. But when that is translated or imposed on private property, the answers are often very different. So I think that in some ways, we are and have the same challenges as, as lots of government areas in terms of people want to do what they want to do on their own land.*

*Source: Interview data.*

*no one's objecting to [Council's commitment to Rights of Nature] because it's difficult to object to, on some levels, until their personal interests are at stake...That's what I mean, people will accept ideas, as long as there's no cost.*

*Source: Interview data.*

The concept of “Not In My Backyard” (NIMBY) has often been used to describe the dissonance between endorsing ideas in principle, and rejecting them in practice, particularly when personal interests are at stake. This is a form of agency that in many ways demonstrates a practical understanding of the process of local democracy, albeit toward unfortunately selfish ends.

As outlined when describing the SES context for sustainability governance in the Council, financial pressures are combined with a highly sensitive environment that can mean public works are more expensive. This means Council often has to face compromises and constraints about how to govern and invest. On the one hand, Council staff outlined the need, and the challenge, of imparting realistic expectations of what council can do. Having broad ambitions for the Council to be leaders in sustainability endorsed (in principle) by the Community, further complicates this picture, when the opportunity to save money requires cutting budgets for community services, which the community is against. In short, matching the visions and principles that community has for good lifestyles and responsible impacts is difficult to put into practice, because of tendencies for NIMBYism and self-interest whenever compromise is required. The excerpt below recounts some of the practices used by Community, described by Council staff:

*So you've got a community that for all sorts of really good reasons, wants to improve its civil and built assets. It wants better footpaths, it wants more footpaths, it wants nice smooth footpaths that are good for PRS and wheelchairs and kids on scooters and all that kind of stuff. Yeah. But they're not necessarily the right type of infrastructure to be putting along the edges of national parks, water quality into hanging swamps, all that kind of stuff because your potential for pollution, that kind of stuff is quite high. They're also, particularly when you look at the, the fact that if you're gonna build the civil infrastructure, the park, so, so you know, drainage infrastructure that is has that element of cleaning the water before it discharges it into the national park*

NIMBYism shows on the one hand the long-standing agreement about aspirations for the big picture, but on the other, it shows the difficulty of pursuing these aspirations on the ground, in specific sites. Contextual features- like a sensitive sites in the national park downstream of urban settings create unique conditions and risks. The difficulty to deal with these risks is amplified by a context of limited resources, surfacing the need to compromise and find pragmatic pathways forward as a recurring challenge to Council staff.

### *Re-mobilising tastes and narratives.*

Like people, tastes travel, and the socio-cultural context of the Mountains described how a large exposure to new people and their interests is creating expectations and pressure for the Council to allow and enable the Mountains to become more like other places, and Sydney in particular.

Reviewing this dynamic points to a second feature of the way the community mobilised a Romantic Colonial discourse that resisted change and sought to maintain older meanings, relationships and lifestyles. This relates to the choice to re-mobilise and maintain memories, and practices and was often attributed to Sydney residents and the demographics of new arrivals.

Here, connections to the past weren't the only formative influence. Tastes and practices that work against patterns that support ecological heritage, and enforce ill-fitted pressures on the environment were also carried by patterns of movement to the mountains, with nostalgic memories making some of these newcomers feel a sense of entitlement and belonging to live in the space on their terms. This maintains the logic and romance of colonialism which sees people feel a right to make social-ecological spaces one's own, prioritising those wishes over affordances to what was there before.

These tendencies to re-make spaces for oneself, along with explicit romance for historic sites, and day-to-day lifestyles that pit personal interests against ecological ideals all interact with the local planning processes and decisions about the area. Council's response, as facilitators of place meaning, identity and its development over time, has to face of these pressure. These dynamics were explicitly addressed, reiterated in the following excerpt:

*we've got very strong controls around built form for very clear and obvious reasons supported by the community out of engagement. But people are coming up and wanting to replicate a product that they might see in new subdivision areas in Western Sydney. And our controls don't really permit that. Even sometimes around height, [my colleague] talked about heritage— some areas we keep it single story because that is the character of the area. And people move in thinking, "oh, it's all single story, I wonder why that is". And then they just go, "can't I put a two story thing with the, you know [large hand-gesture]?" They really are pushing hard against those controls. Yeah. And it's, I suppose our job is to, a lot of those controls that we bring in are, are us translating what character and, and place "is", in a way that works in the planning system. And people are coming in and testing it, not necessarily realizing that if we just remove those controls, the character, the place would actually change and the reason why they moved would actually disappear. And that's, that, that's that tension.*

### **Reflections and implications**

One might explain the dynamics of *Romantic Colonialism* as evidence that some members of the community simply lack social and ecological literacy about how they might responsibly inhabit the mountains, and as such, are performing practices in their daily which do not reflect the values and visions that they believe in. An alternative, and more sceptical, interpretation might ask if some of the discussion about place is itself an expression of localism—and something more perceived. Perhaps blaming outsiders might be easier than self-reflection and addressing persistent and widespread pressures from NIMBYism and pets? Opportunities for reflexivity alongside harder interventions (like local rules and bylaws) emerged during the research that might help Council to respond to these dynamics.



Second, a romantic colonial discourse sits at odds with the longstanding public endorsement of an environmentally progressive Council and community engagement records that consistently show much love for the social and ecological history of the area. The community practices described above surface a contradiction between stated and performed place relations. To navigate against and around this discourse, Council staff show the agency required to work at the interface of local democracy with different discourses about a place and its future. It raises, as will be explored, questions about the role of an ecological place attachment in the process of local participatory decision-making. While quantitative research has suggested that an ecological place attachment correlates with pro-environmental action (REF- Griffin) the contradictions in the Mountains surfaces a need to ask if a community will fight for what they say they love of if, in practice, they will fight for what they love to do. Research that explores the conflict those agendas presents an interesting dynamic to explore.

The most obvious implication of the discourse is that there is an ongoing nostalgia for colonial legacies, sites, aesthetics and stories that continue in the mountains, even while some of the most contentious (and egregious) examples have been let go of. Just as there were signs of ongoing change in the pressures of community practices on ecological constituents, there were also signs that some of the cultural assumptions and tendencies in the Mountains continue to be confronted and critically reviewed. The shifting politics, popular sentiments and positionality of the Council in regards to Explorer's Tree is an obvious example. There were also signs of this continuing, with new perspectives uncovering blind spots and mistreatment in how colonial and First Nations history are presented in the stories attributed to the place. A poignant example emerged towards the end of the analysis, wherein formal and public discussion emerged in late 2023 that called for the terms of the Mountains World Heritage listing to be reconsidering, noting that the omission of Aboriginal cultural heritage in those arguments was lacking. Throughout the interviews, references to being in a listed World Heritage Area was an obvious point of reference that provided authority and identity about the ecological importance of the Mountains. One wonders what might have transpired in the popular place meanings and identities if cultural recognition was also afforded, noting that such recognition also carries with it implications for cultural management, in effect, emboldening the Caring for Country discourse within powerful (material) documents that appear to influence what is done, and why.

It seems that Australia, and the Mountains, are continuously making steps, sometimes small, and sometimes larger, and often driven by a range of various agents and coalitions, that is progressively helping to uncover and confront blind spots in our national identity and its expression in sites like the Mountains, implications for the future of those communities and those places.

## **2H / Discourses trends and time.**

### **Situating the discursive landscape of the Council within a broader context, and temporal dynamics.**

My research captured data from a specific period of time and its figures represent discourses and their interaction in two-dimensional static imagery. This appendix provides some additional nuance and context to the changes and dynamics that were occurring between the discourses, and how this showed signs of changing over time. These changes created opportunities, tensions and context for the discursive agency that has been discussed.

The concepts and commitments mobilised by RON, EM, CfC and PH discourses all engaged with a broader social context that continued to develop after the interviews and document analysis was complete. CfC concepts and ambitions, for example, are still being mobilised and integrated into broader systems that may present new influences on the Council, and the importance of this discourse in their work.

Three examples help to identify these contextual shifts.

First, the NSW Government Architect has been developing a leadership role in the way place is conceived of in urban planning and architecture. In 2017, it released an integrated design policy for the built environment called “Better Placed” (GANSW, 2017). This positioned ecological perspectives of place as important factors to consider. Since then, various other signals in society continued to connect social and ecological history to what place means in different institutions. Calls to recognise ‘Landscape as Protagonist’ emerged in forums like the 2019 Melbourne Design Week (Donse, 2020); increasing media attention was placed the importance of time in nature to mental health during COVID-19 lockdowns; interest in Aboriginal Fire Stick farming emerged in response to the 2020 Black Summer bushfires (Steffensen, 2020; Smith et al., 2021); and Bruce Pascoe’s best-selling *Dark Emu* started to become used classroom settings (Pascoe, 2019; Barlow & Horyniak 2019). The NSW GA in 2023, continued to contribute to a shift in institutional discourse, expanding on its approach to place under its chief architect who is themselves an Indigenous Australian. This contribution called for a more wholesale shift- from the current emphasis on human-centered design toward “Country-centered design”. Within this argument the GA drew on German architect Steffen Lehmann’s (2010) ego to eco meme in describing its ethos, an image that I’ve seen used in multiple forums to call for a more-than-human calibration to how humanity relates to nature.

The second example is more cosmopolitan and relates to the way that global momentum around the concept and language of “Nature Positive” goals in corporate and policy circles worked its way into national and state priorities, with implications that may soon reach the Mountains. “Nature Positive” is a narration of humanity’s aspiration and role in managing how we interact with the environment. It builds on optimistic language, like the pursuit of ‘carbon positive’ footprints and the integration of environmental, social and governance (ESG) factors into the centre of institutional agendas via valuations, risk, and asset ownership strategies. At its most abstract level, it suggests that our overall ambitions should be restorative, not merely to ‘do no harm’. In its more explicit and applied forms, the emerging concept (and perhaps a budding new EM narrative to endorse eco-capitalism) still has various uncertainties. This includes, for example, dilemmas that arise through the process of categorisation and interpolation of different impacts- ethical and conceptual biases quickly become apparent when trying comparing impacts on different parts of nature (or society) in order to weigh one element against another and measure ESG (or in this case, progress towards being “nature positive”). A general concept, Nature Positive has been extended to how the planning and built environment sector might approach their work at specific sites and places. It has been explicitly linked, for example, to concepts of Country-Centred Design (GANSW, 2023), as a call to employ natural living

infrastructure, and to place an emphasis on the restoration of native ecology (CfS, 2023). The Committee for Sydney's (CfS) interpretation of Nature Positive also included a call for cultural awareness and social infrastructure that can support this shift, namely, a First Nations urban ecology center which can link CfC concepts to the Nature Positive agenda. At the end of the research period, Nature Positive looks likely to continue to grow in influence, with the NSW Department of Planning and Environment (DPE) announcing that Sydney will host the world's first Global Nature Positive Summit in October 2024 (DPE, 2023). Language in the DPE's (2023) announcement of event are illustrative of the links to Ecological Modernism's commitment to capitalism, but willingness to reframe it and connect to the themes above:

*"..the Summit will focus on three key themes:*

- *transparency and reporting – you can't manage what you don't measure*
- *investment in nature – growing business demand*
- *partnerships and capacity development –increasing landholder participation*

*The Summit will highlight how clear and consistent rules will enable businesses to invest in and measure projects that repair nature.*

*Delegates will also consider how to support developing nations, boost First Nations partnership in nature repair and improve policies to increase investment in nature."*

A final example is more specific to the Mountains, and relates to the World Heritage Listing of the region and its influence on how the Mountains identifies itself, and justifies an ecologically progressive agenda. This paper has observed how much meaning and identity is attributed to the World Heritage Listing of the Blue Mountains region. In September 2023, ICOMOS, the world governing body that advises UNESCO on which sites should receive recognition for their cultural heritage is sitting in Katoomba. Discussions about this event have led to a public critique about the omission of cultural heritage in the original WHA listing of the Blue Mountains, noting the dynamics of power, institutions and politics that feed into and relate to listed areas. The meeting will include a vote to "recognise Indigenous culture by acknowledging that many World Heritage sites were located fully or partly on Indigenous lands" (Power, 2023). Doing so may carry implications not just for formal narratives about the Mountains and what is important there, but more structural implications for who is included in systems of power and governance about areas that are listed. Alongside the vote, there is a call to include cultural considerations, including CfC as part of the formal governance design of the region and concurrent discussions about how the Blue Mountains ought to be referred to. The Sydney Morning Herald (Power, 2023) framed these connections for the public directly:

*"ICOMOS advises UNESCO on which cultural heritage sites should receive recognition, but only those which have received national listing in their country are considered. It agreed that traditional owners had the right to control their cultural heritage and its conservation.*

*The move comes as a Geographical Names Board spokesperson confirmed on Friday that a proposal for the Blue Mountains to also have a dual name of Gulumada, or place of koalas, would soon be open to feedback from the public."*

The ICMOS vote itself has broader socio-cultural context and connections. It has been developing amidst a highly political national debate about Australia's Constitution, which was founded on an imposed legal claim of *Terra Nullius* (nobody's land) at the time of colonial arrival. The ramifications of treatment of Australia's First People, alongside two centuries of significant structural and social racial prejudice, have created practical, emotional and narrative inequity in what Australia is, who is

part of it, and on what terms the state serves society. A Referendum to add recognition of First Australians to the constitution and establish a Voice to Parliament to formally represent Indigenous Australian perspectives in Australia's state architecture was voted on in October 2023. It was rejected by popular vote in Australia, but overwhelmingly supported by Indigenous Australians and carried with it a problematic volume of misinformation, racism and narrative contestation about place-relations in Australia.

Overall, this context points to ongoing questions about place-based identities, and how governance is done in Australia to represent those relations. Planetary Health, Caring for Country, Rights of Nature or Stewarding the Blue Mountains might each find new winds of opportunity to build logical and emotive cases from these broader contextual changes.

The prospects for the Mountains, across the three examples all show a trend in direction that sees the normalisation of a very different institutional emphases from examples like the Gully in earlier decades (Appendix 1). Shades of these dynamics, and the tensions that change can entail, are again seen in public discussions via news reports about the Mountains and debates over its heritage status and governance:

*[National Minister for the Environment, Tanya] Plibersek said many sites carry more than one heritage value – natural, cultural, First Nations, colonial, or military - and the grants would give a more accurate picture of Australian history. She encouraged Indigenous groups to take the lead on heritage, citing the example of Budj Bim cultural landscape. Its listing and management was led by its traditional owners.*

*“The lens through which we view heritage has to change. We must include the indigenous perspective to authentically preserve and protect Australia's history,” Plibersek said.*

*Despite these undertakings, heritage experts like historian Dr Ruth Longdin are concerned about a downgrading of expert oversight of the Greater Blue Mountains world heritage area. This followed the end of a federal agreement on June 30, which had funded a 13 member group of top experts including Longdin, Aboriginal elders, zoologists and botanists, and experts in water quality and tourism. At its final meeting of this group, the Greater Blue Mountains World Heritage Advisory Committee, government officials floated the idea that it would be merged with the regional advisory committee for the Blue Mountains, which manages more day-to-day matters and includes locals.*

*Minutes of the committee's final meeting indicate that members opposed a merger, said Longdin. She said for 17 years the committee had worked on developing the cultural values of the park. The former chair of the Blue Mountains World Heritage committee, Bruce Leaver said “preserving the status quo is in itself is not a compelling argument. It is a question of how to best to preserve World Heritage.”*

*The historical arrangements for the Blue Mountain World Heritage committee had allowed advice to be directed to both state and federal ministers, such as concerns about [a proposed raising of the] Warragamba Dam. “A minister having expert independent advice to weigh up when considering those obligations is critical,” he said.*

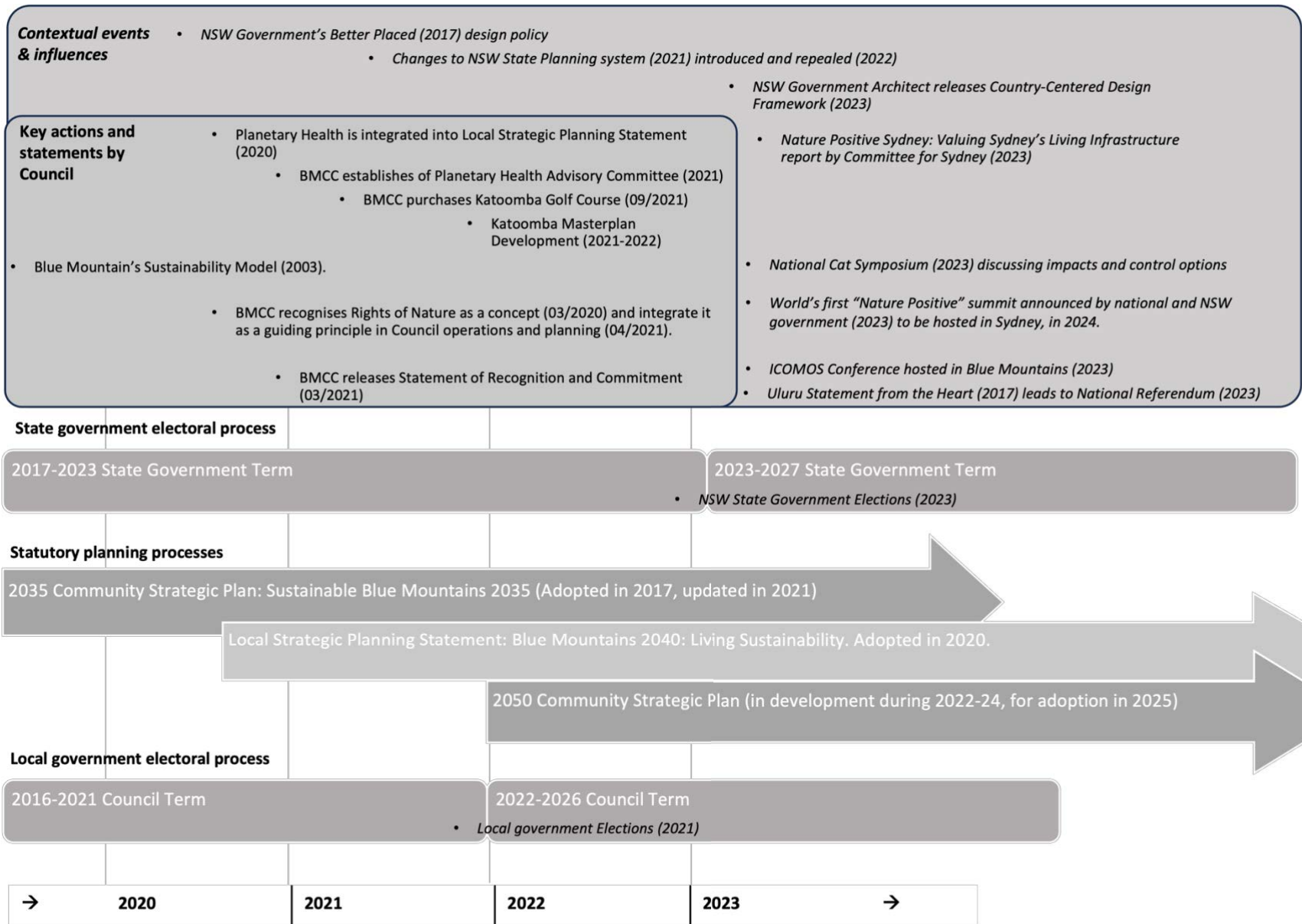
*A spokesperson for NSW National Parks and Wildlife Service said discussions on the future of the advisory committee was continuing. “We are committed to ensuring strong input from the community and relevant experts on the management of the Blue Mountains including its heritage values,” she said.*

*The Australian Heritage Council was also assessing the cultural values of the Greater Blue Mountains Area to potentially add it to the existing National Heritage listing.*

Power (2023)

In sum, contextual changes and influences, such as those above, were considered throughout the analysis and interpretative process. The main text and figures aim to capture my synthesis from engaging with, and interpreting the data, however the picture is dynamic and constantly changing.

The figure below draws together some of key events and contextual changes that occurred at different scales and have been raised in the discussion of this section and other sections.



**State government electoral process**

2017-2023 State Government Term

2023-2027 State Government Term

- NSW State Government Elections (2023)

**Statutory planning processes**

2035 Community Strategic Plan: Sustainable Blue Mountains 2035 (Adopted in 2017, updated in 2021)

Local Strategic Planning Statement: Blue Mountains 2040: Living Sustainability. Adopted in 2020.

2050 Community Strategic Plan (in development during 2022-24, for adoption in 2025)

**Local government electoral process**

2016-2021 Council Term

2022-2026 Council Term

- Local government Elections (2021)

→ 2020 2021 2022 2023 →

## APPENDIX 3. Documentation of the reflexive and thematic discourse analysis process

### 1. Data Sources

#### Interview data.

Semi-structured interviews were undertaken with council representatives from development assessments and planning, strategic planning, corporate strategy and corporate sustainability functions at the Council. As outlined in the Methodology section, they are anonymised due to the nature of their roles and the site-specific content of some discussions.

Interviews took approximately 90minutes and were recorded and transcribed for analysis. I used Dovetail App for initial coding, and exported these findings to Microsoft Excel and Figma, as are reflected in below.

#### Council documents

The following documents are referenced in the main text and appendices providing evidence to the analysis.

#### Statutory/strategic planning documents (across whole local government area)

- BMCC (2004). *Towards a More Sustainable Blue Mountains: A Map for Action- 2000-2025*. Blue Mountains City Council. BMCC (2010). *Sustainable Blue Mountains 2025*. Katoomba, N.S.W.: Blue Mountains City Council  
<http://www.bmcc.nsw.gov.au/yourcouncil/integratedplanningforservices/sustainablebluemountains2025>
- BMCC (2013). *Sustainable Blue Mountains 2025 (2012 update)*. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC (2017). *Sustainable Blue Mountains 2035: Blue Mountains Community Strategic Plan (2017 update)*. Blue Mountains City Council.
- BMCC (2020). *Blue Mountains 2040: Living Sustainably. Local Strategic Planning Statement*. March 2020. BMCC
- BMCC (2020b). *Community Engagement Strategy for the update of the Community Strategic Plan*. Published November, 2020. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC (2023f). *A Community Vision: Sustainable Blue Mountains 2050*. Community Flier for CSP engagement. Katoomba, N.S.W. Blue Mountains City Council
- BMCC & JOC Consulting. (2021a). *Blue Mountains City Council Community Strategic Plan Update: Survey Report (Stage 1)*. June, 2021. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC & JOC Consulting. (2021b). *Blue Mountains City Council Community Strategic Plan Update: Stakeholder Workshop Report (Stage 2)*. June, 2021. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC & JOC Consulting. (2021c). *Blue Mountains City Council Community Strategic Plan Update: Focus Group Report (Stage 3)*. August, 2021. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC & JOC Consulting. (2022). *Blue Mountains City Council Community Strategic Plan Update: Final Consolidated Report (Stage 4)*. March, 2022. Katoomba, N.S.W. Blue Mountains City Council.

#### Corporate policy documents and public commitments

- BMCC (2021a). *Blue Mountains City Council first in Australia to adopt 'Rights of Nature'*. Blue Mountains City Council website: Media Centre. Accessed online 29-8-2021.

- <https://www.bmcc.nsw.gov.au/media-centre/blue-mountains-city-council-first-australia-to-adopt-'rights-of-nature'>
- BMCC (2021b). "*Barraandjii, Yaguu., Barraabuuguu (Dharug)/ Barraandii, Yaguu., Burraanduu (Gundungurra)/ Yesterday, Today, Tomorrow. Blue Mountains City Council Statement of Recognition and Commitment: Honouring the Past and Responding to the Future*". Katoomba, N.S.W., Blue Mountains City Council. Retrieved online 1/11/2021.
- <https://www.bmcc.nsw.gov.au/sites/default/files/docs/Statement%20of%20Recognition.PDF>
- BMCC. (2021c). "*Blue Mountains Aboriginal Advisory Council's 'Statement of Recognition and Commitment' endorsed by Blue Mountains City Council on eve of National Sorry Day*". Media release, BMCC, 27 May 2021. Accessed online. <https://www.bmcc.nsw.gov.au/media-centre/blue-mountains-aboriginal-advisory-council's-'statement-of-recognition-and-commitment'>
- BMCC (2021d). *State of the City Report 2021*. Blue Mountains City Council.
- BMCC (2021f). "Blue Mountains Planetary Health partnerships". Website of the Blue Mountains. Accessed 25/11/2021. <https://www.bmcc.nsw.gov.au/blue-mountains-planetary-health-partnerships>
- BMCC (2022f). *Minutes of Ordinary Council Meeting: 25 January 2022*. Blue Mountains City Council.
- BMCC (2022g). *Minutes of Ordinary Council Meeting: 22 February 2022*. Blue Mountains City Council.
- BMCC (2022h). *End of Term Report (2016-2021)*. Katoomba, N.S.W., Blue Mountains City Council.

#### Site specific planning documents

- BMCC (2021e). *Katoomba Masterplan: Stage One Community Engagement Report, May 2021*. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC (2022a). "Former Katoomba Golf Course Precinct Plan: FAQs". Blue Mountains City Council website. Accessed 21/04/2022.
- BMCC (2022b). *Draft Katoomba Masterplan: Draft for public exhibition September 2022*. Katoomba, N.S.W. Blue Mountains City Council.
- BMCC (2022c). "*Former Katoomba Golf Course Precinct Plan: Timeline of the site*". Katoomba, N.S.W. Blue Mountains City Council. Downloaded. 11 April 2022.
- BMCC (2022d). '*An invitation to imagine*'. Flier on Katoomba Master Plan. Blue Mountains City Council website. Downloaded 11 April 2022.
- BMCC (2022e). "Former Katoomba Golf Course Precinct Plan: Key Dates". Blue Mountains City Council website. Retrieved 21 April, 2022.

#### References to Council programs

- BMCC (2018). Taking local kids outdoors- Bioblitz program. Youtube. Retrieved 23/20/2023. <https://www.youtube.com/watch?v=2AMFIYGw0I0>
- BMCC (2023a). Connecting with nature: Schools program. Connecting Kids, Creeks, and Catchments. Blue Mountains City Council Website. Retrieved 23/20/2023. <https://www.bmcc.nsw.gov.au/schools-program>
- BMCC (2023b). Buschcare. Blue Mountains City Council website. Retrieved 23/10/2023. <https://www.bmcc.nsw.gov.au/buschcare>
- BMCC (2023c). Environmental Volunteers. Blue Mountains City Council website. Retrieved 23/10/2023. <https://www.bmcc.nsw.gov.au/envirovolunteers>
- BMCC (2023d). 'Rights of Nature'. Blue Mountains City Council website. Accessed online 23/10/2023. <https://www.bmcc.nsw.gov.au/rights-of-nature>
- BMCC (2023e). PHI Newsletter. Blue Mountains City Council website. Received 8 June, 2023.



### **Local newspaper articles**

I used the *Factiva* database (Dow Jones, 2023) to extract digital records of community perspectives shared in comments/letters to the editor in the local newspaper, the Blue Mountains Gazette. The dataset covered all available records until 27 March 2023. The earliest available data was found in 2017. Due to changes in how Factiva categorised/processed letters to the editor (sometimes under 'Letters' and other times under 'Commentaries/Opinions'), it required two runs. The output was 664 results. I reviewed the content of this material to identify community letters and comments which made specific reference to *dogs*, *cats*, and *golf course* (n=76).

Attachment 9 (below) documents the process and findings in more detail.

Quotes from specific letters cited as references in main text.

### **Other information sources.**

Additional information was gathered during 10 (formal) site visits which are outlined in the Appendix 3-1 and a range of published documents were drawn upon in the analysis process but do not serve as primary data for my research. This includes published material (excluding those above) from local authors, the media, academia, and state government. There are included in the Bibliography to reflect citations.

Whilst not considered as data, it might also be noted that informal engagements with Council representatives coincided with the research period. Given the proximity to Sydney and ongoing relationships between other parts of my University with the Council, two study retreats were organised by my department, outside of my involvement during the course of study. These involved Council representatives presented on their work and the sustainability aspirations and dilemmas being faced, reflecting various sites and topics that I address.

Similar encounters occurred when Council's General Manager presented to the 2023 Transformations Conference, in a session which I chaired. Given the interpretive assumptions of my research, the exchange of views in these sessions may have influenced my viewpoint, however I found them to reiterate views I'd already come to. In the paper that is presented, I remain limited to the data sources above, and published material, to make my case and evidence it.

## **2. Using reflexive thematic analysis in the context of SES and discursive theory**

Reviews of empirical research practices in environmental discourse analysis have noted that while sustainability discourses entail material and practical elements, empirical studies often neglect attention to those in their data collection and analysis (Leipold et al. 2019).

This appendix documents steps within the analysis, with an emphasis on (i) the processes of coding interview data for materials, meanings and competencies and practices, and (ii) to outline the techniques used to map and make sense of the dynamics observed.

It is included to complement the main text as some readers may value from specific insights into (for example) how I included aspects of materiality into discourse analysis, in addition to language-based expressions. It offers transparency to the research, but may also assist future research practices in the design and pursuit of environmental discourse research in SES contexts.

### **2.1. Analysing the interview data**

In the preface, introduction and methodology sections for the Blue Mountain's case study research (viewpoint 3), I noted a need to include materials and practices in the analysis of environmental discourses, especially when considering the ontological emphasis on material 'things' that SES research should reflect.

Specifically, I suspected there were potential benefits from considering the Materials, Meanings, and Competencies that were present and important the way that Council was approaching sustainability. Building these into the research design, via the semi-structured questions (Attachment 1) let the research consider Shove's et al. (2012)'s call to consider elements and dynamics of social practices in socio-cultural change.

As part of descriptive coding, I found this approach useful to categorise and identify patterns of meaning in the data. A reflexive process was then used to undertake thematic analysis about what those patterns meant, what discourses appeared to be present, and how they were being mobilised (Attachments 2-8). Most usefully, I found that the approach enabled specific attention to materials and, relatedly, to the politics that lay within activities, especially in daily lives of the community. During the analysis process, interview data was triangulated with observations through site visits and discussions about the community in the interviews were complemented by exploring evidence in council engagement documents and reviewing letters to the editor in the local paper.

In the Blue Mountains case study, I found (in Vivo) methods to code for meanings was useful to highlight explicit concepts and narrative patterns. This is a common approach to study of discourses via language. Coding for competencies, meanwhile, was useful as an interim step to consider the strategic practices used by agents, and other actors, to pursue the change they sought. I also coded interview data to identify references to sites, events, and specific actors or institutions. These helped develop an understanding of actors, events, and processual relationships and informed, for example, places that were worth visiting.

Second round coding involved identifying discourses, narratives about change and helped identify latent patterns of meaning and relationships in the data.

In sum, using elements of social practice outlined in Shove et al's (2012) Social Practice Theory provided a simple coding framework to assist the broader task of discourse analysis. I found it helped identify the presence and dynamics of environmental discourses, especially by affording attention to materials being used. It highlighted the way discourses can be present, and mobilised, by the things we do and the things we use, complementing patterns and exchange of meaning that were traced by references to concepts and ideas. Coding for materials, I think, may help other empirical studies in environmental discourse to avoid the tendency to fall into 'textual reductionism' that can sometimes occur, separating the 'social' from the spatial and ecological counterparts that it exists within. This is already a priority in socio-cultural lineages of discourse analysis and becomes more important when it is integrated with research fields, like SES, which aim to surface relational dynamics between social and physical worlds.

Attachments below include the template used for semi-structured interviews (Attachment 1) and illustrations of the (iterative) phases used in the analysis process (Attachments 2-8).

## **2.2. Making Sense: thematic analysis of how patterns in the data related to one another.**

Stepping back from the elemental coding process, Attachments 9, 10 & 11 provide documentation of the way I looked for patterns of interaction and relationship across the data, taking into account the perspectives gained from the iterative use of site visits and document review alongside the analysis of interview data.

Attachment 9 provides documentation of the way I reviewed of community perspectives shared in the local community paper. This enabled the analysis to triangulate and cross-check the expression and (re)production of a Romantic Colonial discourse in the community. I focused the analysis on the sites of argumentation/expression that were identified earlier in the analysis: discussions about pets and re-purposing of the golf courses.

Attachment 10 reflects how I considered the interactions of activities and practices between Council and the Community. Attachment 11 shows I also looked more broadly into nested SES dynamics within NSW and across discourses present in the world.

A final step in the analysis revisited dynamics that I'd observed in the case study through concepts of SES and discourse theory. Section 5 of the main text documents the key outputs of this process. It shared my use of Dryzek's (2005/2022) heuristic to consider how different sustainability discourses differ from industrial society (e.g. Figure 4, Section 5.1). It also involved my use of Gunderson & Holling's (2002) concept of the Adaptive Cycle, to review SES dynamics that were observed to consider potential areas for intervention (Box 4, Section 5.2).

Attachment 1. Questions and discussion guide used in interviews (Template)

1. UNDERSTANDING ROLES AND PROGRAMS/WORK TASKS

Areas to be explored	Examples of prompts and focal themes (specific questions were iteratively adjusted to each specific interviewee)
General information	<ul style="list-style-type: none"> <li>- Descriptions about what they do and why in relation to sustainability</li> <li>- Do they have a theory of change for sustainable futures? What is it?               <ul style="list-style-type: none"> <li>o <i>Does it include interior change?</i></li> <li>o <i>Does it include collective change? How?</i></li> <li>o <i>What type of political change do they envisage?</i></li> <li>o <i>What role does “place” have in your theory of change?</i></li> </ul> </li> </ul>
What kinds of <b>materials</b> do they use?	Get a sense of key materials in the work: <ul style="list-style-type: none"> <li>- Where is your program? How is it ran (online/ in-place)?</li> <li>- What type of information do you rely on or produce?</li> <li>- What kinds of experiences and engagements do you use?</li> <li>- Does your program involve creative processes or practices? What are they</li> <li>- Which of the above approaches and program components do you think are most impactful?</li> <li>- How do they fund the work/program?</li> </ul>
What kind of <b>competencies</b> does your work require?  (in council, and in the community)	<ul style="list-style-type: none"> <li>- What do you think are the most important skills in having a successful program?</li> <li>- Do you work with others to design or deliver your work? Who?</li> <li>- What kind of people does your work/program usually attract?</li> <li>- What kind of skills do participants need to engage in your work/program?</li> <li>- What did the program consider in design of its branding/targeting of its message? Did you take any steps to engage with different audiences differently? What/how?</li> </ul>
Which <b>meanings</b> are present in the narratives they use in your approach/work/program?	<ul style="list-style-type: none"> <li>- What kinds of words do you think best describe your work/role/program?</li> <li>- What is most successful when seeking to engage participants?</li> <li>- How are local features and descriptions of nature used?</li> <li>- What kind stories and visions for the future do you see being developed in your work- and where do they come from (within council or somewhere else?)</li> </ul>
Other: Context & connections	<ul style="list-style-type: none"> <li>- Are there other parts of the community (or society) that your work/program is heavily engaged with?</li> <li>- Are there any events that are important to understand in your work?</li> </ul>

## 2. DISCUSSING COUNCIL’S WORK ON PLACE AND SUSTAINABILITY

General and contextual questions	NOTES
<ul style="list-style-type: none"> <li>- How do you see/frame ‘place’ in your work? <i>EG what are the priority issues in in work of “place making” or “place-shaping” (or take notes of words they use/how they respond to those)</i></li> </ul>	-
<ul style="list-style-type: none"> <li>- How do you see/frame ‘nature’ in your work?</li> <li>- What’s the role of local ecology in your work?</li> </ul>	-
<ul style="list-style-type: none"> <li>- What are some examples place-based planning that they see as positive or good practice in your work? What made them good?</li> </ul>	-
<p><b>Places (pasts and futures)</b></p> <ul style="list-style-type: none"> <li>- What do you think is the “root” of place? <i>e.g. do they see the community as the core identity of an area? Can/should they shape the nature that’s around them? What about ecological heritage or identity– are these thought about or discussed in planning, engagement programs and place-making?</i></li> <li>- What is your view/experience on dilemmas of modifying or reshaping local ecologies to suit the tastes of the community? Positive, negative, uncertain?</li> </ul>	
<p><b>Cultural relationships &amp; Australian context</b></p> <ul style="list-style-type: none"> <li>- Some work involves helping foster local cultures and connections to place, in a context where Aboriginal and Torres Strait Islander communities hold existing connections to those places. Do they find see this is a dilemma? How do they approach it?</li> <li>- Are there challenges or dilemmas they see in different groups of communities’ and their connection to nature?</li> <li>- Do they have ideas that might help overcome differences in perspectives and engage people in place-based identities? (eg information, stories, visualisations, cultural products, data on place history?)</li> </ul>	
<p><b>Open discussion</b></p> <ul style="list-style-type: none"> <li>- What is your view on supporting local (or regional) cultural narratives and identities rooted in the ecology of places as a way to drive cultures of sustainability?</li> <li>- Is it something that they consider to be an interesting approach? Is there work already being done on this that they recommend?</li> </ul>	

Attachments 2-7 show how codes were generated and iteratively reviewed to explore themes and patterns while analysing interview transcripts and recordings:

### Attachment 2- Materials

Grant Total (materials)	38	of which: 12 materials were tools (predominantly) used by council, 25 materials were general 'things' that might reasonably be expected to be used by the community and/or council members, and one was an academic report.			
Grant Total (references)	148	of which 72 were related to ("Council's statutory planning practices & activities")			
Material (tag name)	# of times referred	Notes (Type of Material)	Notes (Research Obsv)	Count of material types	sub-totals
Research report	1	Academic material		Academic reports	1
Planning documents	26	Council's statutory planning practices & activities		Council-related materials	12
budget and resources	23	Council's statutory planning practices & activities			
built heritage	8	Council's statutory planning practices & activities	Relies on a statutory frame/perspective but also has a community and general meaning to it.		
CSP	6	Council's statutory planning practices & activities			
council-strategic business plan	3	Council's statutory planning practices & activities			
Blue Mountains Sustainability Model	1	Council's statutory planning practices & activities			
DCP	1	Council's statutory planning practices & activities			
focus group	1	Council's statutory planning practices & activities			
net zero strategy	1	Council's statutory planning practices & activities			
media release	2	General council-community engagement			
visual metaphors	2	General. Theoretical concept/material used by council	Is it a material? Yes, but you'd only frame them this way knowing theory. Perhaps better framed as a Council material (or an 'expert/specialists' material).	Materials that rely on abstract concepts (already counted as council-related)	2
carbon emissions	1	General. Theoretical concept/material used by council	Is it a material? Yes, but you'd only frame them this way knowing theory. Perhaps better framed as a Council material (or an 'expert/specialists' material).		
Digital tools	11	Overlaps community practices		Materials used by community (and sometimes council)	25
built environment	10	Overlaps community practices			
habitats and ecological areas	6	Overlaps community practices			
Waste	6	Overlaps community practices			
footpaths	5	Overlaps community practices			
local paper	4	Overlaps community practices	Useful tool raised in interviews for additional data analysis		
induction to place booklet	3	Overlaps community practices			
Pets	3	Overlaps community practices			
swimming pools	3	Overlaps community practices			
land valuations	2	Overlaps community practices			
libraries	2	Overlaps community practices			
playground	2	Overlaps community practices			
social media	2	Overlaps community practices	Actually raised in the excerpts as a way to engage the community (a council tool)		
Trees	2	Overlaps community practices			
cars	1	Overlaps community practices			
community centers	1	Overlaps community practices			
dog park	1	Overlaps community practices			
Educational course	1	Overlaps community practices			
electricity	1	Overlaps community practices			
houses	1	Overlaps community practices			
land use	1	Overlaps community practices			
LED streetlights	1	Overlaps community practices			
letters	1	Overlaps community practices			
worm farms	1	Overlaps community practices			
newsletter	1	Overlaps community practices			

### Attachment 3- Competencies

Grant Total (competencies)	24	of which some were akin to virtues of an individual, while others describe structural needs of an institution, tactics for influencing people, an ability to represent others or draw forth their ideas, and a set of skills that are akin to what Riedy et al described, as 'meaning work'.	
Grant Total (references)	228	Most of these lie in relation to the work of council staff (unsurprisingly) and some of the competencies work against each other (there is not just one tool/directional need). Opposing tools were raised, for different contexts and reasons.	
111 unique sections of text (most have 2 or more tags)			
Competency (tag name)	# of times tagged	Notes	What kind of content does it need/relate to
Framing and storytelling	30	competency- meaning work	narrative
council culture	24	? Is this a competency or a material? It was an important feature to success/practice	doing
governance structures	24	? Is this a competency or a material? It was an important feature to success/practice	structure
Tensions_ planning and RON	21	?	doing
leadership and vision	20	virtue	(all)
using planning tools for normative outcome	17	tactic	(all)
educating the community	15	tactic	narrative
engaging the whole community	12	tactic	narrative
competent community representatives	9	competency	doing
grounding big ideas in the daily decisions (and community engagement) of service provision	8	tactic	doing
democracy is for the engaged	7	? More of an observation of some tactical conditions	NA
managing budgets and compromising	7	competency	doing
being an enabler for community	6	tactic	doing
getting past negative engagement (no is the loudest response)	4	competency	doing
getting people okay with change	4	competency	influencing
relationship building	4	competency	democratic
setting a creeping baseline	4	tactic	influencing
community weaving	3	competency	
risk management (of narrative)	3	competency- meaning work	
compromise or ethical firmness	2	tactic	
Getting the basic right so you can trust us with the bigger picture issues	1	tactic	
giving the whole picture- getting the complexity understood	1	tactic	
knowing who to try and work with and who not to	1	tactic	
patience and persistence	1	virtue	

## Attachment 4- Meanings

Meanings (tags)	Count of Exerpts tagged	Note (discourse is where there is a well established trans-place politics around the tag)	Sub-totals	COUNT	Number of exerpts
<b>Total meanings identified</b>	57				
<b>Total number of exerpts</b>	243	135 unique ones (some overlaps).			
walking the talk	13	Descriptor	Descriptors	52	168
integrating new arrivals	9	Descriptor			
community as the agent	7	Descriptor			
agency	5	Descriptor			
Indigenous history	5	Descriptor			
World Heritage Area	5	Descriptor			
centralising services	4	Descriptor			
Development Assessment	4	Descriptor			
experimentation	4	Descriptor			
levels of service	4	Descriptor			
Navigating tensions	4	Descriptor			
Process as progress	4	Descriptor			
Ecological heritage	3	Descriptor			
personal memories	3	Descriptor			
the quite couldn't care less crowd	3	Descriptor			
creating rules for the uninterested	2	Descriptor			
creativity	2	Descriptor			
cutting corners/self interest	2	Descriptor			
living safely and protecting houses	2	Descriptor			
low density village	2	Descriptor			
maximising value	2	Descriptor			
seeing the whole picture	2	Descriptor			
A more-than-human landscape	1	Descriptor			
bureaucracy	1	Descriptor			
evidence based	1	Descriptor			
following through on committments	1	Descriptor			
hygiene issues	1	Descriptor			
isolation	1	Descriptor			
local champions	1	Descriptor			
Plurality	1	Descriptor			
protecting the night sky	1	Descriptor			
revenue	1	Descriptor			
shutting the gate behind you	1	Descriptor			
Plantary Health	9	Discourse	Discourse	19	66
Stewardship	9	Discourse			
Recognition Reconciliation and Cfc	7	Discourse			
regeneration and restoration	5	Discourse			
Complex systems and holism	4	Discourse			
Representative Governance	4	Discourse			
Settler romance	4	Discourse			
Net Zero	3	Discourse			
Reconciliation	3	Discourse			
Social inclusion	3	Discourse (minor)			
sustainable infrastructure design	3	Discourse (minor)			
accessibility	2	Discourse			
circular economy	2	Discourse			
DISCOURSE_Caring for Country	2	Discourse			
RON-Ethics	2	Discourse			
circular economies	1	Discourse			
climate risk	1	Discourse			
resilience	1	Discourse			
tipping points	1	Discourse (minor)			
Place theory (attachment, identity)	23	Guide to the text	Thick	5	75
community engagement with meanings	21	Guide to the text			
RON-why and what for	14	Guide to the text			
Meanings_other	12	Guide to the text			
general dominant meanings in council	5	Guide to the text			

## Attachment 5- Connections relating to ideas, specifics places, timelines, scales, events, etc.

Row Labels	Count of Exerpt
Community demographics	7
COVID	3
Echo Point	2
elections	2
Fires	2
landscape	3
Lawson golf course	1
Other_case	3
Overview	8
PHI	6
RON	7
storms	2
World Heritage Area	1
<b>Grand Total</b>	<b>47</b>

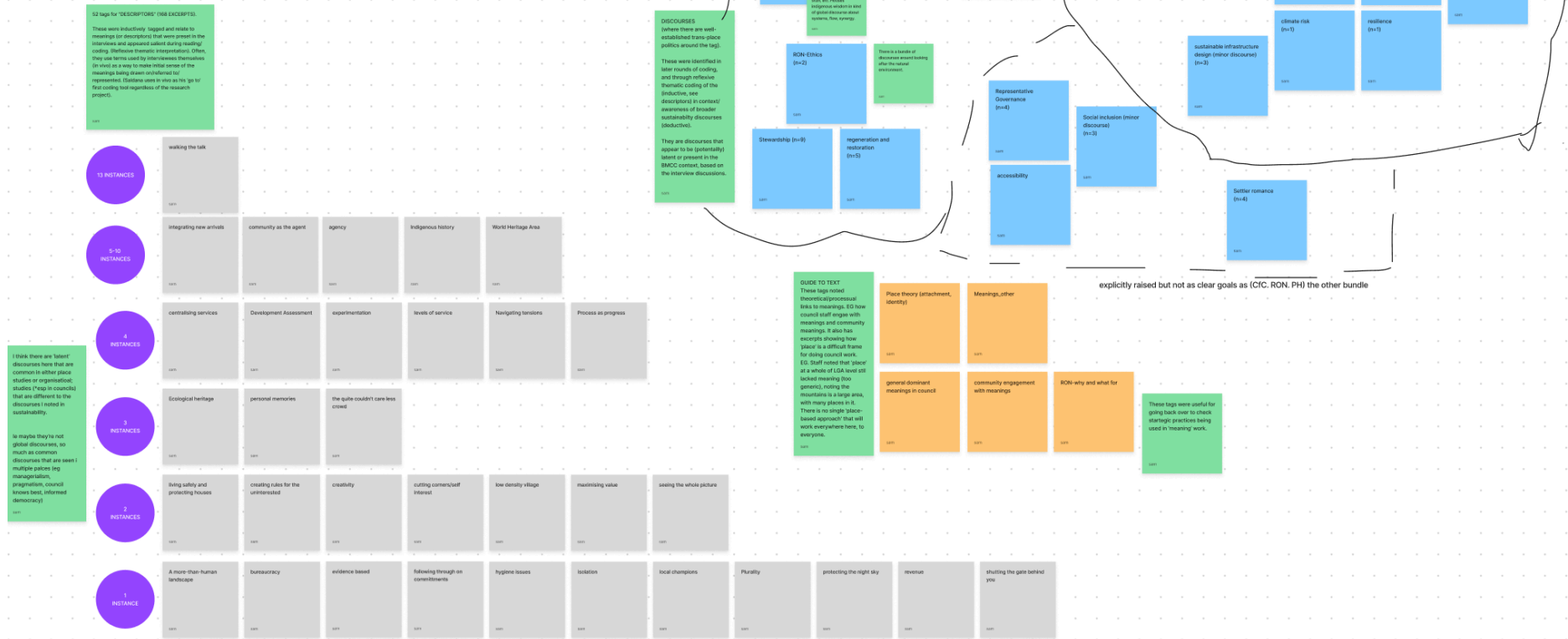




# Attachment 7- Iteratively reviewing codes and themes amongst codes (Meanings)

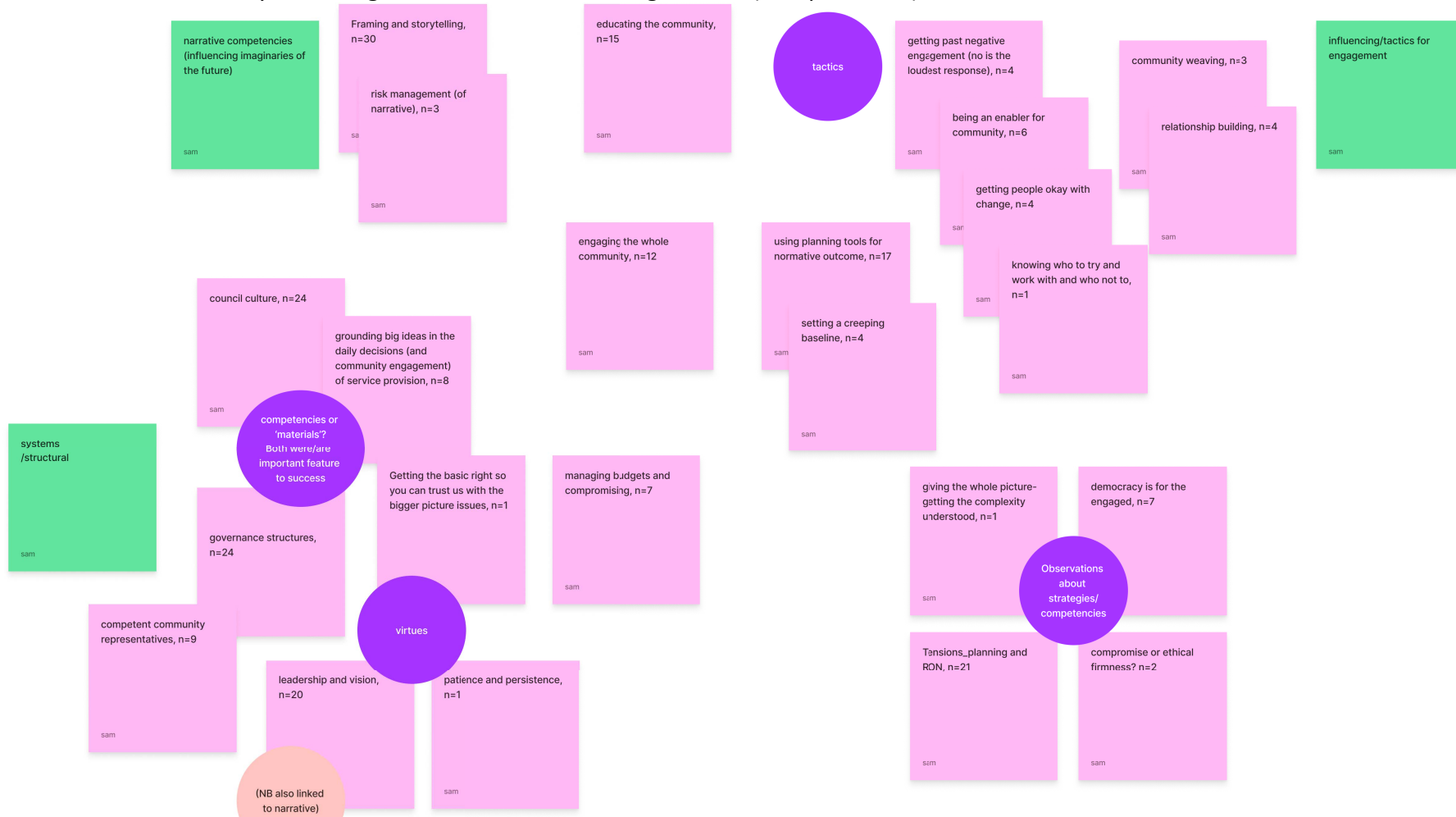
## Meanings (memes, narratives, discourses)

Includes place meanings (and things that influence it), as well as meaning attached to different behaviours/performances, etc.



Iterative coding for meanings led to 52 descriptors, covering 168 excerpts. There was an reflexive and interpretative nature to this process and often, tags were named/coded inVivo, using terms used by interviewees themselves as a way to make initial sense of the meanings being drawn on/referred to/represented. Saldana (2021; p138) uses in vivo as his 'go to' first coding tool regardless of the research project. Initial coding helped to identify salient topics and start making sense of the data (on the left, in grey), while later reviews and analysis led to identification of terms that reflected broader global discourses (on the right, in blue), and concepts related to theory (bottom right, in yellow).

## Attachment 8- Iteratively reviewing codes and themes amongst codes (Competencies)



Coding for competencies started off by capturing responses to questions (or unprompted discussion) about what's required for successful place-based work during interviews with council staff. I then tried to identify 'strategic practices' present in the case study, referring to Hajer (1995; 2006) and Leipold & Winkel's (2017) descriptions of how language (or other activities) are used strategically, within practices, to express discourses and help agents institutionalise them into society. After an iterative process of coding, I found 26 tags for 'competencies' of which some were akin to virtues of an individual, while others describe structural needs of an institution, tactics for influencing people, an ability to represent others or draw forth their ideas, and a set of skills that are akin to what Riedy et al. (2019) described, as 'meaning work'. The screenshot shows some of the groupings identified. The process led me to consider if I identify competencies inline with Leipold & Winkel's typology of 'strategic practices' more specifically/categorically, and by reflecting and integrating interview data and the dynamics observed in specific "sites of engagement" be they physical sites, activities/functions by the council, or related to events.

Attachment 9. Documentation of key themes and perspectives during a review of local newspaper records.

<b>dog/s</b>									
Count of Group	Column Labels								
Row Labels	2017	2018	2019	2020	2021	2022	2023	Grand Total	
Dog owner etiquette			6	7		3		16	
Love for dogs	1	1	1			1		4	
Parks as public spaces						1		1	
Parks as public spaces- critique of dog focus					1			1	
Peripheral		1	1		2	3		7	
RSPCA			1	2		1	1	5	
Support for dog park/walking tracks	2	2	2	1		1		8	
Supporting off leash dogs		1						1	
<b>Grand Total</b>	<b>3</b>	<b>5</b>	<b>11</b>	<b>10</b>	<b>3</b>	<b>10</b>	<b>1</b>	<b>43</b>	

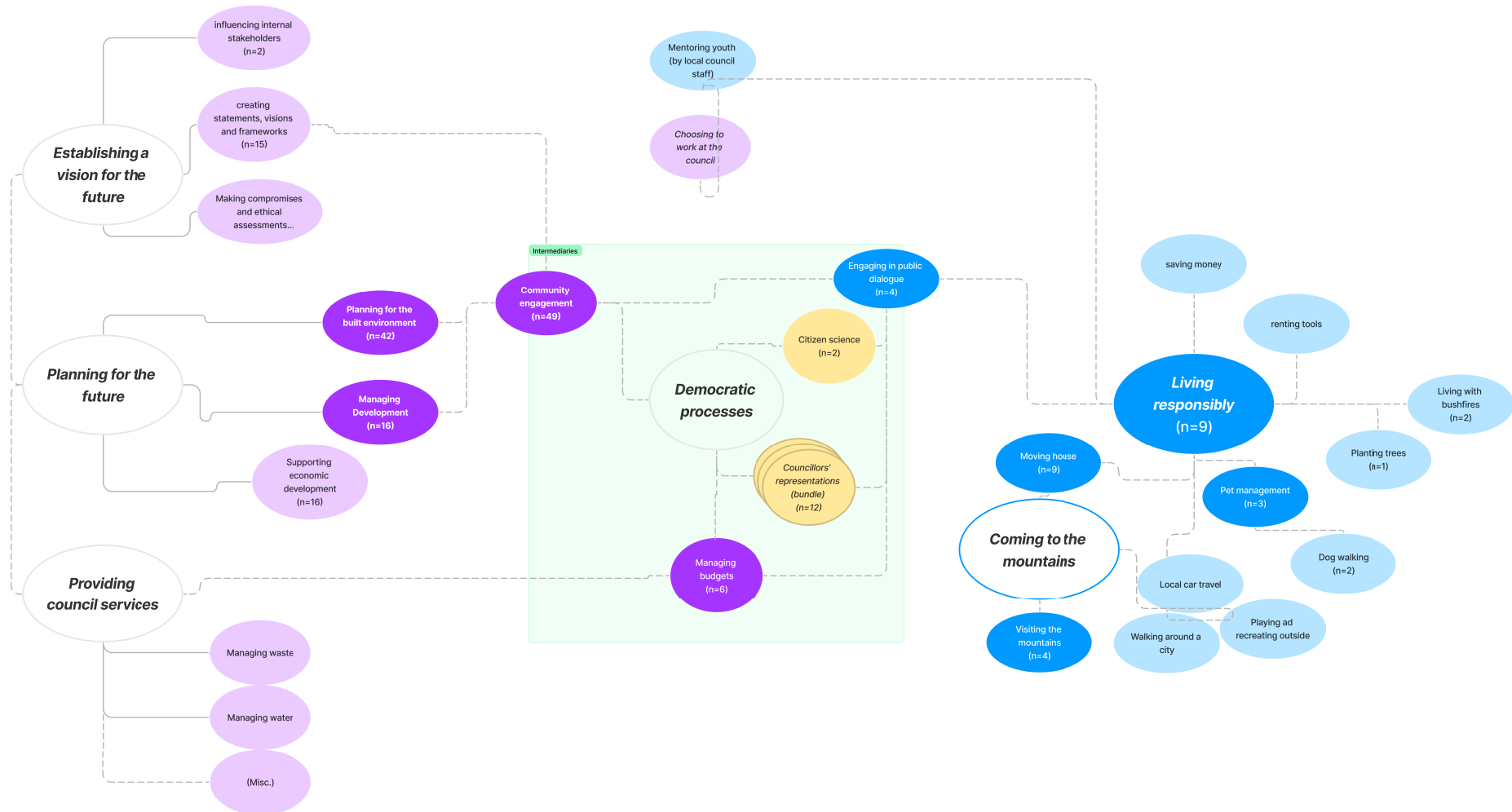
<b>cat/s</b>				
Count of Summary	Column Labels			
Row Labels	2019	2020	2021	Grand Total
defending free cats	1			1
Supporting cat containment/curfews/bibs	6	10	3	19
Peripheral			1	1
RSCPA (see dogs) that cats and dogs wont be the priority		1	1	2
<b>Grand Total</b>	<b>7</b>	<b>11</b>	<b>5</b>	<b>23</b>

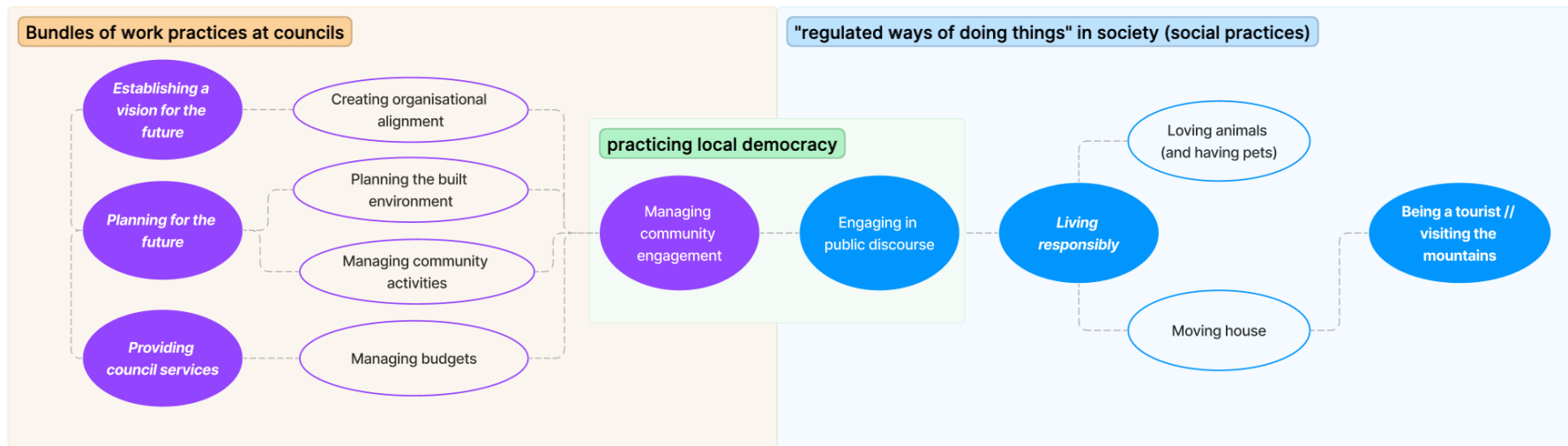
<b>golf course</b>	
Row Labels	Count of Summary
Against the DAs at the Golf Course	1
Keep the golf course as green space	1
Maintain the golf course	1
Make it a BMX track	1
Make it a conference center	1
Sell the Golf Course	2
I'm concerned about dog poo at the golf course (see dog)	1
Be wary of developers2	2
<b>Grand Total</b>	<b>10</b>

I used Factiva to extract Letters to the Editor and Opinions/Commentaries (n= 664) from the local newsletter, as this was raised as a valuable source of community sentiment. While reviewing this material, I focused on the meanings and storylines present (being reproduced) in relation to topics of pets and the re-purposing of golf courses. I extracted each of these letters/articles/comments (n= 76) and identified the main themes/perspectives being raised, iteratively coding them using In Vivo techniques. The Excel sheet documents each extract and the codes attributed. Screenshots above reflect the main findings including a set of perspectives that were shared, the number of articles/documents in which this was displayed, and in which year it was published. My findings are included in the main text discussion of the Romantic Colonialism discourse being re-produced and performed by the community. Notes: As I used the term 'golf course' to search for relevant material, the review identified that themes raised in relation to Katoomba were very similar to themes and conversations that have occurred in relation to the re-purposing of other golf courses in the LGA. "Peripheral" means the subject matter referenced the search term (e.g. using 'big dog' or 'fat cat' as a metaphor) but the focus of the extract was irrelevant.

Attachment 10- Interpreting context and dynamics according to activities/practices raised in interview data (1/2)



For conceptual and theoretical reasons outlined in the preface to the paper, I considered ideas from practice theory alongside discourse theory during the analysis. The first round of this involved identifying a mix of ‘activities’ and ‘social practices’. I distilled practices more succinctly by considering/identifying “regulated ways of doing things”. It helped to consider the norms, rules etc that influence how these activities (and social practices, next image) were assembled and performed. It also helped consider the constitutive elements of those practice (materials, meanings and competencies), and connections between practices, creating interrelated bundles.

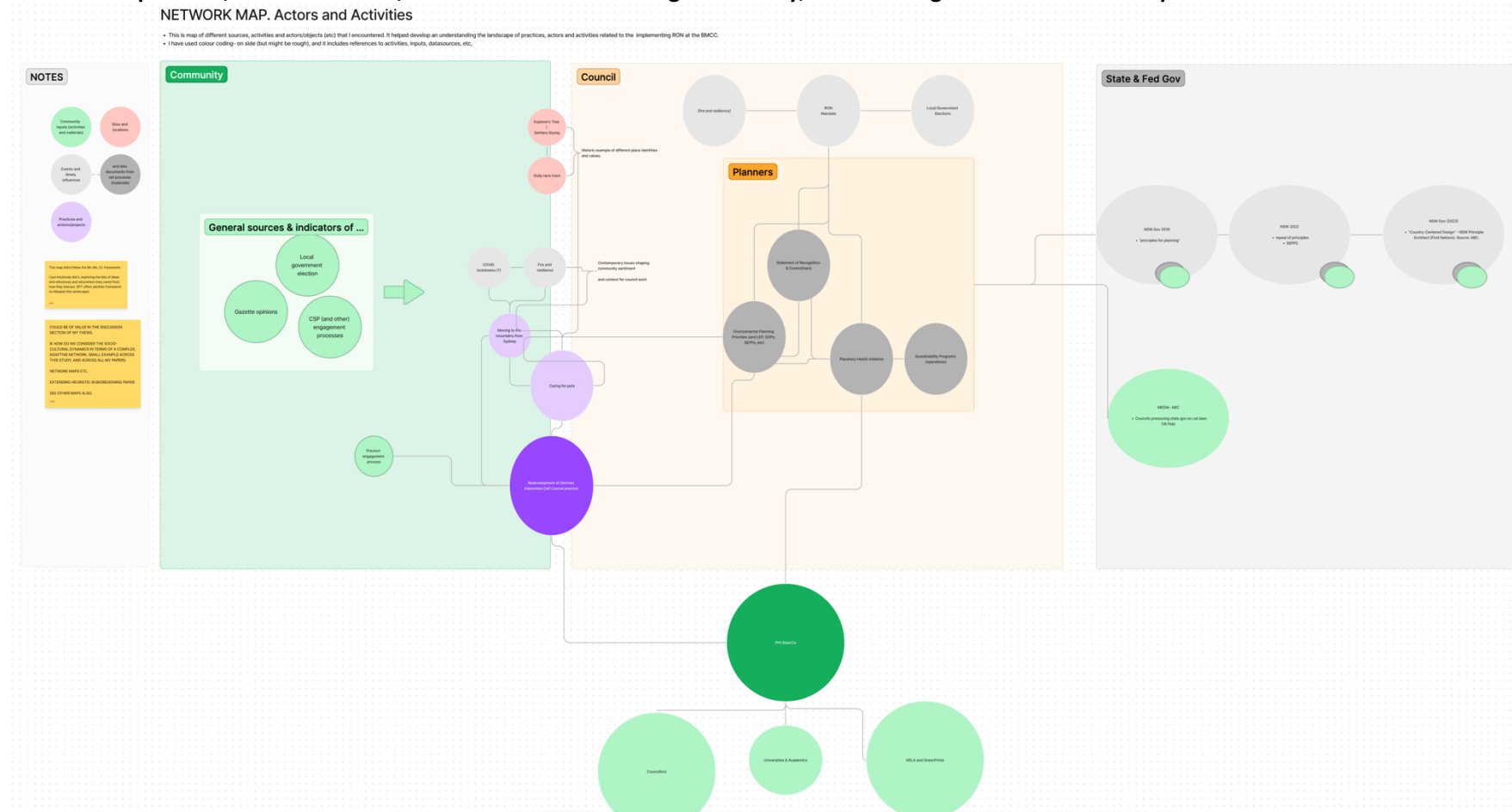


A second stage of analysis refined the broader set of and activities/practices and their relationships into a more simplified diagram (above) which highlighted (in bold) the hierarchy between them. Many of the ideas here helped to understand the SES and its contextual dynamics, and fed into what was described in the main text to typify the SES, complemented by excerpts and examples from site observations.

## Attachment 11- Iterative sense-making across nested SES dynamics

Progressively, the above steps of collecting and analysing the data were complemented by the process of filling gaps by reading documents and visiting sites, and recursively distilling an understanding of the BMCC's context and my interpretation of the data. Visual tools including Figma and Concepts App were used to create various figures, exploring how I might map out various stages of the research, insights, and/or evidence. The final images show examples of this, which included mapping the different actors, events, materials and connections that were identified and their relationships. The process of sense-making was finalised through the writing process.

### Network Map: actors, activities events, and documents influencing community, council and governance relationships

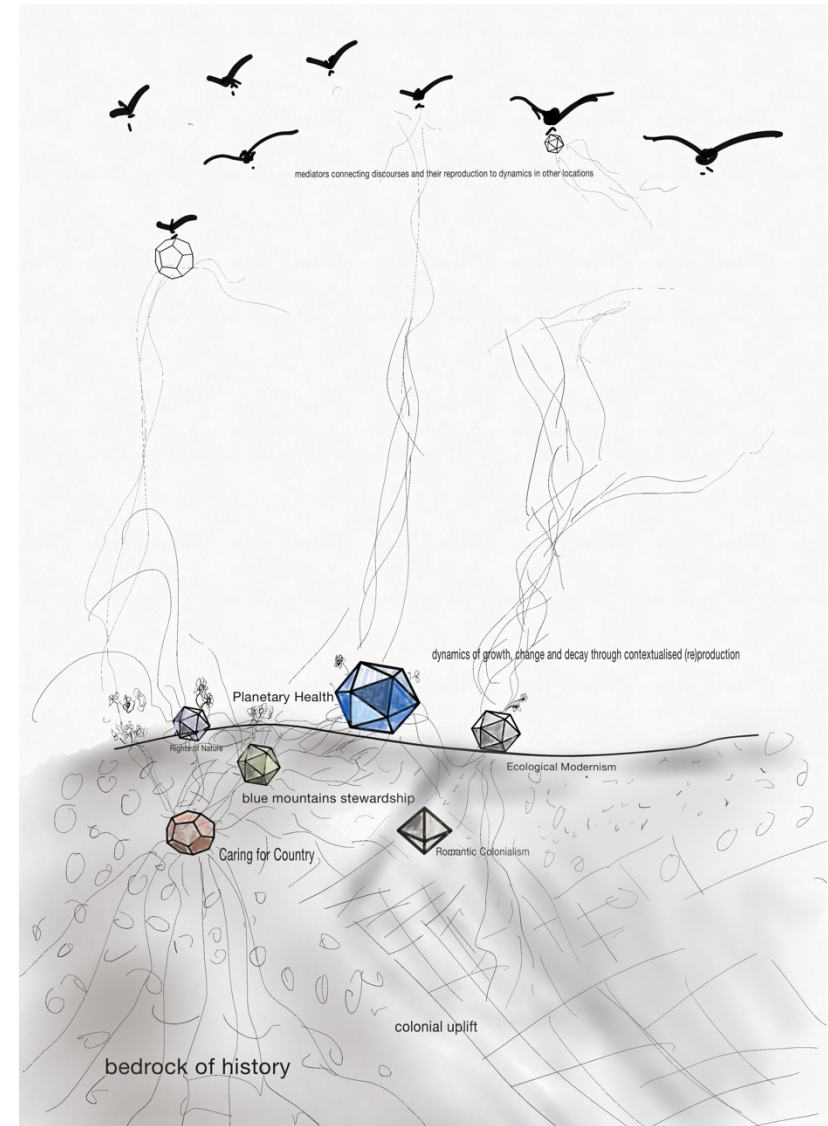
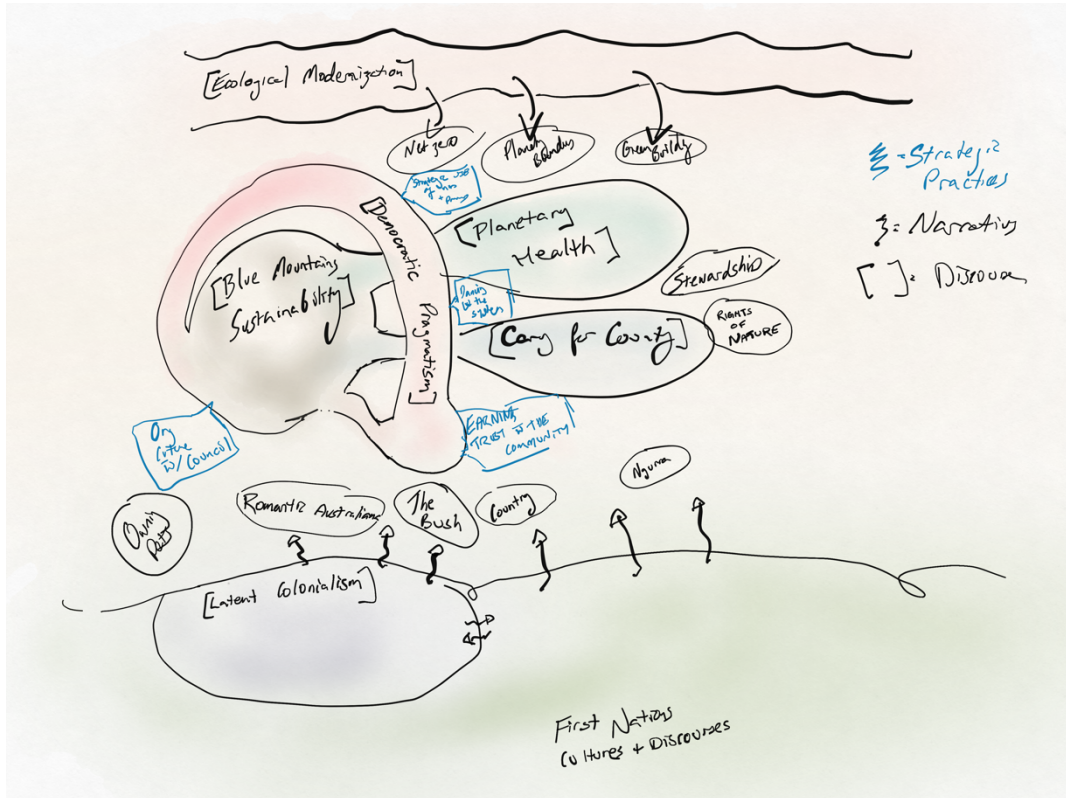


Viewpoint 3.

Appendix 3: Documenting the analysis



Early illustrative explorations of discourses, their relationships, and factors in their (re)production).



Viewpoint 3.

Appendix 3: Documenting the analysis

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