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Relating to the river: New bio-cultural diversities in human engagements with water

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ABSTRACT: This article considers the potential for creating new constellations of human-non-human relations in river catchment areas. It makes use of the author's ethnographic research in Australia, New Zealand and the UK, and engages with current debates about human and non-human rights in relation to water. Drawing on concepts of pan-species democracy, it explores how the rights and interests of diverse human groups, and non-human species, might be encompassed and approached more equitably in the decision-making processes that shape societies' engagements with water. It suggests that, with a stronger focus on equality and diversity, we can move towards more sustainable practices in interhuman and interspecies relations and address the major challenges of the current environmental crisis.

Keywords: water, non-human rights, bio-cultural diversity, re-imagined communities, river catchment management

Introduction

It was an honour to be included in the Vega Day symposium, and to be able to celebrate Thomas Hylland Eriksen's many sterling achievements with a lively discussion about diversity. My short essay contributing to this discussion focuses on how diverse human societies engage with the non-human domain, most particularly in relation to water. It takes as a basic premise that interspecies relations are social and material, and always political, in that they are, in one form of another, relations of power. It is these power relations that decide what happens to water flows; who gets what water resources; who gets to form the dominant narratives about water and the environment.

Part of the dominant narrative with which we are all familiar is a dualistic vision of (male) culture and (female) nature, in which the non-human domain occupies a separate ontological space: human and non-human; us and them. This supports an anthropocentric perspective which presents the non-human domain as a set of assets or resources, there primarily to provide 'ecosystem services'. It allows us to prioritise human needs and interests, and to externalise the costs of our activities to other species and ecosystems.

Not everyone separates human and non-human beings in this way. One of the great privileges of being an anthropologist is that we study diverse ways of understanding the world. In doing so, we engage with cultural beliefs and values about human-non-human relations which do not automatically divide the world dualistically, into 'culture' on one side, and 'nature' on the other. There are many that present visions of an undivided world,

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Figure 1: Parrot drinking from water feature in Adelaide Botanic Garden, Australia.

in which all living kinds co-exist in relatively equal reciprocal partnerships. Such indivisible worlds can be found, for example, in the belief systems of Māori *iwis* in New Zealand; the Amazonian tribes of South America; the !Kung San in Africa; the First Nations of the Americas; the Sami groups and the Inuit communities inhabiting the arctic regions, and amongst the indigenous people with whom I work in Australia.

An ancestral land and waterscape

Figure 2: Map of Cape York, Australia.

For the purpose of comparison, let us consider a couple of tiny ethnographic examples. The first is from my research with several indigenous language groups in the community of Kowanyama, on the Mitchell River in Far North Queensland. This is an area of Australia

that was not settled by European colonists until the early 20th century. Many indigenous communities – though displaced into mission reserves or providing free labour to cattle stations in order to remain on their homelands – continued their own cultural lifeways, hunting and gathering, and conducting rituals at their sacred sites in a sentient cultural land and waterscape inhabited by ancestral beings. Thus, when I went to Cape York to pursue my doctoral research in the early 1990s, this was still a highly traditional community with elders keen to teach me about their customary beliefs, values, and practices so that I could provide politically vital cultural translation to others.

Figure 3: Rock art Rainbow Serpents, Chillagoe National Park.

I was therefore introduced to a cosmology in which the world was created by totemic ancestral beings in multiple, often non-human forms. In the story time, or Dreaming, these beings emerged from the great Rainbow Serpent, who personifies the generative powers of the waters held in the land. The ancestors emerged into a flat, empty landscape, and made all of its features, and all of its living kinds, including their human clans of descendants. Having done so, they 'sat down' back into the land, where they remained as a powerful ancestral presence, watching over their human progeny, providing them with resources, and protecting their interests.

Thus, the waters held in the land represent a spiritual, non-visible, non-material domain from which life is continually generated. Replicating the hydro-theological cycles of the ancestral beings, the Rainbow Serpent produces each human spirit, sending it into the world, and into its mother's body, usually from sacred water places in clan land. It is this watery 'home' that each spirit must be ritually returned to when they die, to be reunited with or reabsorbed into the ancestral forces in the land, with some part of the spirit entering the celestial realm.

In an indigenous cosmos, the sky – or what we might describe as the atmosphere or climate – is not a separate domain, but the upper part of a non-material domain containing ancestral powers. This is nicely illustrated by a view of the Milky Way as a sky river/celestial serpent containing totemic ancestral beings, much like those held in the waters in the land. I

mention this particularly because it demonstrates another contrast with dominant narratives that treat 'climate change' as if it was somehow ontologically detached from earthbound environmental changes: a conceptual separation that discourages joined-up thinking about the causes of climate change.

Figure 4: Kunjen elder Alma Wason at sacred site on the Mitchell River.

In an Aboriginal cultural land and waterscape, the generation of each person's spirit from a sacred site in clan land locates them in a set of social and spatial relationships in which they have obligations to their kin group and shared rights to clan land and resources. The Rainbow Serpent is also the source of customary knowledge, which Aboriginal people call The Law. This provides a vast lexicon of ecological knowledge and an authoritative holistic template for every aspect of traditional lifeways. This knowledge is passed on intergenerationally, through songs, stories, rituals, and artworks.

Clearly this is a highly conservative worldview. It suggests that human lives will replicate those of the ancestors, and it is therefore unsurprising to find that the Law contains a requirement to 'care for country,' and to regulate resource use carefully. This means a range of measures primarily concerned with keeping the use of all other species low-key enough that they can always regenerate. For example, young people are taught to harvest yams, always replacing the main root so that there is an uninterrupted supply; they must gather materials such as bark or spear rods from trees in such a way that this does not endanger the tree itself. These tenets also entailed keeping human populations under control using traditional methods of birth control.

Engaging conservatively with ecosystems also meant making sure that rivers and streams were never impeded. People might make small fish traps and weirs, but it is fundamentally against the Law to interfere with the proper flow of water through the environment, or to compromise its well-being. This vision of order made the activities of the early European colonists very shocking, as they set about drilling down into the hidden ancestral domain to tap the aquifers, redirecting streams into mining, and extracting gold

by using cyanide, which then leached into and poisoned watercourses. It has also influenced indigenous responses to the more recent construction of large dams able to stop the river entirely, and the contemporary redirection of over 70 per cent of all freshwater flows into industrial agriculture.

What I hope this brief ethnographic sketch provides is a sense that Aboriginal Australian worldviews, like those of many indigenous groups, rest on a belief that the non-human domain – the land, the water, and everything it contains – is not a passive object upon which humans act, but an active and reciprocal partner: the co-creator of a shared lifeworld with humankind, which must be protected and treated with respect. These values enabled indigenous Australians to maintain a sustainable way of life for many millennia. In effect, they exemplify the kind of common ownership of resources and circular, non-growth-based economies that characterised human societies for much of human history, prior to the emergence of agriculture about 10,000 years ago. Described by Jared Diamond as humankind's 'worst mistake' (Diamond 2005), agriculture introduced forms of intensified resource use that often led to rapid growth and expansion, and which set many societies on a more instrumental trajectory, prioritising human needs and interests in ways that became increasingly unsustainable.

Indigenous models of environmental engagement therefore provide us with a helpful contrast with the ways of thinking about and engaging with the non-human domain imported by European colonists into Australia, which have led – within a mere two centuries – to widespread environmental degradation across the continent, and severe impacts upon its aquatic ecosystems.

The unsettling effects of 'settlement'

Figure 5: Cattle mustering in Cape York.

Over several decades I have also conducted research with the different water users living along the Brisbane River in south Queensland: the farmers, manufacturers, miners, recreational groups, government agencies, and domestic water users. Greater diversity in

people's engagements with water has come with a shift from a primarily rural population to an urban majority, and with the growth in tourism and recreational use of the rivers and marine areas. There has therefore been a growing divide between extremely utilitarian perspectives and rising concern about environmental issues and the need for conservation. Thus human-environmental relations in Australia are more nuanced and complex than can be communicated in a brief example.

However, the most dominant narrative still conforms to the tenets established by the early colonists who came to 'settle' the continent and make it 'productive' in European terms. Until relatively recently Australia's economy depended largely upon its agricultural and extractive industries, and Queensland has a history of extreme commitment to land clearance and development, and a utilitarian view that land and water are there to support these activities. This was accomplished via the construction of roads and fences, tree-felling, and new forms of property tenure and ownership. Thousands of water bores were drilled into the artesian basin. A mining boom was followed by wider extraction of materials for 'development', increased industrial water use, and the establishment of a major port in Brisbane, which has since undergone massive urban expansion.

Figure 6: Irrigation channel, Cape York.

Early settlement set the scene for the highly instrumental developments that followed. The comprehensive introduction of sheep, cattle, crops, and other non-native plant and animal species displaced native flora and fauna. There was a rapid move towards the overuse of water for irrigation, which resulted in widespread soil salination. The soils released by brutal land clearance and the importation of hard-hooved cattle, and the dumping of heavy metals and other industrial waste into the rivers, caused extensive pollution of waterways and marine areas. The engagements with land and water imposed by European colonists therefore embodied all of the key factors that compromise aquatic ecosystems. This approach established the anthropocentric positionality that I described earlier, and the belief that non-human beings and the material environment are there to provide 'ecosystem services' for human society.

Figure 7: Wivenhoe Dam, South Queensland.

The last century brought a further imposition of major water infrastructures to redirect water flows into irrigation schemes and to provide domestic and industrial water supplies to the urban areas spreading rapidly across the floodplains. These infrastructures also aimed to protect their inhabitants from the floods and droughts to which Australian rivers are prone, but they tended, in practice, to worsen the impact of these, while also causing widespread environmental problems.

This brief cross-cultural comparison therefore illustrates how indigenous bio-cultural arrangements, which had maintained a reciprocal and equal – and therefore very sustainable – partnership between human and other living kinds for millennia, were forcefully displaced by a mode of engagement based on visions of nature as other and human exceptionalism, which brought with it unsustainable material developments and environmentally damaging practices. It is a familiar story, and one that certainly resonates with many experiences of colonisation around the world. This is obviously a highly simplified comparison, but it serves to highlight a reality that there is a wide continuum of possible modes of engaging with the non-human domain.

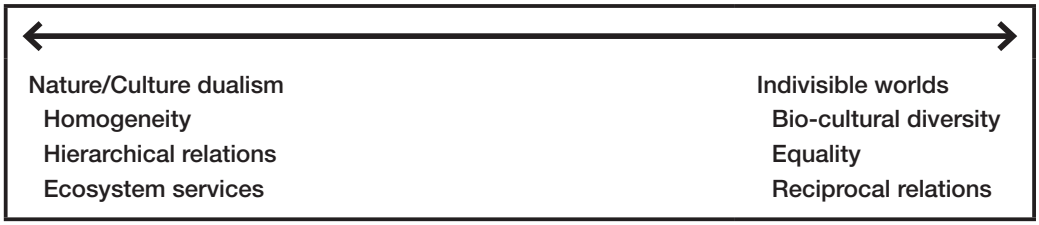

Figure 8. A continuum of possible modes of engagement with the non-human domain.

At one extreme are relationships that are ontologically divided, which assume differential power relations between human and non-human beings and ecosystems, and which permit exploitative instrumental relationships that prioritise human needs and interests and externalise the costs to the non-human domain. At a polar opposite, people envisage

indivisible worlds and relative equality with other living kinds; respect non-human needs and interests, and therefore tend to maintain sustainable values and practices over long periods of time.

However, the latter is a minority view: the hegemonic exportation of an anthropocentric neo-liberal narrative around the globe, via processes of colonisation and through transnational economic networks, exerts a homogenising force on cultural groups, demanding that they assimilate and adopt similarly exploitative beliefs, values, and practices. It is matched, in material terms, by the homogenising impact of introduced plant and animal species which, in replacing native habitats and species, have led to mass extinctions and a critical loss of biodiversity.

This loss of bio-cultural diversity must be a matter of deep concern, and it calls for three key actions: first, it requires a paradigmatic shift in thinking to recognise an indivisible world of all living kinds; second, it demands a serious commitment to undertaking the protective actions towards other species and ecosystems that naturally arise from a rebalancing of human-non-human relations; and third, it needs some creative thinking about how to initiate practical changes that will make real differences to what human societies do in relation to the non-human domain.

It is therefore vitally important that all societies learn from the culturally diverse lifeways that persist in the contemporary world. There are still many that exemplify ontological and practical alternatives to homogenising and destructive anthropocentric practices. Obviously, we cannot replicate traditional lifeways in larger societies, but we can listen to and learn from the tenets and values that support more sustainable practices.

This is not a new suggestion by any means: indigenous lifeways provided inspiration for the early Romantics and for the conservation movement emerging in the 1960s. Today earlier romantic visions have been replaced by more fully informed understandings of indigenous people's beliefs and values, and these continue to inspire counter-movements which share common concerns. These include national and international conservation organisations committed to preserving cultural and biological diversity, and similarly local and global movements seeking social and ecological justice. Increasingly, their efforts to draw attention to human and non-human inequalities have ignited the concerns of wider populations, who have begun to realise that mass extinctions, loss of bio-cultural diversity, and the environmental changes arising from unsustainable practices will bring – are already bringing – increasing chaos to our lives.

Even in Queensland, which can reasonably be described as quite far to the political right, there are emergent critiques of exploitative human-non-human relations and the intrinsic anthropocentricity that underpins these. All around the world, people are now seeking ways to shift the balance towards ecocentricity, or at least to rebalance human relationships with the non-human world so that our actions accommodate the needs and interests of all living kinds.

Contraflows

In the last century, indigenous communities around the world have become increasingly vocal in national and international debates about environmental issues. Many are battling for rights to engage with their homelands in ways that uphold their own beliefs and values, and are openly critical of the exploitative activities of more powerful groups. There have been

Figure 9: Standing Rock protests, USA.

some successes. For example, indigenous communities in Ecuador and Bolivia have persuaded their governments to give constitutional protection to Mother Earth, or *Pachamama*.

In New Zealand, where indigenous people comprise over 15 per cent of the population, Māori efforts to assert indigenous rights and values have been notably successful. Some legal protection for forests and rivers has been gained by establishing their rights as living ancestors, or *Te Awa Tupua.* In 2017, the Whanganui River was declared to have personhood, and given legal rights equivalent to those of corporate 'persons'. There is now a co-management arrangement that enshrines in law the role of two representatives, *To Pou Tupua,* to act and speak for and on behalf of the river, to promote its health and wellbeing, and to be involved in assessing any plans that might affect it.

Figure 10: Whanganui River, New Zealand.

Other international efforts to see rivers such as the Ganges and the Atrato River in Colombia recognised as persons, with concomitant legal rights, intersect with wider counter-movements concerned with establishing non-human rights. There is now growing pressure on the United Nations to make a declaration of non-human rights similar to that made to protect human rights in 1948. There are related calls for the International Court of Criminal Justice to define ecocide as an international crime, so that the transnational corporations currently avoiding responsibility for their destructive activities can be prosecuted under international law.

In 2016, the UN established a High Level Panel on Water (HLPW) to develop some new Principles for Water to underpin its Sustainable Development Goals. They asked me to assist them with a report on diverse cultural and spiritual relationships with water, and this led to further involvement in writing these principles. As a (very tiny) cog in the UN machine, I saw this as an important opportunity to bring ideas about bio-culturally diverse relationships with water into the discussion, and to promote the alternate ways of conceptualising the non-human domain that indigenous groups exemplify.

In working with international bodies such as the UN and UNESCO, who have to make multiple political compromises to keep an international dialogue going, I am keenly aware that academic expertise is usually quite homeopathic in its level of impact. The report of the High Level Panel (United Nations 2018a) is couched in uncontroversial language. Non-human rights are not mentioned directly at all, although there is an explicit aim to protect water sources, and to seek more equitable, transparent, and inclusive approaches, which implicitly leaves the door open to seeking greater equity in human-non-human relations. More promisingly, high priority is given to the need to recognise cultural diversity in ideas about water. So, we might say that there are some useful undercurrents in the language.

Another small step in the right direction came with the UN's more general report on water in 2018, which focused on the need for 'nature-based solutions' (United Nations 2018b). While this report maintained conventionally dualistic notions of nature and culture, it at least signalled a conceptual shift away from an entirely objectifying vision of a passive non-human domain. This is important, because it presented a relationship in which the environment is positioned as a more equal 'other': an active, co-creative partner to be worked *with* in ways that encompass more than human needs and interests. In essence, we might see this as a small but meaningful shift along the continuum of possibilities towards more egalitarian, indivisible, and sustainable ways of thinking about human and non-human beings.

Figure 11: Ruimte voor de Rivier, the Netherlands.

These changes in thinking are also illustrated in the Dutch government's 'Room for the River' project. This focuses on literally making more room for the river, by shifting dikes further away from the riverbanks; removing infrastructural impediments impeding the normal flows of the water; restoring much of the floodplain and improving the environmental conditions of the surrounding catchment areas. I mention this example particularly because it underlines a longstanding need for more holistic approaches in river management which recognise that human relationships with rivers are also relationships with their entire catchment areas and all of their diverse non-human beings and materialities: their geological formations, their soils, their earth-bound and meteorological water flows, and all of the wild and domesticated non-human plant and animal species that they support.

Further progress came with a 2021 UN report that focused squarely on the need to embrace diverse cultural values in relation to water (United Nations 2021). We might reasonably interpret this as another step in the right direction.

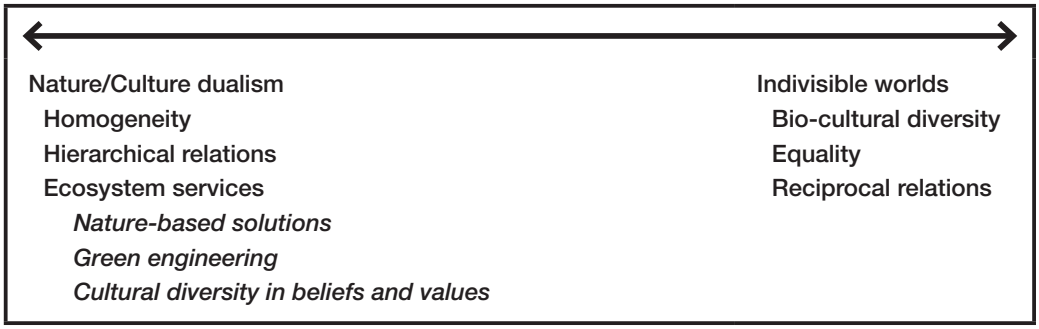

Figure. 12. Steps forward in a continuum of engagement with the non-human domain.

However, though they carry important weight, such international endeavours are slow, and time is not on our side. How can we translate this movement into real and urgent progress towards supporting bio-culturally diverse and therefore more sustainable engagements with water and the non-human domain? And how can new approaches be employed in a range of diverse cultural contexts, while also respecting their highly specific cultural dynamics?

Figure 13: Floods in South Queensland.

I would like to suggest some ideas about how we might achieve this. First, we need a different starting point. We need to reject anthropocentric dualism and recognise that non-human beings and ecosystems are not merely passive subjects: they are active participants in and co-creators of the lifeworlds that we all inhabit. Working on water readily brings home a reality that we are not dealing with a passive, amenable element. But all organisms, elements, and environments have capacities to act upon us and each other in myriad ways, whether it is by crowding out native species; by digesting and recycling soils; by consuming potential scrub growth; or for that matter infecting us with corona viruses. Accepting the indivisibility of shared human and non-human lifeworlds opens up new ways to engage with other living kinds.

Social scientists will be familiar with a classic text by Benedict Anderson entitled *Imagined Communities,* in which he explored the way that we all mentally envisage the various social communities to which we belong. We locate ourselves imaginatively in family and kin groups, professional communities, social groups, recreational communities, political groups, online communities, and so forth. Taking the idea of 'imagined communities' as a starting point, I have proposed a wider, more inclusive notion of 're-imagined communities', in which – as well as thinking about the different human communities with whom we interact – we also consider the biodiverse non-human communities that co-create the shared lifeworlds that we inhabit.

This is a multi-scalar concept that can and should be applied at micro and macro scales. But a river and its related ecosystem is a useful scale at which to begin. How might we, in contemporary industrialised societies, re-imagine communities to encompass the bio-culturally diverse living kinds inhabiting river catchment areas? And how might we strive to engage with them in ways that are egalitarian and inclusive? The next logical question is therefore concerned with inter-species or pan-species democracy. How can the needs and interests of non-human beings be democratically represented in decision-making processes? Who will speak for and promote their interests, and how might this be practically incorporated in formal and informal processes of governance?

There is a need for effective and systematic human representation of other species' and ecosystems' needs and interests. It is therefore useful to draw on models such as the Whanganui River case, with its formal role for the *To Pou Tupua* to speak for the river. To some extent this role resonates with the aims of many river catchment groups around the world, who have long sought to promote the interests of their local waterways and their resident species. However, as well as upholding ontologically separate views of nature and culture, most such groups are peripheral to decision-making. While they might influence debates about what happens to the river and its surrounding areas if they are sufficiently vocal, their views rarely challenge or supersede dominant narratives.

This is to some extent a structural problem. Water governance reflects the dualism that I noted at the outset, in that it generally positions underfunded environmental agencies quite separately from much better funded and more influential agencies concerned with economic and social issues. The same siloes pertain in academia, with well-funded 'natural science' disciplines and conventional 'ecosystem services' thinking at the centre of decision-making while chronically underfunded 'arts and social sciences', with their more critical perspectives on paradigmatic norms, sit on the margins. However, as we already know, this business-as-usual scenario is not sustainable. There is a need to rethink governance, first to

Figure 14: Sewage flows into the Thames River.

remove the nature-culture divide and incorporate – with a good measure of equality – a more diverse range of knowledges; and second, to employ these diverse forms of expertise to consider human and non-human interests and support a re-imagined community of all living kinds.

Figure 15: Kunjen elder Nelson Brumby.

If we are willing to prioritise the need to uphold bio-cultural diversity, there are many people with expertise who could speak for non-human needs and interests. In some countries indigenous communities have a wealth of traditional ecological knowledge to bring into the discussion. Many river catchment areas have other groups with extensive local knowledge, such as farmers, fishers, and recreational water users, or conservation groups: people who live and work with the river and have intimate knowledge about what is going on with the catchment's non-human inhabitants.

Figure 16: Local expert Malcolm Frost with Moggil Creek catchment group, Brisbane.

And, in Universities, along with the social sciences and humanities who can elucidate human needs and interests, there are many natural scientists with expertise about the non-human communities in river catchment areas. Soil scientists can tell us how soil microbes are affected by the human and non-human activities taking place; geologists and hydrologists can describe how particular landforms act upon catchment processes; biologists can speak for the multiple fauna – the insects, the fish, the birds and mammals – that depend upon the river and its environs; and botanists can consider the interests of diverse plant species.

It will be obvious where I am heading with this. There is a need to remove the dualisms and anthropocentric hierarchies that separate culture and nature, and to embrace bio-cultural diversity in encompassing all of the human and non-human communities in river catchment areas. And there is a concomitant need to remove the intellectual dualism and hierarchies within the government and academia, and to seek equality and diversity in the forms of expertise that are brought to bear on decision-making processes.

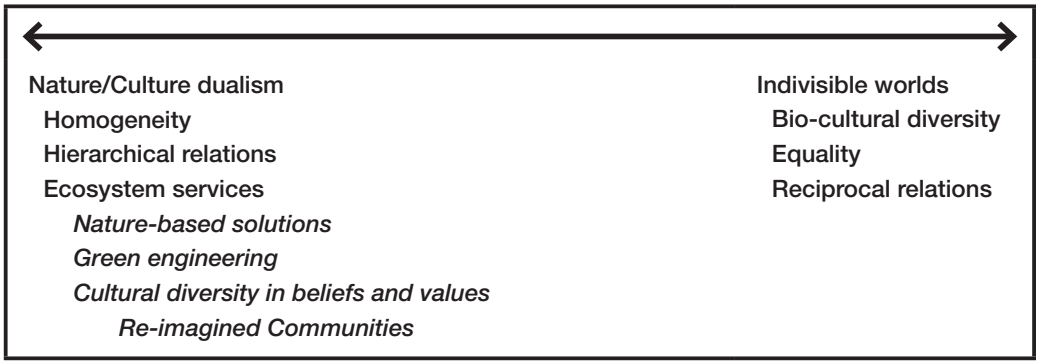

Figure 17. A progressive continuum towards sustainable lifeways.

I believe that this would achieve the genuinely interdisciplinary exchanges of knowledge needed to make better decisions for all of the human and non-human communities in river catchment areas, and on a larger scale, regionally, nationally, and globally. With new constellations of relationships giving proper support to bio-cultural diversity, it is surely possible for humankind to move towards more sustainable lifeways in which all living kinds can co-exist and flourish.

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